Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-2624

Permit No.: C-0028-1003-16-V | Plant ID: 0028

Effective Date: xx/xx/20xx | Expiration Date: xx/xx/20xx

Source: Hexion Inc. – Louisville Plant
Owner: 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:

Removal of one (1) Packed Bed Scrubber (C26) from Formaldehyde Production - Silver Process (See Table for a list of equipment in the Silver Process)

Applicable Regulation(s): 5.00, 5.01, 5.02, 5.15, 5.20, 5.21, 5.22, 5.23, 6.07, 6.13, 7.02, 7.12, 7.22, 7.25, 40 CFR 60 Subpart Kb, 40 CRF 60 Subpart VV, 40 CFR 60 Subpart III, 40 CFR 63 Subpart A, 40 CFR 63 Subpart G, 40 CFR 63 Subpart H

Control reference(s): N/A

Application No.	73951	Application Received: 10/16/2015
	74553	12/08/2015
	74698	12/21/2015

Permit Writer: Nantaporn Noosai

Date of Public Comment: 04/23/2016

{Manager1}
Air Pollution Control Officer
{date1}

Louisville Metro Air Pollution Control District
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Process Equipment Description

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E1	Primary Absorber (C-001) 1970	STAR 5.15 7.25 40 CFR 60 Subparts VV & III[1] 40 CFR 63 Subparts F, G, & H	C6 (Boiler E18)[2]	S2
E2	Secondary Absorber (C-002) 1970			S2 or S3
E3	Distillation Column (C-003) 1970			S2
E4	Purification Column (C-004) 1970			S2
E5	Waste Heat Recovery Boiler (E-001) 1970	NA[3]		S2
E6	Methanol Process Condenser (E-004) 1970	STAR 5.15 7.25 40 CFR 60 Subparts VV & III[1] 40 CFR 63 Subparts F, G, & H		S2
E7	Air Heater Chest (E-010) 1970			S2
E8	Methanol Feed Tank (V-001) 1970			S2
E9	Raw Formaldehyde Feed Tank (V-004) 1970			S2
E10	Product Accumulator (V-005) 1970			S2
E11	Reflux Accumulator (V-006) 1970			S2

[1] Process equipment falls under Regulation 7.02 (40 CFR 60 Subpart III and Subpart VV) because of the installation of additional reactors in 1983 and 1987. The Company has chosen to demonstrate compliance with the HON MACT requirements in lieu of the requirement of 40 CFR 60 Subpart VV, and III Per 63.110(d)(10) and 63.160(c)(1).

[2] The company tested the Silver plant boiler (C6 or E18) on July 15-16, 2015. The testing results show that the boiler has control efficiency 99.9% for Formaldehyde, 99.6% for Methanol, and 99.9% for Total VOC (testing was performed at 90% of maximum production rate).The company accepts a control efficiency of 98% for the Potential to Emit (PTE) calculation and Environmental Acceptability Demonstration..

[3] Waste Heat Recovery Boilers (E5) do not combust any fuel, therefore are not defined as indirect heat exchangers. Per 40 CFR 63.11237, Subpart JJJJJJ, waste heat boilers are excluded from the definition of Boiler.

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E12	Oxalic Acid Tank (V-012) 1970	STAR 7.25	NA	S7
E13.1 through E13.60	Reactors (60) 1970	STAR 5.15 7.25 40 CFR 60 Subparts VV & III[1] 40 CFR 63 Subparts F, G, & H	C6 (Boiler E18)	S2
E18	Silver Plant Boiler 12.6 MMBtu/hr (H-001) 1970	STAR 6.07	NA	S2
E19	Formaldehyde Storage Tank 20616 gal (V-021) 1971	STAR 5.15 6.13 40 CFR 60 Subparts VV & III[1] 40 CFR 63 Subparts F, G, & H	C6 (Boiler E18)	S2
E20	Formaldehyde Storage Tank 20616 gal (V-022) 1971			S2
E21	Formaldehyde Storage Tank 20616 gal (V-023) 1971			S2
E22	Formaldehyde Storage Tank 20616 gal (V-024) 1971			S2
E23	Formaldehyde Storage Tank 20616 gal (V-025) 1971			S2
E24	Formaldehyde Storage Tank 20616 gal (V-026) 1971			S2
E25	Formaldehyde Storage Tank 20616 gal (V-027) 1971			S2
E26	Formaldehyde Storage Tank 20616 gal (V-028) 1971			S2

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E27	Methanol Storage Tank 750000 gal (V-00A), 1971	STAR 6.13 40 CFR 60 Subparts VV & III[1] 40 CFR 63 Subparts F, G, & H	Internal Floating Roof	S8
E28	Formaldehyde Rail Loading Arm #7, 1990	STAR 5.15 7.22 40 CFR 60 Subparts VV & III[1] 40 CFR 63 Subparts F, G, & H	C6 (Boiler E18)	S2
E29	Formaldehyde Rail Loading Arm #10, 1990			S2
E30	Formaldehyde Rail Loading Arm #12, 1990			S2
E31	Formaldehyde Rail Loading Arm #14, 1990			S2
E32	Formaldehyde Truck Loading Bay 1990			S2
E34	Formaldehyde Storage Tank 40000 gal (V-58), 1996	STAR 5.15 7.12 40 CFR 60 Subpart Kb 40 CFR 60 Subparts VV & III 40 CFR 63 Subparts F, G, & H	C5 (Catalytic Oxidizer) or C6 (Boiler E18)	S2
E35	Formaldehyde Storage Tank 40000 gal (V-59), 1996			S2
E37	UFC Distillate Storage Tank 25000 gal (V-61),1996	STAR 5.15 7.12 40 CFR 60 Subparts VV & III[1] 40 CFR 63 Subparts F, G, & H	C6 (Boiler E18)	S2

Construction Permit Revisions/Changes

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
Initial	C-0028-1003-16-V	Xx/xx/2016	04/23/2016	Initial	Entire Permit	Removal of Packed Bed Scrubber (C26)

Note: Permit 0362-07-C (R1) for the Packed Bed Scrubber is void.

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 VOC[4]. (Regulation 7.25, section 3.1)

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[4]. (Regulation 7.25, section 3.1)

iii. The owner or operator shall operate and maintain the control device at all times an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice to meet the standards. (Regulation7.25, section 3.1)

iv. For Emission Points Formaldehyde Rail Loading Arms #4, #7, #10, #12 and Formaldehyde Truck Loading Bay (E28, E29, E30, E31, and E32), when loading, the owner or operator of any loading facility from which 20,000 gallons or more of "volatile organic materials" are loaded in any one day shall not load any volatile organic materials into any tank, truck, trailer, or railroad car from any loading facility unless such loading facility is equipped with a device which reduces the emissions of all hydrocarbon vapors and gases by at least 90% by weight, and which is properly installed, in good working order, and in operation. Loading shall be accomplished in such a manner that all displaced vapor and air will be vented only to the vapor recovery system. Measures shall be taken to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected[5]. (Regulation 7.22, section 3.2)

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[4] The company agreed to the VOC BACT limit being plant-wide in a letter dated February 16, 2007. The plant-wide 70 ton per 12 consecutive months VOC BACT limit replaces the production limit of 35 million pounds per year for urethane resins from the liquid resin unit (LRU).

[5] Regulation 7.22 applies only to the loading of volatile organic materials (VOMs), which are any volatile organic compounds (VOCs) having a true vapor pressure of 1.5 psia or greater under actual storage conditions. VOCs which are not VOMs are not subject to this regulation. There are no standards if each loading facility loads less than 200 gallons per day of VOMs.

v. For Methanol Storage Tank V-00A (E27), the owner or operator shall equip the storage vessel with a floating roof, a vapor recovery system, or the equivalent[6]. (Regulation 6.13, section 3.10)

vi. For Formaldehyde Storage Tanks V-21 – V-28 (E19, E20, E21, E22, E23, E24, E25, and E26), the owner or operator shall use submerged fill to store VOC materials with an as stored vapor pressure of greater than or equal to 1.5 psia. (Regulation 6.13, section 3)

vii. For Formaldehyde Storage Tanks V-58, V-59 and UFC Distillate Storage Tank V-61 (E34, E35, and E37), the owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessels, unless the storage tank is equipped with a permanent submerged fill pipe[7]. (Regulation 7.12, section 3)

b. **HAP**

i. The owner or operator shall limit plant-wide single HAP emissions to less than 10 tons per 12 consecutive month period[8]. (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[8]. (Board Order Agreement 2142)

iii. HON MACT Requirements (non-LDAR) 40 CFR 63 Subparts A, F, G, and H)

1) The owner or operator of Silver Process Formaldehyde plant controlled by the silver plant boiler (C6), which is Group 1 process vent, shall 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. (40 CFR 63.113(a)(2))

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[6] The maximum true vapor pressure of methanol is 1.5813 psia (10.9 kPa). Storage vessel (E27) is equipped with an internal floating roof. Storage tank Regulations 6.13 requirements are considered by the District to be equivalent to 40 CFR 63 Subpart G requirements.

