Attachment 2

Proposed Permit Conditions
June 15, 2015

Plant-Wide STAR Requirements

The following are sources of 1,3-Butadiene:

1. The Flare Control System (C-FLARE),
2. The Flare Thermal Oxidizer (C-FLARE TO), and
3. Fugitive releases from piping and associated components.

Unless noted otherwise, all Process/Process Equipment shall meet the standard Environmental Acceptability (EA) Goals of Regulation 5.21.

Plant-Wide Applicable Regulations

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	1 through 2
5.01	General Provisions	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 7
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.23	Categories of Toxic Air Contaminants	1 through 6

Plant-Wide STAR Specific Conditions

S1. Standards

a. Environmental Acceptability Goals

i. The owner or operator shall not allow or cause emissions of any TAC to exceed the EA Goals shown in Table 1, whether specifically established by modeling or determined by the District to be *de minimis,* unless a modified EA Goal is approved by the District in writing. (Regulations 5.00 and 5.21)

Table 1 -- General EA Goals

Process or Process Equipment (P/PE)	Applicable TACs	EAG_C Risk (in a million)		EAG_{NC} HQ	
		Industrial	Non-Industrial	Industrial	Non-Industrial
Individual P/PE	Single TAC	10	1.0	3	1.0
All P/PE	Single TAC	N/A	N/A	3	1.0
All P/PE	All TACs	75	7.5	N/A	N/A
All new and modified P/PE	All TACs	38	3.8	N/A	N/A

ii. The owner or operator shall not allow or cause emissions to exceed the modified EA Goals listed in Table 2. (Regulations 5.00 and 5.21, section 5.4) (Request for Modification of an EA Goal dated June 30, 2007, revised December 7, 2015)

Table 2 -- Modified EA Goals

Receptors		Modified Goal	TAC
		Cancer Risk ($x10^{-6}$)	
All TACs/All Processes	Industrial receptors	100	All TACs
	Non-Industrial receptors	7.5	All TACs
Single TAC/Single Process 1,3-butadiene, Flare	Industrial receptors	10	1,3-Butadiene
	Non-Industrial receptors	1.93	1,3-Butadiene
Single TAC/Single Process 1,3-butadiene, Fugitives	Industrial receptors	94.42	1,3-Butadiene
	Non-Industrial receptors	4.30	1,3-Butadiene

b. **General TAC Requirements**

i. A new EA demonstration or de minimis determination shall be submitted in accordance with Regulation 5.21 section 4.22 – 4.24.

ii. The owner or operator shall submit a construction permit application with a revised T-BAT demonstration if a process or process equipment subject to T-BAT is modified and the hourly or annual emissions of a TAC increases. (Regulation 5.21, section 5.14)

iii. If the TAC does not have an established BAC or *de minimis* value, the owner or operator shall calculate and report these values. The form is included as Attachment C and may be used for determining BAC and *de minimis* values.

c. **Specific TAC Requirements**

i. The owner or operator shall not allow or cause emissions of acrylonitrile, ammonia, naphthalene, or toluene to exceed *de minimis* levels. Current de minimis levels are shown in Table 3 . (Regulations 5.00 and 5.21.)

Table 3 -- De Minimis Emmissions

		De minimis Determinations as of April 04, 2016			
TAC	CAS #	(lbs/hr)	(lbs/12 consecutive month)	Averaging Period	Basis of Limits
Acrylonitrile	107-13-1	0.0081	7.20	Annual	Accepted limit
Ammonia	7664-41-7	54	48,000	Annual	Uncontrolled PTE
Naphthalene	91-20-3	0.016	13.92	Annual	Controlled PTE
Toluene	108-88-3	2,700	2,400,000	Annual	Controlled PTE

ii. For Emission Points U-E4 Boiler #1 & #2:

1) The owner or operator shall operate and maintain the Dry Scrubber (C-U4-SDR) and Fabric Filter (C-U4-BAGHOUSE) as recommended by the manufacturer, at all times Boilers 1 & 2 are operation and shall maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice to meet the standards. (Regulation 5.21, section 4.3)

2) The owner or operator shall not allow or cause emissions of Hydrochloric Acid, Hydrofluoric Acid, Naphthalene, and Xylene from Boilers 1 & 2 each to exceed *de minimis* levels. Current de minimis levels are shown in Table 4. (Regulation 5.21, section 4.2 and section 4.3.)

Table 4 -- De Minimis Emissions Boilers #1 & #2

TAC	CAS #	*De minimis* Determinations as of April 04, 2016			
		(lbs/hr)	(lbs/Averaging Period)	Averaging Period	Basis of Limits
Hydrochloric Acid	7647-01-0	10.80	9,600	12 month rolling	Controlled PTE
Hydrofluoric Acid	7664-39-3	7.56	6,720	12 month rolling	Controlled PTE
Naphthalene	91-20-3	0.016	13.92	12 month rolling	Controlled PTE
Xylene	1330-20-7	54.00	48,000	12 month rolling	Controlled PTE

3) The owner or operator shall not allow or cause emissions of Arsenic, Cadmium, Chromium (III), Chromium (VI), Cobalt, Formaldehyde, Manganese, Nickel, Lead, and Sulfuric Acid to exceed the limits shown in Table 5 (Regulation 5.21, Section 4.2)(Category 1 Modeling dated December 18, 2007 & Category 2 Modeling dated March 31, 2008)

Table 5 -- TAC Limits for Boiler #1 & #2

TAC	CAS #	TAC Limits for Boiler #1 & #2			
		lbs/averaging period	lbs/12 consecutive month period	Fuel	Basis of Limits
Arsenic	7440-38-2		65	Coal	Modeling based on a Controlled Emission Factor
Cadmium	7440-43-9		8.095	Coal	
Chromium (III)	7440-47-3	001.85[1]		Coal	
Chromium (VI)	7440-47-3		12.54	Coal	
Formaldehyde	50-00-0		38.095	Coal	Modeling based on a Controlled Emission Factor
Manganese	7439-96-5		44.4	Coal	
Nickel	7440-02-0		44.44	Coal	
Lead	Various		66.67	Coal	
Sulfuric Acid	7664-93-9		15,154.8	Coal	Modeled existing PSD limit of 1.73 lb/hr
			16994.4	Fuel Oil	Modeled existing PSD limit of 1.94 lb/hr

iii. The owner or operator shall not allow or cause more than 9,500,000 pounds of 1,3-Butadiene emissions per 12 consecutive month period to be vented to the C-FLARE and C-FLARE TO combined. (Regulations 5.00 and 5.21, section 5.4) (T-BAT)[2]

iv. The owner or operator shall not allow or cause 1,3-Butadiene emissions from the C-FLARE TO to equal or exceed 950 lbs per 12-consecutive month period. (Regulations 5.00 and 5.21, section 5.4) (T-BAT) (Category 1 Toxic Air Contaminant Modeling dated December 07, 2015)

v. The owner or operator shall not allow or cause 1,3-Butadiene emissions to equal or exceed 19,000 lbs per 12-consecutive month period from the C-FLARE. (Regulations 5.00 and 5.21, section 5.4) (T-BAT) (Category 1 Toxic Air Contaminant Modeling dated December 18, 2007)

vi. The owner or operator shall not allow or cause plant-wide fugitive 1,3-Butadiene emissions to equal or exceed 6994.6 lbs per 12-consecutive month period. (Regulations 5.00 and 5.21, section 5.4) (T-BAT) (Category 1 Toxic Air Contaminant Modeling dated December 18, 2007, and revised December 7, 2015)

[1] The averaging period for Chromium (III) is 8 hours.

[2] 1,3-Butadiene is not emitted from any of the source's Finishing Lines.

Best Available Technology for Toxics (T-BAT) - Single TAC goal modification requirements

vii. The owner or operator shall operate and maintain the C-FLARE TO and C-FLARE as recommended by the manufacturer when the process equipment is in operation and shall maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. (Regulations 5.00 and 5.21, section 5.4) (T-BAT)

viii. The C-FLARE TO shall be utilized as the primary control device with the C-FLARE maintained as a safety device and back-up control for the C-FLARE TO. (Regulations 5.00 and 5.21, section 5.4) (T-BAT) (Construction Permit 112-04-C, dated August 31, 2004)

ix. The owner or operator shall maintain the spare parts recommended by the manufacturer for the C-FLARE TO. (Regulations 5.00 and 5.21, section 5.4) (T-BAT) (Construction Permit 112-04-C, dated August 31, 2004)

x. The C-FLARE TO shall have a minimum destruction efficiency of 99.99% for TACs. (Regulations 5.00 and 5.21, section 5.4) (T-BAT) (Construction Permit 112-04-C, dated August 31, 2004, Letter from company dated January 2, 2007 & Environmental Acceptability Demonstration dated December 7, 2015)

xi. The owner or operator shall design and operate the C-FLARE TO to have a minimum of 0.50 second residence time and confirmed as required in the testing section S4 below. (Regulations 5.00 and 5.21, section 5.4) (T-BAT) (Construction Permit TV-13-1013-C(R1), dated January 31, 2015) (Stack Test dated September 4, 2008)

xii. The C-FLARE TO shall be used to combust the process vent stream up to the maximum design gas flow for the C-FLARE TO, and any excess of the maximum design gas flow shall be diverted to the C-FLARE. (Regulations 5.00 and 5.21, section 5.4) (T-BAT) (Construction Permit 112-04-C, dated August 31, 2004)

xiii. The C-FLARE TO shall operate at a minimum temperature of 1643°F and confirmed as required in the testing section S4 below.. (Regulations 5.00 and 5.21, section 5.4) (T-BAT) (September 4, 2008 Stack Test)

xiv. The owner or operator shall be allowed to divert any or all of the process vent stream from the C-FLARE TO to the C-FLARE for a maximum of 876 hours per 12-consecutive months. (Regulations 5.00 and 5.21, section 5.4) (T-BAT) (Construction Permit 112-04-C, dated August 31, 2004)

xv. For the C-FLARE, when emissions are being vented to it:

1) The flare shall be operated with no visible emissions, except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours. (40 CFR 60.18(c)(1))

2) The flare shall be operated with a flame present when the process equipment is in operation. (40 CFR 60.18(c)(2))

xvi. For the equipment leaks from pumps, compressors, valves, agitators, connectors, pressure relief devices, and open ended valves: (Regulations 5.00 and 5.21, section 5.4) (T-BAT)

The owner or operator shall comply with the requirements of 40 CFR 63 Subpart H for equipment leaks from components.

