LANE REGIONAL AIR PROTECTION AGENCY
TITLE V OPERATING PERMIT

Significant Permit Modification

1010 Main St.
Springfield, OR 97477
Telephone (541) 736-1056

Issued in accordance with the provisions of ORS 468A.040
and based on the land use compatibility findings included in the permit record.

ISSUED TO:
Bakelite Chemicals LLC
2665 Highway 99 North
Eugene, Oregon 97402

INFORMATION RELIED UPON:
Application: 67233, 71365
Received: June 8, 2021, February 13, 2025

PLANT SITE LOCATION:
2665 Highway 99 North
Eugene, Oregon 97402

LAND USE COMPATIBILITY STATEMENT:
From: City of Eugene
Dated: November 25, 1996

ISSUED BY LANE REGIONAL AIR PROTECTION AGENCY

_____ _____
Travis Knudsen, Executive Director Effective Date

NATURE OF BUSINESS:	SIC	NAICS
Synthetic Resin Manufacturing	2821	325211

RESPONSIBLE OFFICIAL:

Title: Site Leader
Phone: (541) 688-5221

FACILITY CONTACT PERSON:

Name: Ed Park
Title: Environmental & Quality Manager
Phone: (541) 688-5221

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LIST OF ABBREVIATIONS THAT MAY BE USED IN THIS PERMIT

APPU	Amino/phenolic resin process
AQMA	Air Quality Management Area
ASTM	American Society of Testing and Materials
BH	Baghouse
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring Systems
CFR	Code of Federal Regulations
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
CPMS	Continuous Parameter Monitoring System
Day	A calendar 24-hour period
DETA	Diethylenetriamine
DEQ	Oregon Department of Environmental Quality
DMG	Dimethyl Glutarate
dscf	Dry standard cubic foot of gas volume at 29.92" Hg and 68°F
EF	Emission factor
EPA	US Environmental Protection Agency
EU	Emissions unit
FCAA	Federal Clean Air Act
GHG	Greenhouse gas
gr	grain
HAP	Hazardous Air Pollutant as defined by LRAPA title 12
ID	Identification number
I&M	Inspection and Maintenance
IPA	Isopropyl Alcohol
kPa	kiloPascal
LRAPA	Lane Regional Air Protection Agency
M	1,000
MACT	Maximum Achievable Control Technology
MB	Material balance
mg/l	Milligram per liters
Mlb	1,000 pounds
MM	Million
MMBtu	Million British Thermal Units
MMcf	Million cubic feet
Month	Calendar month
MSF	1,000 square feet
NA	Not applicable
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_X	Nitrogen oxides
NSPS	New Source Performance Standards
O_2	Oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	Operation and Maintenance
Pa	Pascal
Pb	Lead
PCD	Pollution control device
PF	Phenol Formaldehyde
PM	Particulate matter
PM_{10}	Particulate matter less than 10 microns in size
$PM_{2.5}$	Particulate matter less than 2.5 microns in size
ppm	Parts per million
PSEL	Plant Site Emission Limit
psia	Pounds per square inch absolute
RICE	Reciprocating Internal Combustion Engine
RMP	Risk management plans
scf	Standard cubic foot
SDS	Safety Data Sheet
SI ICE	Spark Ignition Internal Combustion Engine
SIP	State Implementation Plan
SO_2	Sulfur dioxide
SSM	Startup, shutdown, malfunction
ST	Source test
TOC	Total Organic Compound
UF	Urea Formaldehyde
UFC	Urea-Formaldehyde Concentrates
VE	Visible emissions
VHAP	Volatile Hazardous Air Pollutant
VMT	Vehicle mile traveled
VOC	Volatile organic compound
VOL	Volatile organic liquid
WSR	Wet Strength Resin
Year	A period consisting of any 12-consecutive calendar months

DEFINITIONS

Modified EPA Method 9: As used in this permit "Modified EPA Method 9" is defined as follows:

Opacity must be measured in accordance with EPA Method 9 using the data reduction procedures in EPA Method 203B. For all standards, the minimum observation period must be six (6) minutes, though longer periods may be required by a specific rule or permit condition. Aggregate times (e.g., three (3) minutes in any one (1) hour) consist of the total duration of all readings during the observation period that are equal to or greater than the opacity percentage in the standard, whether or not the readings are consecutive. Each EPA Method 9 reading represents 15 seconds of time. See also the definition of "Opacity" in LRAPA title 12.

Amino Resin means a thermoset resin produced through the reaction of formaldehyde, or a formaldehyde containing solution (e.g., aqueous formaldehyde), with compound(s) that contain the amino group; these compounds include melamine, urea, and urea derivatives. Formaldehyde substitutes are exclusively aldehydes.

Phenolic Resin means a thermoset resin that is a condensation product of formaldehyde and phenol, or a formaldehyde substitute and/or a phenol substitute. Substitutes for formaldehyde are exclusively aldehydes and include acetaldehyde or furfuraldehyde. Substitutes for phenol include other phenolic starting compounds such as cresols, xylenols, p-tert-butylphenol, p-phenylphenol, nonylphenol, and resorcinols.

Wet Strength Resin means polyamide/ epichlorohydrin condensates which are used to increase the tensile strength of paper products.

Closed Vent System means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission point to a control device.

In organic hazardous air pollutant or in organic HAP service means that a piece of equipment or heat exchange system either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP's as determined according to the provisions of 40 CFR 63.180(d).

Aggregate batch vent stream means a process vent containing emissions from at least one reactor batch process vent and at least one additional reactor or non-reactor batch process vent where the emissions are ducted, hardpiped, or otherwise connected together for a continuous flow.

Heat exchange system: Heat exchange system means any cooling tower system or once-through cooling water system (e.g., river or pond water) designed and intended to operate to not allow contact between the cooling medium and process fluid or gases (i.e., a noncontact system). A heat exchange system may include more than one heat exchanger and may include recirculating or once-through cooling systems.

Pressure relief device: Pressure relief device means a valve, rupture disk, or similar device used only to release an unplanned, nonroutine discharge of gas from process equipment in order to avoid safety hazards or equipment damage. A pressure relief device discharge can result from an operator error, a malfunction such as a power failure or equipment failure, or other unexpected cause. Such devices include conventional, spring-actuated relief valves, balanced bellows relief valves, pilot-operated relief valves, rupture disks, and breaking, buckling, or shearing pin devices. Devices that are actuated either by a pressure of less than or equal to 2.5 pounds per square inch gauge or by a vacuum are not pressure relief devices.

PERMITTED ACTIVITIES

1. Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air contaminants from those processes and activities directly related to or associated with air contaminant source(s) in accordance with the requirements, limitations, and conditions of this permit. [LRAPA 34-180, OAR 340-218-0010 and 340-218-0120(2)]

2. All conditions in this permit are federally enforceable, meaning that they are enforceable by LRAPA, EPA and citizens under the Clean Air Act, except as specified below:

   2.a. Conditions 7, 8, 10, and G5 and part of G9 (LRAPA Title 43) are only enforceable by LRAPA. [OAR 340-218-0060]

EMISSION UNIT (EU) AND POLLUTION CONTROL DEVICE (PCD) IDENTIFICATION

3. The emissions units regulated by this permit are the following: [OAR 340-218-0040(3)]

Emission Unit Description	EU ID	Pollution Control Device Description	PCD ID
Boiler – Cleaver Brooks 61.7 MMBtu/hr Water tube boiler constructed in 1972	B-1	None	NA
Manufacture of Wet Strength Resins: Reactor K1 and associated process equipment	OX-1	Regenerative Thermal Oxidizer	RTO
Manufacture of Amino/Phenolic Resins: Reactors K2 and K3 and associated process equipment	OX-2	Regenerative Thermal Oxidizer	RTO
Cooling Tower	CT-1	None	NA
Transfer Rack(s): UFC and Methanol Distillate Loading	LOAD-1	Methanol Distillate Loading: Vapor Balance System	Vbal-3
		UFC Loading: None	NA
Miscellaneous Emission Units			
Urea Transfer System	Urea	2 Baghouses (1 on Weigh Hopper, 1 on Storage Silo)	BH-1 BH-2
Resimixer	RESI-MIX®	Baghouse	BH-3
Dry Chemical Blower	Salt	Baghouse	BH-4 & BH-5
Dimethyl Glutarate (DMG) Storage Tank	301	None	NA
Polyamide Resin Tanks	Polyamide Resin Tanks	None	NA
Methanol Distillate Tanks 602 and 703	Methanol Distillate Tanks	None	NA
90% Formic Acid Storage Tank	305	None	NA
Acid Quench Storage Tank	AQ-1	None	NA
PF Resin Tanks	PF Resin Tanks	None	NA
UF Resin Tanks	UF Resin Tanks	None	NA
Phenol Storage Tanks 302, 303	Phenol Storage	None	NA

Emission Unit Description	EU ID	Pollution Control Device Description	PCD ID
	Tanks		
Formaldehyde Storage Tanks 304, 306	Formaldehyde Storage Tanks	None	NA
Miscellaneous Emission Units (Continued)			
Diethylenetriamine (DETA) Storage Tank 701	DETA Storage Tank	None	NA
Prepolymer Storage Tank 298, 704, 705	Prepolymer Storage Tanks	None	NA
Isopropyl Alcohol Storage Tank 800	IPA Storage Tank	Vapor Balance System	Vbal-1
Epichlorohydrin Storage Tanks 801, 802	Epichlorohydrin Storage Tanks	Vapor Balance System	Vbal-2
Diesel Fuel Storage Tank	DF-1	None	NA
Precatalyst Storage Tank 309	Precatalyst Storage Tank	None	NA
Waste Resin Pile Emission	WRP	None	NA
Truck and Railcar Loading of Resin	LOAD-2	None	NA
Truck Washing Emission Estimates	TW-1	None	NA
Paved Roads	PR-1	None	NA
Aggregate Insignificant Emission Units			
• Thermal Oxidizer Supplement Burner (natural gas) • Cleaning and Degreasing Metal Parts	AI	None	NA
Categorically Insignificant Activities			
Emergency Generator: 749 hp, diesel-fired	EG-1	None	NA
• Ammonium Hydroxide Storage Tank 300 • Sulfuric Acid Storage Tank 601 • Caustic Storage Tank 702 • WSR Stormwater Storage Tank 900	CIA	None	NA

GNERAL EMISSION LIMITS, STANDARDS, TESTING, MONITORING, AND RECORDKEEPING REQUIREMENTS

The following tables contain the applicable requirements along with the testing, monitoring, and recordkeeping requirements for the emissions units to which those requirements apply.

Facility-wide Emission Limits and Standards

Applicable Requirement	Condition Number	Pollutant/ Parameter	Limit/Standard	Monitoring Requirements	
				Method	Condition Number
48-015(1)	4	Fugitive Emissions	Minimize	Recordkeeping	5, 6
49-010(1)	7	Nuisance	Nuisance	Recordkeeping	10
32-055	8	PM fallout	No deposition of PM >250µm on others' property	Recordkeeping	10
32-090(1)	9	Injury or damage to persons or property	Prohibited	Recordkeeping	10
51-015	11	Source Emission Reduction Plan	Reduce Emissions	Recordkeeping	12
32-065(2)	13	Fuel oil sulfur content specifications	Percent by weight sulfur	Recordkeeping	14
40 CFR Part 68	15	Risk management	Risk management plan	NA	15
34-034	16	VOC	Notification for change in tank service	Recordkeeping and Reporting	16

4. Applicable Requirement: The permittee must not allow or permit any materials to be handled, transported, or stored; or a building, its appurtenances; or a road to be used, constructed, altered, repaired or demolished; or any equipment to be operated, without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions must include, but not be limited to the following: [LRAPA 48-015(1)]

   4.a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;

   4.b. Application of water or other suitable chemicals on unpaved roads, materials stockpiles, and other surfaces which can create airborne dusts;

   4.c. Full or partial enclosure of materials stockpiles in cases where applicable of oil, water, or chemicals are not sufficient to prevent particulate matter from becoming airborne;

   4.d. Installation and use of hoods, fans, and fabrics filters to enclose and vent the handling of dusty materials;

   4.e. Adequate containment during sandblasting or other similar operations;

   4.f. The covering of moving, open bodied trucks transporting materials likely to become airborne ; and

   4.g. The prompt removal from paved streets of earth or other material which does or may become airborne.

5. Monitoring Requirement: At least once each quarter for a minimum period of 30 minutes, the permittee must visually survey the facility using EPA Method 22 for any sources of excess fugitive emissions. For purposes of this condition, excess fugitive emissions are visible emissions that leave the plant site boundary for a period or periods totaling more than 18 seconds in a six-minute period. The minimum observation

time must be at least six (6) minutes. The person conducting the observation must follow EPA Method 22. If sources of excess fugitive emissions are identified, the permittee must: [LRAPA 34-016(1), LRAPA 48-015(2)&(3) and OAR 340-218-0050(3)(a)]

5.a. Immediately take corrective action to minimize the fugitive emissions, including but not limited to those actions identified in Condition 4; and

5.b. Develop an LRAPA-approved Fugitive Emission Control Plan upon request by LRAPA and implement the plan whenever fugitive emissions leave the property for more than 18 seconds in a six-minute period.

6. Recordkeeping Requirement: The permittee must maintain records of the fugitive emissions surveys and corrective actions, as applicable. The record must be maintained onsite for a period of a least five (5) years and must be provided to LRAPA personnel on request. [LRAPA 34-016 and OAR 340-218-0050(3)(b)]

Nuisance Conditions

7. Applicable Requirement: The permittee must not cause or allow air contaminants from any source subject to regulation by LRAPA to cause a nuisance. [LRAPA 49-010(1)] This condition is enforceable only by LRAPA.

8. Applicable Requirement: The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at such duration and quantity as to create an observable deposition upon the real property of another person. [LRAPA 32-055] This condition is enforceable only by LRAPA.

9. Applicable Requirement: The permittee must not discharge from any source whatsoever such quantities of air contaminants which cause injury or damage to any persons, the public, business or property; such determination to be made by LRAPA. [LRAPA 32-090(1)]

10. Monitoring and Recordkeeping Requirement: To demonstrate compliance with Conditions 7 through 9, the permittee must maintain a log of each nuisance complaint received by the permittee during the operation of the facility. Documentation must include the date of complaint, time of observed nuisance condition, description of nuisance condition, location of receptor, status of plant operation during the observed period, and date and time of response to complainant. A facility representative must immediately investigate the condition following the receipt of a nuisance complaint and a facility representative must provide a response to the complainant, if possible, within 24 hours, but not longer than five (5) working days. [LRAPA 34-016(1) and OAR 340-218-0050(3)(a)] This condition is enforceable only by LRAPA.

Air Pollution Emergencies

11. Applicable Requirement: In the event that an Air Pollution Alert, Warning, or Emergency Episode is declared in the Eugene-Springfield area by LRAPA, the permittee must take the action appropriate to the episode condition as required by LRAPA 51-015 and as detailed in Attachment A to this permit. The permittee must take action when the permittee first becomes aware of such declaration whether through news media or direct contact with LRAPA.

12. Monitoring and Recordkeeping Requirement: The permittee must maintain a record (log) of air pollution episodes and emission reduction actions taken and must provide the log to LRAPA upon request. [LRAPA 34-016(1) and OAR 340-218-0050(3)(a)]

Fuel Conditions

13. Applicable Requirement: The permittee must only burn fuel oils that meet the following specifications: [LRAPA 32-065]

13.a. Distillate fuel oil or on-specification used oil (as defined in 40 CFR 279.11) must not contain more than:

13.a.i. 0.3% sulfur by weight for ASTM Grade 1 fuel oil; [LRAPA 32-065(2)(a)]

13.a.ii. 0.5% sulfur by weight for ASTM Grade 2 fuel oil. [LRAPA 32-065(2)(b)]

13.b. Residual fuel oils must not contain more than 1.75% sulfur by weight. [LRAPA 32-065(1)]

14. Monitoring and Recordkeeping Requirement: The permittee must monitor the sulfur content of each shipment of fuel oil (ASTM Grade 1 or ASTM Grade 2) that will be used in auxiliary equipment other than exempt equipment such as forklifts and motor vehicles by: [LRAPA 34-016(1) and OAR 340-218-0050(3)(a)]

14.a. Obtaining a certification of sulfur content from each vendor for each shipment of fuel oil received; or

14.b. Secure a SDS from the fuel supplier and a certification stating that the supplier will provide only fuel oil that meets the specifications in Condition 13 for use in non-exempt or auxiliary equipment such as stationary fire water pump motors.

Accidental Release Prevention

15. Applicable Requirement: The permittee must submit a risk management plan (RMP) by the date specified in 40 CFR 68.10 and comply with the plan and all other applicable Part 68 requirements. [40 CFR Part 68]

Change in Tank Service

16. Applicable Requirement: For EU: Miscellaneous EU, the permittee must notify LRAPA in writing at least 10 days prior to any change in service of any existing tank at the facility. For the purposes of this condition, a change in tank service does not include the placement of wash water for temporary storage and cleaning. [LRAPA 34-034]

SIGNIFICANT EMISSION UNIT EMISSION LIMITS AND STANDARDS

Emission Unit Phenol Storage Tanks, Formaldehyde Storage Tanks, and Methanol Distillate Tanks Specific Emission Limits and Standards

Applicable Requirement	Condition Number	Pollutant/ Parameter	Limit/Standard	Monitoring Requirements	
				Method	Condition Number
LRAPA 32-009(4) – Facility-Elected Operating Limitations	17	VOC, HAP	Phenol Storage Tanks: 20MM gal/yr	Recordkeeping	20
	18	VOC, HAP	Formaldehyde Storage Tanks: 18.45MM gal/yr	Recordkeeping	20
	19	VOC, HAP	Methanol Distillate Storage Tanks: 720,000 gal/yr	Recordkeeping	20

17. Applicable Requirement: The permittee must limit the throughput of Emission Unit Phenol Storage Tanks (302 and 303) to 20MM gallons in any consecutive 12-month period. [LRAPA 42-0080(4)(d)]

18. Applicable Requirement: The permittee must limit the throughput of Emission Unit Formaldehyde Storage Tanks (304, 306) to 18.45MM gallons in any consecutive 12-month period. [LRAPA 42-0080(4)(d)]

19. Applicable Requirement: The permittee must limit the throughput of Emission Unit Methanol Distillate Tanks (602, 703) to 720,000 gallons in any consecutive 12-month period. [LRAPA 42-0080(4)(d)]

20. Monitoring and Recordkeeping Requirement: To demonstrate compliance with Conditions 17 through 19, the permittee must monitor and maintain monthly 12-month rolling records of the following process parameters, as required by Condition 87.a: [LRAPA 34-016(1) and (6)]

20.a. Phenol usage (gallons)
20.b. Formaldehyde usage (gallons)
20.c. Methanol usage (gallons)

Emissions Unit LOAD-1 (Transfer Racks) Specific Emission Limits and Standards

Applicable Requirement	Condition Number	Pollutant/ Parameter	Limit/Standard	Monitoring Requirements	
				Method	Condition Number
LRAPA 32-009(4) – Facility-Elected Requirements for Organic Liquids Distribution (Non-Gasoline)	21	HAP	800,000 gallons/year limitation of ≥ 98% methanol content and 10 million gallon/year limitation of ≥ 5% methanol content	Recordkeeping, and Reporting	22

Requirements for Organic Liquids Distribution (Non-Gasoline)

21. Applicable Requirements: The permittee must limit the total throughput of organic liquids loading volume through the transfer racks, with an organic HAP content of at least 98 percent by weight, to less than 800,000 gallons and the total throughput of organic liquids loading volume through the transfer racks, with organic HAP content of at least 5 percent by weight, to less than 10 million gallons per 12-month rolling period. [LRAPA 32-009(4)]

22. Recordkeeping and Reporting Requirements: The permittee must keep records of the total actual annual facility-level organic liquid loading volume through transfer racks. The permittee must record and report the total 12-month rolling throughput of organic liquids semi-annually as follows: [LRAPA 34-016 (1)]

    22.a. ***By the 15th day of each month***, the permittee must record the total 12-month throughput of organic liquids with organic HAP content of at least 98 percent by weight and report each of the 12-month rolling values semi-annually; and

    22.b. ***By the 15th day of each month***, the permittee must record the total 12-month throughput of organic liquids with organic HAP content of at least 5% (five percent) by weight and report each of the 12-month rolling values semi-annually.

Emission Unit OX-1 (Manufacture of Wet Strength Resins: Reactor K1 and Associated Process Equipment) Specific Emission Limits and Standards

Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard	Monitoring Requirements	
				Method	Condition Number
LRAPA 32-005(1)	23	HAP	Highest and Best - RTO Control	Recordkeeping	24
LRAPA 32-009(4) – Facility-Elected Requirements for the Manufacture of Wet Strength Resins	25 through 30	HAP	General standards	Recordkeeping	38, 39
	31	HAP	Pumps in light liquid service standards	Periodic testing, Recordkeeping	37, 38, 39
	32	HAP	Open-ended valves or lines standards	Recordkeeping	32.a
	33	HAP	Valves in gas/vapor service and in light liquid service standards	Testing, Recordkeeping	37, 38, 39
	34	HAP	Delay of repair standards	Recordkeeping	38, 39
	35	HAP	Agitators in gas/vapor service and in light liquid service standards	Testing, Recordkeeping	37, 38, 39
	36	HAP	Connectors in gas/vapor service and in light liquid service standards	Testing, Recordkeeping	37, 38, 39

23. Applicable Requirement: The permittee must control hazardous air pollutant emissions from the manufacture of wet strength resins (OX-1) by venting all exhaust gases to the Regenerative Thermal oxidizer (RTO), accept as allowed by Condition 23.a. [LRAPA 32-005(1)]

    23.a. The permittee shall not allow exhaust gases from the resin reactor K-1 in Emission Unit OX-1 to bypass the Regenerative Thermal Oxidizer for more than 336 hours in any consecutive 12-month period. [LRAPA 42-0080(4)(d)]

24. Recordkeeping Requirement: The permittee must keep records of the dates, times, and durations of all periods when the exhaust gas stream from Reactor K-1 in Emission Unit OX-1 bypasses the RTO and is diverted to the atmosphere. These records must be retained for a period of at least five (5) years from the date of generation. [LRAPA 34-016(1)]

Requirements for the Manufacture of Wet Strength Resins – Leak Detection and Repair (LDAR)

25. Applicable Requirement: The permittee must control hazardous air pollutant emissions from the manufacture of wet strength resins (OX-1) by implementing the Leak Detection and Repair (LDAR) requirements detailed in Conditions 26 through 39. [LRAPA 32-009(4)]

    25.a. Each pump, agitator, open-ended valve or line, valve, and connector used in the manufacture of west strength resin (OX-1) that is intended to operate in organic hazardous air pollutant service for 300 hours or more during the calendar year is subject to the LDAR requirements detailed in Conditions 26 through 39.

    25.b. Equipment that is in vacuum service is excluded from the LDAR requirements detailed in Conditions 26 through 39.

26. Applicable Requirement: Each piece of equipment subject to LDAR must be identified such that it can be distinguished readily from equipment that is not subject to LDAR. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, or by designation of process unit boundaries by some form of weatherproof identification. [LRAPA 32-009(4)]

27. Applicable Requirement: Equipment used in the manufacture of wet strength resin that is in organic HAP service less than 300 hours per calendar year is excluded from the requirements of Conditions 31 through 36 if it is identified as required in Condition 38.f. [LRAPA 32-009(4)]

28. Applicable Requirement: When each leak is detected as specified in Conditions 31, 33, and 36, the following requirements apply: [LRAPA 32-009(4)]

    28.a. Clearly identify the leaking equipment.

    28.b. The identification on a valve may be removed after it has been monitored as specified in Condition 33.c.iii, and no leak has been detected during the follow-up monitoring. If the permittee elects to comply using the provisions of Condition 36.c, the identification on a connector may be removed after it is monitored as specified in Condition 36.c. and no leak is detected during that monitoring.

    28.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 Condition 36.c. may be removed after it is repaired.

29. Applicable Requirement: Except as provided in Condition 29.a, all terms that define a period of time for completion of required tasks (e.g., weekly, monthly, quarterly, annual), refer to the standard calendar periods unless specified otherwise in the condition that imposes the requirement. [LRAPA 32-009(4)]

    29.a. If the initial compliance date does not coincide with the beginning of the standard calendar period, the permittee may elect to utilize a period beginning on the compliance date, or may elect to comply in accordance with the provisions of Conditions 29.b or 29.c.

29.b. Time periods specified for completion of required tasks may be changed by mutual agreement between the permittee and LRAPA. For each time period that is changed by agreement, the revised period must remain in effect until it is changed. A new request is not necessary for each recurring period.