[7] For E34, E35, and E37, 40 CFR 63.110(b)(1) states that after the compliance dates [1997] specified in 63.100 of subpart F of this part, a Group 1 or Group 2 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart Kb is required to comply only with the provisions of this subpart.

[8] The Company agreed to maintain operations at a level of emissions below major source thresholds as part of Board Order Agreement 2142.

2) Compliance with 40 CFR 63.113(a)(2) may be achieved by using any combination of combustion, recovery, and/or recapture devices. (40 CFR 63.113(a)(2)(i))

3) If a boiler or process heater is used to comply with the percent reduction requirement or concentration limit specified in 40 CFR 63.113(a)(2), then the vent stream shall be introduced into the flame zone of such a device. (40 CFR 63.113(b))[9]

4) The owner or operator of a process vent shall comply with 40 CFR 63.114(d)(1) or (2) 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 40 CFR 63.114(d). (40 CFR 63.114(d))

   (a) 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

   (b) 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))

5) For Group 1 storage vessels (E27, E34, E35, and E37), 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

[9] Pursuant to 40 CFR 63.114(a)(3), a temperature monitoring device is not required for gas streams that are introduced as the primary fuel.

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))

6) For 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)

iv. HON requirements (LDAR) (40 CFR 63 Subparts A, F, G, and H)

1) For pumps in light liquid service, the instrument reading, as determined by the method as specified in 40 CFR 63.180(b), that defines a leak in each phase of the standard is for Phase III, an instrument reading of 5,000 parts per million or greater above background level, as specified in 40 CFR 63.180(b) and (c), for pumps handling polymerizing monomers and 1,000 parts per million or greater above background level, as specified in 40 CFR 63.180(b) and (c), for all other pumps. (40 CFR 63.163(b)(2)(iii)(A) and (C))

2) For pumps to which a 1,000 parts per million above background level, as specified in 40 CFR 63.180(b) and (c), leak definition applies, repair is not required unless an instrument reading of 2,000 parts per million or greater above background level, as specified in 40 CFR 63.180(b) and (c), is detected. (40 CFR 63.163(c)(3))

3) For valves in gas vapor service and/or in light liquid service, the instrument reading that defines a leak in each phase of the standard is for Phase III, an instrument reading of 500 parts per million or greater above background level, as specified in 40 CFR 63.180(b) and (c). (40 CFR 63.168(b)(2)(iii))

4) For agitators in gas/vapor service and/or in light liquid service, an instrument reading of 10,000 parts per million or greater above background level, as specified in 40 CFR 63.180(b) and (c), indicates a leak is detected. (40 CFR 63.173(a)(2))

5) For connectors in gas/vapor and/or in light liquid service, an instrument reading of 500 parts per million or greater above background level, as specified in 40 CFR 63.180(b) and (c), indicates a leak is detected. (40 CFR 63.174(a)(2))

6) For pressure relief devices in gas/vapor service that are equipped with a rupture disk upstream of the pressure relief device are exempt from the requirements of 40 CFR 63.165(a) and (b),

provided the owner or operator after each pressure release, installs a rupture disk 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 63.171. (40 CFR 63.165(d)(1) and (2))

7) For open ended valves or lines,

(a) 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 63.162(b) and 40 CFR 63.167(d) and (e). (40 CFR 63.167(a)(1))

(b) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair. (40 CFR 63.167(a)(2))

(c) 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. (40 CFR 63.167(b))

(d) 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 40 CFR 63.167(a) at all other times. (40 CFR 63.167(c))

(e) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 63.167(a), (b) and (c). (40 CFR 63.167(d))

(f) 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 as specified in 40 CFR 63.167(a) through (c) are exempt from the requirements of 40 CFR 63.167(a) through (c). (40 CFR 63.167(e))

8) If an instrument reading of 500 parts per million or greater above background level, as specified in 40 CFR 63.180(b) and (c), is measured when monitoring instrumentation systems and pressure

relief devices in liquid service, then a leak is detected. (40 CFR 63.169(b))

9) Compliance with the equipment leak standard will be determined by review of the records required by 40 CFR 63.181 and the reports required by 40 CFR 63.182 of 40 CFR Part 63, Subpart H, review of performance test results, and by inspections. (40 CFR 63.162(a))

10) Each piece of equipment in a process unit to which the equipment leak standard applies shall be identified such that it can be distinguished readily from equipment that is not subject to the equipment leaks standard. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, or by designation of process unit boundaries by some form of weatherproof identification. Equipment that is in vacuum service is excluded from the requirements of the equipment leak standard. Equipment that is in organic hazardous air pollutant service less than 300 hours per calendar year is excluded from the requirements of 40 CFR 63.163 through 40 CFR 63.174 and 40 CFR 63.178 of the equipment leak standard if it is identified as required in 40 CFR 63.181(j) of the standard. (40 CFR 63.162(c) through (e))

11) When any leak is detected as specified in 40 CFR 63.163; 40 CFR 63.168 and 63.169; and 40 CFR 63.174, the following requirements apply: (40 CFR 63.162(f))

(a) Clearly identify the leaking equipment. (40 CFR 63.162(f)(1))

(b) The identification on a valve may be removed after it has been monitored as specified in 40 CFR 63.168(f)(3) and 40 CFR 63.175(e)(7)(i)(D) of 40 CFR Part 63, Subpart H, and no leak has been detected during the follow-up monitoring. If the owner or operator elects to comply using the provisions of 40 CFR 63.174(c)(1)(i) of 40 CFR Part 63, Subpart H, the identification on a connector may be removed after it is monitored as specified in 40 CFR 63.174(c)(1)(i) and no leak is detected during that monitoring. (40 CFR 63.162(f)(2))

(c) The identification which has been placed on equipment determined to have a leak, except for a valve or for a connector that is subject to the provisions of 40 CFR

63.174(c)(1)(i), may be removed after it is repaired. (40 CFR 63.162(f)(3))

12) All terms in the equipment leak standard that define a period of time for completion of required tasks (such as weekly, monthly, quarterly, or annual), refer to the standard calendar periods unless specified otherwise in the section or subsection of the standard that imposes the requirement. However, if the initial compliance date does not coincide with the beginning of the standard calendar period, an owner or operator may elect to utilize a period beginning on the compliance date, or may elect to comply in accordance with the provisions of 40 CFR 63.162(g)(2) or (g)(3). (40 CFR 63.162(g) and (g)(1))

13) In all cases where the provisions of the equipment leak standard require an owner or operator to repair leaks by a specified time after the leak is detected, it is a violation of the equipment leak standard to fail to take action to repair the leaks within the specified time. If action is taken to repair the leaks within the specified time, failure of that action to successfully repair the leak is not a violation of the equipment leaks standard. However, if the repairs are unsuccessful, a leak is detected and the owner or operator shall take further action as required by applicable provisions of the equipment leak standard. (40 CFR 63.162(h))

14) The owner or operator may delay the repair of equipment for which leaks have been detected if repair within 15 days is technically infeasible without a process unit shutdown. The owner or operator shall repair such equipment by the end of the next process unit shutdown. (40 CFR 63.171(a))

15) The owner or operator may delay the repair of equipment for which leaks have been detected if the equipment is isolated from the process and does not remain in organic HAP service. (40 CFR 63.171(b))

16) The owner or operator may delay repair of valves, connectors, and agitators for which leaks have been detected if:

    (a) The owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and (40 CFR 63.171(c)(1))
    (b) When repair procedures are affected; the purged material is collected and destroyed or recovered in a control device complying with 40 CFR 63.172. (40 CFR 63.171(c)(2))

17) The owner or operator may delay repair of pumps if: (40 CFR 63.171(d))

(a) The repair requires replacing the existing seal design with a new system that the owner or operator has determined will provide better performance under the provisions of 40 CFR 63.176(d) will provide better performance or: (40 CFR 63.171(d)(1))

(i) A dual mechanical seal system that meets the requirements of 40 CFR 63.163(e); (40 CFR 63.171(d)(1)(i))

(ii) A pump that meets the requirements of 40 CFR 63.163(f); or (40 CFR 63.171(d)(1)(ii))

(iii) A closed-vent system and control device meeting the requirements of 40 CFR 63.163(g); and (40 CFR 63.171(d)(1)(iii))

(b) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected. (40 CFR 63.171(d)(2))

18) The owner or operator may delay repair beyond a process unit shutdown 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 for such valves beyond the second process unit shutdown will not be allowed unless the third process unit shutdown occurs sooner than 6 months after the first process unit shutdown. (40 CFR 63.171(e))

c. **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) (See Comment 1)

ii. The owner or operator shall operate and maintain the control device at all times an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice to meet the standards [10] (Regulation 5.21, section 4.2.3.1)