Best Available Technology for Toxics (T-BAT) - Cumulative TAC goal modification requirements

xvii. For the equipment leaks from pumps, compressors, valves, agitators, connectors, pressure relief devices, and open ended valves: (Regulations 5.00 and 5.21, section 5.4) (T-BAT)

1) For all components in 1,3-Butadiene service, an instrument reading of 250 parts per million or greater above background level defines a leak.

(a) "In 1,3-Butadiene service" means that the material in the component contains 90% or more of 1,3-Butadiene by weight.

2) The owner or operator shall monitor the following equipment as defined in 40 CFR 63 Subpart H (40 CFR 63.163(j) for pumps, 40 CFR 63.168(h) for valves, 40 CFR 63.172(k) for closed-vent system, 40 CFR 63.173(j) for agitators, 40 CFR 63.174(f) through (h) for connectors) in accordance with the frequencies listed in **Error! Not a valid bookmark self-reference.** (Request for Modification of an EA Goal dated June 30, 2007, revised December 7, 2015)(T-BAT)

Table 6 -- Enhanced LDAR Monitoring Frequency

Component Type in Enhanced Monitoring 1,3-Butadiene Service	Single TAC goal modification	Cumulative TAC goal modification
Valves	Semi-Annually	Quarterly
Connectors	Semi-Annually	Quarterly
Pumps and Agitator Seals	Monthly	Monthly
Pressure Relief Valves	Semi-Annually	Monthly
Compressors	Semi-Annually	Monthly
Closed Vent Systems	Semi-Annually	Quarterly (Visual, Olfactory, and Auditory Method)
Potentially Open-Ended Lines	Semi-Annually	Quarterly
Instruments	Semi-Annually	Quarterly
Components that are designated as "unsafe to monitor" or "difficult-to-monitor"	Semi-Annually	Annually

3) Components in 1,3-butadiene service with a monitored leak rate of more than 500 ppm that cannot be repaired within the timeframe required by 40 CFR Subpart H and placed on delay of repair will have a permanent repair or engineered solution placed on the component within ninety (90) days, provided that the cost of repair shall not exceed five thousand dollars ($5,000.00).

Re-evaluation of T-BAT

xviii. The owner or operator shall re-evaluate T-BAT and submit to the District a determination meeting the requirements of Regulation 5.21 section 5.2, of whether the approved practices and measures continue to constitute T-BAT for the process or process equipment. The re-evaluation of T-BAT shall be included with the next operating permit renewal application that is required to be submitted to the District and with the operating permit renewal application every 5 years thereafter.

1) For any approved T-BAT, the owner or operator may demonstrate in writing that the T-BAT is no longer necessary because the process or process equipment does not individually, or when

aggregated with other processes and process equipment, contribute to the exceedance of an EA goal in section 3.1.2, 3.1.3, or 3.2. However, a stationary source may, at its discretion, implement T-BAT for any process or process equipment to meet an EA goal.

S2. **Monitoring and Record Keeping**

a. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS/SDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall monthly calculate and record the plant-wide TAC emissions of Ammonia, Toluene, Acrylonitrile, and Naphthalene in units of lb/hr, lb/averaging period, and lb/12 consecutive month period.

iii. For Emission Points (Boiler #1 & #2):

1) The owner or operator shall monitor and record the pressure drop across C-U4-BAGHOUSE, which is used as the indicator of normal operation of the baghouses, at least once each per operating day. The normal pressure drop range is 1.5" to 10" water column. For any day the equipment is not in operation, the owner or operator shall record a negative declaration.

2) The owner or operator shall maintain daily records of any periods of time where Boiler 1 or 2 were operating and Dry Scrubber (C-U4-SDR) and/or C-U4-BAGHOUSE was not operating or a declaration that the baghouse operated at all times that day when the process was operating.

3) If there is any time that the Dry Scrubber (C-U4-SDR) and/or C-U4-BAGHOUSE is bypassed or not in operation, such as the filters are not in place, etc, when the boilers are operating, then the owner or operator shall keep a record of the following for each such event:

(a) Date;

(b) Start time and stop time;

(c) Identification of the baghouse and process equipment;

(d) TAC emissions during the event in lb/hr, lb/averaging period, and lb/12 consecutive month;

(e) Summary of the cause or reason for each event;

(f) Corrective action taken to minimize the extent or duration of the event; and

(g) Measures implemented to prevent reoccurrence of the situation that resulted in the event.

4) The owner or operator shall monthly calculate TAC emissions of Hydrochloric Acid, Hydrofluoric Acid, and Naphthalene in lb/hr and lb/12 consecutive month period.

5) The owner or operator shall monthly calculate TAC emissions of Arsenic, Cadmium, Chromium (VI), Cobalt, Formaldehyde, Manganese, Nickel, Lead, and Sulfuric Acid in lb/12 consecutive month period.

6) The owner or operator shall monthly calculate TAC emissions of Chromium (III) in lb/averaging period (averaging period is 8 hours).

iv. The owner or operator shall monthly calculate and record the monthly and 12-consecutive month amount of 1,3-Butadiene in lbs vented to the C-FLARE and the C-FLARE TO.

v. When TAC emissions are being vented to the C-FLARE TO as the primary control device:

1) The combustion temperature of the C-FLARE TO shall be monitored and recorded. The combustion temperature monitoring device shall be equipped with a continuous recorder. (Construction Permit 112-04-C, dated August 31, 2004)

2) For the C-FLARE TO, the owner or operator shall continuously monitor and record the gas flow (process vent stream plus the combustion air) in order to ensure compliance with the residence time. The owner or operator shall be allowed a maximum of 7.3 hours per month for gas flow monitor downtime. (Construction Permit 112-04-C, dated August 31, 2004)

3) The owner or operator shall, daily, calculate the residence time from the monitored inlet and outlet gas flow (process vent stream plus the combustion air), based on volumetric flow rate, area of the flow (velocity), and length of the combustion zone.

4) The owner or operator shall install, calibrate, and maintain a redundant monitoring instrumentation system for the C-FLARE TO that will operate in the event of a malfunction of the primary monitoring instrumentation system, to include monitoring of the

combustion temperature and gas flow rate. (Construction Permit 112-04-C, dated August 31, 2004)

5) The owner or operator shall monthly calculate and record in lbs the monthly and 12-consecutive month the 1,3-Butadiene emissions emitted from the C-FLARE TO.

6) The owner or operator shall confirm, through required performance testing, a minimum 99.99% emission destruction efficiency for the C-FLARE TO. (Construction Permit 112-04-C, dated August 31, 2004) (Category 1 Toxic Air Contaminant Modeling dated December 18, 2007, and revised December 7, 2015)

7) The owner or operator shall maintain records regarding the status of spare parts recommended by the manufacturer of the C-FLARE TO. (Construction Permit 112-04-C, dated August 31, 2004)

vi. When TAC emissions are being vented to the C-FLARE as the primary control device;

1) The owner or operator shall continuously monitor the flare pilot flame.

2) The owner or operator shall maintain a record of the date and time when the flare pilot flame went out, and the date and time that the flare pilot flame was reignited, whenever process equipment venting to the C-FLARE occurs during this outage time.

3) The owner or operator shall conduct and record a monthly visible emissions test (EPA Reference Method 22 in Appendix A of Part 60).

4) The owner or operator shall obtain a sample of the gas going to the C-FLARE within 24 hours and the amount of gas sent to the Flare Control System while the flame is extinguished and U1/U2 and U3 process equipment is vented to the C-FLARE. The gas shall be analyzed in accordance with the methods listed in Table 7 unless another method is approved in writing by the District:

Table 7 -- Analysis Methods

TAC	Analysis Method
1,3-Butadiene	TO-15
Styrene	312A
Toluene	111
Xylene	624
Acrylonitrile	603

5) The owner or operator shall monthly calculate and record the monthly and 12-consecutive month 1,3-Butadiene emissions, in pounds, emitted from the C-FLARE.

6) When the process vent stream is diverted from the C-FLARE TO to the C-FLARE, the owner or operator shall keep the following records:

(a) Date;

(b) Start time and stop time;

(c) Monthly, calculate the monthly and 12 consecutive month hours of diversion;

(d) If there were no diversions during the month then make a negative declaration in the record.

vii. If there is any time that both the C-FLARE TO and C-FLARE are bypassed or not in operation when the process is operating (*i.e.*, the process is operating uncontrolled), then the owner or operator shall keep a record of the following for each such event:

1) Date;

2) Start time and stop time;

3) Identification of the control device and process equipment;

4) TAC emissions of Acrylonitrile, Toluene, Naphthalene, and 1,3-Butadiene during the event in lb/hr and lb/12-consecutive month period;

5) Summary of the cause or reason for each event;

6) Corrective action taken to minimize the extent or duration of the event; and

7) Measures implemented to prevent reoccurrence of the situation that resulted in the event.

viii. For the equipment leaks from equipment in 1,3-Butadiene service from pumps, compressors, valves, agitators, connectors, pressure relief devices, and open ended valves:

1) Follow 40 CFR 63 Subpart U HAP LDAR monitoring and recordkeeping requirements.

