

NOTICE OF INTENT

Department of Environmental Quality
Office of the Secretary
Legal Division

Control of Emissions of Organic Compounds: Fugitive Emission Control
(LAC 33:III.2121, 2122 and 2199 Appendix B) (AQ313)

Under the authority of the Environmental Quality Act, R.S. 30:2001 et seq., and in accordance with the provisions of the Administrative Procedure Act, R.S. 49:950 et seq., the secretary gives notice that rulemaking procedures have been initiated to amend the Air regulations, LAC 33:III.2121, 2122 and 2199 Appendix B (AQ313).

This Rule will revise air regulations for fugitive emission control in attainment and nonattainment areas, LAC 33:III.2121 and 2122. Several definitions have been added to conform to definitions in the federal new source performance standards (NSPS) of 40 CFR 60. Under the control requirements, leak definitions are expanded to include leaks that can be imaged by an optical gas imaging instrument when following the federal alternative work practice (AWP) as described in 40 CFR 60.18. Under the monitoring requirements, the regulations have been changed to allow substitution of optical gas imaging and Method 21 monitoring per the federal AWP.

The "Fugitive Emission Control for Ozone Nonattainment Areas" regulations (Section 2122) have been changed to clarify conflicting requirements for leaks detected by visual, audible, or olfactory means. This Rule clarifies the conflicting requirements for pumps and valves in heavy liquid service, specifically, LAC 33:2122.C.1.d, 2122.D.3.b, and 2122.D.4.b.

In the control requirements subsection, the open-ended line and double block and bleed provisions of LAC33:2122.C.2 have been clarified and expanded utilizing language from the federal regulations. In the control requirements section, conditions have been added to verify when a repair is successful. In addition, conditions have been added under which equipment may be removed from the delay of repair list.

In the monitoring requirements subsection, the alternative monitoring program exemption for facilities that already have a more stringent LDAR program at the time of initial promulgation has been expanded to include the Louisiana Consolidated Fugitive Emission Program (LCFEP). The LCFEP provides a mechanism for affected facilities to consolidate overlapping state and federal LDAR programs. A description of the program has been placed in the Chapter 21 appendix (LAC 33:2199.Appendix B.).

Similar changes have been made for the fugitive emission control regulation (Section 2121). The changes for Sections 2121 and 2122 do not modify the leak definitions and will not alter the position of LAC 33:III.2121 and 2122 in the Louisiana Consolidated Fugitive Emission Program Stringency Table. The basis and rationale for this Rule is that LAC 33:III.2121 (Fugitive Emission Control) and LAC 33:III.2122 (Fugitive Emission Control for Ozone Nonattainment Areas and Specified Parishes) require establishment of equipment leak monitoring and repair programs for specific industries in order to minimize emission of volatile compounds into the air. This Rule meets an exception listed in R.S. 30:2019(D)(2) and R.S. 49:953(G)(3); therefore, no report regarding environmental/health benefits and social/economic costs is required.

This Rule has no known impact on family formation, stability, and autonomy as described in R.S. 49:972.

A public hearing will be held on December 27, 2012, at 1:30 p.m. in the Galvez Building, Oliver Pollock Conference Room, 602 N. Fifth Street, Baton Rouge, LA 70802. Interested persons are invited to attend and submit oral comments on the proposed amendments. Should individuals with a disability need an accommodation in order to participate, contact Deidra Johnson at the address given below or at (225) 219-3985. Two hours of free parking are allowed in the Galvez Garage with a validated parking ticket.

All interested persons are invited to submit written comments on the proposed regulation. Persons commenting should reference this proposed regulation by AQ313. Such comments must be received no later than January 3, 2013, at 4:30 p.m., and should be sent to Deidra Johnson, Attorney Supervisor, Office of the Secretary, Legal Division, Box 4302, Baton Rouge, LA 70821-4302 or to FAX (225) 219-4068 or by e-mail to deidra.johnson@la.gov. Copies of these proposed regulations can be purchased by contacting the DEQ Public Records Center at (225) 219-3168. Check or money order is required in advance for each copy of AQ313. These proposed regulations are available on the Internet at www.deq.louisiana.gov/portal/tabid/1669/default.aspx.

These proposed regulations are available for inspection at the following DEQ office locations from 8 a.m. until 4:30 p.m.: 602 N. Fifth Street, Baton Rouge, LA 70802; 1823 Highway 546, West Monroe, LA 71292; State Office Building, 1525 Fairfield Avenue, Shreveport, LA 71101; 1301 Gadwall Street, Lake Charles, LA 70615; 111 New Center Drive, Lafayette, LA 70508; 110 Barataria Street, Lockport, LA 70374; 201 Evans Road, Bldg. 4, Suite 420, New Orleans, LA 70123.

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Executive Counsel

Title 33**ENVIRONMENTAL QUALITY****Part III. Air****Chapter 21. Control of Emission of Organic Compounds****Subchapter A. General****§2121. Fugitive Emission Control**

A. Applicability. This ~~Section~~regulation is applicable to ~~equipment in each process unit at petroleum refineries, natural gas processing plants, the synthetic organic chemical manufacturing industry (SOCMI) facilities, the methyl tertiary butyl ether (MTBE) manufacturing industry facilities, and the polymer manufacturing industry facilities~~ that contains any of the following components that ~~are intended to operate in volatile organic compound (VOC) service for 300 hours or more during the calendar year:~~

1. – 9. ...

B. Definitions. Terms used in this Section are defined in LAC 33:III.111.A of these regulations with the exception of those terms specifically defined in this Section as follows.

Alternative Work Practice (AWP)—the use of optical imaging to detect leaks as described in 40 CFR 60.18(g), (h) and (i).

Connector—flanged, screwed, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment, or that close an opening in a pipe that could be connected to another pipe. Joined fittings welded completely around the circumference of the interface are not considered connectors.

Difficult-to-Monitor—equipment that cannot be monitored without elevating the monitoring personnel more than two meters above a support surface.

Double Block and Bleed System—two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Equipment—each pump, compressor, pressure relief device, open-ended valve or line, process drain, valve, agitator, instrumentation system, and connector in VOC service. For the purpose of these regulations *equipment* shall be synonymous with component.

Force Majeure—an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

In Gas/Vapor Service—equipment that contains a VOC in a gas or vapor state at operating conditions.

In Heavy Liquid Service—equipment that is not in gas/vapor service or in light liquid service.