29.c. Except as provided in Conditions 29.a or 29.b, where the period specified for compliance is a standard calendar period, if the initial compliance date does not coincide with the beginning of the calendar period, compliance must be required according to the schedule specified in Conditions 29.c.i or 29.c.ii, as appropriate.

29.c.i. Compliance must be required before the end of the standard calendar period within which the compliance deadline occurs, if there remain at least 3 days for tasks that must be performed weekly, at least 2 weeks for tasks that must be performed monthly, at least 1 month for tasks that must be performed each quarter, or at least 3 months for tasks that must be performed annually; or

29.c.ii. In all other cases, compliance must be required before the end of the first full standard calendar period after the period within which the initial compliance deadline occurs.

30. Applicable Requirement: In all cases where the permittee is required to repair leaks by a specified time after the leak is detected, it is a violation 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. However, if the repairs are unsuccessful, a leak is detected, and the permittee must take further action as required. [LRAPA 32-009(4)]

31. Applicable Requirement: *Pumps in light liquid service* – The provisions of Conditions 31.a through 31.h apply to each pump that is in light liquid service. [LRAPA 32-009(4)]

31.a. Monitoring:

31.a.i. The permittee must monitor each pump subject to LDAR monthly to detect leaks by the method specified in Condition 37.a and must comply with the requirements of Conditions 31.a through 31.c, except as provided in Conditions 31.d through 31.h;

31.a.ii. Each pump subject to LDAR must 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.

31.b. Repair:

31.b.i. When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Condition 34.

31.b.ii. A first attempt at repair must be made no later than 5 calendar days after the leak is detected. First attempts at repair include, but are not limited to, the following practices where practicable:

31.b.ii.1. Tightening of packing gland nuts.

31.b.ii.2. Ensuring that the seal flush is operating at design pressure and temperature.

31.c. Calculation of Percent Leaking:

31.c.i. The permittee must decide no later than the first monitoring period whether to calculate percent leaking pumps on a process unit basis or on a source-wide basis. Once the permittee has decided, all subsequent percent calculations must be made on the same basis.

31.c.ii. The number of pumps at a process unit must 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 must not count in the percent leaking pumps calculation for that one monitoring period only.

31.c.iii. Percent leaking pumps must be determined by the following equation:

$$\%P_L = ((P_L - P_S)/(P_T - P_S)) \times 100$$

where:

$\%P_L$ = Percent leaking pumps

P_L = Number of pumps found leaking as determined through monthly monitoring as required in Conditions 31.a.i.

P_T = Total pumps in organic HAP service, including those meeting the criteria in Conditions 31.d and 31.e.

P_S = Number of pumps leaking within 1 month of start-up during the current monitoring period.

31.d. Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of Conditions 31.a through 31.c, provided the following requirements are met:

31.d.i. Each dual mechanical seal system is:

31.d.i.1. Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

31.d.i.2. Equipped with a closed-loop system that purges the barrier fluid into a process stream.

31.d.ii. The barrier fluid is not in light liquid service.

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

31.d.iv. Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

31.d.iv.1. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the pump must be monitored as specified in Condition 37.a to determine if there is a leak of organic HAP in the barrier fluid.

31.d.iv.2. If an instrument reading of 1,000 parts per million or greater is measured, a leak is detected.

31.d.v. Each sensor as described in Condition 31.d.iii is observed daily or is equipped with an alarm unless the pump is located within the boundary of an unmanned plant site.

31.d.vi. Leak Detection

31.d.vi.1. The permittee determines, 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.

31.d.vi.2. If indications of liquids dripping from the pump seal exceed the criteria established in Condition 31.d.vi.1, or if, based on the criteria established in Condition 31.d.vi.1, the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.

31.d.vi.3. When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Condition 34.

31.d.vi.4. A first attempt at repair must be made no later than 5 calendar days after each leak is detected.

31.e. Any pump that is designed with no externally actuated shaft penetrating the pump housing is exempt from the requirements of Condition 31.a and 31.b.

31.f. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of Conditions 31.a.ii and 31.d.iv, and the daily requirements of Condition 31.d.iv.1, provided that each pump is visually inspected as often as practicable and at least monthly.

31.g. If more than 90 percent of the pumps at a process unit meet the criteria in either Condition 31.d or 31.e, the process unit is exempt from the requirements of Condition 31.c.

31.h. Any pump that is designated, as described in Condition 38.b.iv.1, as an unsafe-to-monitor pump is exempt from the requirements of Conditions 31.a through 31.d if:

31.h.i. The permittee 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 Conditions 31.a through 31.c; and

31.h.ii. The permittee 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.

32. Applicable Requirement: *Open-ended valves or lines* [LRAPA 32-009(4)]

32.a. Cap, blind flange, plug, or second valve requirement:

32.a.i. Each open-ended valve or line must be equipped with a cap, blind flange, plug, or a second valve, except as provided in Conditions 32.d and 32.e.

32.a.ii. The cap, blind flange, plug, or second valve must 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.

32.b. Each open-ended valve or line equipped with a second valve must be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

32.c. When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but must comply with Condition 32.a at all other times.

32.d. 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 Conditions 32.a, 32.b, and 32.c.

32.e. Open-ended valves or lines containing materials which would autocatalytically polymerize or, would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in Conditions 32.a through 32.c are exempt from the requirements of Conditions 32.a through 32.c.

33. Applicable Requirement: *Valves in gas/vapor service and in light liquid service* – The provisions of Conditions 33.a through 33.g apply to valves that are either in gas service or in light liquid service. [LRAPA 32-009(4)]

33.a. The permittee must monitor all valves subject to LDAR, except as provided in Conditions 33.e and 33.f, and must comply with all other provisions of this section, except as provided in Condition 34.

33.a.i. The valves must be monitored to detect leaks by the method specified in Condition 37.a.

33.b. Calculations of Percent Leaking:

33.b.i. Percent leaking valves at a process unit must be determined by the following equation:

$$\%V_L = (V_L/V_T) \times 100$$

where:

$\%V_L$ = Percent leaking valves as determined through periodic monitoring required in Conditions 33.a.

V_L = Number of valves found leaking excluding nonrepairables as provided in Condition 33.b.iii.

V_T = Total valves monitored, in a monitoring period excluding valves monitored as required by Condition 33.c.iii.

33.b.ii. For use in determining monitoring frequency the percent leaking valves must 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.

33.b.iii. Nonrepairable Valves:

33.b.iii.1. Nonrepairable valves must 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 Condition 33.b.iii.2. 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.

33.b.iii.2. 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 must be included in the calculation of percent leaking valves.

33.c. Repair:

33.c.i. When a leak is detected, it must be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Condition 34.

33.c.ii. A first attempt at repair must be made no later than 5 calendar days after each leak is detected.

33.c.iii. When a leak has been repaired, the valve must be monitored at least once within the first 3 months after its repair.

33.c.iii.1. The monitoring must be conducted as specified in Conditions 37.a and 37.b, as appropriate, to determine whether the valve has resumed leaking.

33.c.iii.2. If a leak is detected by monitoring that is conducted pursuant to Condition 33.c.iii, the permittee must follow the provisions of Condition 33.c.iii.2.A, to determine whether that valve must be counted as a leaking valve for purposes of Condition 33.b.

33.c.iii.2.A. To satisfy the requirements of Condition 33.c.iii, the valve must be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking.

33.d. First attempts at repair include, but are not limited to, the following practices where practicable:

33.d.i. Tightening of bonnet bolts,

33.d.ii. Replacement of bonnet bolts,

33.d.iii. Tightening of packing gland nuts, and

33.d.iv. Injection of lubricant into lubricated packing.

33.e. Any valve that is designated, as described in Condition 38.b.iv.1, as an unsafe-to-monitor valve is

exempt from the requirements of Conditions 33.a through 33.c if:

33.e.i. The permittee 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 Conditions 33.a; and

33.e.ii. The permittee 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.

33.f. Any valve that is designated, as described in Condition 38.b.iv.2, as a difficult-to-monitor valve is exempt from the requirements of Conditions 33.a if:

33.f.i. The permittee determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface or it is not accessible at anytime in a safe manner;

33.f.ii. The process unit within which the valve is located is an existing source or the permittee designates less than 3 percent of the total number of valves in a new source as difficult-to-monitor; and

33.f.iii. The permittee follows a written plan that requires monitoring of the valve at least once per calendar year.

33.g. Any equipment located at a plant site with fewer than 250 valves in organic HAP service is exempt from the requirements for monthly monitoring and a quality improvement program. Instead, the permittee must monitor each valve in organic HAP service for leaks once each quarter except as provided in Conditions 33.e and 33.f.

34. Applicable Requirement: *Delay of repair* – [LRAPA 32-009(4)]

34.a. Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment must occur by the end of the next process unit shutdown.

34.b. Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in organic HAP service.

34.c. Delay of repair for valves, connectors, and agitators is also allowed if:

34.c.i. The permittee 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

34.d. Delay of repair for pumps is also allowed if:

34.d.i. Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

34.e. Delay of repair beyond a process unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the 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.

35. Applicable Requirement: *Agitators in gas/vapor service and in light liquid service* [LRAPA 32-009(4)]

35.a. Monitoring:

35.a.i. Each agitator must be monitored monthly to detect leaks by the methods specified in Condition 37.a.

35.a.ii. If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected.

35.b. Visual Inspection:

35.b.i. Each agitator must be checked by visual inspection each calendar week for indications of liquids dripping from the agitator.

35.b.ii. If there are indications of liquids dripping from the agitator, a leak is detected.

35.c. Repair:

35.c.i. When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Condition 34.

35.c.ii. A first attempt at repair must be made no later than 5 calendar days after each leak is detected.

35.d. Each agitator equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of Condition 35.a, provided the requirements specified in Conditions 35.d.i through 35.d.vi are met:

35.d.i. Each dual mechanical seal system is:

35.d.i.1. Operated with the barrier fluid at a pressure that is at all times greater than the agitator stuffing box pressure; or

35.d.i.2. Equipped with a closed-loop system that purges the barrier fluid into a process stream.

35.d.ii. The barrier fluid is not in light liquid organic HAP service.

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

35.d.iv. Each agitator is checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal.

35.d.iv.1. If there are indications of liquids dripping from the agitator seal at the time of the weekly inspection, the agitator must be monitored as specified in Condition 37.a to determine the presence of organic HAP in the barrier fluid.

35.d.iv.2. If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected.

35.d.v. Each sensor as described in Condition 35.d.iii is observed daily or is equipped with an alarm unless the agitator is located within the boundary of an unmanned plant site.

35.d.vi. Leak Detection and Repair:

35.d.vi.1. The permittee determines, 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.

35.d.vi.2. If indications of liquids dripping from the agitator seal exceed the criteria established in Condition 35.d.vi.1, or if, based on the criteria established in Condition 35.d.vi.1, the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.

35.d.vi.3. When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Condition 34.

35.d.vi.4. A first attempt at repair must be made no later than 5 calendar days after each leak is detected.

35.e. Any agitator that is designed with no externally actuated shaft penetrating the agitator housing is

exempt from Conditions 35.a through 35.c.

35.f. Any agitator that is difficult-to-monitor is exempt from the requirements of Conditions 35.a through 35.d if:

35.f.i. The permittee determines that the agitator cannot be monitored without elevating the monitoring personnel more than two meters above a support surface or it is not accessible at anytime in a safe manner;

35.f.ii. The process unit within which the agitator is located is an existing source or the permittee designates less than three percent of the total number of agitators in a new source as difficult-to-monitor; and

35.f.iii. The permittee follows a written plan that requires monitoring of the agitator at least once per calendar year.

35.g. Any agitator that is obstructed by equipment or piping that prevents access to the agitator by a monitor probe is exempt from the monitoring requirements of Conditions 35.a through 35.d.

35.h. Any agitator that is designated, as described in Condition 38.b.iv.1, as an unsafe-to-monitor agitator is exempt from the requirements of Conditions 35.a through 35.d if:

35.h.i. The permittee of the agitator determines that the agitator is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Conditions 35.a through 35.d; and

35.h.ii. The permittee of the agitator has a written plan that requires monitoring of the agitator as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable.

36. Applicable Requirement: *Connectors in gas/vapor service and in light liquid service* [LRAPA 32-009(4)]

36.a. The permittee must monitor all connectors in gas/vapor and light liquid service, except as provided in Conditions 36.e through 36.g, at the intervals specified in Condition 36.b.

36.a.i. The connectors must be monitored to detect leaks by the method specified in Condition 37.a.

36.a.ii. If an instrument reading greater than or equal to 500 parts per million is measured, a leak is detected.

36.b. The permittee must monitor for leaks at the intervals specified in either Conditions 36.b.i or 36.b.ii and in Condition 36.b.iii.

36.b.i. For each group of existing process units within an existing source, by no later than 12 months after the compliance date, the permittee must monitor all connectors, except as provided in Conditions 36.e through 36.g.

36.b.ii. For new sources, within the first 12 months after initial start-up, the permittee must monitor all connectors, except as provided in Conditions 36.e through 36.g.

36.b.iii. After conducting the initial survey required in Conditions 36.b.i or 36.b.ii, the permittee must perform all subsequent monitoring of connectors at the frequencies specified in Conditions 36.b.iii.1 through 36.b.iii.5.

36.b.iii.1. 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.

36.b.iii.2. Once every 2 years, if the percent leaking connectors was less than 0.5 percent during the last required monitoring period. The permittee 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.

36.b.iii.3. If the permittee 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 permittee may monitor the connectors one time every 4 years. The permittee 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.

36.b.iii.4. If a process unit complying with the requirements of Condition 36.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 permittee must increase the monitoring frequency to one time every 2 years. The permittee 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 permittee may again elect to use the provisions of Condition 36.b.iii.3 when the percent leaking connectors decreases to less than 0.5 percent.

36.b.iii.5. If a process unit complying with requirements of Condition 36.b.iii.3 using a 4-year monitoring interval program has 1 percent or greater leaking connectors, the permittee must increase the monitoring frequency to one time per year. The permittee may again elect to use the provisions of Condition 36.b.iii.3 when the percent leaking connectors decreases to less than 0.5 percent.

36.b.iv. The use of monitoring data generated before April 22, 1994 to qualify for less frequent monitoring is governed by the provisions of Condition 37.a.vi.

36.c. Opened Connectors:

36.c.i. Monitoring:

36.c.i.1. Each connector that has been opened or has otherwise had the seal broken must be monitored for leaks when it is reconnected or within the first 3 months after being returned to organic hazardous air pollutants service. If the monitoring detects a leak, it must be repaired according to the provisions of Condition 36.d, unless it is determined to be nonrepairable, in which case it is counted as a nonrepairable connector for the purposes of Condition 36.h.ii.

36.d. When a leak is detected, it must be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Condition 36.f and in Condition 34.a first attempt at repair must be made no later than 5 calendar days after the leak is detected.

36.e. Any connector that is designated, as described in Condition 38.b.iv.1, as an unsafe-to-monitor connector is exempt from the requirements of Condition 36.a if:

36.e.i. The permittee determines that the connector is unsafe to monitor because personnel would be exposed to an immediate danger as a result of complying with Conditions 36.a through 36.d; and

36.e.ii. The permittee 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 schedule otherwise applicable.

36.f. Any connector that is designated, as described in Condition 38.b.iv.3, as an unsafe-to-repair connector is exempt from the requirements of Conditions 36.a and 36.d if:

36.f.i. The permittee determines that repair personnel would be exposed to an immediate danger as a consequence of complying with Condition 36.d; and

36.f.ii. The connector will be repaired before the end of the next scheduled process unit

shutdown.

36.g. Inaccessible and Ceramic/Ceramic-Lined Connectors:

36.g.i. Any connector that is inaccessible or is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of Condition 36.a and 36.c and from the recordkeeping and reporting requirements of Conditions 38 and 39. An inaccessible connector is one that is:

36.g.i.1. Buried;

36.g.i.2. Insulated in a manner that prevents access to the connector by a monitor probe;

36.g.i.3. Obstructed by equipment or piping that prevents access to the connector by a monitor probe;

36.g.i.4. 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;

36.g.i.5. 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

36.g.i.6. 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.

36.g.ii. If any inaccessible or ceramic or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the leak must be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Condition 34 and Condition 36.f.

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

36.h. For use in determining the monitoring frequency, as specified in Condition 36.b, the percent leaking connectors must be calculated as specified in Condition 36.h.i and 36.h.ii.

36.h.i. For the first monitoring period, use the following equation:

$\% C_L = C_L/(C_t + C_C) \times 100$

where:

$\% C_L$ = Percent leaking connectors as determined through periodic monitoring required in Conditions 36.a and 36.b.

C_L = Number of connectors measured at 500 parts per million or greater, by the method specified in Condition 37.a.

C_t = Total number of monitored connectors in the process unit.

C_C = Optional credit for removed connectors = 0.67 × net (i.e., total removed—total added) number of connectors in organic hazardous air pollutants service removed from the process unit after the compliance date set forth in the applicable subpart for existing process units, and after the date of initial start-up for new process units. If credits are not taken, then $C_C = 0$.

36.h.ii. For subsequent monitoring periods, use the following equation:

$\% C_L = [(C_L - C_{AN})/(C_t + C_C)] \times 100$

where:

% C_L = Percent leaking connectors as determined through periodic monitoring required in Conditions 36.a and 36.b.

C_L = Number of connectors, including nonrepairables, measured at 500 parts per million or greater, by the method specified in Condition 37.a.

C_{AN} = Number of allowable nonrepairable connectors, as determined by monitoring required in Conditions 36.b.iii and 36.c, not to exceed 2 percent of the total connector population, C_t.

C_t = Total number of monitored connectors, including nonrepairables, in the process unit.

C_C = Optional credit for removed connectors = 0.67 × net number (i.e., total removed—total added) of connectors in organic hazardous air pollutants service removed from the process unit after the compliance date set forth in the applicable subpart for existing process units, and after the date of initial start-up for new process units. If credits are not taken, then C_C = 0.

36.i. Optional credit for removed connectors. If the permittee eliminates a connector subject to monitoring under Condition 36.b, the permittee may receive credit for elimination of the connector, as described in Condition 36.h, provided the requirements in Conditions 36.i.i through 36.i.iii are met.

36.i.i. The connector was welded after May 16, 1994;

36.i.ii. The integrity of the weld is demonstrated by monitoring it according to the procedures in Condition 37.a or by testing using X-ray, acoustic monitoring, hydrotesting, or other applicable method.

36.i.iii. Welds created after March 8, 1995 are monitored or tested within 3 months after being welded.

36.i.iv. If an inadequate weld is found or the connector is not welded completely around the circumference, the connector is not considered a welded connector and is therefore not exempt from the requirements for EU: LDAR.

37. Testing Requirement: *Test methods and procedures* [LRAPA 32-009(4)]

37.a. Monitoring for equipment subject to LDAR must comply with the following requirements:

37.a.i. Monitoring must comply with EPA Method 21.

37.a.ii. Instrumentation:

37.a.ii.1. Except as provided for in Condition 37.a.ii.2, the detection instrument must meet the performance criteria of EPA Method 21, except the instrument response factor criteria in Section 3.1.2(a) of EPA Method 21 must be for the average composition of the process fluid not each individual VOC in the stream. For process streams that contain nitrogen, water, air, or other inerts which are not organic HAP's or VOC's, the average stream response factor may be calculated on an inert-free basis. The response factor may be determined at any concentration for which monitoring for leaks will be conducted.

37.a.ii.2. If no instrument is available at the plant site that will meet the performance criteria specified in Condition 37.a.ii.1, the instrument readings may be adjusted by multiplying by the average response factor of the process fluid, calculated on an inert-free basis as described in Condition 37.a.ii.1.

37.a.iii. The instrument must be calibrated before use on each day of its use by the procedures specified in EPA Method 21.

37.a.iv. Calibration gases must be:

37.a.iv.1. Zero air (less than 10 parts per million of hydrocarbon in air); and

37.a.iv.2. The instrument may be calibrated at a higher methane concentration than the concentration specified for that piece of equipment. The concentration of the calibration gas may exceed the concentration specified as a leak by no more than 2,000 parts per million. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale must be calibrated with a calibration gas that is no higher than 2,000 parts per million above the concentration specified as a leak and the highest scale must be calibrated with a calibration gas that is approximately equal to 10,000 parts per million. If only one scale on an instrument will be used during monitoring, the permittee need not calibrate the scales that will not be used during that day's monitoring.

37.a.v. Monitoring must be performed when the equipment is in organic HAP service, in use with an acceptable surrogate volatile organic compound which is not an organic HAP, or is in use with any other detectable gas or vapor.

37.a.vi. Monitoring data that do not meet the criteria specified in Conditions 37.a.i through 37.a.v may be used to qualify for less frequent monitoring under the provisions in Condition 36.b.iii.2 or 36.b.iii.3 provided the data meet the conditions specified in Conditions 37.a.vi.1 and 37.a.vi.2.

37.a.vi.1. The data were obtained before April 22, 1994.

37.a.vi.2. The departures from the criteria specified in Conditions 37.a.i through 37.a.v are minor and do not significantly affect the quality of the data. Examples of minor departures are monitoring at a slightly different frequency (such as every six weeks instead of monthly or quarterly), following the performance criteria of section 3.1.2(a) of EPA Method 21 instead of Condition 37.a.ii, or monitoring at a different leak definition if the data would indicate the presence or absence of a leak. Failure to use a calibrated instrument is not considered a minor departure.

37.b. When equipment subject to a leak definition of 500 ppm is monitored for leaks, the permittee may elect to adjust or not to adjust the instrument readings for background. If the permittee elects to not adjust instrument readings for background, the permittee must monitor the equipment according to the procedures specified in Conditions 37.a.i through 37.a.iv. In such case, all instrument readings must be compared directly to the applicable leak definition to determine whether there is a leak. If the permittee elects to adjust instrument readings for background, the permittee must monitor the equipment according to the procedures specified in Conditions 37.b.i through 37.b.iv.

37.b.i. The requirements of Conditions 37.a.i through 37.a.iv must apply.

37.b.ii. The background level must be determined, using the same procedures that will be used to determine whether the equipment is leaking.

37.b.iii. The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in EPA Method 21.

37.b.iv. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 parts per million for determining compliance.

37.c. Determination of equipment in HAP Service:

37.c.i. Each piece of equipment within a process unit that can reasonably be expected to contain equipment in organic HAP service is presumed to be in organic HAP service unless the permittee demonstrates that the piece of equipment is not in organic HAP service. For a piece of equipment to be considered not in organic HAP service, it must be determined that the percent organic HAP content can be reasonably expected not to exceed 5 percent

by weight on an annual average basis. For purposes of determining the percent organic HAP content of the process fluid that is contained in or contacts equipment, EPA Method 18 must be used.

37.c.ii. Alternative Methods:

37.c.ii.1. The permittee may use good engineering judgment rather than the procedures in Condition 37.c.i to determine that the percent organic HAP content does not exceed 5 percent by weight. When the permittee and LRAPA do not agree on whether a piece of equipment is not in organic HAP service, however, the procedures in Condition 37.c.i must be used to resolve the disagreement.

37.c.ii.2. Conversely, the permittee may determine that the organic HAP content of the process fluid does not exceed 5 percent by weight by, for example, accounting for 98 percent of the content and showing that organic HAP is less than 3 percent.

37.c.iii. If the permittee determines that a piece of equipment is in organic HAP service, the determination can be revised after following the procedures in Condition 37.c.ii, or by documenting that a change in the process or raw materials no longer causes the equipment to be in organic HAP service.

37.c.iv. Samples used in determining the percent organic HAP content must be representative of the process fluid that is contained in or contacts the equipment.

38. Recordkeeping requirements: [LRAPA 32-009(4), LRAPA 34-016]

38.a. The permittee may comply with the following recordkeeping requirements in one recordkeeping 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 this section must 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.

38.b. The following information pertaining to all equipment in each process unit subject to the requirements in Conditions 25 through 36 must be recorded:

38.b.i. Equipment Identification - General

38.b.i.1. A list of identification numbers for equipment (except connectors exempt from monitoring and recordkeeping identified in Condition 36 and instrumentation systems) subject to LDAR. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to LDAR are identified as a group, and the number of connectors subject is indicated. With respect to connectors, the list must be complete no later than the completion of the initial survey required by Conditions 36.b.i or 36.b.ii.

38.b.i.2. A schedule by process unit for monitoring connectors subject to the provisions of Condition 36.a.

38.b.i.3. Physical tagging of the equipment to indicate that it is in organic HAP service is not required. Equipment subject to the LDAR requirements may be identified on a plant site plan, in log entries, or by other appropriate methods.

38.b.ii. Identification of instrumentation systems subject to LDAR. Individual components in an instrumentation system need not be identified.

38.b.iii. The following information must be recorded for each dual mechanical seal system:

38.b.iii.1. Design criteria required in Conditions 31.d.vi.1 and 35.d.vi.1 and an explanation of the design criteria; and

38.b.iii.2. Any changes to these criteria and the reasons for the changes.