2) Record occurrences of missing monitoring frequencies required in Table 6.

3) For any component with a monitored leak rate over 250 ppm:

(a) Type of component

(b) Monitored leak rate

(c) Component identification

(d) Date component repaired

(e) Length of time component was leaking

(f) A description of the repair performed

(g) OR an explanation why repairs were not performed.

4) The owner or operator shall monthly calculate and record the monthly and 12-consecutive month amount of 1,3-Butadiene in lbs emitted from all components.

S3. **Reporting**

The owner or operator shall clearly identify all deviations from permit requirements in the 1,3-Butadiene Emissions Quarterly Reports, Semiannual Reports, VOC Combustion By-Pass Activity Quarterly Reports, and all other required reports. The required 1,3-Butadiene Emissions Quarterly Reports, the HAP Emissions Quarterly Reports and the VOC Combustion By-Pass Activity Quarterly Reports are contained in a single quarterly report entitled BD Quarterly Report. Duplicative reporting is not required. For example, information required to be submitted in the MACT Periodic Reports is not required to also be submitted in the Semiannual Reports. If no deviations occur in the reporting period, the owner or operator shall report a negative declaration in the appropriate report. 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 company must prepare the following reports:

Report Description	Report Period	Report Due Dates
1st Semiannual	January 1 through June 30	August 29
2nd Semiannual	July 1 through December 31	March 1[1]
1st Quarter for BD	January 1 through March 31	April 30
2nd Quarter for BD	April 1 through June 30	July 30
3rd Quarter for BD	July 1 through September 30	October 30
4th Quarter for BD	October 1 through December 31	January 30

Notes:
[1] The date for leap years is February 29.

a. **TAC**

i. 1, 3-Butadiene Emissions Annual Report

1) The owner or operator shall annually submit a report by May 1st of every year comparing the most recent year's 1,3-Butadiene emissions to the previous calendar year and the standards.

ii. General TAC Semiannual Reports

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 in accordance with Regulation 5.21 Sections 4.22-4.24. (Regulation 5.21, Sections 4.22-4.24)

4) The owner or operator shall report any deviation from calculating and recording the 12 consecutive month TAC emissions of

Acrylonitrile, Ammonia, 1-3 Butadiene, Naphthalene, and Toluene. If no deviations occurred during the report period, the owner or operator shall report a negative declaration.

5) The owner or operator shall report any exceedance of the *de minimis* levels for Acrylonitrile, Ammonia, Naphthalene, and Toluene including the amount.

iii. Boiler Semiannual Reports

For Emission Points (Coal Fired Boiler #1 & #2):

1) The owner or operator shall identify all periods of the pressure drop across the C-U4-BAGHOUSE exceeding the normal range and any corrective action taken for each exceedance.

2) The owner or operator shall report the following information regarding By-Pass Event in the compliance reports.

(a) Number of times the vent stream by-passes the Dry Scrubber (C-U4-SDR) and/or baghouse C-U4-BAGHOUSE and is vented to the atmosphere;

(b) Duration of each event to the atmosphere;

(c) Calculated pound per averaging period TAC emissions for each event; or

(d) A negative declaration if no events occurred.

3) The owner or operator shall report:

(a) Any exceedance of the *de minimis* levels for Hydrochloric Acid, Hydrofluoric Acid, Xylene, and Naphthalene;

(b) Any exceedance of the TAC limits for Arsenic, Cadmium, Chromium (III), Chromium (VI), Cobalt, Formaldehyde, Manganese, Nickel, Lead, and Sulfuric Acid;

(c) A negative declaration if no exceedances occurred.

iv. 1, 3-Butadiene Emissions Quarterly Reports

1) The plant-wide 1,3-butadiene emissions, in pounds, for each month in the reporting period and release pathway including bypass of any control device. (C-FLARE, C-FLARE TO, Fugitive).

2) The owner or operator shall report the following information regarding By-Pass Event in the quarterly compliance reports.

(a) The date, start time, and stop time of any by-passes to the atmosphere that occurred during the month;

(b) Number of times the vent stream by-passes both the C-FLARE TO and C-FLARE, and is vented to the atmosphere;

(c) Calculated pound per hour TAC emissions of Acrylonitrile, Toluene, and Naphthalene for each event; or

(d) A negative declaration if no events occurred.

v. 1, 3-Butadiene Emissions Semiannual Reports

1) The monthly and 12 consecutive month 1,3-Butadiene emissions in lbs vented to either the C-FLARE or Flare Thermal Oxidizer (C-FLARE TO) for each month in the report period.

2) For the C-FLARE TO: The owner or operator shall include the following information in the Semiannual Report.

(a) Emission Unit ID number, Emission Point ID number, and Control Device ID.

(b) All times the minimum average daily value of combustion temperature was not met based on the temperature established by the required performance testing.

(c) All times the minimum residence time was not met based on the volumetric gas flow rate during the month or a negative declaration.

(d) The monthly and 12 consecutive month 1,3-Butadiene emission in lbs emitted by the C-FLARE TO for each month in the report period.

3) For the C-FLARE: The owner or operator shall include the following information in the Semiannual Report.

(a) Emission Unit ID number, Emission Point ID number, and Control Device ID.

(b) Daily average values of the residence time for all operating days when the C-FLARE is used as the control device.

(c) The date, start time, and stop time for each diversion of the process vent stream flow from the C-FLARE TO to the C-FLARE.

(i) The number of hours the process vent stream flow was diverted from the C-FLARE TO to the C-FLARE for each month and 12 consecutive month period total during the reporting period.

(d) For the monthly visible emission test requirement:

(i) Emission unit ID number and emission point and/or stack ID number;
(ii) The date, time and results of each Method 22 conducted. If there were no Method 22 tests performed during the reporting period, the owner or operator shall submit a negative declaration; and
(iii) Description of any corrective action taken.

(e) The monthly and 12 consecutive month 1,3-Butadiene emissions in lbs emitted by the C-FLARE for each month in the report period.

4) For the equipment leaks from pumps, compressors, valves, agitators, connectors, pressure relief devices, and open ended valves (*i.e.* plant-wide fugitive emissions):

(a) Follow the reporting requirements of 40 CFR 63 Subpart U, attached as Appendix A,.(LDAR Reporting Requirements).

(b) Reporting any deviation of monitoring in accordance with the frequencies required in Table 6 for components in 1,3-Butadiene service.

(c) For any component with a monitored leak rate over 250 ppm:

(i) Type of component
(ii) Monitored leak rate
(iii) Component identification
(iv) Date component repaired
(v) Length of time component was leaking
(vi) A description of the repair performed
(vii) OR an explanation why repairs were not performed.

(d) The owner or operator shall report the monthly and 12-consecutive month period 1,3-Butadiene emissions in lbs of all components for each month in the report period.

5) Description of any corrective action taken for each identified exceedance.

S4. **Testing**

a. **General Requirements**

The owner or operator shall conduct performance testing in a manner consistent with the following testing requirements.

i. Plant-wide the owner or operator shall retest all control devices and process equipment within ten (10) years of the most recent District accepted performance test or within 180 days after the effective date of the permit if no previous test has been performed. For equipment which has been tested but not within ten years prior to the effective date of this permit, the Company may submit within 90 days of the effective date of this permit, contingent on approval by the District, a schedule which shall at a minimum propose testing for all affected equipment within this permit cycle. Thereafter the Company shall retest each affected device at least once every 10 years. Devices of adequately similar design and filter media may be represented by a common performance test contingent upon review and approval by the District of the testing protocol. In lieu of the control efficiency testing, unless required by a Federal Regulation, the owner or operator may submit a signature guarantee from the control device manufacture stating the control device efficiency or accept the District pre-approved control efficiency listed in the control device tables in each emission unit. If a performance test demonstrates a control efficiency that is less than a signature guarantee or the District pre-approved control efficiency listed in the control device tables in each emission unit; the Company must use lower tested efficiency for emissions calculations until a new performance test is conducted.

ii. The compliance test plan (protocol) shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a 'Protocol Checklist for Performance Test' which lists the information to be submitted in the protocol. (Appendix B)

iii. The owner or operator shall submit a written protocol for the control efficiency and capture efficiency. The protocol shall include the EPA test methods that will be used for performance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop, temperature) that will be monitored during the performance test. The owner or operator shall provide the District at least 10 days prior notice of any compliance test to afford the District the opportunity to have an observer present.

iv. The owner or operator shall furnish the District with a written report of the results of the compliance test within 60 days following the completion of the compliance test.

v. If performance testing is not completed by the required date, then the company shall calculate emissions using expired test result data or methods such as EPA approved emission factors and guidance documents such as EIIP and AP-42 or other methods upon written approval by the District, whichever results in the greater (more conservative) emissions.

b. **TAC**

The owner or operator shall confirm, through the required performance testing every 5 years, monitoring parameters that assure a minimum 99.99% emission destruction efficiency for the Flare Thermal Oxidizer C-FLARE TO. (Construction Permit 112-04-C, dated August 31, 2004) (Environmental Acceptability Demonstration dated January 2, 2007)

Appendix A: 40 CFR Part 63 Subpart U LDAR Requirements

S1. **Standards**

a. **40 CFR Part 63 Subpart H HAP (LDAR)** [As Referenced by 40 CFR 63.502(a), with the Exceptions Noted in 40 CFR 63.502(b) through 40 CFR 63.502(m), as Applicable, for 40 CFR Part 63 Subpart U][3]

i. At all times, each owner or operator must operate and maintain any affected source subject to the requirements of 40 CFR Part 63 Subpart U, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator (LMAPCD) which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR 63.483(a))

ii. General Standards: (40 CFR 63.162 as referenced by 40 CFR 63.502(a))