[10] EA Demonstration assumes 100% controlled operation.

iii. The owner or operator shall not exceed the tons per 12 month rolling TAC limits listed in the following table for the listed Emission Points and Stack ID[11]. (Regulation 5.21 Section 4.3)

Equipment ID	Stack ID	Equipment Name	TAC Pollutant	Limit (lb/hr)	Limit (ton/ 12 month)
E13	S2	Reactor 1-60	Formaldehyde	0.036 for all 60 reactors	0.1577 for all 60 reactors
E28	S2	Formaldehyde Rail Loading Arm #7	Formaldehyde	0.006	0.0263
			Methanol	De minimis*	De minimis*
E29	S2	Formaldehyde Rail Loading Arm #10	Formaldehyde	0.006	0.0263
			Methanol	De minimis*	De minimis*
E30	S2	Formaldehyde Rail Loading Arm #12	Formaldehyde	0.006	0.0263
			Methanol	De minimis*	De minimis*
E31	S2	Formaldehyde Rail Loading Arm #14	Formaldehyde	0.006	0.0263
			Methanol	De minimis*	De minimis*

*De Minimis level for Methanol is 10,800 lb/hr or 4,800 ton/12 month.

d. **PM/PM_{10}**

i. The owner or operator shall limit the plant-wide emissions of PM/PM_{10} to less than 100 tons per 12 consecutive month rolling period.

ii. For Silver Plant Boiler (E18 (C6)) the owner or operator shall not cause to be discharged into the atmosphere from that affected facility particulate matter in excess of 0.53 pounds per million BTU actual total heat input on a three hour average[12]. (Regulation 6.07, section 3.1)

e. **Opacity**

For Silver Plant Boiler (E18 (C6)) the owner or operator shall not cause the emission into the open air of particulate matter from any indirect heat exchanger which is greater than 20% opacity. (Regulation 6.07, section 3.2) (See Comment 2)

[11] TAC limits are based on EA Demonstration submitted by the company and received by the District on 12/21/2015. The 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. If the controlled PTE for the TAC is greater than de minimis level, modeling results were used to calculate risk value to compare to the EA Goals.

[12] A one-time PM and SO_2 compliance demonstration has been performed for the boiler, using AP-42 emission factors and combusting natural gas, and the emission standards cannot be exceeded. Therefore, there are no monitoring, record keeping, and reporting requirements for this boiler with respect to lb/MMBtu PM and SO_2 emission limits.

f. **SO_2**

i. The owner or operator shall limit the plant-wide emissions of SO_2 to less than 100 tons per 12 month rolling period.

ii. For Silver Plant Boiler (E18 (C6)) the owner or operator shall not cause to be discharged into the atmosphere from that affected facility any gases which contain sulfur dioxide in excess of 2.72 pounds per million BTU actual total heat input based on a three hour average for combustion of liquid and gaseous fuels[11]. (Regulation 6.07, section 4.1)

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

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

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

ii. The owner or operator shall keep a daily record of the amount of VOM in gallons loaded into any tank, truck, trailer, or railroad car.

iii. The owner or operator of Formaldehyde Storage Tanks V-21 – V-28, V-58, V-59 and UFC Distillate Storage Tank V-61 (E19, E20, E21, E22, E23, E24, E25, E26, E34, E35, and E37) shall maintain records of the material stored including vapor pressure and, if the contents of the storage vessels are changed, a record shall be made of the new contents, the new vapor pressure, and the date of the change adequate to demonstrate compliance with the standard.

iv. The owner or operator shall keep a record that shows if the storage vessels are equipped with a submerged fill pipe. Submerged fill pipe means any fill pipe the discharge of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean every fill pipe the discharge opening of which is entirely submerged when the liquid level is 2 times the fill pipe diameter above the bottom of the tank.

v. If there is any time that the control device [Silver Plant Boiler (E18(C6))] is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

1) Date;
2) Start time and stop time;
3) Identification of the control device and process equipment;
4) VOC emissions during the bypass in lb/hr;
5) Summary of the cause or reason for each bypass event;
6) Corrective action taken to minimize the extent or duration of bypass event;
7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event;

b. **HAP**

i. The owner or operator shall monthly calculate and record the monthly and 12 consecutive month plant-wide single HAP emissions and the total HAP emissions.

ii. HON MACT Requirements (Non-LDAR)

1) For maintenance wastewaters (40 CFR 63.105(a))

(a) 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:

(i) Specify the process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities. (40 CFR 63.105(b)(1))

(ii) 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))

(iii) Specify the procedures to be followed when clearing materials from process equipment. (40 CFR 63.105(b)(3))

(b) 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))

2) Each owner or operator subject to the control provisions for Group 1 process vents in 40 CFR 63.113(a) shall: (40 CFR 63.117(a))

(a) Keep an up-to-date, readily accessible record of the data specified in §§63.117(a)(4) through (a)(8), as applicable, (40 CFR 63.117(a)(1)) and

(b) Include the data in §§63.117(a)(4) through (a)(8) in the Notification of Compliance Status report as specified in 40 CFR 63.152(b). (40 CFR 63.117(a)(2))

(c) If any subsequent TRE determinations or performance tests are conducted after the Notification of Compliance Status has been submitted, report the data in 40 CFR 63.117(a)(4) through (a)(8) in the next Periodic Report as specified in 40 CFR 63.152(c). (40 CFR 63.117(a)(3))

(d) 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) : (40 CFR 63.117(a)(4))

(i) The parameter monitoring results for 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))

(ii) 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))

3) Each owner or operator using a control device to comply with 40 CFR 63.113 (a)(1) or (a)(2) shall keep the following records up-to-date and readily accessible: (40 CFR 63.118(a))

(a) Continuous records of the equipment operating parameters specified to be monitored under 40 CFR 63.114(a) and listed in table 3 of this subpart or specified by the District in accordance with 40 CFR 63.114(c) and 40 CFR 63.117(e). (40 CFR 63.118(a)(1))

(b) 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))

(c) 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))

(d) Where a seal mechanism is used to comply with 40 CFR 63.114(d)(2), 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))

4) The owner or operator who elects to use a fixed roof and an internal floating roof, as defined in 40 CFR 63.111, to comply with the requirements of 40 CFR 63.119 (a)(1) of shall comply with the requirements specified in 40 CFR 63.119(b)(1) through (b)(6). (40 CFR 63.119(b))

Note: The intent of 40 CFR 63.119(b)(1) and (b)(2) 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.

(a) 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 40 CFR 63.119(b)(1)(i) through (b)(1)(iii) . (40 CFR 63.119(b)(1))

(i) During the initial fill. (40 CFR 63.119(b)(1)(i))
(ii) After the vessel has been completely emptied and degassed. (40 CFR 63.119(b)(1)(ii))
(iii) When the vessel is completely emptied before being subsequently refilled. (40 CFR 63.119(b)(1)(iii))

(b) 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))

(c) 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 40 CFR 63.119(b)(3)(iv), the closure device shall consist of one of the devices listed in 40 CFR 63.119(b)(3)(i), (b)(3)(ii), or (b)(3)(iii). (40 CFR 63.119(b)(3))

(i) 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))

(ii) 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 40 CFR 63.119(b)(3)(i), (b)(3)(ii), and (b)(3)(iii) does not apply until the earlier of the dates specified in 40 CRF 63.119(b)(3)(iv)(A) and (b)(3)(iv)(B). (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))

(d) 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))

(e) Except as provided in 40 CFR 63.119(b)(5)(viii), each internal floating roof shall meet the specifications listed in 40 CFR 63.119(b)(5)(i) through (b)(5)(vii). (40 CFR 63.119(b)(5))

(i) 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))

(ii) 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))

(iii) 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))

(iv) Each automatic bleeder vent shall be gasketed. (40 CFR 63.119(b)(5)(iv))

(v) Each rim space vent shall be gasketed. (40 CFR 63.119(b)(5)(v))

(vi) 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))

(vii) 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))

(viii) If the internal floating roof does not meet any one of the specifications listed in 40 CFR 63.119(b)(5)(i) through (b)(5)(vii) as of December 31, 1992, the requirement for meeting those specifications does not apply until the earlier of the dates specified in 40 CFR 63.119(b)(5)(viii)(A) and (b)(5)(viii)(B). (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))

(f) 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))

5) The owner or operator who elects to use a closed vent system and control device, as defined in 40 CFR 63.111, to comply with the

requirements of 40 CFR 63.119(a)(1) or (a)(2) shall comply with the requirements specified in 40 CFR 63.119 (e)(1) through (e)(5) . (40 CFR 63.119(e))

(a) Except as provided in 40 CFR 63.119 (e)(2), 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). (40 CFR 63.119(e)(1))

(b) 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))

(c) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of 40 CFR 63.119(e)(1) or (e)(2), as applicable, shall not exceed 240 hours per year. (40 CFR 63.119(e)(3))