In Light Liquid Service—

a. Equipment containing a fluid that meets all of the following conditions:

i. the vapor pressure of one or more of the organic compounds is greater than 0.3 kPa (0.0435 psi) at 20°C (68°F). (Standard reference texts or ASTM D2879-83, 96, or 97 shall be used to determine the vapor pressure);

ii. the total concentration of the pure organic compounds having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20 percent by weight; and

iii. the fluid is a liquid at operating conditions.

b. As an alternative to Subparagraph a of this Paragraph, an owner or operator of petroleum refineries, natural gas processing plants, and polymer manufacturing

facilities has the option to use ASTM Method D86-78, 82, 90, 95, or 96. The equipment is in light liquid service if the evaporated fluid weight is greater than 10 percent at 150°C (302°F).

In Liquid Service—equipment that is not in gas/vapor service.

In Vacuum Service—equipment operating at an internal pressure that is at least 20 inches of water (38 millimeters of mercury) below ambient pressure.

In VOC Service—for petroleum refineries, SOCFI facilities, MTBE manufacturing facilities, and polymer manufacturing facilities: a piece of equipment that contains or contacts a process fluid that is at least 10 percent VOC by weight. For natural gas processing plants: a piece of equipment that contains or contacts a process fluid that is at least 1.0 percent VOC by weight.

Inspect—Examine the component for visible, audible, or olfactory evidence of a leak.

Instrumentation System—a group of equipment components used to condition and convey a sample of the process fluid to analyzers and instruments for the purpose of determining process operating conditions (e.g., composition, pressure, flow). Valves and connectors are the predominant types of equipment used in instrumentation systems; however, other types of equipment may also be included in these systems. Only valves nominally 0.5 inches or smaller and connectors nominally 0.75 inches or smaller in diameter are considered part of instrumentation systems for the purposes of this Section. Valves greater than nominally 0.5 inches and connectors greater than nominally 0.75 inches associated with instrumentation systems are not considered part of instrumentation systems and shall be monitored individually as a valve or connector.

Monitor(ed)—determination of VOC concentration at equipment components in accordance with Method 21 (see 40 CFR Part 60, Appendix A-7), or the *Alternative Work Practice* as provided in this Section.

Open-Ended Valve or Line—any valve, except pressure relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

Optical Gas Imaging Instrument—an instrument that makes emissions visible that may otherwise be invisible to the naked eye.

Process Drain—any opening (including a covered or controlled opening) that receives or conveys wastewater into a wastewater system.

Process Unit—a facility, or any part thereof, that can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.

Process Unit Shutdown—a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be effected. The following are not considered process unit shutdowns:

a. an unscheduled work practice or operational procedure that stops production from a process unit, or part of a process unit, for less than 24 hours;

b. an unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start-up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown;

c. the use of spare equipment and technically feasible bypassing or isolating of equipment without stopping production; and

d. the idling of a process unit due to force majeure.

Repair—adjust or otherwise alter equipment in order to eliminate a leak.

Unsafe-to-Monitor—equipment that cannot be monitored without exposing monitoring personnel to immediate danger.

BC. Fugitive Emission Control Requirements

1. Leak Limitations

a. No component listed in Paragraph A.1-9 of this Section specified for monitoring under Subsection C of this Section shall be allowed to emit leak organic

~~compounds VOC exceeding an instrument reading of 10,000 parts per million by volume (ppmv), as determined defined in LAC 33:III.111, when tested by Method 21-"Determination of Volatile Organic Compound Leaks" in (40 CFR Part 60, Appendix A, as incorporated by reference at in LAC 33:III.3003), which can be imaged following the *alternative work practice (AWP)* as defined in Subsection B of this Section, or to demonstrate visible, audible, or olfactory evidence of a leak. Any regulated component observed leaking by sight, sound, or smell must be repaired according to Paragraph B.3 of this Section, regardless of the leak's concentration. This includes instrumentation system leaks and flange and connection leaks found per Subparagraph C.3.b of this Section, pump and compressor seal leaks found during the weekly visual inspections, and other regulated components found leaking.~~

2. Open-Ended Valves or Lines~~No valve, except safety pressure relief valves, valves on sample lines, valves on drain lines and valves that can be removed and replaced without a shutdown, shall be located at the end of a pipe or line containing volatile organic compounds unless the end of such line is sealed with a second valve, a blind flange, a plug, or a cap. Such sealing devices may be removed only when the line is in use, for example, when a sample is being taken. When the line has been used and is subsequently resealed, the upstream valve shall be closed first, followed by the sealing device.~~

a. Each open-ended valve or line shall be equipped with a second valve, blind flange, plug, or cap. These sealing devices may only be removed when the line is in use, (i.e., when a sample is being taken). When the line has been used and is subsequently resealed, the upstream valve shall be closed first, followed by the sealing device.

b. When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves, but shall comply with Subparagraph C.2.a of this Section at all other times.

c. Open-ended valves or lines in emergency system(s) (e.g., pressure relief devices) which are designed to open automatically in the event of a process upset are exempt from the requirements of Subparagraph C.2.a of this Section.

d. Open-ended valves or lines containing asphalt, materials that would autocatalytically polymerize or would present an explosion, serious over pressure, or other

safety hazard if sealed or equipped with a double block and bleed system are exempt from the requirements of Subparagraph C.2.a of this Section.

3. Leak Repair~~The operator shall make every reasonable effort to repair a leaking component, as described in LAC 33:III.2121.B within 15 days. If the component can be isolated or bypassed so as to significantly reduce or eliminate leakage, or if the repair of a component would require a unit shutdown, and if the shutdown would create more emissions than the repair would eliminate, the repair may be delayed to the next scheduled shutdown. An early unit shutdown may be ordered if leaking component losses become excessive.~~

a. The owner or operator shall make every reasonable effort to repair a leaking component, as described in Subparagraph C.1.a or Subparagraph D.3.b of this Section, within 15 calendar days of detection. A repair is considered successful if it meets any of the following conditions:

i. a component is *monitored* as defined in Subsection B of this Section (or remonitored) to verify that the instrument reading is below the applicable leak definition in Subparagraph C.1.a of this Section;

ii. a component that has been identified as leaking using the AWP, either meets Clause C.3.a.i of this Section, or the emissions are no longer visible using the AWP; or

iii. a component in liquid service that has been identified as leaking by visual, audible, or olfactory means, including, use of the soap bubble test for natural gas processing plants, either meets Clause C.3.a.i of this Section, or when visual, audible, or olfactory indications of the leak have been eliminated.

b. Equipment that cannot be repaired shall be placed on a delay-of-repair list, unless it can be isolated or bypassed to eliminate the leak. Equipment on the delay-of-repair list shall be repaired by the end of the next scheduled process unit shutdown. The *administrative authority* as defined in LAC 33:III.111.A reserves the right to take enforcement action pursuant to R.S. 30:2025, should it be determined that the total percentage of components on the delay-of-repair list is excessive or is causing damage to the public health or environment.

c. Equipment placed on the delay-of-repair list in accordance with Subparagraph C.3.b of this Section may be removed from the list if it meets any of the following conditions:

i. the equipment is monitored or imaged, and for two consecutive monthly periods, either the instrument readings are below the leak limitation specified in Subparagraph C.1.a of this Section or there are no visible emissions using an optical gas imaging instrument pursuant to the AWP; or

ii. the owner or operator has undertaken additional or extraordinary efforts to repair the leaking equipment, and subsequent monitoring or imaging demonstrates that either the instrument readings are below the leak limitation in Subparagraph C.1.a of this Section, or there are no visible emissions using an optical gas imaging instrument pursuant to the AWP. Extraordinary efforts are nonroutine repair methods (e.g., sealant injection, clamp installation) or utilization of a closed-vent system to capture and control the leak by at least 90 percent.