1) Compliance with 40 CFR Part 63 Subpart H will be determined by review of the records required by 40 CFR 63.181 and the reports required by 40 CFR 63.182, review of performance test results, and by inspections. (40 CFR 63.162(a) as referenced by 40 CFR 63.502(a))

2) An owner or operator may request a determination of alternative means of emission limitation to the requirements of 40 CFR 63.163 through 40 CFR 63.170, and 40 CFR 63.172 through 40 CFR 63.174 as provided in 40 CFR 63.177. (40 CFR 63.162(b)(1) as referenced by 40 CFR 63.502(a))

3) Each piece of equipment in a process unit to which 40 CFR Part 63 Subpart H applies shall be identified such that it can be distinguished readily from equipment that is not subject to 40 CFR Part 63 Subpart H. Identification of the equipment does not

[3] No. 5 Crumb Tank (E-U1/U2-T-9E/T), No. 5 Stripper Vessels, and all of the finishing lines are not subject to the 40 CFR Part 63 Subpart U MACT equipment leak (LDAR) provisions of 40 CFR 63.502, which references 40 CFR Part 63 Subpart H, with the exceptions as noted in 40 CFR 63.502(b) through (m). This is because the subject equipment does not meet the definition of "in organic HAP service" specified in 40 CFR 63.161 of 40 CFR Part 63 Subpart H. The No. 5 Crumb Tank will not be "in organic HAP service". Consequently, there are no LDAR standards, and no LDAR monitoring, record keeping or reporting requirements that will be applicable this equipment.

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. (40 CFR 63.162(c) as referenced by 40 CFR 63.502(a))

4) Equipment that is in vacuum service is excluded from the requirements of 40 CFR Part 63 Subpart H. (40 CFR 63.162(d) as referenced by 40 CFR 63.502(a))

5) 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 if it is identified as required in 40 CFR 63.181(j). (40 CFR 63.162(e) as referenced by 40 CFR 63.502(a))

6) When each leak is detected as specified in 40 CFR 63.163 and 40 CFR 63.164; 40 CFR 63.168 and 40 CFR 63.169; and 40 CFR 63.172 through 40 CFR 63.174, the following requirements apply. (40 CFR 63.162(f) as referenced by 40 CFR 63.502(a))

   (a) Clearly identify the leaking equipment. (40 CFR 63.162(f)(1) as referenced by 40 CFR 63.502(a))

   (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), 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), 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) as referenced by 40 CFR 63.502(a))

   (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) as referenced by 40 CFR 63.502(a))

7) All terms in 40 CFR Part 63 Subpart H that define a period of time for completion of required tasks (*e.g.*, weekly, monthly, quarterly, or annual), refer to the standard calendar periods unless specified otherwise in the section or subsection 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) as referenced by 40 CFR 63.502(a))

8) In all cases where the provisions of 40 CFR Part 63 Subpart H require an owner or operator to repair leaks by a specified time after the leak is detected, it is a violation of 40 CFR Part 63 Subpart H 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 40 CFR Part 63 Subpart H. 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 40 CFR Part 63 Subpart H. (40 CFR 63.162(h) as referenced by 40 CFR 63.502(a))

iii. 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))

iv. 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) as referenced by 40 CFR 63.502(a))

v. Reciprocating pumps in light liquid service are exempt from 40 CFR 63.163 and associated record keeping and reporting requirements, if recasting the distance piece or reciprocating pump replacement would be necessary to comply with 40 CFR 63.163. (40 CFR 63.502(d)(3))

vi. Any compressor that is designated, as described in 40 CFR 63.181(b)(2)(ii), to operate with an instrument reading of less than 500 parts per million above background, is exempt from the requirements of 40 CFR 63.164(a) through (h) if the compressor is demonstrated to be operating with an instrument reading of less than 500 parts per million above background, as measured by the method specified in 40 CFR 63.180(c). (40 CFR 63.164(i)(1) as referenced by 40 CFR 63.502(a))

vii. 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, using the method as specified in 40 CFR 63.180(b). (40 CFR 63.168(b)(2)(iii) as referenced by 40 CFR 63.502(a))

viii. For pressure relief devices in liquid service: (40 CFR 63.169 as referenced by 40 CFR 63.502(a))

1) 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) as referenced by 40 CFR 63.502(a))

2) If an instrument reading of 500 parts per million or greater above background level, as specified in 40 CFR 63.180(b, is measured when monitoring pressure relief devices in liquid service, then a leak is detected. (40 CFR 63.169(b) as referenced by 40 CFR 63.502(a))

ix. 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, using the method as specified in 40 CFR 63.180(b), indicates a leak is detected. (40 CFR 63.173(a)(2) as referenced by 40 CFR 63.502(a))

x. For connectors in gas/vapor and/or in light liquid service, an instrument reading of 500 parts per million or greater above background level, using the method as specified in 40 CFR 63.180(b), indicates a leak is detected. (40 CFR 63.174(a)(2) as referenced by 40 CFR 63.502(a))

xi. For pressure relief devices in gas/vapor service: (40 CFR 63.165 as referenced by 40 CFR 63.502(a))

1) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in 40 CFR 63.172 is exempt from the requirements of 40 CFR 63.165(a) and (b). (40 CFR 63.165(c) as referenced by 40 CFR 63.502(a))

2) 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) as referenced by 40 CFR 63.502(a))

xii. For closed-vent systems and control devices used to comply with the provisions of 40 CFR Part 63 Subpart H: (40 CFR 63.172 as referenced by 40 CFR 63.502(a)) [4]

1) Enclosed combustion devices shall be designed and operated to reduce the organic hazardous air pollutant emissions or volatile organic compounds emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent, or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760°C. (40 CFR 63.172(c) as referenced by 40 CFR 63.502(a))

2) Flares used to comply with 40 CFR Part 63 Subpart H shall comply with the requirements of 40 CFR 63.11(b) of 40 CFR Part 63 Subpart A. (40 CFR 63.172(d) as referenced by 40 CFR 63.502(a))

3) Whenever organic HAP emissions are vented to a closed-vent system or control device used to comply with the provisions of 40 CFR 63 Subpart U, such system or control device shall be operating. (40 CFR 63.172(m) as referenced by 40 CFR 63.502(a))

xiii. For open-ended valves or lines,

1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 63.162(b) and 40 CFR 63.167(d) and (e). (40 CFR 63.167(a)(1) as referenced by 40 CFR 63.502(a))

2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair. (40 CFR 63.167(a)(2) as referenced by 40 CFR 63.502(a))

3) 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) as referenced by 40 CFR 63.502(a))

[4] The C-FLARE TO and the C-FLARE are, for 40 CFR 63 Subpart U MACT LDAR purposes, a closed-vent system and control device as defined in 40 CFR 63 Subpart H (40 CFR 63.161), and are subject to the provisions of 40 CFR 63.172. Both of these closed-vent systems are composed of hard piping as opposed to ductwork. The applicable equipment leak provisions of 40 CFR 63 Subpart U found in 40 CFR 63.502(a) incorporate the requirements of 40 CFR 63 Subpart H, with the exceptions noted in 40 CFR 63.502(b) through (m).

4) 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) as referenced by 40 CFR 63.502(a))

5) 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) as referenced by 40 CFR 63.502(a))

6) Open-ended valves or lines containing materials which would auto-catalytically 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) as referenced by 40 CFR 63.502(a))

xiv. 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. 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. The owner or operator may delay repair of valves, connectors, and agitators for which leaks have been detected if 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 when repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 40 CFR 63.172. The owner or operator may delay repair of pumps if (1) repair requires replacing the existing seal design with a new system that the owner or operator has determined under the provisions of 40 CFR 63.176(d) will provide better performance or, a dual mechanical seal system that meets the requirements of 40 CFR 63.163(e), or a pump that meets the requirements of 40 CFR 63.163(f), or a closed-vent system and control device that meets the requirements of 40 CFR 63.163(g); and (2) repair is completed as soon as practicable, but not later than 6 months after the leak was detected. For valves, the owner or operator may delay repair beyond a process unit shut down 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 as referenced by 40 CFR 63.502(a))

xv. Surge Control Vessels and Bottom Receivers described in 40 CFR 63.502(b)(1) through (b)(7) are exempt from the requirements contained in 40 CFR 63.170. (40 CFR 63.502(b))

xvi. *Adding emission points or making* process *changes to existing affected sources:* The provisions of 40 CFR 63.480(i)(2)(i) through (i)(2)(ii) apply to owners or operators that add emission points or make process changes to an existing affected source. (40 CFR 63.480(i)(2))

1) If any components are replaced at an existing affected source such that the criteria specified in 40 CFR 63.480(i)(2)(i)(A) and (i)(2)(i)(B) are not met and that replacement of components creates one or more emission points (*i.e.*, either newly created Group 1 emission points or emission points that change from Group 2 to Group 1) or causes any other emission point to be added (*i.e.*, Group 2 emission points, back-end process operations subject to 40 CFR 63.493 and 40 CFR 63.500, and heat exchange systems and equipment leak components subject to 40 CFR 63.502), the resulting emission point(s) shall be subject to the applicable requirements for an existing affected source. The resulting emission point(s) shall be in compliance by 120 days after the date of initial start-up or by the appropriate compliance date specified in 40 CFR 63.481 (*i.e.*, July 31, 1997 for most equipment leak components subject to 40 CFR 63.502, and June 19, 2001 for emission points other than equipment leaks), whichever is later. (40 CFR 63.480(i)(2)(ii))