(d) The specifications and requirements in 40 CFR 63.119(e)(1) and (e)(2) for control devices do not apply during periods of planned routine maintenance. (40 CFR 63.119(e)(4))

(e) The specifications and requirements in 40 CFR 63.119(e)(1) and (e)(2) for control devices do not apply during a control system malfunction. (40 CFR 63.119(e)(5))

(f) An owner or operator may use a combination of control devices to achieve the required reduction of total organic hazardous air pollutants specified in 40 CFR 63.119(e)(1). 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 40 CFR 63.119(e)(2). (40 CFR 63.119(e)(6))

6) To demonstrate compliance with 40 CFR 63.119(b) (storage vessel equipped with a fixed roof and internal floating roof) or with 40 CFR 63.119(d) (storage vessel equipped with an external floating

roof converted to an internal floating roof), the owner or operator shall comply with the requirements in 40 CFR 63.120(a)(1) through (a)(7). (40 CFR 63.120(a))

(a) 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 40 CFR 63.120(a)(2) and (a)(3). (40 CFR 63.120(a)(1))

(b) For vessels equipped with a single-seal system, the owner or operator shall perform the inspections specified in 40 CFR 63.120(a)(2)(i) and (a)(2)(ii). (40 CFR 63.120(a)(2))

(i) 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))

(ii) 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))

(c) For vessels equipped with a double-seal system as specified in 40 CFR 63.119(b)(3)(iii), the owner or operator shall perform either the inspection required in 40 CFR 63.120(a)(3)(i) or the inspections required in both 40 CFR 63.120(a)(3)(ii) and (a)(3)(iii). (40 CFR 63.120(a)(3))

(i) 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; (40 CFR 63.120(a)(3)(i)) or

(ii) 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

(iii) 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))

7) If during the inspections required by 40 CFR 63.120(a)(2)(i) or (a)(3)(ii) , 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 40 CFR 63.120(a)(2)(i) or (a)(3)(ii) 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))

8) Except as provided in 40 CFR 63.120(a)(6) , for all the inspections required by 40 CFR 63.120(a)(2)(ii), (a)(3)(i), and (a)(3)(iii), the owner or operator shall notify the District in writing at least 30 calendar days prior to the refilling of each storage vessel to afford the District the opportunity to have an observer present. (40 CFR 63.120(a)(5))

9) If the inspection required by 40 CFR 63.120(a)(2)(ii), (a)(3)(i), or (a)(3)(iii) 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 District 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 District at least 7 calendar days prior to refilling. (40 CFR 63.120(a)(6))

10) If during the inspections required by 40 CFR 63.120(a)(2)(ii), (a)(3)(i), or (a)(3)(iii), 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 40 CFR 63.120(a)(7) exist before refilling the storage vessel with organic HAP. (40 CFR 63.120(a)(7))

11) 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 63.119 through 40 CFR 63.123 other than those required by 40 CFR 63.123(a) unless such vessel is part of an emissions average as described in 40 CFR 63.150. (40 CFR 63.123(a))

12) An owner or operator who elects to comply with 40 CFR 63.119(b) shall keep a record that each inspection required by 40 CFR 63.120(a) was performed.(40 CFR 63.123(c))

13) An owner or operator who uses the by-pass provisions of 40 CFR 63.119(f)(3) shall keep in a readily accessible location the records specified in 40 CFR 63.123(h)(1) through (h)(3). (40 CFR 63.123(h))

    (a) The reason it was necessary to by-pass the process equipment or fuel gas system; (40 CFR 63.123(h)(1))

    (b) The duration of the period when the process equipment or fuel gas system was by-passed; (40 CFR 63.123(h)(2))

    (c) 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))

14) 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))

15) Each owner or operator of a Group 1 or Group 2 transfer rack shall record, update annually, and maintain the information specified in 40 CFR 63.130(f)(1) through (f)(3) in a readily accessible location on site: (40 CFR 63.130(f))

(a) An analysis demonstrating the design and actual annual throughput of the transfer rack; (40 CFR 63.130(f)(1))

(b) 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))

(c) An analysis documenting the annual rack weighted average HAP partial pressure of the transfer rack. (40 CFR 63.130(f)(3))

(i) 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))

(ii) 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))

16) 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))

(a) Process unit identification and description of the process unit. (40 CFR 63.147(b)(8)(i))

(b) Stream identification code. (40 CFR 63.147(b)(8)(ii))

(c) 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))

(d) Flow rate in liter per minute. (40 CFR 63.147(b)(8)(iv))

17) 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 40 CFR 63.152(f)(1) through (f)(7), 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, and except as provided in 40 CFR 63.152(c)(2)(ii)(C) or in 40 CFR 63.152(g). 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 40 CFR 63.152(f)(1) through (f)(7) apply. (40 CFR 63.152(f))

(a) The monitoring system shall measure data values at least once every 15 minutes. (40 CFR 63.152(f)(1))

(b) The owner or operator shall record either: (40 CFR 63.152(f)(2))

(i) Each measured data value; (40 CFR 63.152(f)(2)(i)) or

(ii) 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))

(c) 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))

(i) 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 40 CFR 63.152(f)(2); (40 CFR 63.152(f)(3)(i)) or

(ii) Retain the data recorded in 40 CFR 63.152 (f)(2) for 5 years. (40 CFR 63.152(f)(3)(ii))

(d) 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 40 CFR 63.152(f)(2) for 5 years. (40 CFR 63.152(f)(4))

(e) Daily average values of each continuously monitored parameter shall be calculated for each operating day, and retained for 5 years, except as specified 40 CFR 63.152 (f)(6) and (f)(7). (40 CFR 63.152(f)(5))

(i) 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))

(ii) 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))

(f) 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 40 CFR 63.152(f)(3) shall also be retained for 5 years. (40 CFR 63.152(f)(6))

(g) Monitoring data recorded during periods identified in 40 CFR 63.152(f)(7)(i) through (f)(7)(v) 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))

(i) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments; (40 CFR 63.152(f)(7)(i))

(ii) Start-ups; (40 CFR 63.152(f)(7)(ii))

(iii) Shutdowns; (40 CFR 63.152(f)(7)(iii))

(iv) Malfunctions; (40 CFR 63.152(f)(7)(iv))

(v) 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))

iii. HON MACT Requirement (LDAR)

1) The owner or operator of a process unit subject to 40 CFR 63 Subpart H shall monitor each pump monthly to detect leaks by the method specified in 40 CFR 63.180(b) and shall comply with the requirements of 40 CFR 63.163(a) through (d), except as provided in 40 CFR 63.162(b) and 40 CFR 63.163(e) through (j). (40 CFR 63.163(b)(1))

2) Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, a leak is detected. (40 CFR 63.163(b)(3))

3) 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 63.163(c)(3) or 40 CFR 63.171. (40 CFR 63.163(c)(1))

4) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. First attempts at repair include, but are not limited to, the following practices where practicable. (40 CFR 63.163(c)(2))

(a) Tightening of packing gland nuts. (40 CFR 63.163(c)(2)(i))

(b) Ensuring that the seal flush is operating at design pressure and temperature. (40 CFR 63.163(c)(2)(ii))

5) The owner or operator shall continue to calculate percent leaking pumps on a source-wide basis, as determined by the owner or operator no later than the first monitoring period and reported in the first Periodic Report for Equipment Leaks required by 40 CFR 63.182 as referenced by 40 CFR 63.506(e)(6). (40 CFR 63.163(d)(1))

6) If, in Phase III and calculated on a 6-month rolling average, the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak, the owner or operator shall implement a quality improvement program for pumps that complies with the requirements of 40 CFR 63.l76. (40 CFR 63.163(d)(2))

7) The number of pumps at a process unit shall be the sum of all the pumps in organic HAP service, except that pumps found leaking in a continuous process unit within 1 month after start-up of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only. (40 CFR 63.163(d)(3))

8) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 63.162(a) through (d), provide the following requirements are met: (40 CFR 63.163(e))

(a) Each dual mechanical seal system is:

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or (40 CFR 63.163(e)(1)(i))

(ii) 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 63.172; or (40 CFR 63.163(e)(1)(ii))

(iii) Equipped with a closed-loop system that purges the barrier fluid into a process stream. (40 CFR 63.163(e)(1)(iii))

(b) The barrier fluid shall not be in light liquid service. (40 CFR 63.163(e)(2))

(c) Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both. (40 CFR 63.163(e)(3))

(d) Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. (40 CFR 63.163(e)(4))

(i) If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the pump shall be monitored as specified in §63.180(b)

of this subpart to determine if there is a leak of organic HAP in the barrier fluid. (40 CFR 63.163(e)(4)(i))

(ii) If an instrument reading of 1,000 parts per million or greater is measured, a leak is detected. (40 CFR 63.163(e)(4)(ii))

(e) Each sensor as described in 40 CFR 63.163(e)(3) shall be observed daily or equipped with an alarm unless the pump is located within the boundary of an unmanned plant site. (40 CFR 63.163(e)(5))