[Note: The decision to monitor equipment on the delay-of-repair list or undertake extraordinary efforts to repair equipment shall be made solely at the owner or operator's discretion.]

€D. Monitoring and Inspection Requirements. The monitoring of the affected components shall be performed by the following schedule using the method described in LAC 33:III.2121.B: Monitoring of components by Method 21 and inspections shall be conducted according to this Subsection. After initially complying with this Subsection by use of Method 21, the owner or operator may elect to comply with the appropriate alternate monitoring schedule(s) in Subsection E of this Section. In lieu of Method 21 monitoring, optical imaging may be conducted in accordance with the AWP. If the owner or operator elects to use the AWP, the requirements for instrument specifications, instruments checks, monitoring frequency, leak survey procedures, recordkeeping, and reporting shall be followed as described in 40 CFR 60.18 (g), (h), and (i). The alternate monitoring schedule(s) in Subsection E of this Section are not applicable when using the AWP.

1. Petroleum Refineries, SOCFI facilities, MTBE manufacturing facilities, and Polymer Manufacturing Industry facilities shall perform the following.

a. Monitor ~~with a leak detection device~~ the following components one time per calendar year (annually) ~~the following items:~~

- i. pumps ~~seals~~ in light liquid service at refineries;
- ii. valves in light liquid service at refineries; and
- iii. process drains.

b. Monitor ~~with a leak detection device~~ the following components four times per year (quarterly) ~~the following items:~~

- i. compressor seals;
- ii. valves in gas/vapor service;
- iii. pressure relief valves in gas/vapor service;
- iv. valves in light liquid service at SOCMI facilities, MTBE manufacturing facilities, and Ppolymer Mmanufacturing facilitiesPlants; and
- v. pumps in light liquid service at SOCMI facilities, MTBE manufacturing facilities, and Ppolymer Mmanufacturing facilitiesPlants.

c. ~~Monitor~~ Inspect pump seals visually 52 times a year (weekly).

2. Natural ~~G~~gas ~~P~~processing ~~P~~plants shall perform the following.

a. ~~Monitor~~ Inspect pump seals and compressor seals visually 52 times a year (weekly).

b. Monitor ~~with a leak detection device~~ the following components four times a year (quarterly) ~~the following items:~~

- i. pumps in light liquid service, pump and;
- ii. _____ compressor seals;
- ~~ii.~~ iii. valves in light liquid service and valves in gas/vapor service; and
- ~~iii.~~ iv. pressure relief valves in gas/vapor service.

3. Facilities listed in Paragraphs C.1 and 2 of this Section shall perform the following.

a. Monitor with a leak detection device any pressure relief valve in gas/vapor service within five calendar days 24 hours after it has vented to the atmosphere. Difficult-to-monitor pressure relief valves shall be monitored within 15 calendar days and unsafe-to-monitor pressure relief valves shall be monitored as soon as possible, when conditions would allow the component to be safely monitored (For natural gas processing plants an immediate visual evaluation will be made).

b. Monitor immediately with a leak detection device any component that appears to be leaking on the basis of sight, smell, or sound. This includes flanges and connectors, instrumentation systems, and pump and compressor seals observed during the weekly visual inspections, and any other regulated components that appear to be leaking. In lieu of monitoring, the operator may elect to implement actions as specified in Paragraph B.3 of this Section. Within five calendar days, any component listed in Paragraphs A.1-9 of this Section identified as leaking by visual, audible, or olfactory means shall be:

i. repaired in accordance with Clause C.3.a.iii of this Section;

ii. monitored (using either Method 21 or the AWP); or

iii. designated as a leak (pursuant to Method 21 or the AWP).

c. Difficult-to-monitor components shall be monitored within 15 calendar days and unsafe-to-monitor components shall be monitored as soon as possible, when conditions allow the component to be safely monitored. Visual, audible, or olfactory leaks designated as a leak or confirmed to be in excess of the applicable leak limitation in Subparagraph C.1.a of this Section by Method 21 monitoring, shall be repaired according to Subparagraph C.3.a of this Section.

d. Difficult-to-monitor valves shall be monitored once per calendar year (annually).

e. Unsafe-to-monitor equipment shall be monitored as soon as possible when conditions allow the component to be monitored safely (e.g., during a shutdown).

ef. Any valve that is designated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Clauses D.1.a.ii, D.1.b.ii, D.1.b.iv, and iv and or D.2.b.iii of this Section if the valve:

i. has no external actuating mechanism in contact with the process fluid (e.g., diaphragm valves, sealed bellows valves);

ii. is operated with emissions less than 500 ppm above background as measured ~~in accordance with this Section~~ by Method 21; and

iii. is ~~tested~~ monitored for compliance with Clause ~~C.D.3.ee.ii~~ of this Section initially upon designation and ~~annually~~ once per calendar year thereafter.

g. Equipment that begins operation after the initial start-up date for the process unit shall be monitored for the first time by the end of the monitoring period in which the process unit start-up is completed, or 45 calendar days after the start-up period is completed, whichever is later. Equipment that replaces leaking equipment shall continue on the monitoring schedule for the equipment that it replaced.

h. Monitoring to verify repairs that were made during a process unit shutdown shall occur by the end of the monitoring period in which the process unit start-up is completed, or 45 calendar days after the start-up period is completed, whichever is later.