2) If an addition or process change (not including a process change that solely replaces components) is made that creates one or more Group 1 emission points (*i.e.*, either newly created Group 1 emission points or emission points that change group status from Group 2 to Group 1) or causes any other emission point to be added (*i.e.*, Group 2 emission points, back-end process operations subject to 40 CFR 63.493 through 40 CFR 63.500, and heat exchange systems and equipment leak components subject to 40 CFR 63.502), the resulting emission point(s) shall be subject to the applicable requirements for an existing affected source. The resulting emission point(s) shall be in compliance by 120 days after the date of initial start-up or by the appropriate compliance date specified in 40 CFR 63.481 (*i.e.*, July 31, 1997 for most equipment leak components subject to 40 CFR 63.502, and June 19, 2001 for emission points other than equipment leaks), whichever is later. (40 CFR 63.480(i)(2)(iii))

xvii. The emission limitations set forth in 40 CFR Part 63 Subpart H, as referred to in 40 CFR 63.502 (Equipment leak and heat exchange system provisions), shall apply at all times, except during periods of non-operation of the affected source (or specific portion thereof) in which the lines are drained and depressurized, resulting in cessation of the emissions to which 40 CFR 63.502 applies. (40 CFR 63.480(j)(2))

S2. **Monitoring and Record Keeping**

a. **40 CFR 63 Subpart H HAP (LDAR)** [As Referenced by 40 CFR 63.502(a) for 40 CFR Part 63 Subpart U]

40 CFR 63 Subpart H, as modified by 40 CFR 63 Subpart U, applies in its entirety to Emission Unit U1/U2. Specific LDAR requirements are included in this permit based on the operational information provided by the company.

i. The owner or operator of a process unit subject to 40 CFR 63 Subpart H shall monitor each pump in light liquid service 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) as referenced by 40 CFR 63.502(a))[5]

ii. Each pump in light liquid service 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. Indications of liquids dripping, as defined in 40 CFR 63 Subpart H, from bleed ports in pumps and agitator seals in light liquid service, shall not be considered a leak. A "bleed port" is a technologically-required feature of the pump or seal whereby polymer fluid used to provide lubrication and/or cooling of the pump or agitator shaft exits the pump, thereby resulting in a visible dripping of fluid. (40 CFR 63.163(b)(3) and 63.502(d)(1) as referenced by 40 CFR 63.502(a))

1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 63.163(c)(3) or 40 CFR 63.171. (40 CFR 63.163(c)(1) as referenced by 40 CFR 63.502(a))

2) 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

[5] Per 40 CFR 63.502(d)(3), reciprocating pumps in light liquid service are exempt from 40 CFR 63.163 and associated record keeping and reporting requirements, if recasting the distance piece or reciprocating pump replacement would be necessary to comply with 40 CFR 63.163. Since 40 CFR 63.163 contains the LDAR monitoring requirements for pumps in light liquid service, such reciprocating pumps are exempt from the LDAR requirements.

not limited to, the following practices where practicable. (40 CFR 63.163(c)(2) as referenced by 40 CFR 63.502(a))

(a) Tightening of packing gland nuts. (40 CFR 63.163(c)(2)(i) as referenced by 40 CFR 63.502(a))

(b) Ensuring that the seal flush is operating at design pressure and temperature. (40 CFR 63.163(c)(2)(ii) as referenced by 40 CFR 63.502(a))

3) For pumps in Phase III to which a 1,000 parts per million leak definition applies, repair is not required unless an instrument reading of 2,000 parts per million or greater is detected. (40 CFR 63.163(c)(3) as referenced by 40 CFR 63.502(a))

4) The owner or operator shall continue to calculate percent leaking pumps on a source-wide basis, as was determined by the owner or operator in 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) as referenced by 40 CFR 63.502(a))

(a) 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 63.176. (40 CFR 63.163(d)(2) as referenced by 40 CFR 63.502(a))

(b) 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) as referenced by 40 CFR 63.502(a))

(c) Percent leaking pumps shall be determined by the following equation: (40 CFR 63.163(d)(4) as referenced by 40 CFR 63.502(a))

$$\%PL = \frac{PL - PS}{PT - PS} \times 100$$

where:
%PL = Percent leaking pumps

PL = Number of pumps found leaking as determined through monthly monitoring as required in 40 CFR 63.163(b)(1) and (b)(2).
PT = Total pumps in organic HAP service, including those meeting the criteria in 40 CFR 63.163(e) and (f).
PS = Number of pumps leaking within 1 month of start-up during the current monitoring period.

5) 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), provided the following requirements are met: (40 CFR 63.163(e) as referenced by 40 CFR 63.502(a))

(a) Each dual mechanical seal system is operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or 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 equipped with a closed-loop system that purges the barrier fluid into a process stream. (40 CFR 63.163(e)(1) as referenced by 40 CFR 63.502(a))

(b) The barrier fluid is not in light liquid service. (40 CFR 63.163(e)(2) as referenced by 40 CFR 63.502(a))

(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) as referenced by 40 CFR 63.502(a))

(d) Each pump equipped with such a dual mechanical seal system that includes a barrier fluid system 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 at the time of the weekly inspection, the pump shall be monitored as specified in 40 CFR 63.180(b) to determine if there is a leak of organic hazardous air pollutant(s) into the barrier fluid. If an instrument reading of 1,000 parts per million or greater is measured, a leak is detected. (40 CFR 63.163(e)(4) as referenced by 40 CFR 63.502(a))

(e) Each sensor 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) as referenced by 40 CFR 63.502(a))

(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. If indications of liquids dripping from the pump seal exceed these established criteria, or if, based on the criteria, the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected. 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. 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) as referenced by 40 CFR 63.502(a))

6) 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) as referenced by 40 CFR 63.502(a))

7) Any pump that is designated as an unsafe-to-monitor pump, as described in 40 CFR 63.181(b)(7)(i), is exempt from the requirements of 40 CFR 63.163(b) through (e) if 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 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), as referenced by 40 CFR 63.502(a))

iii. Any compressor that is designated, as described in 40 CFR 63.181(b)(2)(ii), to operate with an instrument reading of less than 500 parts per million above background, is exempt from the requirements of 40 CFR 63.164(a) through (h) if the compressor is tested for compliance with 40 CFR 63.164(i)(1) initially upon designation, annually, and at other times requested by the Administrator (LMAPCD). (40 CFR 63.164(i)(2) as referenced by 40 CFR 63.502(a))

iv. For valves in gas/vapor service and in light liquid service, the owner or operator shall monitor valves in gas/vapor and/or in light liquid service for leaks at the intervals specified below: (40 CFR 63.168 as referenced by 40 CFR 63.502(a))

1) 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) as referenced by 40 CFR 63.502(a))

2) 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) as referenced by 40 CFR 63.502(a))

3) 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) as referenced by 40 CFR 63.502(a))

4) 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) as referenced by 40 CFR 63.502(a))

5) Percent leaking valves at a process unit shall be determined by the following equation: (40 CFR 63.168(e)(1) as referenced by 40 CFR 63.502(a))

$$\%VL = \frac{VL}{VT + VC} \times 100$$

Where:
%VL = Percent leaking valves as determined through periodic monitoring required in 40 CFR 63.168(b) through (d).
VL = Number of valves found leaking excluding non-repairables as provided in 40 CFR 63.168(e)(3)(i).
VT = Total valves monitored, in a monitoring period excluding valves monitored as required by 40 CFR 63.168(f)(3).
VC = Optional credit for removed valves = 0.67 × net number (i.e., total removed-total added) of valves in organic HAP service removed from process unit after the date set forth in 40 CFR 63.100(k) of subpart F for existing process units, and after the date of initial start-up for new sources. If credits are not taken, then VC = 0.

6) 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) as referenced by 40 CFR 63.502(a))

7) 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) as referenced by 40 CFR 63.502(a))

8) 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) as referenced by 40 CFR 63.502(a))

9) When a leak is detected: (40 CFR 63.168(f) as referenced by 40 CFR 63.502(a))

   (a) 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) as referenced by 40 CFR 63.502(a))

   (b) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (40 CFR 63.168(f)(1) as referenced by 40 CFR 63.502(a))

   (c) 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) as referenced by 40 CFR 63.502(a))

      (i) 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) as referenced by 40 CFR 63.502(a))

(ii) Periodic monitoring required by 40 CFR 63.168(b) through (d) may be used to satisfy the requirement to monitor the repaired valve at least once within the first 3 months after its repair, if the timing of the monitoring period coincides with this timing. Alternatively, other monitoring may be performed to satisfy this monitoring requirement, regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in 40 CFR 63.138(f)(3). (40 CFR 63.138(f)(3)(ii) as referenced by 40 CFR 63.502(a))

(iii) If a leak is detected during such monitoring, 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 CFR 63.168(e). (40 CFR 63.168(f)(3)(iii) as referenced by 40 CFR 63.502(a))

(A) If the owner or operator elected to use the periodic monitoring required by 40 CFR 63.168(b) through (d) to satisfy the requirements of 40 CFR 63.168(f)(3), then the valve shall be counted as a leaking valve. (40 CFR 63.168(f)(3)(iii)(A) as referenced by 40 CFR 63.502(a))

(B) 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 monitoring requirement, 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) as referenced by 40 CFR 63.502(a))

10) First attempts at repair include, but are not limited to, the following practices where practicable: (40 CFR 63.168(g) as referenced by 40 CFR 63.502(a))

(a) Tightening of bonnet bolts; (40 CFR 63.168(g)(1) as referenced by 40 CFR 63.502(a))

(b) Replacement of bonnet bolts; (40 CFR 63.168(g)(2) as referenced by 40 CFR 63.502(a))

(c) Tightening of packing gland nuts; and (40 CFR 63.168(g)(3) as referenced by 40 CFR 63.502(a))

(d) Injection of lubricant into lubricated packing. (40 CFR 63.168(g)(4) as referenced by 40 CFR 63.502(a))