38.b.iv. The following information pertaining to all pumps subject to Condition 31.h, valves subject to Condition 33.e., and 33.g, agitators subject to the provisions of Condition 35.f through 35.h, and connectors subject to the provisions of Condition 36.e and 36.f must be recorded:

38.b.iv.1. Identification of equipment designated as unsafe to monitor, difficult to monitor, or unsafe to inspect and the plan for monitoring or inspecting this equipment.

38.b.iv.2. 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.

38.b.iv.3. A list of identification numbers for connectors that are designated as unsafe to repair and an explanation why the connector is unsafe to repair.

38.b.v. Addition and Removal of Valves and Connectors:

38.b.v.1. A list of valves removed from and added to the process unit, as described in Condition 33.b.i, if the net credits for removed valves is expected to be used.

38.b.v.2. A list of connectors removed from and added to the process unit, as described in Condition 36.i.i, and documentation of the integrity of the weld for any removed connectors, as required in Condition 36.i. This is not required unless the net credits for removed connectors is expected to be used.

38.b.vi. For any leaks detected as specified in Conditions 31, 33, and 36, a weatherproof and readily visible identification, marked with the equipment identification number, must be attached to the leaking equipment.

38.c. For visual inspections of equipment subject to LDAR (e.g., Conditions 31.a.ii, 31.d.iv.1), the permittee must document that the inspection was conducted and the date of the inspection. The permittee must maintain records as specified in Condition 38.d for leaking equipment identified in this inspection. These records must be retained for a period of at least 5 years.

38.d. When each leak is detected as specified in Conditions 31, 33, and 36, the following information must be recorded and kept for 2 years:

38.d.i. The instrument and the equipment identification number and the operator name, initials, or identification number.

38.d.ii. The date the leak was detected and the date of first attempt to repair the leak.

38.d.iii. The date of successful repair of the leak.

38.d.iv. Maximum instrument reading measured by EPA Method 21 after it is successfully repaired or determined to be nonrepairable.

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

38.d.v.1. The permittee 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 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.

38.d.v.2. 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.

38.d.vi. Dates of process unit shutdowns that occur while the equipment is unrepaired.

38.d.vii. Opened Connectors:

38.d.vii.1. 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 Condition 36.b, as described in Condition 36.c.i.

38.d.vii.2. The date and results of monitoring as required in Condition 36.c. If identification of connectors that have been opened or otherwise had the seal broken is made by location under Condition 38.d.vii.1, then all connectors within the designated location must be monitored.

38.d.viii. Copies of the periodic reports as specified in Condition 39.a, if records are not maintained on a computerized database capable of generating summary reports from the records.

38.e. The permittee must comply with the requirements for equipment in heavy liquid service listed in either Condition 38.e.i or 38.e.ii, as provided in 38.e.iii.

38.e.i. Retain information, data, and analyses used to determine that a piece of equipment is in heavy liquid service.

38.e.ii. When requested by LRAPA, demonstrate that the piece of equipment or process is in heavy liquid service.

38.e.iii. A determination or demonstration that a piece of equipment or process is in heavy liquid service must include an analysis or demonstration that the process fluids do not meet the definition of "in light liquid service." Examples of information that could document this include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge.

38.f. Identification, either by list, location (area or group) of equipment in organic HAP service less than 300 hours per year within a process unit used in the manufacture of wet strength resin (OX-1).

39. Reporting Requirements: [LRAPA 32-009(4)]

39.a. The permittee must submit Periodic Reports semiannually as detailed in Condition 98 that contain the following information.

39.a.i. For each process unit complying with the provisions of Conditions 31 through 36, the summary information listed in Conditions 39.a.i.1 through 39.a.i.11.

39.a.i.1. The number of valves for which leaks were detected as described in Condition 33.a, the percent leakers, and the total number of valves monitored;

39.a.i.2. The number of valves for which leaks were not repaired as required in Condition 33.c, identifying the number of those that are determined nonrepairable;

39.a.i.3. The number of pumps for which leaks were detected as described in Condition 31.a, the percent leakers, and the total number of pumps monitored;

39.a.i.4. The number of pumps for which leaks were not repaired as required in Condition 31.b;

39.a.i.5. The number of agitators for which leaks were detected as described in Conditions 35.a and 35.b;

39.a.i.6. The number of agitators for which leaks were not repaired as required in Condition 35.c;

39.a.i.7. The number of connectors for which leaks were detected as described in Condition 36.a, the percent of connectors leaking, and the total number of connectors monitored;

39.a.i.8. The number of connectors for which leaks were not repaired as required in Condition 36.d, identifying the number of those that are determined nonrepairable;

39.a.i.9. The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible;

39.a.i.10. If applicable, the initiation of a monthly monitoring program under Condition 36.c.i; and

39.a.i.11. If applicable, notification of a change in connector monitoring alternatives as described in Condition 36.c.i.

Emissions Unit OX-2 (Manufacture of Amino/Phenolic Resins: Reactors K2 and K3 and Associated Process Equipment) and CT-1 (Cooling Tower) Specific Emission Limits and Standards

Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard	Monitoring Requirements	
				Method	Condition Number
LRAPA 32-009(4) – Facility-Elected Requirements for Manufacture of Amino/Phenolic Resins	40	HAP	Applicability and general standards	Recordkeeping	48, 49
	41	HAP	Combined emission streams standards	Monitoring, Recordkeeping, and Reporting	47, 48, 49
	42	HAP	Aggregate batch vent stream provisions	Monitoring, Recordkeeping, and Reporting	47, 48, 49
	43	HAP	Heat exchange system provisions	Monitoring, Testing, Recordkeeping, and Reporting	43.b, 43.c, 47, 48, 49
	44	HAP	Pressure relief device standards	Monitoring, Testing, Recordkeeping, and Reporting	44.a, 44.b, 44.c, 70, 71, 72
	45	HAP	Compliance demonstration procedures	Recordkeeping and Reporting	48, 49
	46	HAP	Test Methods	Recordkeeping and Reporting	48, 49
LRAPA 32-009(4) – Facility-Elected Requirements for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process	51 - 56	HAP	Closed vent system equipment and operating requirements	Monitoring, Recordkeeping, and Reporting	52, 53, 55, 56
LRAPA 32-009(4) – Facility-Elected Requirements for Equipment Leaks	57 - 71	HAP	Equipment Leaks – Control Level 2 Standards	Monitoring, Testing, Recordkeeping, and Reporting	59, 70, 71

Requirements for Manufacture of Amino/Phenolic Resins

40. Applicable Requirement: The permittee must comply with the provisions of Conditions 42 through 57, as appropriate. When emissions are vented to a control device or control technology, emissions must be vented through a closed vent system meeting the requirements detailed in Conditions 51 through 56. [LRAPA 32-009(4)]

41. Applicable Requirements: *Combined emission streams* – When emissions of different kinds (e.g., emissions from continuous process vents, storage vessels, etc.) are combined, and at least one of the emission streams would be required to apply controls in the absence of combination with other emission streams, the permittee must comply with the requirements of Condition 41.a. [LRAPA 32-009(4)]

    41.a. For any combined vent stream that includes one or more aggregate batch vent streams, comply with the provisions for aggregate batch vent streams according to Condition 42.

42. Applicable Requirement: *Aggregate batch vent stream provisions for Reactors K-2 and K-3* [LRAPA 32-009(4)]

    42.a. *Emission standards* – The permittee of aggregate batch vent streams must comply with Condition 42.a.i, as appropriate, except as allowed by Condition 42.b.

        42.a.i. The permittee of an aggregate batch vent stream located at an existing affected source

must:

42.a.i.1. Vent all emissions of organic HAP to a flare; or

42.a.i.2. Reduce organic HAP emissions by 83 weight percent or to a concentration of 20 ppmv when using a combustion control device or to a concentration of 50 ppmv when using a non-combustion control device, whichever is less stringent, on a continuous basis.

42.b. *Allowable Control Device Bypass Hours:*

42.b.i. The permittee shall not allow exhaust gases from the resin reactors K-2 and K-3 in Emission Unit OX-2 to bypass the Regenerative Thermal Oxidizer for more than 672 hours in any consecutive 12-month period. [LRAPA 42-0080(4)(d)]

43. Applicable Requirement: *Heat exchange system provisions for CT-1* [LRAPA 32-009(4)]

43.a. Unless one or more of the conditions specified in Conditions 43.a.i through 43.a.vi are met, the permittee must monitor the cooling tower in Emission Unit CT-1 according to the provisions in either Condition 43.b or 43.c. Whenever a leak is detected, the permittee must comply with the requirements in Condition 43.d.

43.a.i. The heat exchange system is operated with the minimum pressure on the cooling water side at least 35 kilopascals greater than the maximum pressure on the process side.

43.a.ii. There is an intervening cooling fluid, containing less than 5 percent by weight of total HAP, between the process and the cooling water. This intervening fluid serves to isolate the cooling water from the process fluid, and the intervening fluid is not sent through a cooling tower or discharged. For purposes of Condition 43, discharge does not include emptying for maintenance purposes.

43.a.iii. The once-through heat exchange system is subject to a National Pollution Discharge Elimination System (NPDES) permit with an allowable discharge limit of 1 part per million or less above influent concentration or 10 percent or less above influent concentration, whichever is greater.

43.a.iv. The once-through heat exchange system is subject to an NPDES permit that:

43.a.iv.1. Requires monitoring of a parameter(s) or condition(s) to detect a leak of process fluids into cooling water;

43.a.iv.2. Specifies or includes the normal range of the parameter or condition;

43.a.iv.3. Requires monitoring for the parameters selected as leak indicators no less frequently than monthly for the first 6 months and quarterly thereafter; and

43.a.iv.4. Requires the permittee to report and correct leaks to the cooling water when the parameter or condition exceeds the normal range.

43.a.v. The recirculating heat exchange system is used to cool process fluids that contain less than 5 percent by weight of total HAP listed in column A of Table 3 in Condition 50.

43.a.vi. The once-through heat exchange system is used to cool process fluids that contain less than 5 percent by weight of total HAP listed in column B of Table 3 in Condition 50.

43.b. The permittee who elects to comply with the requirements of Condition 43.a by monitoring the cooling water for the presence of one or more organic HAP or other representative substances whose presence in cooling water indicate a leak must comply with the requirements specified in Conditions 43.b.i through 43.b.vi. The cooling water must be monitored for total HAP, total volatile organic compounds, total organic carbon, one or more speciated HAP compounds, or other representative substances that would indicate the presence of a leak in the heat exchange system.

43.b.i. The cooling water must be monitored monthly for the first 6 months and quarterly thereafter to detect leaks.

43.b.ii. Monitoring of HAPs:

43.b.ii.1. For recirculating heat exchange systems (cooling tower systems), the monitoring of speciated HAP or total HAP refers to the HAP listed in column A of Table in Condition 50.

43.b.ii.2. For once-through heat exchange systems, the monitoring of speciated HAP or total HAP refers to the HAP listed in column B of Table 3 in Condition 50.

43.b.iii. The concentration of the monitored substance(s) in the cooling water must be determined using any EPA-approved method listed in 40 CFR 136, as long as the method is sensitive to concentrations as low as 10 parts per million and the same method is used for both entrance and exit samples. Alternative methods may be used upon approval by LRAPA.

43.b.iv. The samples must be collected either at the entrance and exit of each heat exchange system or at locations where the cooling water enters and exits each heat exchanger or any combination of heat exchangers.

43.b.iv.1. For samples taken at the entrance and exit of recirculating heat exchange systems, the entrance is the point at which the cooling water leaves the cooling tower prior to being returned to the process equipment, and the exit is the point at which the cooling water is introduced to the cooling tower after being used to cool the process fluid.

43.b.iv.2. For samples taken at the entrance and exit of once-through heat exchange systems, the entrance is the point at which the cooling water enters, and the exit is the point at which the cooling water exits the plant site or chemical manufacturing process units.

43.b.iv.3. For samples taken at the entrance and exit of each heat exchanger or any combination of heat exchangers, the entrance is the point at which the cooling water enters the individual heat exchanger or group of heat exchangers, and the exit is the point at which the cooling water exits the heat exchanger or group of heat exchangers.

43.b.v. A minimum of three sets of samples must be taken at each entrance and exit as defined in Condition 43.b.iv. The average entrance and exit concentrations must then be calculated. The concentration must be corrected for the addition of any makeup water or for any evaporative losses, as applicable.

43.b.vi. A leak is detected if the exit mean concentration is found to be greater than the entrance mean concentration using a one-sided statistical procedure at the 0.05 level of significance, and the amount by which it is greater is at least 1 part per million or 10 percent of the entrance mean, whichever is greater.

43.c. The permittee who elects to comply with the requirement of Condition 43.a by monitoring using a surrogate indicator of heat exchange system leaks must comply with the requirements specified in Conditions 43.c.i through 43.c.iii. Surrogate indicators that could be used to develop an acceptable monitoring program are ion specific electrode monitoring, pH, conductivity or other representative indicators.

43.c.i. The permittee must prepare and implement a monitoring plan that documents the procedures that will be used to detect leaks of process fluids into cooling water. The plan must require monitoring of one or more surrogate indicators or monitoring of one or more process parameters or other conditions that indicate a leak. Monitoring that is already being conducted for other purposes may be used to satisfy the requirements of this section. The plan must include the information specified in Conditions 43.c.i.1 and 43.c.i.2.

43.c.i.1. A description of the parameter or condition to be monitored and an explanation of how the selected parameter or condition will reliably indicate the presence of a leak.

43.c.i.2. The parameter level(s) or conditions(s) that constitute a leak. This must be documented by data or calculations showing that the selected levels or conditions will reliably identify leaks. The monitoring must be sufficiently sensitive to determine the range of parameter levels or conditions when the system is not leaking. When the selected parameter level or condition is outside that range, a leak is indicated.

43.c.i.3. The monitoring frequency which must be no less frequent than monthly for the first 6 months and quarterly thereafter to detect leaks.

43.c.i.4. The records that will be maintained to document compliance with the requirements of this section.

43.c.ii. If a substantial leak is identified by methods other than those described in the monitoring plan and the method(s) specified in the plan could not detect the leak, the permittee must revise the plan and document the basis for the changes. The permittee must complete the revisions to the plan no later than 180 days after discovery of the leak.

43.c.iii. The permittee must maintain, at all times, the monitoring plan that is currently in use. The current plan must be maintained on-site, or must be accessible from a central location by computer or other means that provides access within 2 hours after a request. If the monitoring plan is superseded, the permittee must retain the most recent superseded plan at least until 5 years from the date of its creation. The superseded plan must be retained on-site (or accessible from a central location by computer or other means that provides access within 2 hours after a request) for at least 6 months after its creation.

43.d. If a leak is detected according to the criteria of Condition 43.b or 43.c, the permittee must comply with the requirements in Conditions 43.d.i and 43.d.ii, except as provided in Condition 43.e.

43.d.i. The leak must be repaired as soon as practical but not later than 45 calendar days after the permittee receives results of monitoring tests indicating a leak. The leak must be repaired unless the permittee demonstrates that the results are due to a condition other than a leak.

43.d.ii. Once the leak has been repaired, the permittee must confirm that the heat exchange system has been repaired within 7 calendar days of the repair or startup, whichever is later.

43.e. Delay of repair of heat exchange systems for which leaks have been detected is allowed if the equipment is isolated from the process. Delay of repair is also allowed if repair is technically infeasible without a shutdown and any one of the conditions in Conditions 43.e.i or 43.e.ii. All time periods in Conditions 43.e.i and 43.e.ii must be determined from the date when the permittee determines that delay of repair is necessary.

43.e.i. If a shutdown is expected within the next 2 months, a special shutdown before that planned shutdown is not required.

43.e.ii. If a shutdown is not expected within the next 2 months, the permittee may delay repair as provided in Condition 43.e.ii.1 or 43.e.ii.2. Documentation of a decision to delay repair must state the reasons repair was delayed and must specify a schedule for completing the repair as soon as practical.

43.e.ii.1. If a shutdown for repair would cause greater emissions than the potential emissions from delaying repair, the permittee may delay repair until the next shutdown of the process equipment associated with the leaking heat exchanger. The permittee must document the basis for the determination that a shutdown for repair would cause greater emissions than the emissions likely to result from delaying repair as specified in Conditions 43.e.ii.1.A and 43.e.ii.1.B.

43.e.ii.1.A. The permittee must calculate the potential emissions from the leaking heat exchanger by multiplying the concentration of total HAP listed in column A of Table 3 in Condition 50 in the cooling water from the leaking heat exchanger by the flowrate of the cooling water from the leaking heat exchanger by the expected duration of the delay. The permittee may calculate potential emissions using total organic carbon concentration instead of total HAP listed in column A of Table 3 in Condition 50.

43.e.ii.1.B. The permittee must determine emissions from purging and depressurizing the equipment that will result from the unscheduled shutdown for the repair.

43.e.ii.2. If repair is delayed for reasons other than those specified in Condition 43.e.ii.1, the permittee may delay repair up to a maximum of 120 calendar days. The permittee must demonstrate that the necessary parts or personnel were not available.

44. Applicable Requirements: *Requirements for pressure relief devices* – Except as specified in Condition 44.d, the permittee must comply with the requirements specified in Conditions 44.a and 44.b for pressure relief devices in organic HAP gas or vapor service. Except as specified in Condition 44.d, the permittee must also comply with the requirements specified in Condition 44.c for all pressure relief devices in organic HAP service. [LRAPA 32-009(4)]

44.a. *Operating requirements* – Except during a pressure release event, operate each pressure relief device in organic HAP gas or vapor service with an instrument reading of less than 500 ppm above background as described in EPA Method 21.

44.b. *Pressure release requirements* – For pressure relief devices in organic HAP gas or vapor service, the permittee must comply with either Condition 44.b.i or 44.b.ii following a pressure release, as applicable.

44.b.i. If the pressure relief device does not consist of or include a rupture disk, conduct instrument monitoring, as described in EPA Method 21 no later than 5 calendar days after the pressure relief device returns to organic HAP service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm above background, except as provided in Condition 60.c.

44.b.ii. If the pressure relief device consists of or includes a rupture disk, install a replacement disk as soon as practicable after a pressure release, but no later than 5 calendar days after the pressure release, except as provided in Condition 60.c.

44.c. *Pressure release management* – Except as specified in Condition 44.d, emissions of organic HAP to the atmosphere from pressure relief devices in organic HAP service are prohibited, and the permittee must comply with the requirements specified in Conditions 44.c.i and 44.c.ii for all pressure relief devices in organic HAP service.

44.c.i. The permittee must equip each pressure relief device in organic HAP service with a device(s) or parameter monitoring system that is capable of:

44.c.i.1. Identifying the pressure release;

44.c.i.2. Recording the time and duration of each pressure release; and

44.c.i.3. Notifying operators immediately that a pressure release is occurring. The device or monitoring system may be either specific to the pressure relief device itself or may be associated with the process system or piping sufficient to indicate a pressure release to the atmosphere. Examples of these types of devices and systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, or pressure

monitor.

44.c.ii. If any pressure relief device in organic HAP service releases to atmosphere as a result of a pressure release event, the permittee must calculate the quantity of organic HAP released during each pressure release event and report this quantity as required in Condition 49.a.x.3. Calculations may be based on data from the pressure relief device monitoring alone or in combination with process parameter monitoring data and process knowledge.

44.d. *Pressure relief devices routed to a control device, process, fuel gas system, or drain system* – If a pressure relief device in organic HAP service is designed and operated to route all HAP emissions from pressure releases through a closed vent system to a control device or to a process, fuel gas system, or drain system, the permittee is not required to comply with Conditions 44.a, 44.b, or 44.c (if applicable) of Condition 44 for that pressure relief device. The fuel gas system or closed vent system and control device (if applicable) must meet the requirements of Condition 69, as applicable (except that the term "pressure relief devices" must apply instead of the term "equipment leaks" in Condition 69).

45. Applicable Requirements: *Compliance demonstration procedures* [LRAPA 32-009(4)]

45.a. *Continuous compliance for aggregate batch vent streams*

45.a.i. Continuous compliance with the percent reduction standard specified in Condition 42.a.i.2 must be demonstrated following the procedures for continuous process vents specified in Conditions 51 through 56.

46. Testing Requirements: *Test Methods* [LRAPA 32-009(4)]

46.a. When required to conduct a performance test, the permittee must use the test methods specified in Conditions 46.a.i through 46.a.v.

46.a.i. EPA Method 1 or 1A must be used for selection of the sampling sites if the flow measuring device is a pitot tube, except that references to particulate matter in EPA Method 1A do not apply for the purposes of testing for the RTO in OX-2. No traverse is necessary when EPA Method 2A or 2D is used to determine gas stream volumetric flow rate.

46.a.ii. EPA Method 2, 2A, 2C, or 2D is used for velocity and volumetric flow rates.

46.a.iii. EPA Method 3 is used for gas analysis.

46.a.iv. EPA Method 4 is used for stack gas moisture.

46.a.v. The following methods must be used to determine the organic HAP concentration.

46.a.v.1. EPA Method 316 or Method 320 must be used to determine the concentration of formaldehyde.

46.a.v.2. EPA Method 18 must be used to determine the concentration of all organic HAP other than formaldehyde.

46.a.v.3. EPA Method 308 may be used as an alternative to Method 18 to determine the concentration of methanol.

47. Monitoring Requirements: [LRAPA 32-009(4)]

47.a. *General requirements* – The permittee must install the monitoring equipment specified in Condition 47.b in order to demonstrate continued compliance with the requirements for OX-2. All monitoring equipment must be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

47.a.i. This monitoring equipment must be in operation at all times when organic HAP emissions that are required to be controlled as part of complying with the emission limits

specified in Condition 42 are vented to the control device.

47.b. *Monitoring equipment* – The monitoring equipment specified in Condition 47.b.i must be installed as specified in Condition 47.a. The parameters to be monitored are detailed in Conditions 47.b.i.

47.b.i. Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

47.b.i.1. Where an incinerator other than a catalytic incinerator is used, the temperature monitoring device must be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

47.c. *Monitoring of bypass lines* – The permittee using a vent system that contains bypass lines that could divert emissions away from a control device or control technology must comply with either Condition 47.c.i or 47.c.ii. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to Condition 47.c.

47.c.i. Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. The flow indicator must be installed at the entrance to any bypass line that could divert emissions away from the control device or control technology and to the atmosphere; or

47.c.ii. Secure the bypass line damper or valve in the non-diverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the damper or valve is maintained in the non-diverting position and emissions are not diverted through the bypass line.

48. Recordkeeping Requirements: [LRAPA 32-009(4), 34-016(1)]

48.a. *Malfunction records* – Records must be kept as specified in Conditions 48.a.i through 48.a.iii.

48.a.i. In the event that an affected unit fails to meet an applicable standard, record the number of failures. For each failure record the date, time, and duration of each failure.

48.a.ii. For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

48.a.iii. Record actions taken to minimize emissions, and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

48.b. *Monitoring records* – The permittee required to comply with Condition 47 and, therefore, required to keep continuous records must keep records as specified in Conditions 48.b.i and 48.b.ii.

48.b.i. If all recorded values for a monitored parameter during an operating day or block are above the minimum level or below the maximum level established in this permit, the permittee may record that all values were above the minimum level or below the maximum level rather than calculating and recording a daily average, or block average, for that operating day.

48.b.ii. Monitoring data recorded during periods identified in Conditions 48.b.ii.1 and 48.b.ii.2 must not be included in any average. Records must be kept of the times and durations of all such periods and any other periods during process or control device or recovery device or control technology operation when monitors are not operating:

48.b.ii.1. Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments; and

48.b.ii.2. Periods of non-operation of the affected source (or portion thereof) resulting in cessation of the emissions to which the monitoring applies.

48.c. *Aggregate batch vent stream records*

48.c.i. *Compliance demonstration records* – The permittee of an aggregate batch vent stream complying with Condition 42.a.i must keep the following records, as applicable, readily accessible:

48.c.i.1. If an aggregate batch vent stream is in compliance with the percent reduction requirements of Condition 42.a.i.2, the permittee must comply with the recordkeeping requirements for continuous process vents specified in Condition 55.

48.c.ii. *Controlled aggregate batch vent streams continuous compliance records* – The following continuous compliance records must be kept, as applicable:

48.c.ii.1. The permittee of an aggregate batch vent stream that uses a control device to comply with the percent reduction requirement of Condition 42.a.i.2 must keep the following records, as applicable, readily accessible:

48.c.ii.1.A. Continuous records of the equipment operating parameters specified to be monitored under Condition 47.b or as specified by the LRAPA in accordance with Condition 49.b. Records must be kept as specified under Condition 48.b.

48.c.ii.1.B. Records of the daily average value of each continuously monitored parameter, as specified in Condition 48.b.