4. Exemptions. Monitoring and inspections are ~~is~~ not required on the following:

a. ~~components subject to LAC 33:III.2121.C.1 (petroleum refineries, SOCMI, MTBE, and polymer manufacturing industry) which contact a process fluid that contains less than 10 percent VOC by volume or components subject to LAC 33:III.2121.C.2 (Natural Gas Processing Plants) which contact a process fluid that contains less than 1.0 percent VOC by weight;~~

b. ~~components in the petroleum refineries, SOCMI, MTBE, and polymer manufacturing industry which contact only a process liquid containing a VOC having a true vapor pressure equal to or less than 0.0435 psia (0.3 kPa) at 68°F (20°C);~~

~~ea. flanges, inaccessible valves, valves that are unsafe to monitor, check valves (including similar devices not externally regulated). Inaccessible valves should be monitored on an annual basis at a minimum. Unsafe to monitor valves should be monitored when conditions would allow these valves to be monitored safely, e.g., during shutdown;~~

~~d. pressure relief valves in liquid service at SOCFI and polymer manufacturing industry, except after venting;~~

~~eb. pressure relief devices, pump seals or packing, and compressor seals or packing which where leaks are tied vented to a process or fuel gas system, or equipped with a closed-vent system capable of transporting leakage to a control device either a flare header or vapor recovery device;~~

~~c. pressure relief devices equipped with a rupture disc, or other similar leak-tight pressure relief component, upstream of the pressure relief device; provided that after each pressure release, the rupture disc, or other similar leak-tight component is replaced as soon as practicable; but not later than 15 calendar days;~~

~~fd. equipment ~~operating under~~ in vacuum service;~~

~~ge. equipment at natural gas processing plants with less than 40 million standard cubic feet per day (mmcf) rated capacity that do not fractionate natural gas liquids;~~

~~hf. components contacting only organic compounds exempted in under LAC 33:III.2117 or mixtures of same with water;~~

~~ig. pumps and compressors that are sealless or have a double mechanical seal;~~

~~h. pumps designed with no external shaft penetrating the pump housing;~~

~~ji. research and development pilot facilities and small facilities with less than 100 valves in gas/vapor or liquid service;~~

~~j. insulated or buried equipment;~~

k. components that have been placed on a delay-of-repair list are exempt from further monitoring until a repair has been attempted, except that an owner or operator may monitor components on the delay-of-repair list in accordance with Subparagraph C.3.c of this Section in order to remove equipment from the delay-of-repair list; and

l. process drains at petroleum refineries subject to New Source Standards, 40 CFR 60.690-699 (Subpart QQQ) as incorporated by reference in LAC 33:III.3003.

5. Alternate Monitoring Program. Any facility ~~which~~that already has in place a fugitive emission monitoring program which controls emissions to a higher degree than required under this Section shall be exempted from this Section upon submittal of a description of the program to the *administrative authority** as defined in LAC 33:III.111.A. A facility which has consolidated into an overall more stringent program in accordance with the Louisiana Consolidated Fugitive Emissions Program (i.e., with a Source Notice and Agreement or a Title V permit) is exempted from the requirement of submitting a description of the program to the administrative authority*. (The Louisiana Fugitive Emission Program Consolidation Guidelines are contained in LAC 33:III.2199.Appendix B).

6. Force Majeure

a. If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the administrative authority, in writing, as soon as practical following the date the owner or operator first knew, or through due diligence should have known that the event may cause or has caused a delay in monitoring beyond the regulatory deadline. The notification shall occur before the monitoring deadline unless the initial force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

b. The owner or operator shall provide to the administrative authority a written description of the force majeure event and a rationale for attributing the delay in monitoring beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the monitoring. The monitoring shall be conducted as soon as practicable after the force majeure occurs.

c. The decision to grant an extension to the monitoring deadline is solely within the discretion of the administrative authority. The administrative authority shall notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practical.

d. Until an extension of the monitoring deadline has been approved by the administrative authority under Subparagraph D.6.c of this Section, the owner or operator of the affected facility remains subject to the requirements of this Section.

~~DE.~~ Alternate Monitoring Frequency Control Techniques. The monitoring schedule in ~~LAC 33:III.2121.C~~ Paragraph D.1 or 2 of this Section may be modified as follows.

1. Alternate Standards for Valves and Pumps subject to LAC 33:III.2121.Subparagraph C ~~D.1.b and/or D.2.b of this Section~~—Skip Period Leak Detection and Repair

a. An owner or operator may elect to comply with one of the alternative work practices specified in ~~LAC 33:III.2121.Subparagraph DE.1.b and/or c of this Section.~~ However, the administrative authority ~~must~~ shall be notified in writing before ~~implementing~~ one of the alternative work practices is implemented.

b. After two consecutive quarterly leak detection periods with the total percent of leaking and delay-of-repair components (Equation 1 of this Section) ~~leaking~~ equal to or less than 2.0, an owner or operator may begin to skip one of the quarterly leak detection periods for ~~the~~ valves in gas/vapor service, valves in light ~~and~~ liquid service, and/or pumps in light liquid service.

c. After five consecutive quarterly leak detection periods with the total percent of leaking and delay-of-repair components (Equation 1 of this Section) ~~leaking~~ equal to or less than 2.0, an owner or operator may begin to skip three of the quarterly leak detection periods for ~~the~~ valves in gas/vapor service, valves in light ~~and~~ liquid service, and/or pumps in light liquid service.

d. If the total percent of components ~~leaking and delay-of-repair components (Equation 1 of this Section)~~ increases ~~to~~ is greater than 2.0, after implementing one of the alternate work practices in Subparagraph E.1.b or c of this Section, the owner or operator

shall comply with the requirements as described in LAC 33:III.2121.C Paragraph D.1 or 2 of this Section, but subsequently ~~can~~may again elect to use this Subsection when the requirements are met.

~~e. The percent of components leaking shall be determined by dividing the sum of components found leaking during current monitoring and components for which repair has been delayed by the total number of components subject to the requirements of LAC 33:III.2121.C.~~

~~f. An owner or operator must keep a record of the percent of valves and pumps found leaking during each leak detection period.~~

2. Alternative Standards for Valves and Pumps Subject to Subparagraph D.1.b or D.2.b—Increased Monitoring Frequency. If there is an ~~excessive number~~ total percent of leakings and delay-of-repair components (greater than the good performance level Equation 1 of this Section) is greater than 2.0, then an increase in the frequency of monitoring may be required by the administrative authority.

3. The total percent of leaking and delay-of-repair components for which alternate control techniques are allowed by this Subsection shall be determined for each process unit using Equation 1. (Equation 1 shall be calculated separately for each component type.)