11) 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) as referenced by 40 CFR 63.502(a))

(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) as referenced by 40 CFR 63.502(a))

(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) as referenced by 40 CFR 63.502(a))

12) 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) as referenced by 40 CFR 63.502(a))

(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 any time in a safe manner; (40 CFR 63.168(i)(1) as referenced by 40 CFR 63.502(a))

(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) as referenced by 40 CFR 63.502(a))

(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) as referenced by 40 CFR 63.502(a))

v. Each agitator in gas/vapor service and/or in light liquid service 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) as referenced by 40 CFR 63.502(a))

vi. Each agitator in gas/vapor service and/or in light liquid service 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. Indications of liquids dripping, as defined in 40 CFR 63 Subpart H, from bleed ports in pumps and agitator seals in light liquid service, shall not be considered a leak. A "bleed port" is a technologically-required feature of the pump or seal whereby polymer fluid used to provide lubrication and/or cooling of the pump or agitator shaft exits the pump, thereby resulting in a visible dripping of fluid. (40 CFR 63.173(b) and 63.502(d)(1) as referenced by 40 CFR 63.502(a))

1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 63.171. (40 CFR 63.173(c)(1) as referenced by 40 CFR 63.502(a))

2) 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) as referenced by 40 CFR 63.502(a))

vii. For connectors in gas/vapor service and in light liquid service: (40 CFR 63.174 as referenced by 40 CFR 63.502(a))

1) For connectors in gas/vapor service and in light liquid service, the owner or operator shall perform all monitoring of connectors at the frequencies specified in the following, except as provided in 40 CFR 63.174(c)(2): (40 CFR 63.174(b)(3) as referenced by 40 CFR 63.502(a))

(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) as referenced by 40 CFR 63.502(a))

(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 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) as referenced by 40 CFR 63.502(a))

(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 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) as referenced by 40 CFR 63.502(a))

(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 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 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)(iv) as referenced by 40 CFR 63.502(a))

(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) as referenced by 40 CFR 63.502(a))

2) 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.

(a) 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.

(b) The owner or operator may switch between the two alternatives set forth in this Specific Condition 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), as referenced by 40 CFR 63.502(a))

3) 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) as referenced by 40 CFR 63.502(a))

4) 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: (40 CFR 63.174(f) as referenced by 40 CFR 63.502(a))

(a) 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 (40 CFR 63.174(f)(1) as referenced by 40 CFR 63.502(a))

(b) 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 otherwise applicable. (40 CFR 63.174(f)(2) as referenced by 40 CFR 63.502(a))

5) 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: (40 CFR 63.174(g) as referenced by 40 CFR 63.502(a))

   (a) 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 (40 CFR 63.174(g)(1) as referenced by 40 CFR 63.502(a))

   (b) 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) as referenced by 40 CFR 63.502(a))

6) 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 record keeping and reporting requirements of 40 CFR 63.181 and 63.182. An inaccessible connector is one that is: (40 CFR 63.174(h)(1) as referenced by 40 CFR 63.502(a))

   (a) Buried; (40 CFR 63.174(h)(1)(i) as referenced by 40 CFR 63.502(a))

   (b) Insulated in a manner that prevents access to the connector by a monitor probe; (40 CFR 63.174(h)(1)(ii) as referenced by 40 CFR 63.502(a))

   (c) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; (40 CFR 63.174(h)(1)(iii) as referenced by 40 CFR 63.502(a))

   (d) 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; (40 CFR 63.174(h)(1)(iv) as referenced by 40 CFR 63.502(a))

   (e) Inaccessible because it would require elevating the monitoring personnel more than 2 meters above a permanent support surface or would require the erection of scaffold; or (40 CFR 63.174(h)(1)(v) as referenced by 40 CFR 63.502(a))

(f) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. (40 CFR 63.174(h)(1)(vi) as referenced by 40 CFR 63.502(a))

7) 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)(2) and (3) as referenced by 40 CFR 63.502(a))

viii. For pressure relief devices in liquid service: (40 CFR 63.169 as referenced by 40 CFR 63.502(a))

1) Pressure relief devices in light 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) as referenced by 40 CFR 63.502(a))

2) When a leak is detected: (40 CFR 63.169(c) as referenced by 40 CFR 63.502(a))

(a) 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) as referenced by 40 CFR 63.502(a))

(b) 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) as referenced by 40 CFR 63.502(a))

(c) 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) as referenced by 40 CFR 63.502(a))

ix. When the C-FLARE TO and/or C-FLARE are being used to comply with the LDAR requirements of 40 CFR Part 63 Subpart U, which references 40 CFR Part 63 Subpart H, the following monitoring requirements apply to these MACT LDAR control devices. The C-FLARE shall comply with the requirements of 40 CFR 63.11(b) of subpart A. (40 CFR 63.172(d) as referenced by 40 CFR 63.502(a))

1) Owners or operators of control devices that are used to comply with the provisions of 40 CFR 63 Subpart H shall monitor these control devices to ensure that they are operated and maintained in conformance with their design. (40 CFR 63.172(e) as referenced by 40 CFR 63.502(a))

2) Inspections: Except as provided in 40 CFR 63.172(k) and 40 CFR 63.172(l) for any parts of the closed-vent system that are designated as unsafe-to-inspect or difficult-to-inspect, each closed-vent system shall be inspected according to the procedures and schedule specified in 40 CFR 63.172(f)(1). (40 CFR 63.172(f) as referenced by 40 CFR 63.502(a))

(a) If the closed vent system is constructed of hard-piping, the owner or operator shall conduct an initial inspection according to the procedures in 40 CFR 63.172(g) and conduct annual visual inspections for visible, audible, or olfactory indications of leaks. (40 CFR 63.172(f)(1) as referenced by 40 CFR 63.502(a))

(b) Each closed-vent system shall be inspected according to the procedures in 40 CFR 63.180(b). (40 CFR 63.172(g) as referenced by 40 CFR 63.502(a))

3) Leaks, as indicated by an instrument reading greater than 500 parts per million above background or by visual inspections, shall be repaired as soon as practicable, except as provided in 40 CFR 63.172(i).
(40 CFR 63.172(h) as referenced by 40 CFR 63.502(a))

(a) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. (40 CFR 63.172(h)(1) as referenced by 40 CFR 63.502(a))

(b) Repair shall be completed no later than 15 calendar days after the leak is detected, except as provided in 40 CFR

63.172(i). (40 CFR 63.172(h)(2) as referenced by 40 CFR 63.502(a))

4) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shut down or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. (40 CFR 63.172(i) as referenced by 40 CFR 63.502(a))

5) Any parts of the closed-vent system that are designated, as described in 40 CFR 63.181(b)(7)(i), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 63.172(f)(1) and (f)(2) if: (40 CFR 63.172(k) as referenced by 40 CFR 63.502(a))

(a) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with 40 CFR 63.172(f)(1) or (f)(2); and (40 CFR 63.172(k)(1) as referenced by 40 CFR 63.502(a))

(b) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times, but not more frequently than annually. (40 CFR 63.172(k)(2) as referenced by 40 CFR 63.502(a))

6) Any parts of the closed-vent system that are designated, as described in 40 CFR 63.181(b)(7)(i), as difficult to inspect are exempt from the inspection requirements of 40 CFR 63.172(f)(1) and (f)(2) if: (40 CFR 63.172(l) as referenced by 40 CFR 63.502(a))

(a) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and (40 CFR 63.172(l)(1) as referenced by 40 CFR 63.502(a))

(b) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. (40 CFR 63.172(l)(2) as referenced by 40 CFR 63.502(a))

x. For the C-FLARE TO and C-FLARE, the owner or operator shall maintain records of the information specified in 40 CFR 63.181(g)(1) through 40

CFR 63.181(g)(3) for closed-vent systems and control devices subject to the provisions of 40 CFR 63.172. The records specified in 40 CFR 63.181(g)(1) shall be retained for the life of the equipment. The records specified in 40 CFR 63.181(g)(2) and 40 CFR 63.181(g)(3) shall be retained for 5 years. (40 CFR 63.181(g) as referenced by 40 CFR 63.502(a) and 63.506(a))

1) The design specifications and performance demonstrations specified in 40 CFR 63.181(g)(1)(i) through 40 CFR(g)(1)(iv). (40 CFR 63.181(g)(1) as referenced by 40 CFR 63.502(a))

   (a) Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams. (40 CFR 63.181(g)(1)(i) as referenced by 40 CFR 63.502(a))

   (b) The dates and descriptions of any changes in the design specifications. (40 CFR 63.181(g)(1)(ii) as referenced by 40 CFR 63.502(a))

   (c) For the C-FLARE, the flare design (i.e., steam-assisted, air-assisted, or non-assisted) and the results of the compliance demonstration required by 40 CFR 63.11(b) of subpart A. (40 CFR 63.181(g)(1)(iii) as referenced by 40 CFR 63.502(a))

   (d) A description of the parameter or parameters monitored, as required in 40 CFR 63.172(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for monitoring. (40 CFR 63.181(g)(1)(iv) as referenced by 40 CFR 63.502(a)) *Note, per Table 7 to Subpart U of Part 63, the established operating parameter monitoring level is minimum temperature for the C-FLARE TO, and the presence of a pilot flame for the C-FLARE.*

2) Records of operation of closed-vent systems and control devices, as specified in 40 CFR 63.181(g)(2)(i) through (g)(2)(iii). (40 CFR 63.181(g)(2) as referenced by 40 CFR 63.502(a))

   (a) Dates and duration when the closed-vent systems and control devices required in 40 CFR 63.163 through 40 CFR 63.166, and 40 CFR 63.170 are not operated as designed as indicated by the monitored parameters, including periods when a flare pilot light system does not have a flame. (40 CFR 63.181(g)(2)(i) as referenced by 40 CFR 63.502(a))