48.c.ii.2. The permittee of an aggregate batch vent stream that uses a control device to comply with Condition 42.a.i must keep the following records, as applicable:

48.c.ii.2.A. Hourly records of whether the flow indicator for bypass lines specified in Condition 47.c was operating and whether a diversion was detected at any time during the hour. Also, records of the times and durations of periods when the vent is diverted from the control device or the flow indicator specified in Condition 47.c is not operating.

48.c.ii.2.B. Records of the dates, times, and durations of all periods when the exhaust gas stream from Reactors K-2 and K-3 in Emission Unit OX-2 bypasses the RTO control device and is diverted to the atmosphere. These records must be retained for a period of at least five (5) years from the date of generation.

48.c.ii.2.C. Where a seal or closure mechanism is used to comply with Condition 47.c, hourly records of whether a diversion was detected at any time are not required. The permittee must record whether the monthly visual inspection of the seals or closure mechanisms has been done, and must record the occurrence of all periods when the seal mechanism is broken, the bypass line damper or valve position has changed, or the key for a lock-and-key type configuration has been checked out, and records of any car-seal that has broken.

48.c.ii.2.D. Records specifying the times and duration of periods of monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments. In addition, records specifying any other periods of process or control device operation when monitors are not operating.

48.d. *Other records or documentation*

48.d.i. For continuous monitoring systems, the permittee must keep records documenting the completion of calibration checks and records documenting the maintenance of continuous

monitoring systems that are specified in the manufacturer's instructions or that are specified in other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

48.d.ii. The permittee of a heat exchange system located at an affected source must retain the following records:

48.d.ii.1. Monitoring data required by Condition 43 indicating a leak and the date when the leak was detected, and if demonstrated not to be a leak, the basis for that determination.

48.d.ii.2. Records of any leaks detected by procedures subject to Condition 43.c.ii and the date the leak was detected.

48.d.ii.3. The dates of efforts to repair leaks.

48.d.ii.4. The method or procedure used to confirm repair of a leak and the date repair was confirmed.

48.d.iii. For pressure relief devices in organic HAP service, keep records of the information specified in Conditions 48.d.iii.1 through 48.d.iii.5, as applicable.

48.d.iii.1. A list of identification numbers for pressure relief devices that vent to a fuel gas system, process, drain system, or closed-vent system and control device, under the provisions in Condition 44.d.

48.d.iii.2. A list of identification numbers for pressure relief devices subject to the provisions in Condition 44.a.

48.d.iii.3. A list of identification numbers for pressure relief devices equipped with rupture disks, under the provisions in Condition 44.b.ii.

48.d.iii.4. The dates and results of the monitoring following a pressure release for each pressure relief device subject to the provisions in Condition 44.a and 44.b. The results must include:

48.d.iii.4.A. The background level measured during each compliance test.

48.d.iii.4.B. The maximum instrument reading measured at each piece of equipment during each compliance test.

48.d.iii.5. For pressure relief devices in organic HAP service subject to Condition 44.c, keep records of each pressure release to the atmosphere, including the following information:

48.d.iii.5.A. The source, nature, and cause of the pressure release.

48.d.iii.5.B. The date, time, and duration of the pressure release.

48.d.iii.5.C. An estimate of the quantity of total HAP emitted during the pressure release and the calculations used for determining this quantity.

48.d.iii.5.D. The actions taken to prevent this pressure release.

48.d.iii.5.E. The measures adopted to prevent future such pressure releases.

49. Reporting Requirements: [LRAPA 32-009(4), 34-016(1)]

49.a. *Periodic Reports* – Except as specified in Condition 49.a.ix, a report containing the information in Condition 49.a.ii or containing the information in Conditions 49.a.iii through 49.a.viii and 49.a.x, as appropriate, must be submitted semiannually as detailed in Condition 98. For heat exchange systems subject to Condition 43, the permittee must submit the information specified in Condition 43. Condition 47 will govern the use of monitoring data to determine compliance for emissions points required to apply controls.

49.a.i. Except as specified in Condition 49.a.ii, a report containing the information in Condition 49.a.ii or containing the information in Conditions 49.a.iii through 49.a.viii and 49.a.x, as appropriate, must be submitted semiannually as detailed in Condition 98. Reports must cover each preceding 6-month period.

49.a.ii. If none of the compliance exceptions specified in Conditions 49.a.iii through 49.a.viii and 49.a.x occurred during the 6-month period, the Periodic Report required by Condition 49.a.i must be a statement that the affected source was in compliance for the preceding 6-month period and no activities specified in Conditions 49.a.iii through 49.a.viii and occurred during the preceding 6-month period.

49.a.iii. For the permittee of an affected source complying with the provisions of Conditions 42 and 43 for any emission point, Periodic Reports must include:

49.a.iii.1. The daily average values, batch cycle daily average values, or block average values of monitored parameters for deviations, as specified in Condition 45, of operating parameters. In addition, the periods and duration of periods when monitoring data were not collected must be specified.

49.a.iv. Notification if one or more emission point(s) or one or more APPU is added to an affected source. The permittee must submit the following information:

49.a.iv.1. A description of the addition to the affected source;

49.a.iv.2. Notification of applicability status (i.e., does the emission point require control) of the additional emission point, if appropriate, or notification of all emission points in the added APPU.

49.a.v. If any performance tests are reported in a Periodic Report, the following information must be included:

49.a.v.1. One complete test report must be submitted for each test method used for a particular kind of emission point tested.

49.a.v.2. For additional tests performed for the same kind of emission point using the same method, results and any other information required must be submitted, but a complete test report is not required.

49.a.vi. The Periodic Report must include the results for each change made to a primary product determination for amino/phenolic resins.

49.a.vii. If the permittee invokes the delay of repair provisions for a heat exchange system, the following information must be submitted, as appropriate. If the leak remains unrepaired, the information must also be submitted in each subsequent periodic report until repair of the leak is reported.

49.a.vii.1. The presence of the leak and the date that the leak was detected.

49.a.vii.2. Whether or not the leak has been repaired. If the leak is repaired, the date the leak was successfully repaired. If the leak remains unrepaired, the expected date of repair.

49.a.vii.3. The reason(s) for delay of repair. If delay of repair is invoked due to the reasons described in Condition 43.e.ii, documentation of emissions estimates must be included.

49.a.viii. Notification that the permittee has elected to not retain the daily average, batch cycle daily average, or block average values, as appropriate.

49.a.ix. The permittee of an affected source must submit quarterly reports for particular emission points as specified in Conditions 49.a.ix.1 through 49.a.ix.4.

49.a.ix.1. The permittee of an affected source must submit quarterly reports for a period

of 1 year for an emission point if LRAPA requests the permittee to submit quarterly reports for the emission point.

49.a.ix.2. The quarterly reports must include all information specified in Conditions 49.a.iii through 49.a.viii and 49.a.x applicable to the emission point for which quarterly reporting is required under Condition 49.a.ix.1. Information applicable to other emission points within the affected source must be submitted in the semiannual reports required under Condition 49.a.i.

49.a.ix.3. Quarterly reports must be submitted no later than 60 days after the end of each quarter.

49.a.ix.4. After quarterly reports have been submitted for an emission point for 1 year, the permittee may return to semiannual reporting for the emission point unless LRAPA requests the permittee to continue to submit quarterly reports.

49.a.x. For pressure relief devices, Periodic Reports must include the information specified in Conditions 49.a.x.1 through 49.a.x.3.

49.a.x.1. For pressure relief devices in organic HAP service subject to Condition 44, report confirmation that all monitoring to show compliance was conducted within the reporting period.

49.a.x.2. For pressure relief devices in organic HAP gas or vapor service subject to Condition 44.b, report any instrument reading of 500 ppm above background or greater, more than 5 days after the relief device returns to organic HAP gas or vapor service after a pressure release.

49.a.x.3. For pressure relief devices in organic HAP service subject to Condition 44.c, report each pressure release to the atmosphere, including the following information:

49.a.x.3.A. The source, nature, and cause of the pressure release.

49.a.x.3.B. The date, time, and duration of the pressure release.

49.a.x.3.C. An estimate of the quantity of total HAP emitted during the pressure release and the method used for determining this quantity.

49.a.x.3.D. The actions taken to prevent this pressure release.

49.a.x.3.E. The measures adopted to prevent future such pressure releases.

49.b. *Alternative monitoring parameters* – The permittee who has been directed to set unique monitoring parameters or who requests approval to monitor a different parameter than those specified in Condition 47.b.i, must submit the information specified in Conditions 49.b.i through 49.b.iii.

49.b.i. The required information must include a description of the parameter(s) to be monitored to ensure the recovery device, control device, or control technology is operated in conformance with its design and achieves the specified emission limit or percent reduction and an explanation of the criteria used to select the parameter(s).

49.b.ii. The required information must include a description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation, the schedule for this demonstration, and a statement that the permittee will establish a level for the monitored parameter, unless this information has already been included in the operating permit application.

49.b.iii. The required information must include a description of the proposed monitoring, recordkeeping, and reporting system to include the frequency and content of monitoring, recordkeeping, and reporting. Further, the rationale for the proposed monitoring,

recordkeeping, and reporting system must be included if either condition in Condition 49.b.iii.1 or 49.b.iii.2 is met:

49.b.iii.1. If monitoring and recordkeeping is not continuous;

49.b.iii.2. If reports of daily average values will not be included in Periodic Reports when the monitored parameter value is above the maximum level or below the minimum level as established in the operating permit.

50. Table 3 – Known Organic Hazardous Air pollutants (HAP) From the manufacture of Amino/Phenolic Resins [LRAPA 32-009(4) and 34-016]

Organic HAP	CAS Number	Organic HAP subject to cooling tower monitoring requirements	
		Column A	Column B
Acrylamide	79-06-1	No	No
Aniline	62-53-3	Yes	No
Biphenyl	92-52-4	Yes	Yes
Cresol and cresylic acid (mixed)	1319-77-3	Yes	No
Cresol and cresylic acid (m-)	108-39-4	Yes	No
Cresol and cresylic acid (o-)	95-48-7	Yes	No
Cresol and cresylic acid (p-)	106-44-5	Yes	No
Diethanolamine	111-42-2	No	No
Dimethylformamide	68-12-2	No	No
Ethylbenzene	100-41-4	Yes	Yes
Ethylene glycol	107-21-1	No	No
Formaldehyde	50-00-0	Yes	No
Glycol ethers	NA	No	No
Methanol	67-56-1	Yes	Yes
Methyl ethyl ketone	78-93-3	Yes	Yes
Methyl isobutyl ketone	108-10-1	Yes	Yes
Naphthalene	91-20-3	Yes	Yes
Phenol	108-95-2	Yes	No
Styrene	100-42-5	Yes	Yes
Toluene	108-88-3	No	Yes
Xylenes (NOS)	1330-20-7	Yes	Yes
Xylene (m-)	108-38-3	Yes	Yes
Xylene (o-)	95-47-6	Yes	Yes
Xylene (p-)	106-42-3	Yes	Yes

Requirements for Closed Vent Systems, Control Devices (RTO), Recovery Devices and Routing to a Fuel Gas System or a Process

51. Applicable Requirements: *Closed vent system equipment and operating requirements* – Except for closed vent systems operated and maintained under negative pressure, the provisions of Condition 51 apply to closed vent systems collecting regulated material from a regulated source. [LRAPA 32-009(4)]

51.a. *Collection of emissions* – Each closed vent system must be designed and operated to collect the regulated material vapors from the emission point, and to route the collected vapors to a control device.

51.b. *Period of operation* – Closed vent systems must be operated at all times when emissions are vented to, or collected by, them.

51.c. *Bypass monitoring* – Except for equipment needed for safety purposes such as pressure relief devices, low leg drains, high point bleeds, analyzer vents, and open-ended valves or lines, the permittee must comply with the provisions of either Condition 51.c.i or 51.c.ii for each closed vent system that contains bypass lines that could divert a vent stream to the atmosphere.

51.c.i. Properly install, maintain, and operate a flow indicator that is capable of taking periodic

readings. Records must be generated as specified in Condition 55.a.ii.1. The flow indicator must be installed at the entrance to any bypass line.

51.c.ii. Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. Records must be generated as specified in Condition 55.a.ii.3.

52. Monitoring Requirements: *Closed vent system inspection and monitoring requirements* –Inspection records must be generated as specified in Condition 55.a.iii and 55.a.iv.

52.a. Except for any closed vent systems that are designated as unsafe or difficult to inspect as provided in Conditions 52.b and 52.c, each closed vent system must be inspected as specified in Condition 52.a.i or 52.a.ii.

52.a.i. If the closed vent system is constructed of hard-piping, the permittee must comply with the requirements specified Conditions 52.a.i.1 and 52.a.i.2.

52.a.i.1. Conduct an initial inspection according to the procedures in Condition 52.c; and

52.a.i.2. Conduct annual inspections for visible, audible, or olfactory indications of leaks.

52.a.ii. If the closed vent system is constructed of ductwork, the permittee must conduct an initial and annual inspection according to the procedures in Condition 52.c.

52.b. Any parts of the closed vent system that are designated, as described in Condition 55.a.i, as unsafe to inspect are exempt from the inspection requirements of Condition 52.a if the conditions of Conditions 52.b.i and 52.b.ii are met.

52.b.i. The permittee 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 Condition 52.a; and

52.b.ii. The permittee has a written plan that requires inspection of the equipment as frequently as practical during safe-to-inspect times. Inspection is not required more than once annually.

52.c. Any parts of the closed vent system that are designated, as described in Condition 55.a.i, as difficult-to-inspect are exempt from the inspection requirements of Condition 52.a of this section if the provisions of Conditions 52.c.i and 52.c.ii apply.

52.c.i. The permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters (7 feet) above a support surface; and

52.c.ii. The permittee has a written plan that requires inspection of the equipment at least once every 5 years.

52.d. For each bypass line, the permittee must comply with Condition 52.d.i or 52.d.ii.

52.d.i. If a flow indicator is used, take a reading at least once every 15 minutes.

52.d.ii. If the bypass line valve is secured in the non-diverting position, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position, and the vent stream is not diverted through the bypass line.

53. Monitoring Requirements: *Closed vent system inspection procedures* – The provisions of Condition 53 apply to closed vent systems collecting regulated material from a regulated source. [LRAPA 32-009(4)]

53.a. Each closed vent system subject to Condition 53 must be inspected according to the procedures specified in Conditions 53.a.i through 53.a.vii.

53.a.i. Inspections must be conducted in accordance with EPA Method 21, except as specified in in Conditions 53.a.i through 53.a.vii.

53.a.ii. Except as provided in Condition 53.a.iii, the detection instrument must meet the

performance criteria of EPA Method 21, except the instrument response factor criteria in section 3.1.2(a) of EPA Method 21 must be for the representative composition of the process fluid and not of each individual VOC in the stream. For process streams that contain nitrogen, air, water, or other inerts that are not organic HAP or VOC, the representative stream response factor must be determined on an inert-free basis. The response factor may be determined at any concentration for which the monitoring for leaks will be conducted.

53.a.iii. If no instrument is available at the plant site that will meet the performance criteria of EPA Method 21 specified in Condition 53.a.ii, the instrument readings may be adjusted by multiplying by the representative response factor of the process fluid, calculated on an inert-free basis as described in Condition 53.a.ii.

53.a.iv. The detection instrument must be calibrated before use on each day of its use by the procedures specified in EPA Method 21.

53.a.v. Calibration gases must be as specified in Conditions 53.a.v.1 through 53.a.v.3.

53.a.v.1. Zero air (less than 10 parts per million hydrocarbon in air); and

53.a.v.2. Mixtures of methane in air at a concentration less than 10,000 parts per million. A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in Condition 53.a.ii. In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.

53.a.v.3. If the detection instrument's design allows for multiple calibration scales, then the lower scale must be calibrated with a calibration gas that is no higher than 2,500 parts per million.

53.a.vi. The permittee may elect to adjust or not adjust instrument readings for background. If the permittee elects not to adjust readings for background, all such instrument readings must be compared directly to 500 parts per million to determine whether there is a leak. If the permittee elects to adjust instrument readings for background, the permittee must measure background concentration using the procedures in this section. The permittee must subtract the background reading from the maximum concentration indicated by the instrument.

53.a.vii. If the permittee elects to adjust for background, the arithmetic difference between the maximum concentration indicated by the instrument and the background level must be compared with 500 parts per million for determining whether there is a leak.

53.b. The instrument probe must be traversed around all potential leak interfaces as described in EPA Method 21.

53.c. Except as provided in Condition 53.d, inspections must be performed when the equipment is in regulated material service, or in use with any other detectable gas or vapor.

53.d. Inspections of the closed vent system collecting regulated material from a transfer rack must be performed only while a tank truck or railcar is being loaded or is otherwise pressurized to normal operating conditions with regulated material or any other detectable gas or vapor.

54. Applicable Requirements: *Closed vent system leak repair provisions* – The provisions of this condition apply to closed vent systems in EU: OX-2 [LRAPA 32-009(4)]

54.a. If there are visible, audible, or olfactory indications of leaks at the time of the annual visual inspections required by Condition 52.a.i.2, the permittee must follow the procedure specified in either Condition 54.a.i or 54.a.ii.

54.a.i. The permittee must eliminate the leak.

54.a.ii. The permittee must monitor the equipment according to the procedures in Condition 53.

54.b. Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, must be repaired as soon as practical, except as provided in Condition 54.c. Records must be generated as specified in Condition 55.a.iii when a leak is detected.

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

54.b.ii. Except as provided in Condition 54.c, repairs must be completed no later than 15 days after the leak is detected or at the beginning of the next introduction of vapors to the system, whichever is later.

54.c. Delay of repair of a closed vent system for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible or unsafe without a closed vent system shutdown, or if the permittee determines that emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment must be completed as soon as practical, but not later than the end of the next closed vent system shutdown.

55. Recordkeeping Requirements: [LRAPA 32-009(4) and 34-016]

55.a. *Closed vent system records* – For closed vent systems the permittee must record the information specified in Conditions 55.a.i through 55.a.iv, as applicable.

55.a.i. For closed vent systems in OX-2, the permittee must record the identification of all parts of the closed vent system, that are designated as unsafe or difficult to inspect, an explanation of why the equipment is unsafe or difficult to inspect, and the plan for inspecting the equipment required by Condition 52.b.i or 52.b.ii.

55.a.ii. For each closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the permittee must keep a record of the following information, as applicable:

55.a.ii.1. Hourly records of whether the flow indicator specified under Condition 51.c.i was operating and whether a diversion was detected at any time during the hour, as well as records of the times of all periods when the vent stream is diverted from the control device or the flow indicator is not operating.

55.a.ii.2. Records of the dates, times, and durations of all periods when the exhaust gas stream from Resin Reactors K-2 and K-3 in Emission Unit OX-2 bypasses the Regenerative Thermal Oxidizer and is diverted to the atmosphere. These records must be retained for a period of at least five (5) years from the date of generation.

55.a.ii.3. Where a seal mechanism is used to comply with Condition 51.c.ii, hourly records of flow are not required. In such cases, the permittee must record that the monthly visual inspection of the seals or closure mechanisms has been done, and must record the occurrence of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has been broken.

55.a.iii. For a closed vent system in OX-2, when a leak is detected as specified in Condition 54.b, the information specified in Conditions 55.a.iii.1 through 55.a.iii.6 must be recorded and kept for 5 years.

55.a.iii.1. The instrument and the equipment identification number and the operator name, initials, or identification number.

55.a.iii.2. The date the leak was detected and the date of the first attempt to repair the leak.

55.a.iii.3. The date of successful repair of the leak.

55.a.iii.4. The maximum instrument reading measured by the procedures in Condition 53 after the leak is successfully repaired or determined to be nonrepairable.

55.a.iii.5. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 days after discovery of the leak. The permittee may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

55.a.iii.6. Copies of the Periodic Reports as specified in Condition 56, if records are not maintained on a computerized database capable of generating summary reports from the records.

55.a.iv. For each instrumental or visual inspection conducted in accordance with Condition 52.a for closed vent systems collecting regulated material from a regulated source during which no leaks are detected, the permittee must record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

56. Reporting Requirements: *Periodic reports* [LRAPA 32-009(4) and 34-016(1)]

56.a. Periodic reports must include the reporting period dates, the total source operating time for the reporting period, and, as applicable, all information specified Conditions 49 and 56, including reports of periods when monitored parameters are outside their established ranges.

56.b. For closed vent systems subject to the requirements of Conditions 51 through 54, the permittee must submit as part of the periodic report the information specified in Conditions 56.b.i through 56.b.iii, as applicable.

56.b.i. The information recorded in Conditions 55.a.iii.2 through 55.a.iii.5;

56.b.ii. Reports of the times of all periods recorded under Condition 55.a.ii.1 when the vent stream is diverted from the control device through a bypass line; and

56.b.iii. Reports of all times recorded under Condition 55.a.ii.3 when maintenance is performed in car-sealed valves, when the seal is broken, when the bypass line valve position is changed, or the key for a lock-and-key type configuration has been checked out.

Requirements for Equipment Leaks

57. Applicable Requirement: The permittee must comply with the requirements for equipment leaks in Conditions 58 through 71 for all equipment in OX-2 and CT-1 that contains or contacts 5 weight-percent HAP or greater and operates 300 hours per year or more. The weight-percent HAP is determined for equipment using the organic HAP concentration measurement methods specified in Condition 46.a.

57.a. Design evaluations are allowed for control devices that control emission points with total emissions less than 10 tons of organic HAP per year before control (i.e., small control devices).

57.b. The test methods presented in Condition 46.a must be used for the measurements of organic HAP concentration.

57.c. The option to measure TOC instead of organic HAP, as a basis for demonstrating compliance, is not allowed.

57.d. Excused excursions are not allowed.

57.e. The provisions in Condition 41 are to be followed for combined vent streams.

58. Applicable Requirements: *Equipment Identification* – [LRAPA 32-009(4)]

58.a. *General equipment identification* – Equipment subject to Conditions 58 through 71 must be

identified. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, by designation of process unit or affected facility boundaries by some form of weatherproof identification, or by other appropriate methods.

58.b. *Additional equipment identification* – In addition to the general identification required by Condition 58.a, equipment subject to any of the provisions in Conditions 59 through 68 must be specifically identified as required in Conditions 58.b.i through 58.b.v, as applicable.

58.b.i. *Connectors* – Except for inaccessible, ceramic, or ceramic-lined connectors meeting the provision of Condition 63.e.ii and instrumentation systems identified pursuant to Condition 58.b.iv, identify the connectors subject to the requirements in Conditions 59 through 68. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. With respect to connectors, the identification must be complete no later than the completion of the initial survey required by Condition 58.a.

58.b.ii. *Routed to a process or fuel gas system or equipped with a closed vent system and control device* – Identify the equipment that the permittee elects to route to a process or fuel gas system or equip with a closed vent system and control device, under the provisions of Conditions 62.d.iii (pumps in light liquid service), 64.c.iii (agitators), 66.c (pressure relief devices in gas and vapor service).

58.b.iii. *Pressure relief devices* – Identify the pressure relief devices equipped with rupture disks, under the provisions of Condition 66.d.

58.b.iv. *Instrumentation systems* – Identify instrumentation systems subject to the provisions of Condition 65. Individual components in an instrumentation system need not be identified.

58.b.v. *Equipment in service less than 300 hours per calendar year* – The identity, either by list, location (area or group), or other method, of equipment in regulated material service less than 300 hours per calendar year within a process unit or affected facilities must be recorded.

58.c. *Special equipment designations: Equipment that is unsafe or difficult-to-monitor*

58.c.i. *Designation and criteria for unsafe-to-monitor* – Valves meeting the provisions of Condition 61.d.i, pumps meeting the provisions of Condition 62.d.v, connectors meeting the provisions of Condition 63.e.i, and agitators meeting the provisions of Condition 64.c.vi may be designated unsafe-to-monitor if the permittee determines that monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements of this Condition. Examples of unsafe-to-monitor equipment include, but is not limited to, equipment under extreme pressure or heat.

58.c.ii. *Designation and criteria for difficult-to-monitor* – Valves meeting the provisions of Condition 61.d.ii may be designated difficult-to-monitor if the provisions of Condition 58.c.ii.1 apply. Agitators meeting the provisions of Condition 64.c.iv may be designated difficult-to-monitor if the provisions of Condition 58.c.ii.2 apply.

58.c.ii.1. *Valves*

58.c.ii.1.A. The permittee of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters (7 feet) above a support surface or it is not accessible in a safe manner when it is in regulated material service; and

58.c.ii.1.B. The process unit or affected facility within which the valve is located is an existing source, or the permittee designates less than 3 percent of the total number of valves in a new source as difficult-to-monitor.

58.c.ii.2. *Agitators* – The permittee determines that the agitator cannot be monitored without elevating the monitoring personnel more than 2 meters (7 feet) above a support surface or it is not accessible in a safe manner when it is in regulated material service.