(f) The owner or operator shall determine, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both. (40 CFR 63.163(e)(6) and (40 CFR 63.163(e)(6)(i))

(g) If indications of liquids dripping from the pump seal exceed these criteria, or if, based on these criteria, the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected. (40 CFR 63.163(e)(6)(ii))

(h) When a leak is detected, the owner or operator shall repair it as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 63.171. (40 CFR 63.163(e)(6)(iii))

(i) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (40 CFR 63.163(e)(6)(iv))

9) Any pump that is designed with no externally actuated shaft penetrating the pump housing is exempt from the requirements of 40 CFR 63.163(a) through (c). (40 CFR 63.163(f))

10) Any pump 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 63.172 is exempt from the requirements of 40 CFR 63.163(b) through (e). (40 CFR 63.163(g))

11) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement

of 40 CFR 63.163(b)(3) and (e)(4), and the daily requirements of 40 CFR 63.163(e)(5), provided that each pump is visually inspected as often as practicable and at least monthly. (40 CFR 63.163(h))

12) If more than 90 percent of the pumps at a process unit meet the criteria in either 40 CFR 63.163(e) or (f), the process unit is exempt from the requirements of 40 CFR 63.163(d). (40 CFR 63.163(i))

13) Any pump that is designated, as described in 40 CFR 63.181(b)(7)(i), as an unsafe-to-monitor pump is exempt from the requirements of 40 CFR 63.163(b) through (e) if: (40 CFR 63.163(j))

    (a) The owner or operator of the pump determines 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 63.163(b) through (d), and (40 CFR 63.163(j)(1))

    (b) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. (40 CFR 63.163(j)(2))

14) The owner or operator shall monitor valves for leaks at the intervals specified below: (40 CFR 63.168(d))

    (a) At process units with 2 percent or greater leaking valves, calculated according to 40 CFR 63.168(e), the owner or operator shall monitor each valve once per month. (40 CFR 63.168(d)(1)(i))

    (b) At process units with less than 2 percent leaking valves, the owner or operator shall monitor each valve once each quarter, except as provided in 40 CFR 63.168(d)(3) and (d)(4). (40 CFR 63.168(d)(2))

    (c) At process units with less than 1 percent leaking valves, the owner or operator may elect to monitor each valve once every 2 quarters. (40 CFR 63.168(d)(3))

    (d) At process units with less than 0.5 percent leaking valves, the owner or operator may elect to monitor each valve once every 4 quarters. (40 CFR 63.168(d)(4))

15) When a leak is detected, the owner or operator shall repair the leak as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.171. (40 CFR 63.168(f)(1))

16) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (40 CFR 63.168(f)(2))

17) When a leak has been repaired, the valve shall be monitored at least once within the first 3 months after its repair. (40 CFR 63.168(f)(3))

(a) The monitoring shall be conducted as specified in 40 CFR 63.180(b) and (c), as appropriate, to determine whether the valve has resumed leaking. (40 CFR 63.168(f)(3)(i))

(b) Periodic monitoring required by 40 CFR 63.168(b) through (d) may be used to satisfy the requirement of 40 CFR 63.168(f)(3) if the timing of the monitoring period coincides with the time specified in 40 CFR 63.168(f)(3). Alternatively, other monitoring may be performed to satisfy the requirements 40 CFR 63.168 (f)(3), regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in 40 CFR 63.168(f)(3). (40 CFR 63.168(f)(3)(ii))

(c) If a leak is detected by monitoring that is conducted pursuant to 40 CFR 63.168(f)(3), the owner or operator shall follow the provisions of 40 CFR 63.168 (f)(3)(iii)(A) and (f)(3)(iii)(B), to determine whether that valve must be counted as a leaking valve for purposes of 40 CFR63.168(e). (40 CFR 63.168(f)(3)(iii))

(i) If the owner or operator elected to use the periodic monitoring required by 40 CFR 63.168(b) through (d) to satisfy the requirement of 40 CFR 63.168(f)(3), then the valve shall be counted as a a leaking valve. (40 CFR 63.168(f)(3)(iii)(A)

(ii) If the owner or operator elected to use other monitoring, prior to the periodic monitoring required by 40 CFR 63.168(b) through (d), to satisfy the requirement of 40 CFR 63.168(f)(3), then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking. 40 CFR 63.168(f)(3)(iii)(B)

18) First attempts at repair include, but are not limited to, the following practices where practicable: 40 CFR 63.168(g))

(a) Tightening of bonnet bolts;

(b) Replacement of bonnet bolts;

(c) Tightening of packing gland nuts; and

(d) Injection of lubricant into lubricated packing.

19) For use in determining monitoring frequency, as specified in 40 CFR 63.168(d), the percent leaking valves shall be calculated as a rolling average of two consecutive monitoring periods for monthly, quarterly, or semiannual monitoring programs; and as an average of any three out of four consecutive monitoring periods for annual monitoring programs. (40 CFR 63.168(e)(2))

20) Nonrepairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and nonrepairable and as required to comply with 40 CFR 63.168(e)(3)(ii). Otherwise, a number of nonrepairable valves (identified and included in the percent leaking calculation in a previous period) up to a maximum of 1 percent of the total number of valves in organic HAP service at a process unit may be excluded from calculation of percent leaking valves for subsequent monitoring periods. 40 CFR 63.168(e)(3)(i))

21) If the number of nonrepairable valves exceeds 1 percent of the total number of valves in organic HAP service at a process unit, the number of nonrepairable valves exceeding 1 percent of the total number of valves in organic HAP service shall be included in the calculation of percent leaking valves. (40 CFR 63.168(e)(3)(ii))

22) Any valve that is designated as an unsafe-to-monitor valve, as described in 40 CFR 63.181(b)(7)(i), is exempt from the requirements of 40 CFR 63.168(b) through (f) if: (40 CFR 63.168 (h))

(a) The owner or operator of the valve determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 63.168(b) through (d), and (40 CFR 63.168 (h)(1))

(b) The owner or operator of the valve has a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times, but not more

frequently than the periodic monitoring schedule otherwise applicable. (40 CFR 63.168 (h)(2))

23) Any valve that is designated as a difficult-to-monitor valve, as described in 40 CFR 63.181(b)(7)(ii), is exempt from the requirements of 40 CFR 63.168(b) through (d) if: (40 CFR 63.168 (i))

(a) The owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface or it is not accessible at anytime in a safe manner; (40 CFR 63.168 (i)(1))

(b) The process unit within which the valve is located is an existing source or the owner or operator designates less than 3 percent of the total number of valves in a new source as difficult-to-monitor; and (40 CFR 63.168 (i)(2))

(c) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. (40 CFR 63.168 (i)(3))

24) Each agitator shall be monitored monthly to detect leaks by the methods specified in 40 CFR 63.180(b), except as provided in 40 CFR 63.162(b). (40 CFR 63.173(a)(1))

25) Each agitator shall be checked by visual inspection each calendar week for indications of liquids dripping from the agitator. If there are indications of liquids dripping from the agitator, a leak is detected. (40 CFR 63.173(b))

26) 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 63.171. (40 CFR 63.173(c))

(a) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (40 CFR 63.173(c)(2))

27) For connectors, the owner or operator shall perform all monitoring of connectors at the frequencies specified in the following, except as provided in 40 CFR 63.171(c)(2): (40 CFR 63.174(b)(3))

(a) Once per year (i.e., 12-month period), if the percent leaking connectors in the process unit was 0.5 percent or greater during the last required annual or biennial monitoring period. (40 CFR 63.174(b)(3)(i))

(b) Once every 2 years, if the percent leaking connectors was less than 0.5 percent during the last required monitoring period. An owner or operator may comply with this paragraph (40 CFR 63.174(b)(3)(ii)) by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The percent leaking connectors will be calculated for the total of all monitoring performed during the 2-year period. (40 CFR 63.174(b)(3)(ii))

(c) If the owner or operator of a process unit in a biennial leak detection and repair program calculates less than 0.5 percent leaking connectors from the 2-year monitoring period, the owner or operator may monitor the connectors one time every 4 years. An owner or operator may comply with the requirements of this paragraph ((40 CFR 63.174(b)(3)(iii)) by monitoring at least 20 percent of the connectors each year until all connectors have been monitored within 4 years. (40 CFR 63.174(b)(3)(iii))

(d) If a process unit complying with the requirements of (40 CFR 63.174(b) using a 4-year monitoring interval program has greater than or equal to 0.5 percent but less than 1 percent leaking connectors, the owner or operator shall increase the monitoring frequency to one time every 2 years. An owner or operator may comply with the requirements of this paragraph ((40 CFR 63.174(b)(3)(iv))) by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The owner or operator may again elect to use the provisions of Additional Condition S2.c.vi.3) when the percent leaking connectors decreases to less than 0.5 percent. (40 CFR 63.174(b)(3)(iv))