(b) Dates and durations during which the monitoring system or monitoring device is inoperative. (40 CFR 63.181(g)(2)(ii) as referenced by 40 CFR 63.502(a))

(c) Dates and durations of start-ups and shutdowns of control devices required in 40 CFR 63.163 through 63.166, and §63.170. (40 CFR 63.181(g)(2)(iii) as referenced by 40 CFR 63.502(a))

3) Records of inspections of closed-vent systems subject to the provisions of 40 CFR 63.172, as specified in 40 CFR 63.181(g)(3)(i) and 40 CFR 63.181 (g)(3)(ii). (40 CFR 63.181(g)(3) as referenced by 40 CFR 63.502(a))

(a) For each inspection conducted in accordance with the provisions of 40 CFR 63.172(f)(1) or (f)(2) during which no leaks were detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. (40 CFR 63.181(g)(3)(i) as referenced by 40 CFR 63.502(a))

(b) For each inspection conducted in accordance with the provisions of 40 CFR 63.172(f)(1) or (f)(2) during which leaks were detected, the information specified in 40 CFR 63.181(d) shall be recorded. (40 CFR 63.181(g)(3)(ii) as referenced by 40 CFR 63.502(a))

xi. The owner or operator shall keep the following records:

1) An owner or operator of more than one process unit subject to the provisions of 40 CFR Part 63 Subpart H may comply with the record keeping requirements for these process units in one record keeping system if the system identifies each record by process unit and the program being implemented (e.g., quarterly monitoring, quality improvement) for each type of equipment. All records and information required by 40 CFR 63.181 shall be maintained in a manner that can be readily accessed at the plant site. This could include physically locating the records at the plant site or accessing the records from a central location by computer at the plant site. (40 CFR 63.181(a) as referenced by 40 CFR 63.502(a))

2) A list of identification numbers for equipment (except connectors exempt from monitoring and record keeping identified in 40 CFR 63.174 and instrumentation systems) subject to the requirements of 40 CFR 63 Subpart U. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of 40 CFR 63 Subpart U 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) as referenced by 40 CFR 63.502(a))

3) A schedule by process unit for monitoring connectors subject to the provisions of 40 CFR 63.174(a) of 40 CFR 63 Subpart H and valves subject to the provisions of 40 CFR 63.168(d) of 40 CFR 63 Subpart H. (40 CFR 63.181(b)(1)(ii) as referenced by 40 CFR 63.502(a))

4) Physical tagging of the equipment to indicate that it is in organic HAP service is not required. 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) as referenced by 40 CFR 63.502(a))

5) A list of identification numbers for equipment that the owner or operator elects to equip with a closed-vent system and control device, under the provisions of 40 CFR 63.163(g), 40 CFR 63.164(h), 40 CFR 63.165(c), or 40 CFR 63.173(f) of 40 CFR 63 Subpart H. (40 CFR 63.181(b)(2)(i) as referenced by 40 CFR 63.502(a))

6) A list of identification numbers for compressors that the owner or operator elects to designate as operating with an instrument reading of less than 500 parts per million above background, under the provisions of 40 CFR 63.164(i). (40 CFR 63.181(b)(2)(ii) as referenced by 40 CFR 63.502(a))

7) A list of identification numbers for pressure relief devices subject to the provisions in 40 CFR 63.165(a). (40 CFR 63.181(b)(3)(i) as referenced by 40 CFR 63.502(a))

8) A list of identification numbers for pressure relief devices equipped with rupture disks, under the provisions of 40 CFR 63.165(d).
(40 CFR 63.181(b)(3)(ii) as referenced by 40 CFR 63.502(a))

9) Identification of instrumentation systems subject to the provisions of 40 CFR 63 Subpart H. Individual components in an instrumentation system need not be identified. (40 CFR 63.181(b)(4) as referenced by 40 CFR 63.502(a))

10) Identification of screwed connectors subject to the requirements of 40 CFR 63.174(c)(2) of 40 CFR 63 Subpart H. 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) as referenced by 40 CFR 63.502(a))

11) The following information pertaining to all pumps subject to the provisions of 40 CFR 63.163(j), valves subject to the provisions of 40 CFR 63.168(h) and (i), agitators subject to the provisions of 40 CFR 63.173(h) through (j), and connectors subject to the provisions of 40 CFR 63.174(f) and (g) shall be recorded: (40 CFR 63.181(b)(7) as referenced by 40 CFR 63.502(a))

    (a) 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) as referenced by 40 CFR 63.502(a))

    (b) 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) as referenced by 40 CFR 63.502(a))

    (c) A list of identification numbers for connectors that are designated as unsafe to repair and an explanation why the connector is unsafe to repair. (40 CFR 63.181(b)(7)(iii) as referenced by 40 CFR 63.502(a))

12) A list of valves removed from and added to the process unit, as described in 40 CFR 63.168(e)(1), if the net credits for removed valves is expected to be used. (40 CFR 63.181(b)(8)(i) as referenced by 40 CFR 63.502(a))

13) A list of connectors removed from and added to the process unit, as described in 40 CFR 63.174(i)(1), and documentation of the integrity of the weld for any removed connectors, as required in 40 CFR 63.174(j). This is not required unless the net credits for removed connectors is expected to be used. (40 CFR 63.181(b)(8)(ii) as referenced by 40 CFR 63.502(a))

14) For any leaks detected as specified in 40 CFR 63.163 and 63.164; 40 CFR 63.168 and 63.169; and 40 CFR 63.172 through 63.174 of 40 CFR 63 Subpart H, a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. (40 CFR 63.181(b)(10) as referenced by 40 CFR 63.502(a))

15) 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) as referenced by 40 CFR 63.502(a) and 63.506(a))

16) When each leak is detected as specified in 40 CFR 63.163 and 63.164; 40 CFR 63.168 and 63.169; and 40 CFR 63.172 through 63.174 of 40 CFR 63 Subpart H, the following information shall be recorded and kept for *5* years: (40 CFR 63.181(d) as referenced by 40 CFR 63.502(a) and 63.506(a))

(a) The instrument and the equipment identification number and the operator name, initials, or identification number. (40 CFR 63.181(d)(1) as referenced by 40 CFR 63.502(a))

(b) The date the leak was detected and the date of first attempt to repair the leak. (40 CFR 63.181(d)(2) as referenced by 40 CFR 63.502(a))

(c) The date of successful repair of the leak. (40 CFR 63.181(d)(3) as referenced by 40 CFR 63.502(a))

(d) Maximum instrument reading measured by Method 21 of 40 CFR 60, Appendix A after it is successfully repaired or determined to be nonrepairable. (40 CFR 63.181(d)(4) as referenced by 40 CFR 63.502(a))

(e) "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) as referenced by 40 CFR 63.502(a))

(i) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures may be included as part of the startup/shutdown/malfunction plan, required by §63.6(e)(3), for the source or may be part of a separate document that is maintained at the plant site. 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) as referenced by 40 CFR 63.502(a))

(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) as referenced by 40 CFR 63.502(a))

(f) Dates of process unit shutdowns that occur while the equipment is unrepaired. (40 CFR 63.181(d)(6) as referenced by 40 CFR 63.502(a))

(g) Identification, either by list, location (area or grouping), or tagging of connectors that have been opened or otherwise had the seal broken since the last monitoring period required in 40 CFR 63.174(b), as described in 40 CFR 63.174(c)(1), unless the owner or operator elects to comply with the provisions of 40 CFR 63.174(c)(1)(ii). (40 CFR 63.181(d)(7)(i) as referenced by 40 CFR 63.502(a))

(h) The date and results of monitoring as required in 40 CFR 63.174(c). If identification of connectors that have been opened or otherwise had the seal broken is made by location under 40 CFR 63.181(d)(7)(i), then all connectors within the designated location shall be monitored. (40 CFR 63.181(d)(7)(ii) as referenced by 40 CFR 63.502(a))

(i) Copies of the periodic reports as specified in 40 CFR 63.506(e)(6), if records are not maintained on a computerized database capable of generating summary reports from the records. (40 CFR 63.181(d)(9) as referenced by 40 CFR 63.502(a) and 40 CFR 63.502(g))

17) The dates and results of each compliance test required for compressors subject to the provisions in 40 CFR 63.164(i) and the dates and results of the monitoring following a pressure release for each pressure relief device subject to the provisions in 40 CFR 63.165(a) and (b). The results shall include: (40 CFR 63.181(f) as referenced by 40 CFR 63.502(a))

(a) The background level measured during each compliance test. (40 CFR 63.181(f)(1) as referenced by 40 CFR 63.502(a))

(b) The maximum instrument reading measured at each piece of equipment during each compliance test. (40 CFR 63.181(f)(2) as referenced by 40 CFR 63.502(a))

xii. Each owner or operator of a process unit subject to the requirements of 40 CFR 63.175 and 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. (40 CFR 63.181(h) as referenced by 40 CFR 63.502(a))

1) For owners or operators who elect to use a reasonable further progress quality improvement program, as specified in 40 CFR 63.175(d) of 40 CFR 63 Subpart H: (40 CFR 63.181(h)(1) as referenced by 40 CFR 63.502(a))

(a) All data required in 40 CFR 63.175(d)(2) of 40 CFR 63 Subpart H. (40 CFR 63.181(h)(1)(i) as referenced by 40 CFR 63.502(a))

(b) The percent leaking valves observed each quarter and the rolling average percent reduction observed in each quarter. (40 CFR 63.181(h)(1)(ii) as referenced by 40 CFR 63.502(a))

(c) The beginning and ending dates while meeting the requirements of 40 CFR 63.175(d) of 40 CFR 63 Subpart H. (40 CFR 63.181(h)(1)(iii) as referenced by 40 CFR 63.502(a))