Equation 1

$$\% C_{T1} = \frac{[C_L + C_{TU}]}{[C_T + C_{TU}]} * 100\%$$

where:

%C_{T1} = total percent of leaking components including delay-of-repair components

C_L = number of components found leaking by Method 21 during the monitoring period, not including components remonitored to verify repair or components on the delay-of-repair list at the end of the previous monitoring period

C_{TU} = number of components on the delay-of-repair list at the end of the previous monitoring period

C_T = number of components monitored by Method 21 during the monitoring period, not including components remonitored to verify repair or components on the delay-of-repair list at the end of the previous monitoring period

EF. Recordkeeping

1. When a component has a leak that cannot be repaired on-line and in-place, as described in ~~LAC 33:III.2121.B~~ Subparagraph C.3.a of this Section is located, a weatherproof and readily visible tag bearing an identification number and the date the leak ~~is~~ was located shall be affixed to the leaking component. After the leak ~~is~~ has been repaired, the tag ~~is dated and may be removed.~~

2. A survey log shall be maintained by the operator which shall include the following:

- a. the name of the process unit where the leaking component is located;
- b. the ~~name~~ type of the leaking component;
- c. the stream identification at the leak;
- d. the identification number from the tag required by ~~LAC 33:III.2121.Paragraph EF.1 of this Section;~~
- e. the date the leak was located;
- f. the date maintenance was performed;
- g. the date the component was rechecked after maintenance, and the results (i.e., instrument reading; visual, audible, or olfactory results; soap bubble test results; AWP video) as well as the instrument reading upon check (For natural gas processing plants the soap bubble test commonly performed in the industry is satisfactory);
- h. a record of ~~leak detection device~~ the monitor calibration or AWP daily instrument check;
- i. a delay-of-repair listing of leaks not repaired until turnaround;
- j. a bypassed or isolated component list; and

~~j~~k. ~~a list~~record of ~~total number of items checked versus the total found leaking~~all monitoring, imaging, and inspection results.

3. The owner or operator shall retain the survey log for two years after the ~~latest~~latest date specified in ~~LAC 33:III.2121.Paragraph FE.2~~ of this Section and make ~~said~~the log available to the administrative authority upon request.

4. The optional use of the AWP shall require storing video and other records of the daily instrument check and inspections as required in 40 CFR 60.18.

~~F~~G. Reporting Requirements. The owner or operator of the affected facility shall submit a report semiannually to the Office of Environmental Assessment ~~Services~~ a report semiannually containing the information below for each calendar quarter during the reporting period. The reports are due by the last day of the month (i.e., January 31 and July 31) following the monitoring period or by an alternate date approved by the administrative authority~~department~~. The reports shall include the following information for each quarter of the reporting period:

1. ~~the number of items checked~~each component type for which monitoring is required by Subsection D or E of this Section versus the number ~~found leaking~~monitored; and ~~a calculation of the total percent of leaking and delay-of-repair components~~ (See Equation 1 of this Section) for each component type for which alternate control techniques are allowed by Subsection E of this Section~~leaking, as defined in Subparagraph D.1.e of this Section;~~

2. a listing of all leaks that were identified, but not repaired, within the 15-day limit, including the following information:

a. the name of the process unit where the leaking component is located and the date of last unit shutdown;

b. the ~~name~~type of the leaking component;

c. the stream identification at the leak;

d. the identification number from the tag required by Paragraph F.1 of this Section, if the component is on the delay-of-repair list;

~~e~~e. the date the leak was located;

- f. ~~the monitoring or inspection results;~~
- eg. ~~the date maintenance was attempted~~performed;
- fh. ~~the date the leak is expected to~~will be repaired if the component is on the delay-of-repair list; and
- gi. ~~the reason repairs failed or were postponed;~~
- 3. ~~the list of items awaiting turnaround for repair; and~~
- 43. ~~a signed statement attesting to the fact that all other monitoring has been performed as required by the regulations~~requirements of this Section have been met.

G. ~~Definitions. Terms used in this Section are defined in LAC 33:III.111 with the exception of those terms specifically defined as follows.~~

~~*Heavy Liquid Service*—equipment that is not in gas/vapor service or is not in light liquid service.~~

~~*Inaccessible Valve*—a valve than cannot be monitored without elevating the monitoring personnel more than 2 meters above a support service.~~

~~*Instrumentation System*—a group of equipment components used to condition and convey a sample of the process fluid to analyzers and instruments for the purpose of determining process operating conditions (e.g., composition, pressure, flow). Valves and connectors are the predominant types of equipment used in instrumentation systems; however, other types of equipment may also be included in these systems. Only valves nominally 0.5 inch and smaller and connectors nominally 0.75 inch and smaller in diameter are considered instrumentation systems for the purposes of these regulations. Valves greater than nominally 0.5 inch and connectors greater than nominally 0.75 inch associated with instrumentation systems are not considered part of instrumentation systems and must be monitored individually.~~

~~*Light Liquid*—a fluid with a vapor pressure greater than 0.3 kPa at 20°C.~~

~~*Light Liquid Service*—equipment in liquid service contacting a fluid greater than 10 percent by weight light liquid.~~

~~*Liquid Service*—equipment which processes, transfers or contains a VOC mixture of VOC in the liquid phase.~~

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Nuclear Energy, Air Quality Division, LR 13:741 (December 1987), amended by the Office of Air Quality and Radiation Protection, Air Quality Division, LR 16:959 (November 1990), LR 17:654 (July 1991), LR 21:1330 (December 1995), LR 22:1128 (November 1996), LR 22:1212 (December 1996), LR 24:22 (January 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:1433 (July 2000), LR 26:2452 (November 2000), LR 30:1659 (August 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2440 (October 2005), LR 33:2086 (October 2007), LR 34:70 (January 2008), amended by the Office of the Secretary, Legal Division, LR 39:**.

§2122. Fugitive Emission Control for Ozone Nonattainment Areas and Specified Parishes

A. Applicability

1. This ~~regulation~~Section is applicable to each process unit at petroleum refineries, natural gas processing plants, ~~the~~ synthetic organic chemical manufacturing industry (SOCMI) ~~facilities~~, ~~the~~ methyl tertiary butyl ether (MTBE) manufacturing ~~industry~~facilities, and ~~the~~ polymer manufacturing ~~industry~~facilities that contains any of the following components that ~~are intended to~~ operate in volatile organic compound (VOC) service for 300 hours or more during the calendar year:

a. – i. ...

~~2. This Section is applicable to sources in the parishes of Ascension, Calcasieu, East Baton Rouge, Iberville, Livingston, Pointe Coupee, and West Baton Rouge.~~

~~32. The requirements of this Section shall be effective for~~ applicable to sources located in the parishes of Ascension, East Baton Rouge, Iberville, Livingston, Pointe Coupee, and West Baton Rouge ~~effective starting~~ effective January 1, 1996.

~~43. The requirements of this Section shall be effective for~~ applicable to sources located in the parish of Calcasieu ~~starting~~ effective January 1, 2003.