(e) If a process unit complying with requirements of 40 CFR 63.174(b)(3)(iii) using a 4-year monitoring interval program has 1 percent or greater leaking connectors, the owner or operator shall increase the monitoring frequency to one time per year. The owner or operator may again elect to use the provisions of 40 CFR 63.174(b)(3)(iii) when the percent leaking connectors decreases to less than 0.5 percent. (40 CFR 63.174(b)(3)(v))

28) The owner or operator may choose not to monitor connectors that have been opened or otherwise had the seal broken. In this case, the owner or operator may not count nonrepairable connectors for the purpose of calculation of the percent leaking connectors in

organic hazardous air pollutant service when using the equation specified in 40 CFR 63.174(i)(2) for the second and subsequent monitoring periods. If the owner or operator selects this option, the owner or operator shall calculate the percent leaking connectors for the second and subsequent monitoring periods by setting the nonrepairable component (C_{AN}) in the equation in 40 CFR 63.174(i)(2) to zero for all monitoring periods. In the alternative, the owner or operator may choose to monitor each connector that has been opened or has otherwise had the seal broken for leaks when it is reconnected or within the first three months after being returned to organic hazardous air pollutant service. If, under this alternative, the monitoring detects a leak, it shall be repaired according to the provisions of 40 CFR 63.174(d), unless it is determined to be nonrepairable, in which case it shall be counted as a nonrepairable connector for the purpose of calculating the percent leaking connectors using the equation in 40 CFR 63.174(i)(2) for the second and all subsequent monitoring periods. The owner or operator may switch between the two alternatives described in 40 CFR 63.174(c)(1) (i) and (ii) at the end of the current monitoring period, provided that the switch is reported in the next Periodic Report for Equipment Leaks as required by 40 CFR 63.182(d) as referenced by 40 CFR 63.506(e)(6), and begin the new alternative in annual monitoring. The initial monitoring in the new alternative shall be completed no later than 12 months after reporting the switch. (40 CFR 63.174(c)(1)(i) through (iii))

29) When a leaking connector is detected, the owner or operator shall repair the leak as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.174(g) and in 40 CFR 63.171. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. (40 CFR 63.174(d))

30) Any connector that is designated as an unsafe-to-monitor connector, as described in 40 CFR 63.181(b)(7)(i), is exempt from the connector monitoring requirements of 40 CFR 63.174(a) if: The owner or operator determines that the connector is unsafe to monitor because personnel would be exposed to an immediate danger as a result of complying with 40 CFR 63.174(a) through (e) and its subparagraphs; and the owner or operator has a written plan that requires monitoring of the connector as frequently as practicable during safe to monitor periods, but not more frequently than the periodic monitoring schedule that would otherwise be applicable. (40 CFR 63.174(f), (f)(1) and (f)(2))

31) Any connector that is designated as an unsafe-to-repair connector, as described in 40 CFR 63.181(b)(7)(iii), is exempt from the

requirements of 40 CFR 63.174(a), (d) and (e) if the owner or operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 63.174(d), and the connector will be repaired before the end of the next scheduled process unit shutdown. (40 CFR 63.174(g), (g)(1) and (g)(2))

32) Any connector that is inaccessible or is ceramic or ceramic-lined (for example, porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 63.174(a) and (c) and from the recordkeeping and reporting requirements of 40 CFR 63.181 and 40 CFR 63.182. An inaccessible connector is one that is buried; insulated in a manner that prevents access to the connector by a monitor probe; obstructed by equipment or piping that prevents access to the connector by a monitor probe; unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold which would allow access to connectors up to 7.6 meters (25 feet) above the ground; unable to be reached without elevating the monitoring personnel more than 2 meters above a permanent support surface or requiring the erection of scaffolding; or unable 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. If any inaccessible or ceramic or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the leak 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 63.171 and 40 CFR 63.174(g). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. (40 CFR 63.174(h)), (h)(1), (h)(2) and (h)(3)

33) For pressure relief devices in light liquid or heavy liquid service, and instrumentation systems shall be monitored within 5 calendar days by the method specified in 40 CFR 63.180(b) if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method. If such a potential leak is repaired as required in 40 CFR 63.169(c) and (d), it is not necessary to monitor the system for leaks by the method specified in 40 CFR 63.180(b). (40 CFR 63.169(a))

34) 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 63.171. (40 CFR 63.169(c)(1))

(a) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (40 CFR 63.169(c)(2))

(b) For equipment identified in 40 CFR 63.169(a) that is not monitored by the method specified in 40 CFR 63.180(b), repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated; that no bubbles are observed at potential leak sites during a leak check using soap solution; or that the system will hold a test pressure. (40 CFR 63.169(c)(3))

35) Except as provide in 40 CFR 63.181(e), the following information shall be record

(a) A list of identification numbers for equipment (except connectors exempt from monitoring and recordkeeping identified in 40 CFR 63.174 and instrumentation systems) subject to the requirements of 40 CFR 63 Subpart H. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. With respect to connectors, the list shall be complete no later than the completion of the initial survey required by 40 CFR 63.174(b)(1) or (b)(2). (40 CFR 63.181(b)(1)(i))

(b) A schedule by process unit for monitoring connectors subject to the provisions of 40 CFR 63.174(a) and valves subject to the provisions of 40 CFR 63.168(d). (40 CFR 63.181(b)(1)(ii))

(c) Equipment subject to the provisions of 40 CFR 63 Subpart H may be identified on a plant site plan, in log entries, or by other appropriate methods. (40 CFR 63.181(b)(1)(iii))

(d) Identification of screwed connectors subject to the requirements of 40 CFR 63.174(c)(2). Identification can be by area or grouping as long as the total number within each group or area is recorded. (40 CFR 63.181(b)(5))

(e) The following information pertaining to all pumps subject to the provisions of 40 CFR 63.163(j) and valves subject to the provisions of 40 CFR 63.168(h) and (i) shall be recorded: (40 CFR 63.181(b)(7))

(i) Identification of equipment designated as unsafe to monitor, difficult to monitor, or unsafe to inspect

and the plan for monitoring or inspecting this equipment. (40 CFR 63.181(b)(7)(i))

(ii) A list of identification numbers for the equipment that is designated as difficult to monitor, an explanation of why the equipment is difficult to monitor, and the planned schedule for monitoring this equipment. (40 CFR 63.181(b)(7)(ii))

(iii) A list of identification numbers for connectors that are designated as unsafe to repair as an explaination of why the connector is unsafe to repair. (40 CFR 63.181(b)(7)(iii))

(f) For visual inspections of equipment subject to the provisions of 40 CFR 63 Subpart H [e.g., 40 CFR 63.163(b)(3), 40 CFR 63.163(e)(4)(i)], the owner or operator shall document that the inspection was conducted and the date of the inspection. The owner or operator shall maintain records as specified in 40 CFR 63.181(d) for leaking equipment identified in this inspection, except as provided in 40 CFR 63.181(e). These records shall be retained for 5 years. (40 CFR 63.181(c))

(g) When each leak is detected as specified in 40 CFR 63.163; 40 CFR 63.168 and 40 CFR 63.169; and40 CFR 63.173 and 40 CFR 63.174 of 40 CFR 63 Subpart H, the following information shall be recorded and kept for 5 years: (40 CFR 63.181(d))

(i) The instrument and the equipment identification number and the operator name, initials, or identification number. (40 CFR 63.181(d)(1))

(ii) The date the leak was detected and the date of first attempt to repair the leak. (40 CFR 63.181(d)(2))

(iii) The date of successful repair of the leak. (40 CFR 63.181(d)(3))

(iv) Maximum instrument reading measured by Method 21 of 40 CFR part 60, Appendix A after it is successfully repaired or determined to be nonrepairable. (40 CFR 63.181(d)(4))

(v) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. (40 CFR 63.181(d)(5))

i) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure. (40 CFR 63.181(d)(5)(i))

ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion. (40 CFR 63.181(d)(5)(ii))

(vi) Dates of process unit shutdowns that occur while the equipment is unrepaired. (40 CFR 63.181(d)(6))

(vii) Copies of the periodic reports as specified in 40 CFR 63.182(d), if records are not maintained on a computerized database capable of generating summary reports from the records. (40 CFR 63.181(d)(9))

(viii) Each owner or operator of a process unit subject to the requirements of 40 CFR 63.175 and 40 CFR 63.176 of 40 CFR 63 Subpart H shall maintain the records specified in 40 CFR 63.181(h)(1) through (h)(9) for the period of the quality improvement program for the process unit[13]. (40 CFR 63.181(h))

i) For owners or operators who elect to use a reasonable further progress quality improvement program, as specified in 40 CFR 63.175(d): (40 CFR 63.181(h)(1))

1. All data required in 40 CFR 63.175(d)(2). (40 CFR 63.181(h)(1)(i))

2. The percent leaking valves observed each quarter and the rolling average percent reduction observed in each quarter. (40 CFR 63.181(h)(1)(ii))

[13] As long as the facility maintains its percent leaking valves at a level less than 2% as a rolling average over the two most recent monitoring periods, and its percent leaking pumps at a level less than 10% as a six-month rolling average, the facility is not required to implement a Quality Improvement Program for valves or pumps as codified at 40 CFR 63.175 and 40 CFR 63.176, respectively.