58.c.iii. *Identification of unsafe or difficult-to-monitor equipment* – The permittee must record the identity of equipment designated as unsafe-to-monitor according to the provisions of Condition 58.c.i and the planned schedule for monitoring this equipment. The permittee must record the identity of equipment designated as difficult-to-monitor according to the provisions of Condition 58.c.ii, the planned schedule for monitoring this equipment, and an explanation why the equipment is unsafe or difficult-to-monitor. This record must be kept at the plant and be available for review by an inspector.

58.c.iv. *Written plan requirements*

58.c.iv.1. The permittee of equipment designated as unsafe-to-monitor according to the provisions of Condition 58.c.i must have a written plan that requires monitoring of the equipment as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in Condition 60 if a leak is detected.

58.c.iv.2. The permittee of equipment designated as difficult-to-monitor according to the provisions of Condition 58.c.ii must have a written plan that requires monitoring of the equipment at least once per calendar year and repair of the equipment according to the procedures in Condition 60 if a leak is detected.

58.d. *Special equipment designations: Equipment that is unsafe-to-repai*r

58.d.i. *Designation and criteria* – Connectors subject to the provisions of Condition 60.d may be designated unsafe-to-repair if the permittee determines that repair personnel would be exposed to an immediate danger as a consequence of complying with the repair requirements of this Condition, and if the connector will be repaired before the end of the next process unit or affected facility shutdown as specified in Condition 60.d.

58.d.ii. *Identification of equipment* – The identity of connectors designated as unsafe-to-repair and an explanation why the connector is unsafe-to-repair must be recorded.

58.e. *Special equipment designations: Compressors operating with an instrument reading of less than 500 parts per million above background* – Identify the compressors that the permittee elects to designate as operating with an instrument reading of less than 500 parts per million above background.

58.f. *Special equipment designations: Equipment in heavy liquid service* – The permittee of equipment in heavy liquid service must comply with the requirements of either Condition 58.f.i or 58.f.ii, as provided in Condition 58.f.iii.

58.f.i. Retain information, data, and analyses used to determine that a piece of equipment is in heavy liquid service.

58.f.ii. When requested by LRAPA, demonstrate that the piece of equipment or process is in heavy liquid service.

58.f.iii. A determination or demonstration that a piece of equipment or process is in heavy liquid service must include an analysis or demonstration that the process fluids do not meet the definition of "in light liquid service." Examples of information that could document this include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge.

59. Applicable Requirements: *Instrument and sensory monitoring for leaks* [LRAPA 32-009(4)]

59.a. *Monitoring for leaks* – The permittee must monitor regulated equipment as specified in Condition

59.a.i for instrument monitoring and Condition 59.a.ii for sensory monitoring.

59.a.i. *Instrument monitoring for leaks* –

59.a.i.1. Valves in gas and vapor service and in light liquid service must be monitored pursuant to Condition 61.a.

59.a.i.2. Pumps in light liquid service must be monitored pursuant to Condition 62.a.

59.a.i.3. Connectors in gas and vapor service and in light liquid service must be monitored pursuant to Condition 63.b.

59.a.i.4. Agitators in gas and vapor service and in light liquid service must be monitored pursuant to Condition 64.a.

59.a.i.5. Pressure relief devices in gas and vapor service must be monitored pursuant to Condition 66.b.

59.a.ii. *Sensory monitoring for leaks*

59.a.ii.1. Pumps in light liquid service must be observed pursuant to Conditions 62.a.iv and 62.d.i.5.

59.a.ii.2. Agitators in gas and vapor service and in light liquid service must be observed pursuant to 64.a.iii or 64.c.i.4.

59.b. *Instrument monitoring methods* – Instrument monitoring must comply with the requirements specified in Conditions 59.b.i through 59.b.v.

59.b.i. *Monitoring method* – Monitoring must comply with EPA Method 21 except as otherwise provided in Condition 59.

59.b.ii. *Detection instrument performance criteria*

59.b.ii.1. Except as provided for in Condition 59.b.ii.2, the detection instrument must meet the performance criteria of EPA Method 21. Except for the instrument response factor definition specified in Section 3.6 of EPA Method 21, the measured values will be representative of the composition of the process fluid and not each individual VOC in the stream. For process streams that contain nitrogen, air, water or other inerts that are not HAP or VOC, the representative stream response factor must be determined on an inert-free basis. The response factor may be determined at any concentration for which monitoring for leaks will be conducted.

59.b.ii.2. If there is no instrument commercially available that will meet the performance criteria specified in Condition 59.b.ii.1, the instrument readings may be adjusted by multiplying by the representative response factor of the process fluid, calculated on an inert-free basis as described in Condition 59.b.ii.1.

59.b.iii. *Detection instrument calibration procedure* – The detection instrument must be calibrated before use on each day of its use by the procedures specified in EPA Method 21.

59.b.iv. *Detection instrument calibration gas* – Calibration gases must be zero air (less than 10 parts per million of hydrocarbon in air); and the gases specified in Condition 59.b.iv.1 except as provided in Condition 59.b.iv.2.

59.b.iv.1. Mixtures of methane in air at a concentration no more than 2,000 parts per million greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale must be calibrated with a calibration gas that is no higher than 2,000 parts per million above the concentration

specified as a leak, and the highest scale must be calibrated with a calibration gas that is approximately equal to 10,000 parts per million. If only one scale on an instrument will be used during monitoring, the permittee need not calibrate the scales that will not be used during that day's monitoring.

59.b.iv.2. A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in Condition 59.b.ii.1. In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.

59.b.v. *Monitoring performance* – Monitoring must be performed when the equipment is in regulated material service or is in use with any other detectable material.

59.c. *Instrument monitoring using background adjustments* – The permittee may elect to adjust or not to adjust the instrument readings for background. If the permittee elects not to adjust instrument readings for background, the permittee must monitor the equipment according to the procedures specified in Conditions 59.b.i through 59.b.v. In such cases, all instrument readings must be compared directly to the applicable leak definition for the monitored equipment to determine whether there is a leak or to determine compliance with Condition 66.a (pressure relief devices). If the permittee elects to adjust instrument readings for background, the permittee must monitor the equipment according to the procedures specified in Conditions 59.c.i through 59.c.iv.

59.c.i. The requirements of Conditions 59.b.i through 59.b.v must apply.

59.c.ii. The background level must be determined, using the procedures in EPA Method 21.

59.c.iii. The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in EPA Method 21.

59.c.iv. The arithmetic difference between the maximum concentration indicated by the instrument and the background level must be compared to the applicable leak definition for the monitored equipment to determine whether there is a leak or to determine compliance with Condition 66.a (pressure relief devices).

59.d. *Sensory monitoring methods* – Sensory monitoring consists of visual, audible, olfactory, or any other detection method used to determine a potential leak to the atmosphere.

59.e. *Leaking equipment identification and records*

59.e.i. When each leak is detected pursuant to the monitoring specified in Condition 59.a, a weatherproof and readily visible identification, must be attached to the leaking equipment.

59.e.ii. When each leak is detected, the information specified in Condition 60.e must be recorded and kept pursuant to the referencing subpart, except for the information for connectors complying with the 8 year monitoring period allowed under 63.b.iii.3 must be kept 5 years beyond the date of its last use.

60. Applicable Requirements: *Leak repair* [LRAPA 32-009(4)]

60.a. *Leak repair schedule* – The permittee must repair each leak detected as soon as practical, but not later than 15 calendar days after it is detected, except as provided in Conditions 60.c and 60.d. A first attempt at repair as defined in this subpart must be made no later than 5 calendar days after the leak is detected. First attempt at repair for pumps includes, but is not limited to, tightening the packing gland nuts and/or ensuring that the seal flush is operating at design pressure and temperature. First attempt at repair for valves includes, but is not limited to, tightening the bonnet bolts, and/or replacing the bonnet bolts, and/or tightening the packing gland nuts, and/or injecting lubricant into the lubricated packing.

60.b. *Leak identification removal*

60.b.i. *Valves and connectors in gas/vapor and light liquid service* – The leak identification on a

valve in gas/vapor or light liquid service may be removed after it has been monitored as specified in Condition 61.c.ii, and no leak has been detected during that monitoring. The leak identification on a connector in gas/vapor or light liquid service may be removed after it has been monitored as specified in Condition 63.b.iii.4 and no leak has been detected during that monitoring.

60.b.ii. *Other equipment* – The identification that has been placed, pursuant to Condition 59.e.i, on equipment determined to have a leak, except for a valve or for a connector in gas/vapor or light liquid service that is subject to the provisions of Condition 63.b.iii.4, may be removed after it is repaired.

60.c. *Delay of repair* – Delay of repair is allowed for any of the conditions specified in Conditions 60.c.i through 60.c.v. The permittee must maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown.

60.c.i. Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible without a process unit or affected facility shutdown. Repair of this equipment must occur as soon as practical, but no later than the end of the next process unit or affected facility shutdown, except as provided in Condition 60.c.v.

60.c.ii. Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in regulated material service.

60.c.iii. Delay of repair for valves, connectors, and agitators is also allowed if the provisions of Conditions 60.c.iii.1 and 60.c.iii.2 are met.

60.c.iii.1. The permittee 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

60.c.iii.2. When repair procedures are effected, the purged material is collected and destroyed, collected and routed to a fuel gas system or process, or recovered in a control device complying with either Condition 69 or an alternative means of emissions limitation requested by the permittee.

60.c.iv. Delay of repair for pumps is also allowed if the provisions of Conditions 60.c.iv.1 and 60.c.iv.2 are met.

60.c.iv.1. Repair requires replacing the existing seal design with a new system that the permittee has determined that one of the specifications of Conditions 60.c.iv.1.A through 60.c.iv.1.C are met.

60.c.iv.1.A. A dual mechanical seal system that meets the requirements of Condition 62.d.i will be installed;

60.c.iv.1.B. A pump that meets the requirements of Condition 62.d.ii will be installed; or

60.c.iv.1.C. A system that routes emissions to a process or a fuel gas system or a closed vent system and control device that meets the requirements of Condition 62.d.iii will be installed; and

60.c.iv.2. Repair is completed as soon as practical, but not later than 6 months after the leak was detected.

60.c.v. Delay of repair beyond a process unit or affected facility shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit or affected facility shutdown, and valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair

beyond the second process unit or affected facility shutdown will not be allowed unless the third process unit or affected facility shutdown occurs sooner than 6 months after the first process unit or affected facility shutdown.

60.d. *Unsafe-to-repair connectors* – Any connector that is designated, as described in Condition 58.d, as an unsafe-to-repair connector is exempt from the requirements of Condition 63.d, and Condition 60.a.

60.e. *Leak repair records* – For each leak detected, the information specified in Conditions 60.e.i through 60.e.v must be recorded and maintained.

60.e.i. The date of first attempt to repair the leak.

60.e.ii. The date of successful repair of the leak.

60.e.iii. Maximum instrument reading measured by EPA Method 21 at the time the leak is successfully repaired or determined to be nonrepairable.

60.e.iv. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak as specified in Conditions 60.e.iv.1 and 60.e.iv.2.

60.e.iv.1. The permittee may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures 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.

60.e.iv.2. 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.

60.e.v. Dates of process unit or affected facility shutdowns that occur while the equipment is unrepaired.

61. Applicable Requirements: *Valves in gas and vapor service and in light liquid service standards* [LRAPA 32-009(4)]

61.a. *Leak detection* – Unless otherwise specified in a permittee-requested alternative means of emission limitation or Condition 61.d, or Conditions 40 through 49, the permittee must monitor all valves at the intervals specified in Conditions 61.a.iii and must comply with all other provisions in Condition 61.

61.a.i. *Monitoring method* – The valves must be monitored to detect leaks by the method specified in Condition 59.b and, as applicable, Condition 59.c.

61.a.ii. *Instrument reading that defines a leak* – The instrument reading that defines a leak is 500 parts per million or greater.

61.a.iii. *Monitoring frequency* – The permittee must monitor valves for leaks at the intervals specified in Conditions 61.a.iii.1 through 61.a.iii.5 and must keep the record specified in Condition 61.a.iii.6.

61.a.iii.1. If at least the greater of 2 valves or 2 percent of the valves in a process unit leak, as calculated according to Condition 61.b, the permittee must monitor each valve once per month.

61.a.iii.2. At process units with less than the greater of 2 leaking valves or 2 percent leaking valves, the permittee must monitor each valve once each quarter, except as provided in Conditions 61.a.iii.3 through 61.a.iii.5.

61.a.iii.3. At process units with less than 1 percent leaking valves, the permittee may elect to monitor each valve once every two quarters.

61.a.iii.4. At process units with less than 0.5 percent leaking valves, the permittee may

elect to monitor each valve once every four quarters.

61.a.iii.5. At process units with less than 0.25 percent leaking valves, the permittee may elect to monitor each valve once every 2 years.

61.a.iii.6. The permittee must keep a record of the monitoring schedule for each process unit.

61.b. *Percent leaking valves calculation*

61.b.i. *Calculation basis and procedures*

61.b.i.1. The permittee must decide upon revision of an operating permit whether to calculate percent leaking valves on a process unit or group of process units basis. Once the permittee has decided, all subsequent percentage calculations must be made on the same basis.

61.b.i.2. The percent leaking valves for each monitoring period for each process unit must be calculated using the following equation:

$$\%V_L = \left({}^{V_L}/_{V_T}\right) \times 100$$

Where:

$\%V_L$ = Percent leaking valves.
V_L = Number of valves found leaking, excluding nonrepairable valves, as provided in Condition 61.b.iii, and including those valves found leaking pursuant to Conditions 61.c.ii.3.A and 61.c.ii.3.B.
V_T = The sum of the total number of valves monitored.

61.b.ii. *Calculation for monitoring frequency* – When determining monitoring frequency for each process unit subject to monthly, quarterly, or semiannual monitoring frequencies, the percent leaking valves must be the arithmetic average of the percent leaking valves from the last two monitoring periods. When determining monitoring frequency for each process unit subject to annual or biennial (once every 2 years) monitoring frequencies, the percent leaking valves must be the arithmetic average of the percent leaking valves from the last three monitoring periods.

61.b.iii. *Nonrepairable valves*

61.b.iii.1. Nonrepairable valves must 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 Condition 61.b.iii.2. Otherwise, a number of nonrepairable valves (identified and included in the percent leaking valves calculation in a previous period) up to a maximum of 1 percent of the total number of valves in regulated material service at a process unit or affected facility may be excluded from calculation of percent leaking valves for subsequent monitoring periods.

61.b.iii.2. If the number of nonrepairable valves exceeds 1 percent of the total number of valves in regulated material service at a process unit or affected facility, the number of nonrepairable valves exceeding 1 percent of the total number of valves in regulated material service must be included in the calculation of percent leaking valves.

61.c. *Leak repair*

61.c.i. If a leak is determined pursuant to Condition 61.a, 61.d.i, or 61.d.ii, then the leak must be repaired using the procedures in Condition 60, as applicable.

61.c.ii. After a leak has been repaired, the valve must be monitored at least once within the first 3 months after its repair. The monitoring required by Condition 61.c is in addition to the

monitoring required to satisfy the definition of repaired and first attempt at repair.

61.c.ii.1. The monitoring must be conducted as specified in Conditions 59.b and 59.c, as appropriate, to determine whether the valve has resumed leaking.

61.c.ii.2. Periodic monitoring required by Condition 61.a may be used to satisfy the requirements of Condition 61.c, if the timing of the monitoring period coincides with the time specified in Condition 61.c. Alternatively, other monitoring may be performed to satisfy the requirements of Condition 61.c, regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in Condition 61.c.

61.c.ii.3. If a leak is detected by monitoring that is conducted pursuant to Condition 61.c.ii, the permittee must follow the provisions of Conditions 61.c.ii.3.A and 61.c.ii.3.B, to determine whether that valve must be counted as a leaking valve for purposes of Condition 61.b.i.2.

61.c.ii.3.A. If the permittee elected to use periodic monitoring required by Condition 61.a to satisfy the requirements of Condition 61.c.ii, then the valve must be counted as a leaking valve.

61.c.ii.3.B. If the permittee elected to use other monitoring, prior to the periodic monitoring required by Condition 61.a, to satisfy the requirements of Condition 61.c.ii, then the valve must be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking.

61.d. *Special provisions for valves*

61.d.i. *Unsafe-to-monitor valves* – Any valve that is designated, as described in Condition 58.c.i, as an unsafe-to-monitor valve is exempt from the requirements of Conditions 61.a and 61.c.ii and the permittee must monitor the valve according to the written plan specified in Condition 58.c.iv.

61.d.ii. *Difficult-to-monitor valves* – Any valve that is designated, as described in Condition 58.c.ii, as a difficult-to-monitor valve is exempt from the requirements of Condition 61.a and the permittee must monitor the valve according to the written plan specified in Condition 58.c.iv.

61.d.iii. *Fewer than 250 valves* – Any equipment located at a plant site with fewer than 250 valves in regulated material service is exempt from the requirements for monthly monitoring specified in Condition 61.a.iii.1. Instead, the permittee must monitor each valve in regulated material service for leaks once each quarter, as provided in Conditions 61.d.i and 61.d.ii.

62. Applicable Requirements: *Pumps in light liquid service standards* [LRAPA 32-009(4)]

62.a. *Leak detection* – Unless otherwise specified in a permittee-requested alternative means of emission limitation, or otherwise specified in Condition 62.d, the permittee must monitor each pump to detect leaks and must comply with all other provisions of Condition 62.

62.a.i. *Monitoring method and frequency* – The pumps must be monitored monthly to detect leaks by the method specified in Condition 59.b and, as applicable, Condition 59.c.

62.a.ii. *Instrument reading that defines a leak* – The instrument reading that defines a leak is specified in Conditions 62.a.ii.1 through 62.a.ii.3.

62.a.ii.1. 5,000 parts per million or greater for pumps handling polymerizing monomers;

62.a.ii.2. 2,000 parts per million or greater for pumps in food/medical service; and

62.a.ii.3. 1,000 parts per million or greater for all other pumps.

62.a.iii. *Leak repair exception* – For pumps 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.

62.a.iv. *Visual inspection* – Each pump must be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The permittee must document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the permittee must follow the procedure specified in either Condition 62.a.iv.1 or 62.a.iv.2.

62.a.iv.1. The permittee must monitor the pump as specified in Condition 59.b and, as applicable, Condition 59.c. If the instrument reading indicates a leak as specified in Condition 62.a.ii, a leak is detected and it must be repaired using the procedures in Condition 60, except as specified in Condition 62.a.iii; or

62.a.iv.2. The permittee must eliminate the visual indications of liquids dripping.

62.b. *Percent leaking pumps calculation*

62.b.i. If, when calculated on a 6-month rolling average, at least the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak, the permittee must implement a quality improvement program for pumps.

62.b.ii. The number of pumps at a process unit or affected facility must be the sum of all the pumps in regulated material service, except that pumps found leaking in a continuous process unit or affected facility within 1 month after start-up of the pump must not count in the percent leaking pumps calculation for that one monitoring period only.

62.b.iii. Percent leaking pumps must be determined by the following equation:

$$\%P_L = \left((P_L - P_S)/(P_T - P_S)\right) \times 100$$

Where:

$\%P_L$ = Percent leaking pumps
P_L = Number of pumps found leaking as determined through monthly monitoring as required in Condition 62.a.i. Do not include results from inspection of unsafe-to-monitor pumps pursuant to Condition 62.d.v.
P_S = Number of pumps leaking within 1 month of start-up during the current monitoring period.
P_T = Total pumps in regulated material service, including those meeting the criteria in Conditions 62.d.i, 62.d.ii, 62.d.iii, and 62.d.v.

62.c. *Leak repair* – If a leak is detected pursuant to Condition 62.a, then the leak must be repaired using the procedures in Condition 60, as applicable, unless otherwise specified in Condition 62.a.iv for leaks identified by visual indications of liquids dripping.

62.d. *Special provisions for pumps*

62.d.i. *Dual mechanical seal pumps* – Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of Condition 62.a, provided the requirements specified in Conditions 62.d.i.1 through 62.d.i.8 are met.

62.d.i.1. The permittee determines, 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. The permittee must keep records at the plant of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes. This record must be available for review by an inspector.

62.d.i.2. Each dual mechanical seal system must meet the requirements specified in

Condition 62.d.i.2.A, 62.d.i.2.B, or 62.d.i.2.C.

62.d.i.2.A. Each dual mechanical seal system is operated with the barrier fluid at a pressure that is at all times (except periods of startup, shutdown, or malfunction) greater than the pump stuffing box pressure; or

62.d.i.2.B. Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of Condition **69**; or

62.d.i.2.C. Equipped with a closed-loop system that purges the barrier fluid into a process stream.

62.d.i.3. The barrier fluid is not in light liquid service.

62.d.i.4. Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

62.d.i.5. Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The permittee must document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the permittee must follow the procedure specified in Conditions 62.d.i.5.A or 62.d.i.5.B prior to the next required inspection.

62.d.i.5.A. The permittee must monitor the pump as specified in Condition 59.b and, as applicable, Condition 59.c, to determine if there is a leak of regulated material in the barrier fluid. If an instrument reading of 1,000 parts per million or greater is measured, a leak is detected and it must be repaired using the procedures in Condition 60; or

62.d.i.5.B. The permittee must eliminate the visual indications of liquids dripping.

62.d.i.6. If indications of liquids dripping from the pump seal exceed the criteria established in Condition 62.d.i.1, or if based on the criteria established in Condition 62.d.i.1 the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.

62.d.i.7. Each sensor as described in Condition 62.d.i.4 is observed daily or is equipped with an alarm unless the pump is located within the boundary of an unmanned plant site.

62.d.i.8. When a leak is detected pursuant to Condition 62.d.i.4, it must be repaired as specified in Condition 60.

62.d.ii. *No external shaft* – Any pump that is designed with no externally actuated shaft penetrating the pump housing is exempt from the requirements of Condition 62.a.

62.d.iii. *Routed to a process or fuel gas system or equipped with a closed vent system* – Any pump 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 pump to a control device meeting the requirements of Condition 69 is exempt from the requirements of Condition 62.a.

62.d.iv. *90 percent exemption* – If more than 90 percent of the pumps at a process unit or affected facility meet the criteria in either Condition 62.d.i or 62.d.ii, the process unit or affected facility is exempt from the percent leaking calculation in Condition 62.b.

62.d.v. *Unsafe-to-monitor pumps* – Any pump that is designated, as described in Condition

58.c.i, as an unsafe-to-monitor pump is exempt from the requirements of Condition 62.a, the monitoring and inspection requirements of Conditions 62.d.i.1 through 62.d.i.5, and the permittee must monitor and inspect the pump according to the written plan specified in Condition 58.c.iv.

63. Applicable Requirements: *Connectors in gas and vapor service and in light liquid service standards* [LRAPA 32-009(4)]

63.a. *Compliance schedule* – The permittee must monitor all connectors in each process unit initially for leaks by 12 months after initial startup. If required to monitor because of a process change, the permittee is required to monitor only those connectors involved in the process change.

63.b. *Leak detection* – Unless otherwise specified in a permittee-requested alternative means of emission limitation, or otherwise specified in Condition 63.e, the permittee must monitor all connectors in gas and vapor and light liquid service as specified in Conditions 63.a and 63.b.iii.

63.b.i. *Monitoring method* – The connectors must be monitored to detect leaks by the method specified in Condition 59.b and, as applicable, Condition 59.c.

63.b.ii. *Instrument reading that defines a leak* – If an instrument reading greater than or equal to 500 parts per million is measured, a leak is detected.

63.b.iii. *Monitoring periods* – The permittee must perform monitoring, subsequent to the initial monitoring required in Condition 63.a, as specified in Conditions 63.b.iii.1 through 63.b.iii.3, and must comply with the requirements of Conditions 63.b.iii.4 and 63.b.iii.5. The required period in which monitoring must be conducted must be determined from Conditions 63.b.iii.1 through 63.b.iii.3 using the monitoring results from the preceding monitoring period. The percent leaking connectors must be calculated as specified in Condition 63.c.

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

63.b.iii.2. If the percent leaking connectors in the process unit was greater than or equal to 0.25 percent but less than 0.5 percent, then monitor within 4 years. The permittee may comply with the requirements of Condition 63.b by monitoring at least 40 percent of the connectors within 2 years of the start of the monitoring period, provided all connectors have been monitored by the end of the 4 year monitoring period.

63.b.iii.3. If the percent leaking connectors in the process unit was less than 0.25 percent, then monitor as provided in Condition 63.b.iii.3.A and either Condition 63.b.iii.3.B or 63.b.iii.3.C, as appropriate.

63.b.iii.3.A. The permittee must monitor at least 50 percent of the connectors within 4 years of the start of the monitoring period.