~~54. When the provisions of this Section are effective, process units to which this Section applies that are also subject to the provisions of LAC 33:III.2121 will not be required to comply with the provisions of LAC 33:III.2121.~~

~~65. Applicable F-facilities as defined in~~ listed in Paragraph A.1 of this Section, which are subject to New Source Performance Standards, 40 CFR 60.480-489 (Subpart VV), 60.590-593 (Subpart GGG), 60.630-636 (Subpart KKK), as incorporated by reference in LAC

33:III.3003, or National Emission Standards for Hazardous Air Pollutants, 40 CFR 61.240-247 (Subpart V), as incorporated by reference in LAC 33:III.~~Chapter 305116~~, may become exempt from this Section by:

a. submitting a written notice to the *administrative authority** as defined in LAC 33:III.111.A informing them of the facility's request to become exempt from this Section and how 40 CFR 60.480-489 (Subpart VV), 60.590-593 (Subpart GGG), 60.630-636 (Subpart KKK), as incorporated by reference in LAC 33:III.3003, or 61.240-247 (Subpart V), as incorporated by reference in LAC 33:III.~~Chapter 305116~~, will be administered to obtain that exemption;

b. applying 40 CFR 60.480-489 (Subpart VV), 60.590-593 (Subpart GGG), 60.630-636 (Subpart KKK), as incorporated by reference in LAC 33:III.3003, or 61.240-247 (Subpart V), as incorporated by reference in LAC 33:III.~~Chapter 305116~~, to leak limitations specified in Paragraph C.1 of this Section rather than 10,000 ppm as specified in 40 CFR 60.480-489 (Subpart VV), 60.590-593 (Subpart GGG), 60.630-636 (Subpart KKK), as incorporated by reference in LAC 33:III.3003, or 61.240-247 (Subpart V), as incorporated by reference in LAC 33:III.~~Chapter 305116~~;

c. including connectors as ~~leak sources~~components monitored and repaired using the restrictions in 40 CFR 60.480-489 (Subpart VV), 60.590-593 (Subpart GGG), 60.630-636 (Subpart KKK), as incorporated by reference in LAC 33:III.3003, or 61.240-247 (Subpart V), as incorporated by reference in LAC 33:III.~~Chapter 305116~~, which apply to valves; and

d. increasing the monitoring frequency of valves only when the ~~leaking sources~~valves monitored and repaired using the restrictions in 40 CFR 60.480-489 (Subpart VV), 60.590-593 (Subpart GGG), 60.630-636 (Subpart KKK), as incorporated by reference in LAC 33:III.3003, or 61.240-247 (Subpart V), as incorporated by reference in LAC 33:III.~~Chapter 305116~~, which apply to valves, equal or exceed 2 percent of the valves ~~monitored~~leaking at or above 10,000 ppm.

B. Definitions. Terms used in this Section are defined in LAC 33:III.111 with the exception of those terms specifically defined as follows.

Alternative Work Practice (AWP)—the use of optical imaging to detect leaks as described in 40 CFR 60.18(g), (h) and (i).

Connector—flanged, screwed, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment, or that close an opening in a pipe that could be connected to another pipe. Joined fittings welded completely around the circumference of the interface connections are not considered connectors.

Difficult-to-Monitor—equipment that cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

Double Block and Bleed System—two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Equipment—each pump, compressor, pressure relief device, open-ended valve or line, process drain, valve, agitator, instrumentation system, and connector that is in VOC service. For the purpose of these regulations *equipment* shall be synonymous with component.

Force Majeure—an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement within the specified time frame despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

~~Good Performance Level—an operating level reached when no more than 2.0 percent of a component in VOC service in a process unit are leaking at the leak rate definition or greater as determined by Method 21, "Determination of Volatile Organic Compound Leaks" (40 CFR Part 60, Appendix A, as incorporated by reference at LAC 33:III.3003)~~Repealed.

~~Heavy Liquid Service—equipment that is not in VOC gas/vapor service or is not in VOC light liquid service~~Repealed.

~~Inaccessible Valve—a valve that cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface~~Repealed.

In Gas/Vapor Service—equipment that contains a VOC in a gas or vapor state at operating conditions.

In Heavy Liquid Service—equipment that is not in gas/vapor service or light liquid service.

In Light Liquid Service—

a. Equipment containing a fluid that meets all of the following conditions:

i. the vapor pressure of one or more of the organic compounds is greater than 0.3 kPa (0.0435 psi) at 20°C (68°F). (Standard reference texts or ASTM D2879-83, 96, or 97 shall be used to determine the vapor pressure);

ii. the total concentration of the pure organic compounds having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20 percent by weight; and

iii. the fluid is a liquid at operating conditions.

b. In the alternative to Subparagraph a of this Paragraph, an owner or operator of petroleum refineries, natural gas processing plants, and polymer manufacturing facilities has the option to use ASTM Method D86-78, 82, 90, 95, or 96. The equipment is in *light liquid service* if the evaporated fluid weight is greater than 10 percent at 150°C (302°F).

In Liquid Service—equipment that is not in gas/vapor service.

In Vacuum Service—equipment operating at an internal pressure that is at least 20 inches of water (38 millimeters of Hg/mercury) below ambient pressure.

In VOC Service—for petroleum refineries, SOCFI facilities, MTBE manufacturing facilities, and polymer manufacturing facilities; a piece of equipment that contains or contacts a process fluid that is at least 10 percent VOC by weight. For natural gas processing plants, a piece of equipment that contains or contacts a process fluid that is at least 1.0 percent VOC by weight.

Inspect—Examine the component for visible, audible, or olfactory evidence of a leak.

Instrumentation System—a group of equipment components used to condition and convey a sample of the process fluid to analyzers and instruments for the purpose of determining

process operating conditions (e.g., composition, pressure, flow). Valves and connectors are the predominant types of equipment used in instrumentation systems; however, other types of equipment may also be included in these systems. Only valves nominally 0.5 inches and smaller and connectors nominally 0.75 inches and smaller in diameter are considered instrumentation systems for the purposes of ~~these regulations~~ Section. Valves greater than nominally 0.5 inches and connectors greater than nominally 0.75 inches associated with instrumentation systems are not considered part of instrumentation systems and ~~must~~ shall be monitored individually as a valve or connector.

~~*Light Liquid*—a fluid with a vapor pressure greater than 0.3 kPa (0.0435 psia) at 20°C (68°F) or a fluid for which the weight percent evaporation at 150°C exceeds 10 percent as determined by ASTM D86~~ Repealed.

~~*Light Liquid Service*—equipment in liquid service contacting a fluid greater than 10 percent by weight light liquid~~ Repealed.