3. The beginning and ending dates while meeting the requirements of 40 CFR 63.175(d). (40 CFR 63.181(h)(1)(iii))

ii) For owners or operators who elect to use a quality improvement program of technology review and improvement, as specified in 40 CFR 63.175(e): (40 CFR 63.181(h)(2))

1. All data required in 40 CFR 63.175(e)(2). (40 CFR 63.181(h)(2)(i))
2. The percent leaking valves observed each quarter. (40 CFR 63.181(h)(2)(ii))
3. Documentation of all inspections conducted under the requirements of 40 CFR 63.175(e)(4), and any recommendations for design or specification changes to reduce leak frequency. (40 CFR 63.181(h)(2)(iii))
4. The beginning and ending dates while meeting the requirements of 40 CFR 63.175(e). (40 CFR 63.181(h)(2)(iv))

iii) For owners or operators subject to the requirements of the pump quality improvement program as specified in 40 CFR 63.176: (40 CFR 63.181(h)(3))

1. All data required in 40 CFR 63.176(d)(2). (40 CFR 63.181(h)(3)(i))
2. The rolling average percent leaking pumps. (40 CFR 63.181(h)(3)(ii))
3. Documentation of all inspections conducted under the requirements of 40 CFR 63.176(d)(4), and any recommendations for design or specification changes to reduce leak frequency. (40 CFR 63.181(h)(3)(iii))

4. The beginning and ending dates while meeting the requirements of 40 CFR 63.176(d). (40 CFR 63.181(h)(3)(iv))

iv) If a leak is not repaired within 15 calendar days after discovery of the leak, the reason for the delay and the expected date of successful repair. (40 CFR 63.181(h)(4))

v) Records of all analyses required in 40 CFR 63.175(e) and 40 CFR 63.176(d) of 40 CFR 63 Subpart H. The records will include the following: (40 CFR 63.181(h)(5))

1. A list identifying areas associated with poorer than average performance and the associated service characteristics of the stream, the operating conditions and maintenance practices. (40 CFR 63.181(h)(5)(i))
2. The reasons for rejecting specific candidate superior emission performing valve or pump technology from performance trials. (40 CFR 63.181(h)(5)(ii))
3. The list of candidate superior emission performing valve or pump technologies, and documentation of the performance trial program items required under 40 CFR 63.175(e)(6)(iii) and 40 CFR 63.176(d)(6)(iii). (40 CFR 63.181(h)(5)(iii))
4. The beginning date and duration of performance trials of each candidate superior emission performing technology. (40 CFR 63.181(h)(5)(iv))

vi) All records documenting the quality assurance program for valves or pumps as specified in 40 CFR 63.175(e)(7) and 40 CFR 63.176(d)(7). (40 CFR 63.181(h)(6))

vii) Records indicating that all valves or pumps replaced or modified during the period of the quality improvement program are in compliance with the quality assurance requirements in 40 CFR 63.175(e)(7) and 40 CFR 63.176(d)(7). (40 CFR 63.181(h)(7))

viii) Records documenting compliance with the 20 percent or greater annual replacement rate for pumps as specified in 40 CFR 63.176(d)(8). (40 CFR 63.181(h)(8))

ix) Information and data to show the corporation has fewer than 100 employees, including employees providing professional and technical contracted services. (40 CFR 63.181(h)(9))

(ix) Identification, either by list, location (area or group) of equipment in organic HAP service less than 300 hours per year within a process unit subject to the provisions of 40 CFR 63 Subpart H under 40 CFR 63.160 of 40 CFR 63 Subpart H. (40 CFR 63.181(j))

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to SDS, 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.

iii. The owner or operator shall monthly calculate and record the 12 consecutive month total TAC emissions for each month in the reporting period.

iv. The owner or operator shall maintain daily records of any periods of time where the process Formaldehyde Rail Loading Arms #4, #7, #10, #12 and Formaldehyde Truck Loading Bay (E28, E29, E30, E31, and E32) are in operation and the associated control device [Silver Plant Boiler (E18 or C6)] is not in operation. The records shall include:

1) Date;
2) Start time and stop time of the bypass event;
3) Identification of the process equipment operating during the bypass;
4) Start time and stop time of operation of each loading arm and loading bay during the bypass event;
5) Formaldehyde emissions from each loading arm and loading bay during the bypass in lb/hr;
6) Summary of the cause or reason for each event;
7) Corrective action taken to minimize the extent or duration of the event; and
8) Measures implemented to prevent reoccurrence of the situation that resulted in the event.

d. **PM/PM_{10}**

The owner or operator shall monthly calculate and record the monthly and 12 consecutive month total plant-wide PM/PM_{10} emissions from all emission points.

e. **Opacity**

i. For Silver Plant Boiler (E18 (C6)) the owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation, of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

iii. The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

f. **SO_2**

The owner or operator shall monthly calculate and record the monthly and 12 consecutive month rolling total plant-wide SO_2 emissions.

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 compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11.

- "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 the responsible official of the company.

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

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

a. **VOC**

i. Total plant-wide monthly and 12 consecutive month VOC emissions for each month from all emission points combined.

ii. The owner or operator shall clearly identify all deviations from loading, unloading and storage tank requirements in the semi-annual reports. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration.

iii. The owner or operator shall report the following information regarding VOC emissions in the semi-annual reports for the Silver plant Boiler (E18 (C6)):

1) Number of times and duration that the vent stream bypasses the Silver Plant Boiler (E18 (C6)) in the reporting period;

2) The 12 month rolling total in hours of time the vent stream bypasses the Silver Plant Boiler (E18 (C6)) in the reporting period;

3) Quantity in tons of VOC emissions for the 12 consecutive months rolling totals when emissions bypass the Silver Plant Boiler (E18 (C6)) in the reporting period.

b. **HAP**

i. The combined plant-wide monthly and 12 consecutive month single HAP and total HAP emissions for each month,

ii. Identification of all periods of exceedance of the HAP emission limits,

iii. Description of any corrective action taken for each exceedance.

iv. HON MACT Requirements (Non-LDAR)

The owner or operator shall include, at a minimum, the following information in the semi-annual reports required by the HON MACT covering the periods of October 13 through April 13 and April 14 through October 12, unless otherwise noted[14].

1) Except as specified under 40 CFR 63.152(c)(5) and (c)(6), a report containing the information in 40 CFR 63.152(c)(2), (c)(3), and (c)(4) shall be submitted monthly 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 CFR40 CFR 63.152(c)(1))

2) The Company has elected to comply with the reporting requirement of (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:

(a) 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). (40 CFR 63.118(f)(2))

(b) For Group 1 process vents, report the times and durations of all periods recorded under 40 CFR 63.118(a)(3) when the gas stream is diverted to the atmosphere through a bypass line. (40 CFR 63.118(f)(3))

(c) For Group 1 process vents, report periods recorded under 40 CFR 63.118(a)(4) in which the seal mechanism is

[14] Hexion Inc. submitted the Notification of Compliance Status for 40 CFR 63 Subpart A, F, G, and H (the HON) on October 15, 2001 as required by Board Order #2142, dated August 15, 2001, Item 10.

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))

(d) 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))

(i) A description of the process change; (40 CFR 63.118(g)(1))

(ii) 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))

A statement that the owner or operator will comply with the provisions of 40 CFR 63.113 for Group 1 process vents by the dates specified in 40 CFR 63 Subpart F. (40 CFR 63.118(g)(3))

3) The owner or operator shall submit Periodic Reports as required by 40 CFR 63.152(c) and shall submit as part of the Periodic Reports the information specified in 40 CFR 63.122(d), (e), (f), and (g). (40 CFR 63.122(a)(4))

(a) An owner or operator who elects to comply with 40 CFR 63.119(b) by using a fixed roof and an internal floating roof or with 40 CFR 63.119(d) 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), the results of each inspection conducted in accordance with 40 CFR 63.120(a) in which a failure is detected in the control equipment. (40 CFR 63.122(d))

(b) For vessels for which annual inspections are required under 40 CFR 63.120 (a)(2)(i) or (a)(3)(ii), the specifications and requirements listed in 40 CFR 63.122(d)(1)(i) through (d)(1)(iii). (40 CFR 63.122(d)(1))

(i) 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))

(ii) Except as provided in 40 CFR 63.122(d)(1)(iii), 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))

(iii) If an extension is utilized in accordance with 40 CFR 63.120(a)(4), the owner or operator shall, in the next Periodic Report, identify the vessel; include the documentation specified in 40 CFR 63.120(a)(4); 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))