2) 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) of 40 CFR 63 Subpart H: (40 CFR 63.181(h)(2) as referenced by 40 CFR 63.502(a))

(a) All data required in 40 CFR 63.175(e)(2) of 40 CFR 63 Subpart H. (40 CFR 63.181(h)(2)(i) as referenced by 40 CFR 63.502(a))

(b) The percent leaking valves observed each quarter. (40 CFR 63.181(h)(2)(ii) as referenced by 40 CFR 63.502(a))

(c) Documentation of all inspections conducted under the requirements of 40 CFR 63.175(e)(4) of 40 CFR 63 Subpart H, and any recommendations for design or specification changes to reduce leak frequency. (40 CFR 63.181(h)(2)(iii) as referenced by 40 CFR 63.502(a))

(d) The beginning and ending dates while meeting the requirements of 40 CFR 63.175(e) of 40 CFR 63 Subpart H. (40 CFR 63.181(h)(2)(iv) as referenced by 40 CFR 63.502(a))

3) For owners or operators subject to the requirements of the pump quality improvement program as specified in 40 CFR 63.176 of 40 CFR 63 Subpart H. (40 CFR 63.181(h)(3) as referenced by 40 CFR 63.502(a))

   (a) All data required in 40 CFR 63.176(d)(2) of 40 CFR 63 Subpart H. (40 CFR 63.181(h)(3)(i) as referenced by 40 CFR 63.502(a))

   (b) The rolling average percent leaking pumps. (40 CFR 63.181(h)(3)(ii) as referenced by 40 CFR 63.502(a))

   (c) Documentation of all inspections conducted under the requirements of 40 CFR 63.176(d)(4) of 40 CFR 63 Subpart H, and any recommendations for design or specification changes to reduce leak frequency. (40 CFR 63.181(h)(3)(iii) as referenced by 40 CFR 63.502(a))

   (d) The beginning and ending dates while meeting the requirements of 40 CFR 63.176(d) of 40 CFR 63 Subpart H. (40 CFR 63.181(h)(3)(iv) as referenced by 40 CFR 63.502(a))

4) 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) as referenced by 40 CFR 63.502(a))

5) 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) as referenced by 40 CFR 63.502(a))

   (a) 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) as referenced by 40 CFR 63.502(a))

   (b) The reasons for rejecting specific candidate superior emission performing valve or pump technology from performance trials. (40 CFR 63.181(h)(5)(ii) as referenced by 40 CFR 63.502(a))

   (c) 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 63.176(d)(6)(iii) of 40 CFR 63 Subpart H. (40 CFR 63.181(h)(5)(iii) as referenced by 40 CFR 63.502(a))

(d) The beginning date and duration of performance trials of each candidate superior emission performing technology. (40 CFR 63.181(h)(5)(iv) as referenced by 40 CFR 63.502(a))

6) All records documenting the quality assurance program for valves or pumps as specified in 40 CFR 63.175(e)(7) and 63.176(d)(7) of 40 CFR 63 Subpart H. (40 CFR 63.181(h)(6) as referenced by 40 CFR 63.502(a))

7) 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) of 40 CFR 63 Subpart H. (40 CFR 63.181(h)(7) as referenced by 40 CFR 63.502(a))

8) Records documenting compliance with the 20 percent or greater annual replacement rate for pumps as specified in 40 CFR 63.176(d)(8) of 40 CFR 63 Subpart H. (40 CFR 63.181(h)(8) as referenced by 40 CFR 63.502(a))

9) 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) as referenced by 40 CFR 63.502(a))

xiii. 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) as referenced by 40 CFR 63.502(a))

S3. **Reporting**

a. **40 CFR 63 Subpart H HAP (LDAR)** [As Referenced by 40 CFR 63.502(a) for 40 CFR Part 63 Subpart U]

i. The owner or operator shall report the following information listed in the LDAR HAP Periodic Reports submitted semiannually under the conditions specified in 40 CFR 63.182(d), as directed by 40 CFR 63.506(e)(6), to the Air Pollution Control District and U.S. EPA Region 4. In accordance with 40 CFR 63.481(m)(1), the source has requested, and it has been approved by the District, that the required monitoring and reporting for equipment leaks under 40 CFR 63.502 be performed on a

calendar year basis. (40 CFR 63.182(d)(1) as referenced by 40 CFR 63.502(a), and 40 CFR 63.481(m)(1))

1) For each process unit complying with the provisions of 40 CFR 63.163 through 40 CFR 63.174 of 40 CFR Part 63 Subpart H, the summary information listed in 40 CFR 63.182(d)(2)(i) through (xvi) for each monitoring period during the 6-month period shall be reported. (40 CFR 63.182(d)(2) as referenced by 40 CFR 63.502(a))

2) 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) as referenced by 40 CFR 63.502(a))

3) 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) as referenced by 40 CFR 63.502(a))

4) 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) as referenced by 40 CFR 63.502(a))

5) 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) as referenced by 40 CFR 63.502(a))

6) 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) as referenced by 40 CFR 63.502(a))

7) 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) as referenced by 40 CFR 63.502(a))

8) 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) as referenced by 40 CFR 63.502(a))

9) 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) as referenced by 40 CFR 63.502(a))

10) 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) as referenced by 40 CFR 63.502(a))

11) If applicable, the results of all monitoring to show compliance with 40 CFR 63.164(i), 63.165(a), and 63.172(f) conducted within the semiannual reporting period. (40 CFR 63.182(d)(2)(xiv) as referenced by 40 CFR 63.502(a))

12) 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 63.176. (40 CFR 63.182(d)(2)(xv) as referenced by 40 CFR 63.502(a))

13) 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) as referenced by 40 CFR 63.502(a))

14) If applicable, the compliance option that has been selected under §63.172(n). (40 CFR 63.182(d)(2)(xvii) as referenced by 40 CFR 63.502(a))

15) The information listed in 40 CFR 63.182(c) for the Notification of Compliance Status for process units with later compliance dates. Any revisions to items reported in earlier Notification of Compliance Status, if the method of compliance has changed since the last report. (40 CFR 63.182(d)(4) as referenced by 40 CFR 63.502(a))

S4. **Testing**

a. **40 CFR 63 Subpart H HAP (LDAR)** [As Referenced by 40 CFR 63.502(a) for 40 CFR Part 63 Subpart U]

There are no compliance testing requirements for 40 CFR 63 Subpart H HAP (LDAR).

Appendix B - Protocol Checklist for a Performance Test

A completed protocol should include the following information:

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

location. This procedure described in Method 1, Section 11.5 allows for the determination of gas flow angles at the sampling points and comparison of the measured results with acceptability criteria.

☐ 21. The Stack Test Review fee shall be submitted with each stack test protocol.

Attachment C - Determination of Benchmark Ambient Concentration (BAC)

Determination of Benchmark Ambient Concentration (BAC) **Category _____ No. _____**

TAC _____ **CAS No.** _____-_____-____

_____ **Mol. Wt.** _____

BAC_C = _____ **µg/m³ Annual** **BAC_{NC} =** _____ **µg/m³** _____ **Averaging Period**

De Minimis _____ **lb/hour;** _____ **lb/**_____**;** _____ **lb/year**

I. Carcinogen Risk - BAC_C [Annual Averaging Period] Carcinogen . . . . ☐ yes ☐ no

1. ☐ IRIS ☐ no 10^{-6} risk = _____ µg/m³ URE _____ $(\mu g/m^3)^{-1}$ ___-___-___
2. ☐ Cal ☐ no 10^{-6} risk = _____ µg/m³ IUR _____ $(\mu g/m^3)^{-1}$ ___-___-___
3. ☐ MI ☐ no 10^{-6} risk = _____ µg/m³ ___-___-___
4. ☐ NTP Part A ☐ yes ☐ no Part B ☐ yes ☐ no
5. ☐ IARC Group 1 ☐ yes ☐ no Group 2A ☐ yes ☐ no Group 2B ☐ yes ☐ no
6. ☐ ATSDR ☐ no
7. ☐ Sec. 3.3.4 method _____ ☐ no 10^{-6} risk = _____ µg/m³ ___-___-___
8. ☐ Default 0.0004 µg/m³

II. Chronic Noncancer Risk - BAC_{NC} [Averaging Period as Specified]

1. ☐ IRIS ☐ no RfC = _____ µg/m³ Annual ___-___-___
2. ☐ Cal ☐ no REL = _____ µg/m³ Annual ___-___-___
3. ☐ IRIS[1] ☐ no RfD = _____µg/kg/day ⊗ 70/20 =_____µg/m³ Annual ___-___-___
4. ☐ MI ☐ no ITSL = _____ µg/m³_____ Averaging Period ___-___-___
5. ☐ TLV ☐ NIOSH _____ µg/m³ ⊗ 0.01 = _____ µg/m³ 8-Hr ___-___-___
6. ☐ RTECS[1] _____ _____ = _____ µg/m³ Annual
7. ☐ Default 0.04 µg/m³ Annual

III. De Minimis

1. ☐ Carcinogen (BAC_C) _____ µg/m³ ⊗ 0.54 = _____ lb/hour
   (BAC_C) _____ µg/m³ ⊗ 480 = _____ lb/year
2. ☐ Chronic Noncancer Risk _____ Averaging Period
   (BAC_{NC}) _____ µg/m³ ⊗ _____ = _____ lb/hour
   (BAC_{NC}) _____ µg/m³ ⊗ _____ = _____ lb/_____
   _____ lb/_____ ⊗ _____ _____ = _____ lb/year

[1] To use data based upon an oral route of exposure, the District must make an affirmative determination that data are not available to indicate that oral-route to inhalation-route extrapolation is inappropriate.

Prepared by _____ ___-___-___