63.b.iii.3.B. If the percent leaking connectors calculated from the monitoring results in Condition 63.b.iii.3.A is greater than or equal to 0.35 percent of the monitored connectors, the permittee must monitor as soon as practical, but within the next 6 months, all connectors that have not yet been monitored during the monitoring period. At the conclusion of monitoring, a new monitoring period must be started pursuant to Condition 63.b.iii, based on the percent leaking connectors of the total monitored connectors.

63.b.iii.3.C. If the percent leaking connectors calculated from the monitoring results in Condition 63.b.iii.3.A is less than 0.35 percent of the monitored connectors, the permittee must monitor all connectors that have not yet been monitored within 8 years of the start of the monitoring period.

63.b.iii.4. If, during the monitoring conducted pursuant to Conditions 63.b.iii.1 through 63.b.iii.3, a connector is found to be leaking, it must be re-monitored once within 90 days after repair to confirm that it is not leaking.

63.b.iii.5. The permittee must keep a record of the start date and end date of each monitoring period under this section for each process unit.

63.c. *Percent leaking connectors calculation* – For use in determining the monitoring frequency, as specified in Conditions 63.a and 63.b.iii, the percent leaking connectors as used in Conditions 63.a and 63.b.iii must be calculated by using the following equation:

$$\%C_L = {}^{C_L}/_{C_t} \times 100$$

Where:

$\%C_L$ = Percent leaking connectors as determined through periodic monitoring required in Conditions 63.a and 63.b.iii.1 through 63.b.iii.3.

C_L = Number of connectors measured at 500 parts per million or greater, by the method specified in Condition 59.b.

C_t = Total number of monitored connectors in the process unit or affected facility.

63.d. *Leak repair* – If a leak is detected pursuant to Conditions 63.a and 63.b, then the leak must be repaired using the procedures in Condition 60, as applicable.

63.e. *Special provisions for connectors*

63.e.i. *Unsafe-to-monitor connectors* – Any connector that is designated, as described in Condition 58.c.i, as an unsafe-to-monitor connector is exempt from the requirements of Conditions 63.a and 63.b and the permittee must monitor according to the written plan specified in Condition 58.c.iv.

63.e.ii. *Inaccessible, ceramic, or ceramic-lined connectors*

63.e.ii.1. Any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of Conditions 63.a and 63.b, from the leak repair requirements of Condition 63.d, and from the recordkeeping and reporting requirements of Conditions 70 and 71. An inaccessible connector is one that meets any of the provisions specified in Conditions 63.e.ii.1.A through 63.e.ii.1.F, as applicable.

63.e.ii.1.A. Buried;

63.e.ii.1.B. Insulated in a manner that prevents access to the connector by a monitor probe;

63.e.ii.1.C. Obstructed by equipment or piping that prevents access to the connector by a monitor probe;

63.e.ii.1.D. Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground.

63.e.ii.1.E. Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold;

63.e.ii.1.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.

63.e.ii.2. If any inaccessible, ceramic or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere must be eliminated as soon as practical.

64. Applicable Requirements: *Agitators in gas and vapor service and in light liquid service standards* [LRAPA 32-009(4)]

64.a. *Leak detection*

64.a.i. *Monitoring method* – Each agitator seal must be monitored monthly to detect leaks by the methods specified in Condition 59.b and, as applicable, Condition 59.c, except as specified in a permittee-requested alternative means of emission limitation, or as specified in Condition 64.c.

64.a.ii. *Instrument reading that defines a leak* – If an instrument reading equivalent of 10,000 parts per million or greater is measured, a leak is detected.

64.a.iii. *Visual inspection*

64.a.iii.1. Each agitator seal must be checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. The permittee must document that the inspection was conducted and the date of the inspection.

64.a.iii.2. If there are indications of liquids dripping from the agitator seal, the permittee must follow the procedures specified in Conditions 64.a.iii.2.A or 64.a.iii.2.B prior to the next required inspection.

64.a.iii.2.A. The permittee must monitor the agitator seal as specified in Condition 59.b and, as applicable, Condition 59.c, to determine if there is a leak of regulated material. If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected, and it must be repaired according to Condition 64.b; or

64.a.iii.2.B. The permittee must eliminate the indications of liquids dripping from the agitator seal.

64.b. *Leak repair* – If a leak is detected, then the leak must be repaired using the procedures in Condition 60.

64.c. *Special provisions for agitators*

64.c.i. *Dual mechanical seal* – Each agitator equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of Condition 64.a, provided the requirements specified in Conditions 64.c.i.1 through 64.c.i.6 are met.

64.c.i.1. Each dual mechanical seal system must meet the applicable requirements specified in Conditions 64.c.i.1.A, 64.c.i.1.B, or 64.c.i.1.C.

64.c.i.1.A. Operated with the barrier fluid at a pressure that is at all times (except during periods of startup, shutdown, or malfunction) greater than the agitator stuffing box pressure; or

64.c.i.1.B. Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that meets the requirements of Condition **69**; or

64.c.i.1.C. Equipped with a closed-loop system that purges the barrier fluid into a process stream.

64.c.i.2. The barrier fluid is not in light liquid service.

64.c.i.3. Each barrier fluid system is equipped with a sensor that will detect failure of

the seal system, the barrier fluid system, or both.

64.c.i.4. Each agitator seal is checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. If there are indications of liquids dripping from the agitator seal at the time of the weekly inspection, the permittee must follow the procedure specified in Conditions 64.c.i.4.A or 64.c.i.4.B prior to the next required inspection.

64.c.i.4.A. The permittee must monitor the agitator seal as specified in Condition 59.b and, as applicable, Condition 59.c, to determine the presence of regulated material in the barrier fluid. If an instrument reading equivalent to or greater than 10,000 ppm is measured, a leak is detected and it must be repaired using the procedures in Condition 60, or

64.c.i.4.B. The permittee must eliminate the visual indications of liquids dripping.

64.c.i.5. Each sensor as described in Condition 64.c.i.3 is observed daily or is equipped with an alarm unless the agitator seal is located within the boundary of an unmanned plant site.

64.c.i.6. The permittee of each dual mechanical seal system must meet the requirements specified in Conditions 64.c.i.6.A and 64.c.i.6.B.

64.c.i.6.A. The permittee must determine, based on design considerations and operating experience, criteria that indicates failure of the seal system, the barrier fluid system, or both and applicable to the presence and frequency of drips. If indications of liquids dripping from the agitator seal exceed the 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 and must be repaired pursuant to Condition 60, as applicable.

64.c.i.6.B. The permittee must keep records of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes.

64.c.ii. *No external shaft* – Any agitator that is designed with no externally actuated shaft penetrating the agitator housing is exempt from Condition 64.a.

64.c.iii. *Routed to a process or fuel gas system or equipped with a closed vent system* – Any agitator that is routed to a process or fuel gas system that captures and transports leakage from the agitator to a control device meeting the requirements of Condition **69** is exempt from the requirements of Condition 64.a.

64.c.iv. *Difficult-to-monitor agitator seals* – Any agitator seal that is designated, as described in Condition 58.c.ii, as a difficult-to-monitor agitator seal is exempt from the requirements of Condition 64.a and the permittee must monitor the agitator seal according to the written plan specified in Condition 58.c.iv.

64.c.v. *Equipment obstructions* – Any agitator seal that is obstructed by equipment or piping that prevents access to the agitator by a monitor probe is exempt from the monitoring requirements of Condition 64.a.

64.c.vi. *Unsafe-to-monitor agitator seals* – Any agitator seal that is designated, as described in Condition 58.c.i, as an unsafe-to-monitor agitator seal is exempt from the requirements of Condition 64.a and the permittee of the agitator seal monitors the agitator seal according to the written plan specified in Condition 58.c.iv.

65. Applicable Requirements: *Pumps, valves, connectors, and agitators in heavy liquid service; pressure relief*

devices in liquid service; and instrumentation systems standards [LRAPA 32-009(4)]

65.a. *Leak detection*

65.a.i. *Monitoring method* – Unless otherwise specified in a permittee-requested alternative means of emission limitation, the permittee must comply with Conditions 65.a.i and 65.a.ii. Pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in light liquid or heavy liquid service; and instrumentation systems must be monitored within 5 calendar days by the method specified in Condition 59.b and, as applicable, Condition 59.c, if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method, unless the potential leak is repaired as required in Condition 65.b.

65.a.ii. *Instrument reading that defines a leak* – If an instrument reading of 10,000 parts per million or greater for agitators, 5,000 parts per million or greater for pumps handling polymerizing monomers, 2,000 parts per million or greater for pumps in food and medical service, or 2,000 parts per million or greater for all other pumps (including pumps in food/medical service), or 500 parts per million or greater for valves, connectors, instrumentation systems, and pressure relief devices is measured pursuant to Condition 65.a.i, a leak is detected and must be repaired pursuant to Condition 60, as applicable.

65.b. *Leak repair* – For equipment identified in Condition 65.a that is not monitored by the method specified in Condition 59.b and, as applicable, Condition 59.c, repaired must 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.

66. Applicable Requirements: *Pressure relief devices in gas and vapor service standards* [LRAPA 32-009(4)]

66.a. *Compliance standard* – Except during pressure releases as provided for in Condition 66.b, or as otherwise specified in Conditions 66.c and 66.d, each pressure relief device in gas and vapor service must be operated with an instrument reading of less than 500 parts per million as measured by the method specified in Condition 59.b and, as applicable, Condition 59.c.

66.b. *Pressure relief requirements*

66.b.i. After each pressure release, the pressure relief device must be returned to a condition indicated by an instrument reading of less than 500 parts per million, as soon as practical, but no later than 5 calendar days after each pressure release, except as provided in Condition 60.c.

66.b.ii. The pressure relief device must be monitored no later than five calendar days after the pressure to confirm the condition indicated by an instrument reading of less than 500 parts per million above background, as measured by the method specified in Condition 59.b and, as applicable, Condition 59.c.

66.b.iii. The permittee must record the dates and results of the monitoring required by Condition 66.b.ii following a pressure release including the background level measured and the maximum instrument reading measured during the monitoring.

66.c. *Pressure relief devices routed to a process or fuel gas system or equipped with a closed vent system and control device* – 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 meeting the requirements of Condition 69 is exempt from the requirements of Conditions 66.a and 66.b.

66.d. *Rupture disk exemption* – Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of Conditions 66.a and 66.b provided the permittee installs a replacement rupture disk upstream of the pressure relief device as soon as practical after each pressure release but no later than 5 calendar days after each pressure release, except as provided in Condition 60.c.

67. Applicable Requirements: *Sampling connection systems standards* [LRAPA 32-009(4)]

67.a. *Equipment requirement* – Each sampling connection system must be equipped with a closed-purge, closed-loop, or closed vent system, except as provided in Condition 67.c. Gases displaced during filling of the sample container are not required to be collected or captured.

67.b. *Equipment design and operation* – Each closed-purge, closed-loop, or closed vent system as required in Condition 67.a must meet the applicable requirements specified in Conditions 67.b.i through 67.b.iv.

67.b.i. The system must return the purged process fluid directly to a process line or to a fuel gas system that meets the requirements of Condition 69; or

67.b.ii. Be designed and operated to capture and transport all the purged process fluid to a control device that meets the requirements of Condition 69; or

67.b.iii. Collect, store, and transport the purged process fluid to a system or facility identified in Condition 67.b.iii.1, 67.b.iii.2, or 67.b.iii.3.

67.b.iii.1. A waste management unit as defined in 40 CFR 63.111 or 40 CFR 63 subpart G, if the waste management unit is subject to and operating in compliance with the provisions of 40 CFR 63 subpart G, applicable to group 1 wastewater streams. If the purged process fluid does not contain any regulated material listed in Table 9 of 40 CFR 63 subpart G, the waste management unit need not be subject to, and operated in compliance with the requirements of 40 CFR 63 subpart G, applicable to group 1 wastewater steams provided the facility has a National Pollution Discharge Elimination System (NPDES) permit or sends the wastewater to an NPDES-permitted facility.

67.b.iii.2. A treatment, storage, or disposal facility subject to regulation under 40 CFR parts 262, 264, 265, or 266; or

67.b.iii.3. A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261.

67.b.iv. Containers that are part of a closed purge system must be covered or closed when not being filled or emptied.

67.c. *In-situ sampling systems* – In-situ sampling systems and sampling systems without purges are exempt from the requirements of Conditions 67.a and 67.b.

68. Applicable Requirements: *Open-ended valves or lines standards* [LRAPA 32-009(4)]

68.a. *Equipment and operational requirements*

68.a.i. Each open-ended valve or line must be equipped with a cap, blind flange, plug, or a second valve, except as provided in Conditions 68.b and 68.c. The cap, blind flange, plug, or second valve must seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance. The operational provisions of Conditions 68.a.ii and 68.a.iii also apply.

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

68.a.iii. 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 must comply with Condition 68.a.i at all other times.

68.b. *Emergency shutdown exemption* – Open-ended valves or lines in an emergency shutdown system that are designed to open automatically in the event of a process upset are exempt from the requirements of Condition 68.a.

68.c. *Polymerizing materials exemption* – Open-ended valves or lines containing materials that would autocatalytically polymerize or, would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in Condition 68.a are exempt from the requirements of Condition 68.a.

69. Applicable Requirement: *Closed vent systems and control devices; or emissions routed to a fuel gas system or process standards* [LRAPA 32-009(4)]

69.a. *Compliance standard*

69.a.i. The permittee routing emissions from equipment leaks to a fuel gas system or process must comply with Conditions 51 through 56.

69.a.ii. The permittee of closed vent systems and control devices used to comply with Conditions 58 through 71 must comply with Condition 69.a.ii.1.

69.a.ii.1. Enclosed combustion devices must be designed and operated to reduce emissions of regulated material 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 (1400 °F).

70. Recordkeeping Requirements: [LRAPA 32-009(4) and 34-016(1)]

70.a. *Recordkeeping system* – The permittee may comply with the equipment leak recordkeeping requirements for EU: OX-1 and EU: CT-1 in one recordkeeping system. The recordkeeping system must identify each record by regulated source and the type of program being implemented (e.g., quarterly monitoring, quality improvement) for each type of equipment.

70.b. *General equipment leak records*

70.b.i. As specified in Conditions 58.a and 58.b, the permittee must keep general and specific equipment identification if the equipment is not physically tagged and the permittee is electing to identify the equipment subject to the equipment leak requirements in Conditions 58 through 71 through written documentation such as a log or other designation.

70.b.ii. The permittee must keep a written plan as specified in Condition 58.c.iv for any equipment that is designated as unsafe- or difficult-to-monitor.

70.b.iii. The permittee must maintain a record of the identity and an explanation as specified in Condition 58.d.ii for any equipment that is designated as unsafe-to-repair.

70.b.iv. As specified in Condition 58.e, the permittee must maintain the identity of compressors operating with an instrument reading of less than 500 parts per million.

70.b.v. The permittee must keep records associated with the determination that equipment is in heavy liquid service as specified in Condition 58.f.

70.b.vi. The permittee must keep records for leaking equipment as specified in Condition 59.e.ii.

70.b.vii. The permittee must keep records for leak repair as specified in Condition 60.e and records for delay of repair as specified in Condition 60.c.

70.c. *Specific equipment leak records*

70.c.i. For valves, the permittee must maintain the records specified in Conditions 70.c.i.1.

70.c.i.1. The monitoring schedule for each process unit as specified in Condition 61.a.iii.6.

70.c.ii. For pumps, the permittee must maintain the records specified in Conditions 70.c.ii.1 through 70.c.ii.3.

70.c.ii.1. Documentation of pump visual inspections as specified in Condition 62.a.iv.

70.c.ii.2. Documentation of dual mechanical seal pump visual inspections as specified in Condition 62.d.i.5.

70.c.ii.3. For the criteria as to the presence and frequency of drips for dual mechanical seal pumps, records of the design criteria and explanations and any changes and the reason for the changes, as specified in Condition 62.d.i.1.

70.c.iii. For connectors, the permittee must maintain the monitoring schedule for each process unit as specified in Condition 63.b.iii.5.

70.c.iv. For agitators, the permittee must maintain the following records:

70.c.iv.1. Documentation of agitator seal visual inspections as specified in Condition 64;

70.c.iv.2. For the criteria as to the presence and frequency of drips for agitators, the permittee must keep records of the design criteria and explanations and any changes and the reason for the changes, as specified in Condition 64.c.i.6.

70.c.v. For pressure relief devices in gas and vapor or light liquid service, the permittee must keep records of the dates and results of monitoring following a pressure release, as specified in Condition 66.b.iii.

71. Reporting Requirements: [LRAPA 32-009(4) and 34-016]

71.a. *Periodic Reports* – The permittee must report the information specified in Conditions 71.a.i through 71.a.iv, as applicable, in the Periodic Report specified in Condition 49.

71.a.i. For the equipment specified in Conditions 71.a.i.1 through 71.a.i.4, report in a summary format by equipment type, the number of components for which leaks were detected and for valves, pumps and connectors show the percent leakers, and the total number of components monitored. Also include the number of leaking components that were not repaired as required by Condition 60, and for valves and connectors, identify the number of components that are determined by Condition 61.b.iii to be nonrepairable.

71.a.i.1. Valves in gas and vapor service and in light liquid service pursuant to Conditions 61.a and 61.b.

71.a.i.2. Pumps in light liquid service pursuant to Conditions 62.a and 62.b.

71.a.i.3. Connectors in gas and vapor service and in light liquid service pursuant to Conditions 63.b and 63.c.

71.a.i.4. Agitators in gas and vapor service and in light liquid service pursuant to Condition 64.a.

71.a.ii. Where any delay of repair is utilized pursuant to Condition 60.c, report that delay of repair has occurred and report the number of instances of delay of repair.

71.a.iii. For pressure relief devices in gas and vapor service pursuant to Condition 66.a that are to be operated at a leak detection instrument reading of less than 500 parts per million, report the results of all monitoring to show compliance conducted within the semiannual reporting period.

71.a.iv. Report, if applicable, the initiation of a monthly monitoring program for valves pursuant to Condition 61.a.iii.1.

Emission Unit B-1 (Boiler) Specific Emission Limits and Standards

Applicable Requirement	Condition Number	Pollutant/ Parameter	Limit/Standard	Monitoring Requirements	
				Method	Condition Number

32-010(3)	72	Visible Emissions	20% Opacity, 6-minute average	Quarterly VE Observations, Recordkeeping	75, 76
32-030(1)(b)	73	PM	0.14 gr/dscf	Quarterly VE Observations, Recordkeeping	75, 76
LRAPA 42-0080(4)(d)	74	PM, PM_{10}, $PM_{2.5}$, CO, NO_X, SO_2, VOC & HAPs	Fuel oil prohibited	Reporting	99
40 CFR Part 63, Subpart DDDDD	77	HAP	General compliance	Recordkeeping and Reporting	79, 80, 81
	78	HAP	Work practice standards	Monitoring, Recordkeeping, and Reporting	79, 80, 81

72. Applicable Requirement: The permittee must not emit or allow to be emitted any visible emissions from the boiler in EU: B-1 that equal or exceed an average of 20 percent opacity. When visual determination of opacity is required, the opacity must be measured as a six-minute block average using EPA Method 9. [LRAPA 32-010(3)]

73. Applicable Requirement: The permittee must not cause, suffer, allow, or permit particulate matter emissions in excess 0.14 grains per dry standard cubic foot for the boiler in EU: B-1, a source that was constructed or modified on or after June 1, 1970 but prior to April 16, 2015 for which there are no representative compliance source test results. [LRAPA 32-030(1)(b)]

74. Applicable Requirement: The permittee shall not burn fuel oil in Emission Unit B-1 (Boiler). [LRAPA 42-0080(4)(d)]

75. Monitoring Requirement: To demonstrate compliance with Conditions 72 and 73, the permittee must perform a visible emissions survey of the Boiler in EU: B-1. At least once quarterly, for a minimum period of 30 minutes, the permittee must visually survey the boiler using EPA Method 22 for any sources of visible emissions. For the purposes of this Condition, visible emissions requiring action are considered to be any visible emissions that do not result from mobile or fugitive sources and are not the result of condensed water vapor. The person conducting the EPA Method 22 does not have to be EPA Method 9 certified. However, the individual conducting the EPA Method 22 should be familiar with the procedures of EPA Method 9, including using the proper location to observe visible emissions. [LRAPA 34-180 and OAR 340-218-0050(3)(a)&(b)]

75.a. If visible emissions are observed using EPA Method 22, the permittee must take corrective action to eliminate the visible emissions within one (1) hour of finishing the visible emissions survey. After taking corrective action to eliminate the visible emissions, the permittee must conduct another visible emissions survey using EPA Method 22 within 24 hours of the previous visible emissions survey.

75.b. If the visible emissions survey performed within 24 hours of the previous visible emissions survey detects visible emissions from the same source(s), the permittee is required to immediately contact LRAPA or perform an EPA Method 9 on the source(s) of visible emissions. If the permittee performs an EPA Method 9 on the source(s) of visible emissions and the results are in compliance with Condition 72, no further action is required beyond the recordkeeping required in Condition 76. If the results of EPA Method 9 are not in compliance with Condition 72, the permittee must immediately contact LRAPA.

75.c. If the permittee is unable to conduct an EPA Method 9 test due to visual interferences caused by other visible emissions sources (e.g., fugitive emissions during high wind conditions) or due to weather conditions (e.g., fog, heavy rain, or snow), the permittee must note such conditions on the visible emissions survey sheet for that process or emission point. The permittee must attempt to conduct the EPA Method 9 tests daily until a valid visible emissions survey is completed.

76. Recordkeeping Requirement: The permittee must keep documentation of all visible emissions surveys required by Condition 75. For all corrective actions taken, the permittee must record the date, time, person or entity performing the corrective action, and the corrective actions taken, as applicable. [LRAPA 34-016(1)]

40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters [LRAPA 44-150(5)(jjjj)]

77. Applicable Requirement: *Emission Limitations, Work Practice Standards, and Operating Limits* – [40 CFR 63.7500]

77.a. At all times, the permittee must operate and maintain any affected source (as defined in 40 CFR 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to LRAPA that 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 63.7500(a)(3)]

77.b. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to 40 CFR 63 subpart DDDDD, or the operating limits in Table 4 to 40 CFR 63 subpart DDDDD. [40 CFR 63.7500(e)]

78. Applicable Requirement: The permittee must conduct an annual tune-up of the boiler to demonstrate continuous compliance as specified in Conditions 78.a through 78.f. (The initial tune-up requirement was completed August 12, 2015) [40 CFR 63.7540(a)(10)]

78.a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment; [40 CFR 63.7540(a)(10)(i)]

78.b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available; [40 CFR 63.7540(a)(10)(ii)]

78.c. Inspect the system controlling the air-to fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown); [40 CFR 63.7540(a)(10)(iii)]

78.d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject; [40 CFR 63.7540(a)(10)(iv)]

78.e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and [40 CFR 63.7540(a)(10)(v)]

78.f. Maintain on-site and submit, if requested by LRAPA, an annual report containing the information in Conditions 78.f.i through 78.f.ii: [40 CFR 63.7540(a)(10)(vi)]

78.f.i. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler; [40 CFR 63.7540(a)(10)(vi)(A)]

78.f.ii. A description of any corrective actions taken as a part of the tune-up. [40 CFR

63.7540(a)(10)(vi)(B)]

79. Reporting Requirements: [40 CFR 63.7550]

79.a. The permittee must submit an annual compliance report postmarked or submitted no later than January 31. [40 CFR 63.7550(b)(4)]

79.b. A compliance report must contain the following information depending on how the permittee chooses to comply with the limits set in 40 CFR 63 subpart DDDDD. [40 CFR 63.7550(c)]

79.b.i.1. Company and Facility name and address. [40 CFR 63.7550(c)(5)(i)]

79.b.i.2. Process unit information, emissions limitations, and operating parameter limitations. [40 CFR 63.7550(c)(5)(ii)]

79.b.i.3. Date of report and beginning and ending dates of the reporting period. [40 CFR 63.7550(c)(5)(iii)]

79.b.i.4. Include the date of the most recent tune-up. Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown. [40 CFR 63.7550(c)(5)(xiv)]

79.b.i.5. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. [40 CFR 63.7550(c)(5)(xvii)]

80. Reporting Requirement: The permittee must submit all reports required by Table 9 of 40 CFR 63 subpart DDDDD electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for 40 CFR 63 subpart DDDDD, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (http://www.epa.gov/ttn/chief/cedri/index.html), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the permittee must submit the report to EPA at the appropriate address listed in 40 CFR 63.13. The permittee must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [40 CFR 63.7550(h)(3)]

81. Recordkeeping Requirements: [40 CFR 63.7555 and 40 CFR 63.7560]

81.a. The permittee must keep records according to Condition 81.a.i. [40 CFR 63.7555(a)]

81.a.i. A copy of each notification and report that you submitted to comply with subpart 40 CFR 63 subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status of semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.7555(a)(1)]

81.b. The permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). [40 CFR 63.7560(a)]

81.c. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, and record. [40 CFR 63.7560(b)]

81.d. The permittee must keep each record on site, or the records must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The permittee can keep the records off site for the remaining 3 years. [40 CFR 63.7560(c)]

Categorically Insignificant Activity – EG-1 (Emergency Generator) Specific Emission Limits and Standards

40 CFR 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [LRAPA 44-150(5)(ffff)]

82. Applicable Requirement: *Stationary RICE subject to limited requirements*. [40 CFR 63.6590(b)]

82.a. The following stationary RICE do not have to meet the requirements of 40 CFR 63 subpart ZZZZ and of 40 CFR 63 subpart A, including initial notification requirements: [40 CFR 63.6590(b)(3)]

82.a.i. Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions. [40 CFR 63.6590(b)(3)(iii)]

83. Monitoring Requirement: The permittee must operate the emergency stationary RICE according to the requirements in Conditions 83.a through 83.c. In order for the engine to be considered an emergency stationary RICE under 40 CFR 63 subpart ZZZZ, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in Conditions 83.a through 83.c, is prohibited. If the permittee does not operate the engine according to the requirements in Conditions 83.a through 83.c, the engine will not be considered an emergency engine under 40 CFR 63 subpart ZZZZ and must meet all requirements for non-emergency engines. [LRAPA 32-007(1)]

83.a. There is no time limit on the use of emergency stationary RICE in emergency situations. [LRAPA 32-007(1)]

83.b. The permittee may operate the emergency stationary RICE for the purpose specified in Condition 83.b.i for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition 83.c counts as part of the 100 hours per calendar year allowed by this Condition 83.b. [LRAPA 32-007(1)]

83.b.i. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition LRAPA for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [LRAPA 32-007(1)]

83.c. The emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in Condition 83.b. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [LRAPA 32-007(1)]

Insignificant Activity Specific Emission Limits and Standards

84. Applicable Requirement(s): LRAPA acknowledges that insignificant emissions units (IEUs) identified by rule as either categorically insignificant activities or aggregate insignificant emissions as defined in LRAPA title 12 exist at facilities required to obtain an LRAPA Title V Operating Permit. IEUs must comply with all applicable requirements. In general, the applicable requirements that could apply to IEUs are incorporated as follows:

84.a. LRAPA 32-010(3) – 20% opacity for a period or periods aggregating more than three (3) minutes in any hour for sources other than wood fired boilers.