~~*Liquid Service*—equipment which processes, transfers, or contains a VOC or mixture of VOC in the liquid phase~~ Repealed.

Monitor(ed)—determination of VOC concentration at equipment components in accordance with Method 21 (see 40 CFR Part 60, Appendix A-7), or the *Alternative Work Practice* as provided in this Section.

Open-Ended Valve or Line—any valve, except pressure relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

Optical Gas Imaging Instrument—an instrument that makes emissions visible that may otherwise be invisible to the naked eye.

Process Drain—any opening (including a covered or controlled opening) that receives or conveys wastewater into a wastewater system.

Process Unit—a facility, or any part thereof, ~~process unit~~ that can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.

Process Unit Shutdown—a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be effected. The following are not considered process unit shutdowns:

a. ~~_____A~~an unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours ~~is not a process unit shutdown;~~

b. ~~_____A~~an unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start-up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown, ~~is not a process unit shutdown;~~

c. ~~_____T~~he use of spare equipment and technically feasible bypassing or isolating of equipment without stopping production ~~are not process unit shutdowns;~~ and

d. the idling of a process unit due to force majeure.

Repair—adjust or otherwise alter equipment in order to eliminate a leak.

~~*Unrepairable Component*—*unrepairable components* are those designated as requiring a process unit shutdown to repair where more emissions would be created by an immediate facility shutdown than allowing the component to leak until the next scheduled shutdown, and the component is listed on a shutdown list for repairs~~Repealed.

Unsafe-to-Monitor—equipment that cannot be monitored without exposing monitoring personnel to immediate danger.

C. Fugitive Emission Control Requirements

1. Leak Limitations

a. No component listed in Subparagraphs A.1.a.-i of this Section in petroleum refineries, SOCFI facilities, MTBE manufacturing facilities, and polymer manufacturing industry facilities shall be allowed to ~~emit~~leak volatile organic compounds VOCs

exceeding an instrument reading of 1,000 parts per million (ppmv) ~~or greater~~ for valves, connectors, instrumentation systems, pressure relief devices, and process drains; 5,000 ppmv for pumps and compressors; or 10,000 ppmv for agitators, as ~~outlined~~determined in Subsection D of this Section, when tested by Method 21 (40 CFR Part 60, Appendix A, as incorporated by reference ~~at~~in LAC 33:III.3003), or which can be imaged when following the *alternative work practice* as defined in Subsection B of this Section or to demonstrate visible, audible, or olfactory evidence of a leak.

b. No component listed in Subparagraphs A.1.a-i of this Section in natural gas processing plants shall be allowed to leak~~emit volatile organic compounds~~VOCs exceeding an instrument reading of 2,500 ppmv for valves, connectors, instrumentation systems, pressure relief devices, and process drains, ~~and open-ended valves and lines~~; 5,000 ppmv for pumps and compressors; ~~or~~ 10,000 ppmv for agitators, as ~~determined~~outlined in Subsection D of this Section, when tested by Method 21 (40 CFR Part 60, Appendix A, as incorporated by reference ~~at~~in LAC 33:III.3003), or which can be imaged when following the AWP described in 40 CFR 60.18.

~~c. Any regulated component observed leaking by sight, sound, or smell, except those covered under Subparagraph C.1.d of this Section, must be repaired according to Paragraph C.3 of this Section, regardless of the leak's concentration. This includes flange and connection leaks found per Subparagraph D.3.b of this Section, pump and compressor seal leaks found during the weekly visual inspections, and any other regulated component found leaking. This does not include valves or pumps in heavy liquid service.~~

~~d. Any pump or valve in heavy liquid service observed leaking by sight, sound, or smell shall be monitored within five days by the method specified in 40 CFR Part 60, Appendix A (Method 21), as incorporated by reference in LAC 33:III.Chapter 30. If the pump or valve is determined to be leaking in excess of the applicable limits given in this Subsection, it shall be repaired according to Paragraph C.3 of this Section.~~

2. Open-Ended Valves or Lines

a. ~~No valve, except safety pressure relief valves, shall be located at the end of a pipe or line containing volatile organic compounds unless the end of such line is sealed~~Each open-ended valve or line shall be equipped with a second valve, a blind flange, a

plug, or a cap. Such sealing devices may be removed only when the line is in use, (~~i.e., for~~ example, when a sample is being taken). When the line has been used and is subsequently resealed, the upstream valve shall be closed first, followed by the sealing device.

b. 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 it shall comply with Subparagraph C.2.a of this Section at all other times.

c. Open-ended valves or lines in emergency system(s) (i.e., pressure relief devices) that are designed to open automatically in the event of a process upset, are exempt from the requirements of Subsection C.2.a of this Section.

d. Open-ended valves or lines containing asphalt, materials that would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if sealed or equipped with a double block and bleed system, are exempt from the requirements of Subparagraph C.2.a of this Section.

3. Leak Repair

a. The owner or operator shall make every reasonable effort to repair a leaking component, as described in Paragraph C.1 or Subparagraph D.3.b of this SectionSubsection, within 15 calendar days of detection. A repair is considered successful if it meets any of the following conditions:

i. a component is monitored (or remonitored) to verify that the instrument reading is below the applicable leak definition in Paragraph C.1 of this Section;

ii. a component that has been identified as leaking using the AWP, either meets Clause C.3.a.i of this Section, or the emissions are no longer visible using the AWP; or

iii. a component in liquid service that has been identified as leaking by visual, audible, or olfactory means, including, use of the soap bubble test for natural gas processing plants, either meets Clause C.3.a.i of this Section, or when visual, audible, or olfactory indications of the leak have been eliminated.

b. Equipment that cannot be repaired shall be placed on a delay-of-repair list, unless it canIf the component cannot be isolated or bypassed so as to significantly

~~reduce or eliminate the leakage, or if the repair of a component would require a unit shutdown, and if the shutdown would create more emissions than the repair would eliminate, the repair may be delayed to the next scheduled shutdown. The delay of r~~Repair of equipment on the delay-of-repair list shall not be any later than occur by the end of the next scheduled process unit shutdown. The *administrative authority* as defined in LAC 33:III.111.A reserves the right to take enforcement action pursuant to R.S. 30:2025, should it be determined that the total percentage of components on the delay-of-repair list is excessive or is causing damage to public health or the environment.~~An early unit shutdown may be ordered if the total percentage of leaking and unrepairable components are excessive.~~

c. Equipment placed on the delay-of-repair list in accordance with Subparagraph C.3.b of this Section may be removed from the list if it meets any of the following conditions:

i. the equipment is monitored or imaged, and for two consecutive monthly periods, either the instrument readings are below the leak limitation specified in Paragraph C.1 of this Section or there are no visible emissions using an optical gas imaging instrument pursuant to the AWP; or

ii. the owner or operator has undertaken additional or extraordinary efforts to repair the leaking equipment, and subsequent monitoring or imaging demonstrates that either the instrument readings are below the leak limitation in Paragraph C.1 of this Section, or there are no visible emissions using an optical gas imaging instrument pursuant to the AWP. Extraordinary efforts are non-routine repair methods (e.g., sealant injection, clamp installation) or utilization of a closed-vent system to capture and control the leak by at least 90 percent.