(c) For vessels for which inspections are required under 40 CFR 63.120 (a)(2)(ii), (a)(3)(i), or (a)(3)(iii), the specifications and requirements listed in 40 CFR 63.122(d)(2)(i) and (d)(2)(ii) apply. (40 CFR 63.122(d)(2))

(i) 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))

(ii) Each Periodic Report required under 40 CFR 63.152(c) 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))

4) An owner or operator who elects to comply with 40 CFR 63.119(e) 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), the information specified in 40 CFR 63.122(g)(1) through (g)(3). (40 CFR 63.122(g))

(a) As required by 40 CFR 63.120(d)(4) and 40 CFR 63.120(e)(3), the Periodic Report shall include the information specified in 40 CFR 63.122(g)(1)(i) and (g)(1)(ii) 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), as applicable. (40 CFR 63.122(g)(1))

(i) 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))

(ii) 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), as applicable, due to planned routine maintenance. (40 CFR 63.122(g)(1)(ii))

(b) 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). The description shall include the information specified in 40 CFR 63.122(g)(2)(i) and (g)(2)(ii). (40 CFR 63.122(g)(2))

(i) Identification of the control device for which the measured parameters were outside of the established ranges, (40 CFR 63.122(g)(2)(i)) and

(ii) Cause for the measured parameters to be outside of the established ranges. (40 CFR 63.122(g)(2)(ii))

5) Each owner or operator of a Group 1 or Group 2 transfer rack shall record, update annually, and maintain the information specified in 40 CFR 63.130(f)(1) through (f)(3) in a readily accessible location on site: (40 CFR 63.130(f))

6) An analysis demonstrating the design and actual annual throughput of the transfer rack; (40 CFR 63.130(f)(1))

7) 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))

8) An analysis documenting the annual rack weighted average HAP partial pressure of the transfer rack. (40 CFR 63.130(f)(3))

9) 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))

10) 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))

(a) 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 40 CFR 63.152(c) instead of the schedule specified in 40 CFR 63.10(d)(5) of subpart A. (40 CFR 63.152(d)(1))

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

v. HON MACT Requirement (LDAR)

The owner or operator shall report the following HAP (LDAR) information in semi-annual Periodic Reports submitted under the conditions specified in 40 CFR 63.182(d), to the Air Pollution Control District and U.S. EPA Region 4.

i. The number of valves for which leaks were detected as described in 40 CFR 63.168(b), the percent leakers, and the total number of valves monitored; (40 CFR 63.182(d)(2)(i))

ii. The number of valves for which leaks were not repaired as required in 40 CFR 63.168(f), identifying the number of those that are determined nonrepairable; (40 CFR 63.182(d)(2)(ii))

iii. The number of pumps for which leaks were detected as described in 40 CFR 63.163(b), the percent leakers, and the total number of pumps monitored; (40 CFR 63.182(d)(2)(iii))

iv. The number of pumps for which leaks were not repaired as required in 40 CFR 63.163(c); (40 CFR 63.182(d)(2)(iv))

v. The number of agitators for which leaks were detected as described in 40 CFR 63.173(a) and (b). (40 CFR 63.182(d)(2)(vii))

vi. The number of agitators for which leaks were not repaired as required in 40 CFR 63.173(c). (40 CFR 63.182(d)(2)(viii)

vii. The number of connectors for which leaks were detected as described in 40 CFR 63.174(a), the percent of connectors leaking, and the total number of connectors monitored; (40 CFR 63.182(d)(2)(ix))

viii. The number of connectors for which leaks were not repaired as required in 40 CFR 63.174(d), identifying the number of those that are determined nonrepairable; (40 CFR 63.182(d)(2)(xi))

ix. The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible. (40 CFR 63.182(d)(2)(xiii))

x. The results of all monitoring to show compliance with 40 CFR 63.165(a) conducted within the semiannual reporting period. (40 CFR 63.182(d)(2)(xiv))

xi. If applicable, the initiation of a monthly monitoring program under 40 CFR 63.168(d)(1)(i), or a quality improvement program under either 40 CFR 63.175 or 40 CFR 63.176. (40 CFR 63.182(d)(2)(xv))

xii. If applicable, notification of a change in connector monitoring alternatives as described in 40 CFR 63.174(c)(1). (40 CFR 63.182(d)(2)(xvi))

xiii. The number of each type of component monitored.

xiv. The total number of each type of component.

xv. Any changes in the number of each component.

c. **TAC**

1) 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.

2) 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)

3) 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.c.ii.

4) The owner or operator shall report the following:

(a) 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,
(b) Identification of all periods of exceedance of the TAC emission limits, and
(c) Description of any corrective action taken for each exceedance.

5) The owner or operator shall report the following records of the bypass events when the process Formaldehyde Rail Loading Arms #4, #7, #10, #12 and Formaldehyde Truck Loading Bay (E28, E29, E30, E31, and E32) are in operation and the associated control device [Silver Plant Boiler (E18 or C6)] is not in operation.

(a) Date;
(b) Start time and stop time of the bypass event;
(c) Identification of the process equipment operating during the bypass;
(d) Start time and stop time of operation of each loading arm and loading bay during the bypass event;
(e) Formaldehyde emissions from each loading arm and loading bay (E28, E29, E30, E31, and E32) during the bypass in lb/hr; or
(f) A negative declaration if no by-passes occurred.

d. **PM/PM_{10}**

The owner or operator shall report total plant-wide monthly and 12 consecutive month PM/PM_{10} emissions for each month from all emission point.

e. **Opacity**

For Silver Plant Boiler (E18 (C6)) the owner or operator shall clearly identify all deviations from permit requirements in the semi-annual reports. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration.

1) The date, time and results of each Method 9 that exceeded the opacity standard,

2) The number of surveys where visible emissions were observed, and

3) Description of any corrective action taken.

f. **SO_2**

The owner and operator shall report the plant-wide monthly and 12 consecutive month rolling SO_2 emissions for each month from all emission points.

Comments

1. TAC limits are based on EA Demonstration submitted by the company on 12/21/2015, and previously submitted on 12/08/2015 and 10/16/2015. The Tier 4, AERMOD modeling conducted for indicates no predicted exceedances of the overall environmental acceptability goals in LMAPCD Regulation 5.21. Compliance with STAR has demonstrated as follows:

		For Sections 3.1.1, 3.1.2, and 3.2			
		Industrial receptors		Non-Ind. receptors	
ARSENIC	Max Individual P/PE	R_C = 1.087	EAG_C = 10	R_C = 0.435	EAG_C = 1
	Max Individual P/PE	R_{NC} = 0.017	EAG_{NC} = 3	R_{NC} = 0.007	EAG_{NC} = 1
	All P/PE	R_{NC} = 0.033	EAG_{NC} = 3	R_{NC} = 0.014	EAG_{NC} = 1
CADMIUM	Max Individual P/PE	R_C = 0.339	EAG_C = 10	R_C = 0.143	EAG_C = 1
	Max Individual P/PE	R_{NC} = 0.01	EAG_{NC} = 3	R_{NC} = 0.004	EAG_{NC} = 1
	All P/PE	R_{NC} = 0.02	EAG_{NC} = 3	R_{NC} = 0.009	EAG_{NC} = 1
FORMALDEHYDE	Max Individual P/PE	R_C = 5.069	EAG_C = 10	R_C = 0.713	EAG_C = 1
	Max Individual P/PE	R_{NC} = 0.01	EAG_{NC} = 3	R_{NC} = 0.004	EAG_{NC} = 1
	All P/PE	R_{NC} = 0.02	EAG_{NC} = 3	R_{NC} = 0.009	EAG_{NC} = 1
NAPHTHALENE	Max Individual P/PE	R_C = 4.548	EAG_C = 10	R_C = 0.484	EAG_C = 1
	Max Individual P/PE	R_{NC} = 0.043	EAG_{NC} = 3	R_{NC} = 0.006	EAG_{NC} = 1
	All P/PE	R_{NC} = 0.063	EAG_{NC} = 3	R_{NC} = 0.027	EAG_{NC} = 1
		For Sections 3.1.3 and 3.2			
	Plant-wide Sum	Industrial Total R_C		Non-Ind. Total R_C	
	All existing & new P/PE	R_C = 17.32	EAG_C = 75	R_C = 5.42	EAG_C = 7.5
	All new P/PE	R_C = 2.45	EAG_C = 38	R_C = 0.99	EAG_C = 3.8

2. Company correspondence indicates that operations which cause emissions have ceased for the following equipment listed in the table and must submit a construction permit application in order to resume use of the equipment for the handling of VOC, HAP, TAC or any other materials which may contain criteria pollutants.

ID	Description
E15	Deacidifier Rinse Water Tank 1970
E16	Deacidification Tank 1 1970
E17	Deacidification Tank 2 1970
E36	Formaldehyde Storage Tank, 40000 gal 1996