84.b. LRAPA 32-015(2)(b)(B) – 0.14 gr/dscf for non-fugitive, non-fuel burning equipment installed, constructed, or modified on or after June 1, 1970 but prior to April 16, 2015 if there are no representative compliance source tests.

84.c. LRAPA 32-015(2)(c) – 0.10 gr/dscf for non-fugitive, non-fuel burning equipment installed, constructed, or modified after April 16, 2015.

84.d. LRAPA 32-030(1)(b)&(3)(b) – 0.14 gr/dscf for fuel burning equipment sources installed, constructed, or modified after June 1, 1970, but prior to April 16, 2015 if there are no representative compliance source tests. For fuel burning equipment that burns fuels other than wood, the emission results are corrected to 50% excess air.

84.e. LRAPA 32-030(1)(a)&(3)(b) – 0.10 gr/dscf for fuel burning equipment sources installed, constructed, or modified after April 16, 2015. For fuel burning equipment that burns fuels other than wood, the emission results are corrected to 50% excess air.

84.f. LRAPA 32-045 – process weight limit for non-fugitive, non-fuel burning process equipment.

85. Testing, Monitoring, and Recordkeeping Requirement: Unless otherwise specified in this permit or an applicable requirement, LRAPA is not requiring any testing, monitoring, recordkeeping, or reporting for the applicable emissions limits and standards that apply to IEUs. However, if testing were performed for compliance purposes, the permittee would be required to use the test methods identified in the definitions of "opacity" and "particulate matter" in LRAPA title 12 and perform the testing in accordance with the ODEQ Source Sampling Manual.

PLANT SITE EMISSION LIMITS

86. The plant site emissions must not exceed the following limits for any 12 consecutive calendar month period: [LRAPA 42-0040 and 42-0041]

Annual (12-month rolling) PSELs

Pollutant	Plant Site Emissions Limit (tons/yr)	Unassigned Emissions (tons/yr)	Emission Reduction Credits (tons/yr)
PM	3.7	0	0
PM_{10}	3.4	0	0
$PM_{2.5}$	3.3	0	0
CO	33	0	0
NO_X	28	0	0
SO_2	1.2	8.9	0
VOC	15	0	0
GHG	31,972	0	0

87. Monitoring Requirement: The permittee must determine compliance with the PSELs using the following monitoring and calculation procedures: [LRAPA 35-0120, 42-0080 and OAR 340-218-0050(3)(a)]

87.a. The permittee must monitor and maintain monthly 12-month rolling records of the following process parameters:

Recordkeeping of Process Parameters

Process Parameter	Units	Pollutant(s)	Measurement Technique
Natural gas combusted in the boiler in B-1	MMscf or MMBtu	PM, PM_{10}, $PM_{2.5}$, CO, NO_X, SO_2, VOC & HAPs	Recordkeeping
No. 2 fuel oil combusted and hours of operation for the emergency generator in EG-1	Gallons and Hours	PM, PM_{10}, $PM_{2.5}$, CO, NO_X, SO_2, VOC & HAPs	Recordkeeping
RTO bypass hours for Reactor K-1 in OX-1	Hours	VOC and HAPs	Recordkeeping
RTO bypass hours for Reactors K-2 and K-3 in OX-2	Hours	VOC and HAPs	Recordkeeping
Formaldehyde usage	Gallons	VOC and HAPs	Production Records
Phenol usage	Gallons	VOC and HAPs	Production Records
Epichlorohydrin usage	Gallons	VOC and HAPs	Production Records
Methanol usage	Gallons	VOC and HAPs	Production Records
DETA usage	Gallons	VOC and HAPs	Production Records
DMG usage	Gallons	VOC and HAPs	Production Records
Polyamide Resins produced	Gallons	VOC and HAPs	Production Records
95% Formic Acid usage	Gallons	VOC and HAPs	Production Records
60% Formic Acid usage	Gallons	VOC and HAPs	Production Records

Process Parameter	Units	Pollutant(s)	Measurement Technique
PF Resin production	Gallons	VOC and HAPs	Production Records
UF Resin production	Gallons	VOC and HAPs	Production Records
UFC usage	Gallons	VOC and HAPs	Production Records
UFC & Methanol loaded through LOAD-1	Pounds	VOC and HAPs	Recordkeeping
RESI-MIX® produced	Gallons	VOC and HAPs	Production Records
Salt usage	Pounds	PM, PM_{10}, $PM_{2.5}$	Production Records
Resin loaded through LOAD-2	Pounds	VOC and HAPs	Recordkeeping
Cooling Tower Operation	Gallons	PM, PM_{10}, $PM_{2.5}$, VOC	Recordkeeping
Truck Washing quantity	Number & Type of Resin Trucks	VOC and HAPs	Recordkeeping

87.b. The permittee must determine compliance with the PSELs, except GHGs, by calculating 12-month rolling emissions for each emissions unit by using the following formula and process parameters listed in Condition 87.a, and the emission factors listed in Condition 88:

$$E = \sum_{i=1}^{12} [\, P_{eu_i} \times EF_{eu} \times K \,]$$

where:
- E = pollutant emissions in tons/yr.
- $\sum_{i=1}^{12}$ = symbol representing "summation of" with limits defined from current calendar month i=1 to preceding twelve months at i=12.
- P_{eu_i} = process parameter identified in Condition 87.a for calendar month i.
- EF_{eu} = emission factor identified for each emissions unit and pollutant in Condition 88.
- K = conversion constant is 1 ton/2000 lbs for annual emissions calculations.

87.b.i. ***By the 15th of each month***, the permittee must demonstrate compliance with the PSELs, except GHGs, by utilizing the equation in Condition 87.b.

88. The permittee must use the emission factors in the table below in the equation in Condition 87.b for calculating the 12-month rolling emissions to demonstrate compliance with the PSELs. [LRAPA 34-016]

Emission Factors

Emissions Unit(s)	Pollutant	Fuels/Species/ Conditions	Emission Factor	Emission Factor Units	Emission Factor Verification Testing	
					Yes/No	Test Method
B-1 Boiler	PM	Natural Gas	2.44E-03	lb/MMBtu	No	NA
	PM_{10}	Natural Gas	2.44E-03	lb/MMBtu	No	NA
	$PM_{2.5}$	Natural Gas	2.44E-03	lb/MMBtu	No	NA
	CO	Natural Gas	8.19E-02	lb/MMBtu	No	NA
	NO_X	Natural Gas	9.75E-02	lb/MMBtu	No	NA
	SO_2	Natural Gas	1.66E-03	lb/MMBtu	No	NA

Emissions Unit(s)	Pollutant	Fuels/Species/ Conditions	Emission Factor	Emission Factor Units	Emission Factor Verification Testing	
					Yes/No	Test Method
	VOC	Natural Gas	5.36E-03	lb/MMBtu	No	NA
	Total HAP	Natural Gas	1.93E-03	lb/MMBtu	No	NA
	Single HAP (HCl)	Natural Gas	5.00E-05	lb/MMBtu	No	NA
OX-1 & OX-2 Reactors RTO-Controlled	PM	Natural Gas	2.44E-03	lb/MMBtu	No	NA
	PM_{10}	Natural Gas	2.44E-03	lb/MMBtu	No	NA
	$PM_{2.5}$	Natural Gas	2.44E-03	lb/MMBtu	No	NA
	SO_2	Natural Gas	1.66E-03	lb/MMBtu	No	NA
	NO_X	Resin Plant Production	0.30	lb/hr	No	NA
	CO	Resin Plant Production	2.60	lb/hr	No	NA
	VOC	Resin Plant Production	0.12	lb/hr	Yes	See Condition 90
	Total HAP	Natural Gas/ Resin Plant Production	1.81	lb/hr	No	NA
	Single HAP (HCl)	Resin Plant Production	1.69	lb/hr	No	NA
OX-1 & OX-2 Reactors RTO Bypass	VOC	Resin Plant Production	2.36	lb/hr	No	NA
	Total HAP	Resin Plant Production	2.31	lb/hr	No	NA
OX-1 & OX-2 Process Piping and Component Leaks	VOC	Liquid Streams	1.52	lb/hr	No	NA
	Total HAP	Liquid Streams	1.12	lb/hr	No	NA
Urea Urea Transfer System	$PM/PM_{10}/PM_{2.5}$	Storage Silo (BH-1)	1.97E-05	lb/ton throughput	No	NA
	$PM/PM_{10}/PM_{2.5}$	Loading Hopper (BH-2)	3.94E-05	lb/ton throughput	No	NA
Resi-Mix Resimixer	$PM/PM_{10}/PM_{2.5}$	BH-3	2.00E-02	lb/ton throughput	No	NA
Salt Dry Chemical Blower	$PM/PM_{10}/PM_{2.5}$	BH-4 & BH-5	2.00E-02	lb/ton throughput	No	NA
CT-1 Cooling Tower	$PM/PM_{10}/PM_{2.5}$	Gallon throughput	6.67E-05	lb/Mgal	No	NA
	VOC	Gallon throughput	7.00E-04	lb/Mgal	No	NA

Emissions Unit(s)	Pollutant	Fuels/Species/ Conditions	Emission Factor	Emission Factor Units	Emission Factor Verification Testing	
					Yes/No	Test Method
LOAD-1 Transfer Racks	VOC/Total HAP	UFC Truck Loading – Formaldehyde	8.38E-06	lb/lb product	No	NA
	VOC/Total HAP	UFC Truck Loading – Methanol	9.03E-06	lb/lb product	No	NA
	VOC/Total HAP	Methanol Distillate Truck Loading	5.75E-05	lb/lb product	No	NA
	VOC/Total HAP	Methanol Distillate Rail Car Loading	5.75E-05	lb/lb product	No	NA
LOAD-2 Truck and Railcar Resin Loading	VOC/Total HAP	UF Resin	1.58E-06	lb/lb resin	No	NA
		PF Resin	1.58E-06			
		Methanol Solvated PF	1.34E-05			
	VOC	Polyamide Resin	9.50E-07			
	VOC	Resin w/ IPA	2.84E-05			
	Total HAP	Resin w/ IPA	6.35E-07			
TW-1 Truck Washing	VOC/Total HAP	UF Resin	5.44E-02	lb/truck	No	NA
	VOC/Total HAP	PF Resin	5.45E-02	lb/truck	No	NA
	VOC	Polyamide Resin	1.48E-01	lb/truck	No	NA
WRP Waste Resin Pile	VOC/Total HAP	Resin waste	9.59E-04	lb/hr	No	NA
TANKS Emission Factors						
DMG	VOC	Tank 301	1.68E-06	lb/gal throughput	No	NA
Phenol	VOC/Total HAP	Tanks 302 & 303	8.68E-05	lb/gal throughput	No	NA
Methanol & Formaldehyde	VOC/Total HAP	Tanks 304 & 306	1.37E-04	lb/gal throughput	No	NA
90% Formic Acid	VOC	Tank 305	8.93E-04	lb/gal throughput	No	NA
PF/UF Resin Chill Tanks	VOC/Total HAP	Tanks 402 & 603	3.41E-06	lb/gal throughput	No	NA
PF/UF Resin	VOC/Total HAP	Tanks 406-407, 409-413, 606-607, 609-610, I-3-I-6, SW1-SW2, WT-1, &WT-3	3.45E-05	lb/gal throughput	No	NA
Polyamide Resin	VOC	Tanks 501-506, 507-509, 706-707, & WT-4	6.91E-05	lb/gal throughput	No	NA
Methanol Distillate	VOC/Total HAP	Tank 602	1.49E-03	lb/gal throughput	No	NA
Process Water	VOC/Total HAP	Tank 604	4.28E-05	lb/gal throughput	No	NA

Emissions Unit(s)	Pollutant	Fuels/Species/ Conditions	Emission Factor	Emission Factor Units	Emission Factor Verification Testing	
					Yes/No	Test Method
Resin w/ Flammable Resin	VOC	Tank 608	1.31E-04	lb/gal throughput	No	NA
	Total HAP	Tank 608	4.32E-06	lb/gal throughput	No	NA
DETA	VOC	Tank 701	2.21E-06	lb/gal throughput	No	NA
Methanol Distillate	VOC/Total HAP	Tank 703	8.08-04	lb/gal throughput	No	NA
IPA	VOC	Tank 800	4.05E-04	lb/gal throughput	No	NA
EPI	VOC/Total HAP	Tank 801	2.75E-05	lb/gal throughput	No	NA
EPI	VOC/Total HAP	Tank 802	1.82E-05	lb/gal throughput	No	NA
60% Formic Acid	VOC	Tank AQ1	1.91E-04	lb/gal throughput	No	NA
Diesel Fuel	VOC	Tank DF-1	1.30E-06	lb/gal throughput	No	NA
WSR Stormwater	VOC	Tank 900	1.14E-05	lb/gal throughput	No	NA

GENERAL TESTING REQUIREMENTS

89. Unless otherwise specified in this permit, the permittee must conduct all testing in accordance with the ODEQ Source Sampling Manual. [LRAPA 35-0120(3) and OAR 340-218-0050(3)(a)]

89.a. Unless otherwise specified by a state or federal regulation, the permittee must submit a source test plan to LRAPA at least 30 days prior to the date of the test. The test plan must be prepared in accordance with the ODEQ Source Sampling Manual and address any planned variations or alternatives to prescribed test methods. The permittee should be aware that if significant variations are requested, it may require more than 30 days for LRAPA to grant approval and may require EPA approval in addition to approval by LRAPA.

89.b. Only regular operating staff may adjust the processes or emission control device parameters during a compliance source test and within two (2) hours prior to the tests. Any operating adjustments made during a compliance source test, which are a result of consultation during the tests with source testing personnel, equipment vendors, or consultants, may render the source test invalid.

89.c. Unless otherwise specified by permit condition or LRAPA approved source test plan, all compliance source test must be performed as follows:

89.c.i. At least 90% of the maximum design capacity for initial performance tests on new or modified equipment; or

89.c.ii. At least 90% of the normal maximum operating rate for existing equipment. For purposes of this permit, the normal maximum operating rate is defined as no less than the 90th percentile of the average hourly operating rates during a 12-month period immediately preceding the source test. Data supporting the normal maximum operating rate must be included with the source test report. Average hourly operating rates can be determined by taking daily operating data and dividing by the number of hours of operation.

89.d. Each source test must consist of at least three (3) test runs and the emissions results must be reported as the arithmetic average of all valid test runs. If for reasons beyond the control of the

permittee a test run is invalid, LRAPA may accept two (2) test runs for demonstrating compliance with the emission limit or standard.

89.e. Source testing reports prepared in accordance with the ODEQ Source Sampling Manual must be submitted to LRAPA within 60 days of completing any required source test, unless a different time period is approved in the source test submitted prior to the source test.

OX-2 RTO Testing Requirements

90. Within one (1) year prior to the expiration date of this permit, the permittee must demonstrate compliance with the destruction removal efficiencies specified in Condition 42 for organic HAP emissions control and Condition 69.a.ii.1 for VOC emissions control through the RTO in Emission Unit OX-2. The permittee must also verify the emission factor for HCl emissions at the outlet of the RTO. The testing must be conducted in accordance with Condition 89 and Conditions 90.a through 90.c. [LRAPA 35-0120 and OAR 340-218-0050(3)(a)]

90.a. As previously detailed in Condition 46.a.v, the following methods must be used to determine the organic HAP concentration of the inlet and outlet of the RTO, unless an alternative method is approved by LRAPA:

90.a.i. Method 316 or Method 320, 40 CFR part 60, appendix A, must be used to determine the concentration of formaldehyde.

90.a.ii. Method 18, 40 CFR part 60, appendix A, must be used to determine the concentration of all organic HAP other than formaldehyde.

90.a.iii. Method 308, 40 CFR part 60, appendix A, may be used as an alternative to Method 18 to determine the concentration of methanol.

90.b. EPA Methods 1 through 4 and EPA Method 25A must be used for determining the inlet and outlet VOC emissions (as propane) of the RTO in OX-2.

90.c. EPA Method 26 or 26A must be used for determining the outlet HCl emissions of the RTO.

GENERAL MONITORING REQUIREMENTS

91. The permittee must not knowingly render inaccurate any required monitoring device or methods. [OAR 340-218-0050(3)(a)(E)]

92. The permittee must use the same methods used to determine compliance as those used to determine actual emissions for fee purposes and can be no less rigorous than the requirements of OAR 340-218-0080. [OAR 340-218-0050(3)(a)(F)]

93. Monitoring requirements must commence on the date of permit issuance unless otherwise specified in the permit or an applicable requirement. [OAR 340-218-0050(3)(a)(G)]

GENERAL RECORDKEEPING REQUIREMENTS

94. The permittee must maintain the following general records of testing and monitoring required by this permit: [OAR 340-218-0050(b)(A)]

94.a. The date, place as defined in the permit, and time of sampling or measurements;

94.b. The date(s) analyses were performed;

94.c. The company or entity that performed the analyses;

94.d. The analytical techniques or methods used;

94.e. The results of such analyses;

94.f. The operating conditions as existing at the time of sampling or measurement; and

94.g. The records of quality assurance for continuous monitoring systems (including but not limited to quality control activities, audits, calibration drift checks).

95. Unless otherwise specified by permit condition, the permittee must make every effort to maintain 100 percent of the records required by the permit. If information is not obtained or recorded for legitimate reasons (e.g., the monitor or data acquisition system malfunctions due to a power outage), the missing record(s) will not be considered a permit deviation provided the amount of data lost does not exceed 10% of the averaging periods in a reporting period or 10% of the total operating hours in a reporting period, if no averaging time is specified. Upon discovering that a required record is missing, the permittee must document the reason for the missing record. In addition, any missing record that can be recovered from other available information will not be considered a missing record. [LRAPA 34-016, OAR 340-214-0114, and 340-218-0050(3)(b)]

96. Recordkeeping requirements must commence on the date of permit issuance unless otherwise specified in the permit or an applicable requirement. [OAR 340-218-0050(3)(b)(C)]

97. Unless otherwise specified, the permittee must retain records of all required monitoring data and support information for a period of as least five (5) years for the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-charts recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. All existing records required by the previous Air Contamination Discharge Permit or LRAPA Title V Operating Permit must also be retained for five (5) years from the date of the monitoring sample measurement, report or application. [LRAPA 34-016 and OAR 340-218-0050(3)(b)(B)]

REPORTING REQUIREMENTS

98. The permittee must submit three (3) copies of reports of any required monitoring at least every six (6) months, completed on forms approved by LRAPA. Six-month periods are January 1 to June 30, and July 1 to December 31. Two copies of the report must be submitted to LRAPA and one copy to the EPA. All instances of deviations from permit requirements must be clearly identified in such reports: [OAR 340-218-0050(3)(c)(A) and OAR 340-218-0080(6)(d)]

98.a. The first semi-annual report must be received ***by August 15*** and must include the following:

98.a.i. Semi-annual compliance certification detailed in Condition 99; [OAR 340-218-0080]

98.a.ii. The Periodic Report for Leak Detection and Repair required detailed in Condition 39.a;

98.a.iii. The 12-month rolling throughput of organic liquids loading as required by Condition 22;

98.a.iv. The Periodic Report for Amino/Phenolic Resin Production detailed in Condition 49;

98.a.v. The Periodic Report for Closed Vent Systems/Control Devices detailed in Condition 56; and

98.a.vi. The Periodic Report for Equipment Leaks detailed in Condition 71.

98.b. The annual report must be received ***by February 15*** and must include the following:

98.b.i. The emission fee report; [OAR 340-220-0100]

98.b.ii. The excess emissions upset log; [OAR 340-214-0340]

98.b.iii. The second semi-annual compliance certification detailed in Condition 99; [OAR 340-218-0080]

98.b.iv. Annual certification that the risk management plan is being properly implemented; [OAR 340-218-0080(7)]

98.b.v. Parameters and calculations required by Condition 87;

98.b.vi. The Periodic Report for Leak Detection and Repair detailed in Condition 39.a;

98.b.vii. The 12-month rolling throughput of organic liquids loading as required by Condition 22;

98.b.viii. The Periodic Report for Amino/Phenolic Resin Production detailed in Condition 49;

98.b.ix. The Periodic Report for Closed Vent Systems/Control Devices detailed in Condition 56;

98.b.x. The Periodic Report for Equipment Leaks detailed in Condition 71; and

98.b.xi. The annual compliance report required by 40 CFR 63 subpart DDDDD detailed in Condition 79.

99. The semi-annual compliance certification must include the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable): [OAR 340-218-0080(6)(c)]

99.a. The identification of each term or condition of the permit that is the basis of the certification;

99.b. The identification of the method(s) or other means used by the permittee for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means must include, at a minimum, the methods and means required under OAR 340-218-0050(3). If necessary, the permittee also must identify any other material information that must be included in the certification to comply with Section 113(c)(2) of the FCAA, which prohibits knowingly making a false certification or omitting material information;

99.c. The status of compliance with terms and conditions of the permit for the period covered by the certification, based on the method or means designated in OAR 340-218-0040(6)(c)(B). The certification must identify each deviation and take it into account in the compliance certification. The certification must also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance, as defined under OAR 340-200-0020, occurred; and

99.d. Such other fact as LRAPA may require to determine the compliance status of the source.

100. Notwithstanding any other provision contained in any applicable requirement, the permittee may use monitoring as required under OAR 340-218-0050(3) and incorporated into the permit, in addition to any specified compliance methods, for the purpose of submitting compliance certifications. [OAR 340-218-0080(6)(e)]

101. Greenhouse Gas Reporting: If the calendar year emission rate of greenhouse gases (CO_2e) is greater than or equal to 2,756 tons (2,500 metric tons including both biogenic and anthropogenic), the permittee must register and report its greenhouse gas emissions with LRAPA ***by March 31*** of each year in accordance with OAR 340-215. The greenhouse gas report must be certified by the responsible official consistent with OAR 340-218-0040(1). [OAR 340-215-0040 and OAR 340-215-0046(1)(a)]

102. Excess Emissions Reporting: The permittee must report all excess emissions as follows: [LRAPA 36-010, 36-025(1) and OAR 340-218-0050(3)(c)]

102.a. Immediately (within one (1) hour after the permittee knew or should have known of an excess emission period) the permittee must notify LRAPA by telephone, email, facsimile, or in person of any excess emission; and

102.b. Within 15 days of the excess emissions event, the permittee must submit a written report that contains the following information: [LRAPA 36-025(1)]

102.b.i. The date and time of the beginning of the excess emissions event and the duration or best estimate of the time until return to normal operation;

102.b.ii. The date and time the permittee notified LRAPA of the event;

102.b.iii. The equipment involved;

102.b.iv. Whether the event occurred during startup, shutdown, maintenance, or as a result of a

breakdown, malfunction, or emergency;

102.b.v. Steps taken to mitigate emissions and corrective actions taken;

102.b.vi. The magnitude and duration of each occurrence of excess emissions during the course of an event and the increase over normal rates or concentrations as determined by continuous monitoring or a best estimate, supported by operating data and calculations;

102.b.vii. The final resolution of the cause of the excess emissions; and

102.b.viii. Where applicable, evidence supporting any claim that emissions in excess of technology-based limits were due to an emergency pursuant to LRAPA 36-040.

102.c. In the event of any excess emissions which are of a nature that could endanger public health and occur during non-business hours, weekends, or holidays, the permittee must immediately notify LRAPA by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311.

102.d. If startups, shutdowns, or scheduled maintenance may result in excess emissions, the permittee must submit startup, shutdown, or scheduled maintenance procedures used to minimize excess emissions to LRAPA for prior authorization, as required in LRAPA 36-010 and 36-015. New or modified procedures must be received by LRAPA in writing at least 72 hours prior to the first occurrence of the excess emission event. The permittee must abide by the approved procedures and have a copy available at all times.

102.e. The permittee must notify LRAPA of planned startup/shutdown or scheduled maintenance events only if required by permit condition or if it results in excess emissions. When notice is required by this condition, it must be made in accordance with Condition 102.a.

102.f. The permittee must continue to maintain a log of all excess emissions in accordance with LRAPA 36-025(3). However, the permittee is not required to submit the detailed log with the semi-annual and annual monitoring reports. The permittee is only required to submit a brief summary listing the date, time, and the affected emissions units for each excess emission that occurred during the reporting period. [OAR 340-218-0050(3)(c)]

103. Permit Deviation Reporting: The permittee must promptly report deviations from permit requirements that do not cause excess emissions, including those attributable to upset conditions, as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. “Prompt” is defined as within 15 days of the deviation. Deviations that cause excess emissions, as specified in LRAPA Title 36 must be reported in accordance with Condition 98. [OAR 340-218-0050(3)(c)(B)]

104. All required reports must be certified by a responsible official consistent with OAR 340-218-0040(5). [OAR 340-218-0050(3)(c)(D)]

105. Reporting requirements must commence on the date of permit issuance unless otherwise specified in the permit. [OAR 340-218-0050(3)(c)(E)]

106. Reports must be sent to the following regulatory agency addresses, unless otherwise instructed:

Lane Regional Air Protection Agency
1010 Main Street
Springfield, OR 97477
(541) 736-1056

Enforcement and Compliance Assurance Division
Region 10 (20-C04)
U.S. Environmental Protection Agency
1200 Sixth Avenue, Suite 155
Seattle, WA 98101

NON-APPLICABLE REQUIREMENTS

107. The following Federal air quality requirements are not applicable to this facility for the reasons stated. [OAR-

340-218-0110]

Rule Citation	Summary	Reason for Not Being Applicable
40 CFR Part 60, Subpart Db	Standard of Performance for Industrial-Commercial-Institutional Steam Generating Units.	The facility is not subject to this NSPS because the facility boiler is under 100 MMBtu/hr rating.
40 CFR Part 60, Subpart Dc	Standard of Performance for Industrial-Commercial-Institutional Steam Generating Units	The facility is not subject to this NSPS because the facility's the boiler was constructed prior to the June 9, 1989 commencement date and has not been reconstructed since that date.
40 CFR Part 60, Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessel (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984	The facility is not subject to this NSPS because any tanks at the facility that are greater than 75 m^3 (19,813 gallons) and less than 151 m^3 (39,890 gallons) installed after the applicability date of July 23, 1984, store liquids with a with a maximum true vapor pressure less than 15.0 kPa.
40 CFR Part 60, Subpart VV	Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006	The facility is not subject to this NSPS because the facility manufactures formaldehyde - containing resins, not formaldehyde.
40 CFR Part 60, Subpart VVa	Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After November 7, 2006	The facility is not subject to this NSPS because the facility manufactures formaldehyde - containing resins, not formaldehyde.
40 CFR Part 60, Subpart III	Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	The facility is not subject to this NSPS because the facility does not produce any of the chemicals listed in 40 CFR 60.617 as a product, co-product, by-product or intermediate and for which was construction, modification, or reconstruction commenced after October 21, 1983.
40 CFR Part 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engine	The facility is not subject to this NSPS because the generator was manufactured prior to the July 11, 2005 compliance date.
40 CFR Part 60, Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engine	The facility does not operate any stationary spark ignition internal combustion engines.
40 CFR Part 61, Subpart FF	National Emission Standards for Benzene Waste Operations	The facility is not subject to this NESHAP because it does not generate benzene containing waste

Rule Citation	Summary	Reason for Not Being Applicable
		streams or benzene containing material.
40 CFR Part 63, Subpart F	National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry	This facility is not subject to this NESHAP because it does not manufacture formaldehyde or any other chemical listed in Table 1 of this subpart.
40 CFR Part 63, Subpart G	National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operation, and Wastewater	This facility is not subject to this NESHAP because it is not considered an "affected facility" under NESHAP 40 CFR 63, Subpart F.
40 CFR Part 63, Subpart W	National Emission Standards for Hazardous Air Pollutants for Epoxy Resins Production and Non-Nylon Polyamides Production	This facility is not subject to this NESHAP because it is not a major source of hazardous air pollutants (HAPs).
40 CFR Part 63, Subpart OOO	National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins	This facility is not subject to this NESHAP because it is not a major source of hazardous air pollutants (HAPs).
40 CFR Part 63, Subpart EEEE	National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)	This facility is not subject to this NESHAP because it is not a major source of hazardous air pollutants (HAPs).

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GENERAL CONDITIONS

G1. General Provision

Terms not otherwise defined in the permit must have the meaning assigned to such terms in the referenced regulation.

G2. Reference Materials

Where referenced in this permit, the version of the following materials are effective as of the dates noted unless otherwise specified in the permit:

a. Source Sampling Manual; November 15, 2018 - State Implementation Plan Volume 4, Appendix A4;

b. Continuous Monitoring Manual; April 16, 2015 - State Implementation Plan Volume 3, Appendix A6; and

c. All state and federal regulations as in effect on the date of issuance of this permit.

G3. Applicable Requirements [OAR 340-218-0010(3)(b)]

Oregon Title V Operating Permits do not replace requirements in Air Contaminant Discharge Permits (ACDP) issued to the source even if the ACDP(s) have expired. For a source operating under a Title V permit, requirements established in an earlier ACDP remain in effect notwithstanding expiration of the ACDP or Title V permit, unless a provision expires by its terms or unless a provision is modified or terminated following the procedures used to establish the requirement initially. Source specific requirements, including, but not limited to TACT, RACT, BACT, and LAER requirements, established in an ACDP must be incorporated into the LRAPA Title V Operating Permit and any revisions to those requirements must follow the procedures used to establish the requirement initially.

G4. Compliance [OAR 340-218-0040(3)(n)(C), 340-218-0050(6), and 340-218-0080(4)]

a. The permittee must comply with all conditions of the federal operating permit. Any permit condition noncompliance constitutes a violation of the Federal Clean Air Act and/or state rules and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application. Any noncompliance with a permit condition specifically designated as enforceable only by the state constitutes a violation of state rules only and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.

b. Any schedule of compliance for applicable requirements with which the source is not in compliance at the time of permit issuance must be supplemental to, and must not sanction noncompliance with the applicable requirements on which it is based.

c. For applicable requirements that will become effective during the permit term, the source must meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement.

G5. Masking Emissions:

The permittee must not install or use any device or other means designed to mask the emission of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement. [LRAPA 32-050(2)] This condition is enforceable only by LRAPA.

G6. Credible Evidence

Notwithstanding any other provisions contained in any applicable requirement, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any such applicable requirements. [LRAPA 34-017]

G7. Certification [OAR 340-214-0110, 340-218-0040(5), 340-218-0050(3)(c)(D), and 340-218-0080(2)]

Any document submitted to LRAPA or EPA pursuant to this permit must contain certification by a responsible official of truth, accuracy and completeness. All certifications must state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and, complete. The permittee must promptly, upon discovery, report to LRAPA a material error or omission in these records, reports, plans, or other documents.

G8. Outdoor Burning [LRAPA Title 47]

The permittee is prohibited from conducting outdoor burning, except as may be allowed by LRAPA 47-001 through 47-030.

G9. Asbestos [40 CFR Part 61, Subpart M (federally enforceable), OAR 340-248-0240, and LRAPA 43-015 (LRAPA-only enforceable)]

The permittee must comply with OAR 340-248-0240, LRAPA 43-015, and 40 CFR Part 61, Subpart M when conducting any renovation or demolition activities at the facility.

G10. Stratospheric Ozone and Climate Protection [40 CFR 82 Subpart F, OAR 340-260-0040]

The permittee must comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, Recycling and Emissions Reduction.

G11. Permit Shield [OAR 340-218-0110]

a. Compliance with the conditions of the permit must be deemed compliance with any applicable requirements as of the date of permit issuance provided that:

   i. such applicable requirements are included and are specifically identified in the permit, or

   ii. LRAPA, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

b. Nothing in this rule or in any federal operating permit must alter or affect the following:

   i. the provisions of ORS 468.115 (enforcement in cases of emergency) and ORS 468.035 (function of department);

   ii. the liability of the permittee of a source for any violation of applicable requirements prior to or at the time of permit issuance;

   iii. the applicable requirements of the national acid rain program, consistent with Section 408(a) of the FCAA; or

   iv. the ability of LRAPA to obtain information from a source pursuant to ORS 468.095 (investigatory authority, entry on premises, status of records).

c. Sources are not shielded from applicable requirements that are enacted during the permit term, unless such applicable requirements are incorporated into the permit by administrative amendment, as provided in OAR 340-218-0150(1)(h), significant permit modification, or reopening for cause by LRAPA.

G12. Inspection and Entry [OAR 340-218-0080(3)]

Upon presentation of credentials and other documents as may be required by law, the permittee must allow Lane Regional Air Protection Agency, or an authorized representative (including an authorized contractor acting as a representative of the EPA Administrator), to perform the following:

a. Enter upon the permittee's premises where a Title V operating permit program source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

b. Have access to and copy, at reasonable times, any records that must be kept under conditions of the permit;

c. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

d. As authorized by the FCAA or LRAPA rules, sample or monitor, at reasonable times, substances or parameters, for the purposes of assuring compliance with the permit or applicable requirements.

G13. Fee Payment [OAR 340-220-0010, and 340-220-0030 through 340-220-0190]

The permittee must pay an annual base fee and an annual emission fee for all regulated air pollutants except for carbon monoxide, any class I or class II substance subject to a standard promulgated under or established by Title VI of the Federal Clean Air Act, or any pollutant that is a regulated air pollutant solely because it is subject to a standard or regulation under Section 112(r) of the Federal Clean Air Act. The permittee must submit payment to Lane Regional Air Protection Agency, 1010 Main Street, Springfield, Oregon, 97477, within 30 days of the date LRAPA mails the fee invoice or August 1 of the year following the calendar year for which emission fees are paid, whichever is later. Disputes must be submitted in writing to LRAPA. Payment must be made regardless of the dispute. User-based fees must be charged for specific activities (e.g., computer modeling review, ambient monitoring review, etc.) requested by the permittee.

G14. Off-Permit Changes to the Source [OAR 340-218-0140(2)]

a. The permittee must monitor for, and record, any off-permit change to the source that:

i. Is not addressed or prohibited by the permit;

ii. Is not a Title I modification;

iii. Is not subject to any requirements under Title IV of the FCAA;

iv. Meets all applicable requirements;

v. Does not violate any existing permit term or condition; and

vi. May result in emissions of regulated air pollutants subject to an applicable requirement but not otherwise regulated under this permit or may result in insignificant changes as defined in LRAPA Title 12.

b. A contemporaneous notification, if required under OAR 340-218-0140(2)(b), must be submitted to LRAPA and the EPA.

c. The permittee must keep a record describing off-permit changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those off-permit changes.

d. The permit shield of Condition G11 must not extend to off-permit changes.

G15. Section 502(b)(10) Changes to the Source [OAR 340-218-0140(3)]

a. The permittee must monitor for, and record, any Section 502(b)(10) change to the source, which is defined as a change that would contravene an express permit term but would not:

i. Violate an applicable requirement;

ii. Contravene a federally enforceable permit term or condition that is a monitoring, recordkeeping, reporting, or compliance certification requirement; or

iii. Be a Title I modification.

b. A minimum 7-day advance notification must be submitted to LRAPA and the EPA in accordance with OAR 340-218-0140(3)(b).

c. The permit shield of Condition G11 must not extend to Section 502(b)(10) changes.

G16. Administrative Amendment [OAR 340-218-0150]

Administrative amendments to this permit must be requested and granted in accordance with OAR 340-218-0150. The permittee must promptly submit an application for the following types of administrative amendments upon becoming aware of the need for one, but no later than 60 days of such event:

a. Legal change of the registered name of the company with the Corporations Division of the State of Oregon, or

b. Sale or exchange of the activity or facility.

G17. Minor Permit Modification [OAR 340-218-0170]

The permittee must submit an application for a minor permit modification in accordance with OAR 340-218-0170.

G18. Significant Permit Modification [OAR 340-218-0180]

The permittee must submit an application for a significant permit modification in accordance with OAR 340-218-0180.

G19. Staying Permit Conditions [OAR 340-218-0050(6)(c)]

Notwithstanding Conditions G16 and G17, the filing of a request by the permittee for a permit modification, revocation and re-issuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

G20. Construction/Operation Modification [OAR 340-218-0190]

The permittee must obtain approval from LRAPA prior to construction or modification of any stationary source of air pollution control equipment in accordance with LRAPA 34-010 and 34-034 through 34-038.

G21. New Source Review Modification [LRAPA 38-0010]

The permittee must not begin construction of a major source or a major modification of any stationary source without having received an Air Contaminant Discharge Permit (ACDP) (LRAPA 34-010) from LRAPA and having satisfied the requirements of LRAPA Title 38 (New Source Review).

G22. Need to Halt or Reduce Activity Not a Defense [OAR 340-218-0050(6)(b)]

The need to halt or reduce activity will not be a defense. It will not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

G23. Duty to Provide Information [OAR 340-218-0050(6)(e) and LRAPA 34-015]

The permittee must furnish to LRAPA, within a reasonable time, any information that LRAPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee must also furnish to LRAPA copies of records required to be retained by the permit or, for information claimed to be confidential, the permittee may furnish such records to LRAPA along with a claim of confidentiality.

G24. Reopening for Cause [OAR 340-218-0050(6)(c) and 340-218-0200]

a. The permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by LRAPA.

b. A permit must be reopened and revised under any of the circumstances listed in OAR 340-218-0200(1)(a).

c. Proceedings to reopen and reissue a permit must follow the same procedures as apply to initial permit issuance and must affect only those parts of the permit for which cause to reopen exists.

G25. Severability Clause [OAR 340-218-0050(5)]

Upon any administrative or judicial challenge, all the emission limits, specific and general conditions, monitoring, recordkeeping, and reporting requirements of this permit, except those being challenged, remain valid and must be complied with.

G26. Permit Renewal and Expiration [OAR 340-218-0040(1)(a)(D) and 340-218-0130]

a. This permit must expire at the end of its term, unless a timely and complete renewal application is submitted as described below. Permit expiration terminates the permittee's right to operate.

b. Applications for renewal must be submitted at least 12 months before the expiration of this permit, unless LRAPA requests an earlier submittal. If more than 12 months is required to process a permit renewal application, LRAPA must provide no less than six (6) months for the permittee to prepare an application.

c. Provided the permittee submits a timely and complete renewal application, this permit must remain in effect until final action has been taken on the renewal application to issue or deny the permit.

G27. Permit Transference [OAR 340-218-0150(1)(d)]

The permit is not transferable to any person except as provided in OAR 340-218-0150(1)(d).

G28. Property Rights [340-218-0050(6)(d)]

The permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations, except as provided in OAR 340-218-0110.

G29. Permit Availability [LRAPA 34-015 and 340-218-0120(2)]

The permittee must have available at the facility at all times a copy of the LRAPA Title V Operating Permit and must provide a copy of the permit to LRAPA or an authorized representative upon request.

ALL INQUIRIES SHOULD BE DIRECTED TO:

Lane Regional Air Protection Agency
1010 Main Street
Springfield, OR 97477
(541) 736-1056

ATTACHMENT A: Air Pollution Emergencies

Table I

AIR POLLUTION EPISODE: ***ALERT CONDITION***

EMISSION REDUCTION PLAN

Part A: Pollution Episode Conditions for Carbon Monoxide or Ozone

For ***Alert Conditions*** due to excessive levels of carbon monoxide or ozone, persons operating motor vehicles shall be requested to voluntarily curtail or eliminate all unnecessary operations within the designated ***Alert Area***, and public transportation systems shall be requested to provide additional services in accordance with a preplanned strategy.

Part B: Pollution Episode Conditions for Particulate Matter

For ***Alert Conditions*** resulting from excessive levels of particulate matter, the following measures shall be taken in the designated area:

1. There shall be no open burning by any person of any material.

2. Persons operating fuel-burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of 12 noon and 4 p.m.

1. 3. Persons responsible for the operation of any source of air contaminants listed below shall take all required actions for the ***Alert Level***, in accordance with the preplanned strategy:

Source of Contamination	Control Actions — ***Alert Level***
A. Coal, oil, or wood-fired facilities.	1) Utilization of electric generating fuels having low ash and sulfur content. 2) Utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. 3) Diverting electric power generation to facilities outside of ***Alert Area***.
B. Coal, oil, or wood-fired process steam generating facilities.	1) Utilization of fuel having low ash and sulfur content. 2) Utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. 3) Substantial reduction of steam load demands consistent with continuing plant operations.

Source of Contamination	Control Actions — ***Alert Level***
C. Manufacturing industries of the following classifications: - Primary Metals Industries - Petroleum Refining - Chemical Industries - Mineral Processing Indus. - Grain Industries - Paper and Allied Products - Wood Processing Industry	1) Reduction of air contaminants from manufacturing operations by curtailing postponing, or deferring production and all operations. 2) Reduction by deferring trade waste disposal operations which emit solid particle gas vapors or malodorous substance. 3) Reduction of heat load demands for processing. 4) Utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

Table II

AIR POLLUTION EPISODE: ***WARNING CONDITIONS***

EMISSION REDUCTION PLAN

Part A: Pollution Episode Conditions for Carbon Monoxide or Ozone

For ***Warning Conditions***, resulting from excessive levels or carbon monoxide or ozone, the following measures shall be taken:

1. Operation of motor vehicles carrying fewer than three (3) persons shall be prohibited within designated areas during specified hours. Exceptions from this provision are:
   A. Public transportation and emergency vehicles
   B. Commercial vehicles
   C. Through traffic remaining on Interstate or primary highways.

2. At the discretion of the Agency, operations of all private vehicles within designated areas or entry of vehicles into designated areas may be prohibited for specified periods of time.

3. Public transportation operators shall, in accordance with a pre-planned strategy, provide the maximum possible additional service to minimize the public's inconvenience as a result of No. 1 or No. 2. above.

4. For ozone episodes the following additional measures shall be taken:
   A. No bulk transfer of gasoline without vapor recovery from 2:00 a.m. to 2:00 p.m.
   B. No service station pumping of gasoline from 2:00 a.m. to 2:00 p.m.
   C. No operation of paper coating plants from 2:00 a.m. to 2:00 p.m.
   D. No architectural painting or auto finishing;
   E. No venting of dry-cleaning solvents from 2:00 a.m. to 2:00 p.m. (except perchloroethylene).

5. Where appropriate for carbon monoxide episodes during the heating season, and where legal authority exists, governmental agencies shall prohibit all use of wood stoves and fireplaces for domestic space heating, except where such devices provide the sole source of heat.

Part B: Pollution Episode Conditions for Particulate Matter

For ***Warning Conditions*** resulting from excessive levels of particulate matter, the following measures shall be taken:

1. There shall be no open burning by any person of any material.

2. The use of incinerators for the disposal of solid or liquid wastes shall be prohibited.

3. Persons operating fuel-burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of 12 noon and 4 p.m.

4. Where legal authority exists, governmental agencies shall prohibit all use of wood stoves and fireplaces for domestic space heating, except where such devices provide the sole source of heat.

5. Persons responsible for the operation of any source of air contaminants listed below shall take all required actions for the ***Warning Level***, in accordance with a preplanned strategy:

Source of Contamination	Control Actions — ***Warning Level***
A. Coal, oil, or wood-fired electric power generating facilities.	1) Maximum utilization of fuels having lowest ash and sulfur content. 2) Utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. 3) Diverting electric power generation to facilities outside of ***Warning Area***. 4) Prepare to use a plan of action if an ***Emergency Condition*** develops. 5) Cease operation of facilities not related to safety or protection of equipment or delivery of priority power.
B. Coal, oil, or wood-fired process steam generating facilities.	1) Maximum utilization of fuels having the lowest ash and sulfur content. 2) Utilization of mid-day (12: 00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. 3) Prepare to use a plan of action if an ***Emergency Condition*** develops. 4) Cease operation of facilities not related to safety or protection of equipment or delivery of priority power.

Source of Contamination	Control Actions — ***Warning Level***
C. Manufacturing industries which require considerable lead time for shut-down including the following classifications: - Petroleum Refining - Chemical Industries - Primary Metals Industries - Glass Industries - Paper and Allied Products	1) Reduction of air contaminants from manufacturing operations by, if necessary, assuming reasonable economic hardships by postponing production and allied operations. 2) Reduction by deferring trade waste disposal operations which emit solid particles, gases, vapors or malodorous substances. 3) Maximum reduction of heat load demands for processing. 4) Utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence of boiler lancing or soot blowing.
D. Manufacturing industries which require relatively short time for shut-down.	1) Elimination of air contaminants from manufacturing operations by ceasing, allied operations to the extent possible without causing injury to persons or damage to equipment. 2) Elimination of air contaminants from trade waste disposal processes which emit solid particles, gases, vapors, or malodorous substances. 3) Reduction of heat load demands for processing. 4) Utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

Table III

AIR POLLUTION EPISODE: ***EMERGENCY CONDITIONS***

EMISSION REDUCTION PLAN

1. There shall be no open burning by any person of any material.

2. The use of incinerators for the disposal of solid or liquid wastes shall be prohibited.

3. All places of employment, commerce, trade, public gatherings, government, industry, business, or manufacture shall immediately cease operation, except the following:

    A. Police, fire, medical and other emergency services;
    B. Utility and communication services;
    C. Governmental functions necessary for civil control and safety;
    D. Operations necessary to prevent injury to persons or serious damage to equipment or property;
    E. Food stores, drug stores and operations necessary for their supply;

F. Operations necessary for evacuation of persons leaving the area;

G. Operations conducted in accordance with an approved preplanned emission reduction plan on file with the Agency.

4. All commercial and manufacturing establishments not included in these rules shall institute such actions as will result in maximum reduction of air contaminants from their operations which emit air contaminants, to the extent possible without causing injury or damage to equipment.

5. The use of motor vehicles is prohibited except for the exempted functions in 3, above.

6. Airports shall be closed to all except emergency air traffic.

7. Where legal authority exists, governmental agencies shall prohibit all use of wood stoves and fireplaces.

8. Any person responsible for the operation of a source of atmospheric contamination listed below shall take all required control actions for this ***Emergency Level***.

Source of Contamination	Control Actions — ***Emergency Level***
A. Coal, oil, or wood-fired electric power generating facilities.	1) Maximum utilization of fuels having lowest ash and sulfur content.
	2) Utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing. 3) Diverting electric power generation to facilities outside of Emergency area. 4) Cease operation of facilities not related to safety or protection of equipment or delivery of priority power.
B. Coal, oil, or wood-fired steam generating facilities.	1) Reducing heat and steam process demands to absolute necessities consistent with preventing equipment damage. 2) Utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. 3) Taking the action called for in the emergency plan. 4) Cease operation of facilities not related to safety or protection of equipment or delivery of priority power.

Source of Contamination	Control Actions — ***Emergency Level***
C. Manufacturing industries of the following classifications: - Primary Metals Industry - Petroleum Refining Operations - Chemical Industries - Mineral Processing Industries - Paper and Allied Products - Grain Industry - Wood Processing Industry	1) The elimination of air of contaminants from manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment. 2) Elimination of air contaminants from trade waste disposal processes which emit solid particles, gases, vapors, or malodorous substances. 3) Maximum reduction of heat load demands for processing. 4) Utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.