[Note: The decision to monitor equipment on the delay-of-repair list or undertake extraordinary efforts to repair equipment shall be made solely at the owner or operator's discretion.]

~~4. Percent of leaking components at a process unit shall be determined for a test period as follows:~~

Equation 1

where:

$\% C_{lv}$ = percent of leaking valves, flanged connectors, or pumps

C_{lv} = number of valves, flanged connectors, or pumps found leaking during the monitoring period

C_{tv} = total number of valves, flanged connectors, or pumps monitored during the period

5. ~~Total percent of leaking and unrepairable components shall be determined as follows.~~

Equation 2

where:

$\% C_{tlvp}$ = total percent of leaking and unrepairable valves, flanged connectors, or pumps

C_{tlv} = number of valves, flanged connectors, or pumps found leaking or defined as unrepairable

C_{ttv} = total number of valves, flanged connectors, or pumps tested during the period

C_{tuvp} = total number of valves, flanged connectors, or pumps which were defined as unrepairable

D. Monitoring and Inspection Requirements. ~~The monitoring of the affected components shall be performed by the following schedule using the method described in Subsection C of this Section or one of the alternate monitoring programs in Subsection E of this Section.~~ Monitoring of components by Method 21 and inspections shall be conducted according to this Subsection. After initially complying with this Subsection, the owner or operator may elect to comply with the appropriate alternate monitoring schedule(s) in Subsection E of this Section. In lieu of Method 21 monitoring, optical imaging may be conducted in accordance with the AWP. If the owner or operator elects to use the AWP, the requirements for instrument

specifications, instruments checks, monitoring frequency, leak survey procedures, recordkeeping, and reporting shall be followed as described in 40 CFR 60.18 (g), (h), and (i). The alternate monitoring schedule(s) in Subsection E of this Section are not applicable when using the AWP.

1. ~~P~~etroleum ~~R~~efineries, ~~S~~OCMI ~~f~~acilities, ~~M~~TBE ~~m~~anufacturing facilities, and ~~P~~olymer ~~M~~anufacturing ~~I~~ndustry ~~f~~acilities shall perform the following.

a. ~~Monitor process drains with a leak detection device~~ one time per calendar year (annually).

b. ~~Monitor with a leak detection device~~ the following components four times per year (quarterly) ~~the following items:~~

i. compressor seals;

ii. pressure relief valves in gas/vapor service;

iii. valves in light liquid service and valves in gas/vapor service; and

iv. pumps in light liquid service; ~~and~~

v. ~~valves in gas service.~~

c. ~~Monitor~~ Inspect pump seals visually 52 times a year (weekly).

d. Inspect or Monitor all flanged connectors in accordance with either Clause D.1.d.i or ii of this Section.

i. Inspect all flanged connectors weekly by visual, audible, and olfactory means.

ii. Monitor flanged connectors in light liquid and gas/vapor service four times per year (quarterly) ~~using a leak detection device~~ as follows.

(a). Either 200 or 10 percent, whichever is less, of the flanged connectors shall be monitored each quarterly period in accordance with a written sampling plan.

(b). The sampling plan shall ensure that at least 66 percent of the flanged connectors monitored each quarterly period shall not have been previously monitored, until all flanged connectors within the process unit have been monitored.

e. ~~Inspect instrumentation systems weekly by visual, audible, and/or olfactory means, all instrumentation systems. As an alternative to weekly sensory inspections, monitor individual valves and flanged connectors of an instrumentation system in accordance with Clauses D.1.b.iii and D.1.d.ii of this Section, respectively.~~

f. ~~Records of the visual, audible, and/or olfactory inspections of connectors and instrumentation systems are not required unless a leak is detected.~~

2. Natural Gas Processing Plants shall perform the following.

a. ~~Monitor~~Inspect pump seals and compressor seals visually 52 times a year (weekly).

b. ~~Monitor with a leak detection device the following components four times a year (quarterly) the following items:~~

i. ~~pumps, pump and compressor seals~~ in light liquid service;

ii. ~~valves; and~~ compressor seals;

iii. ~~pressure relief valves in gas/vapor service;~~ and

iv. valves in light liquid service and valves in gas/vapor service.

c. Inspect instrumentation systems 52 times a year (weekly) by visual, audible, or olfactory means. As an alternative to weekly sensory inspections, monitor individual valves of an instrumentation system in accordance with Clause D.2.b.iv of this Section.

d. Records of visual, audible, or olfactory inspections of instrumentation systems are not required unless a leak is detected.

3. Facilities Listed in Paragraphs D.1 and 2 of This Section

a. ~~Monitor with a leak detection device~~ any pressure relief valve in gas/vapor service within ~~24 hours~~five calendar days after it has vented to the atmosphere. Difficult-to-monitor pressure relief valves shall be monitored within 15 calendar days and unsafe-to-monitor pressure relief valves shall be monitored as soon as possible, when conditions allow the component to be safely monitored. ~~(For natural gas processing plants an immediate visual evaluation will be made.)~~

b. ~~Monitor immediately with a leak detection device~~ any component that appears to be leaking on the basis of sight, smell, or sound. This includes flanges and connectors, instrumentation systems, and pump and compressor seals observed during the weekly visual inspections, and any other regulated components that appear to be leaking. In lieu of monitoring, the operator may elect to implement actions as specified in Paragraph C.3 of this Section. Within five calendar days, any component listed in Subparagraphs A.1.a.-i of this Section identified as leaking by visual, audible, or olfactory means shall be:

i. repaired in accordance with Clause C.3.a.iii of this Section;

ii. monitored using either Method 21 or the AWP, or

iii. designated as a leak pursuant to Method 21 or the AWP.

c. Difficult-to-monitor components shall be monitored within 15 calendar days and unsafe-to-monitor components shall be monitored as soon as possible, when conditions allow the component to be safely monitored. Visual, audible, or olfactory leaks either designated as a leak, or, confirmed to be in excess of the applicable leak limitation in Paragraph C.1 of this Section by Method 21 monitoring, shall be repaired according to Subparagraph C.3.a of this Section.

ed. ~~Inaccessible~~Difficult-to-monitor valves shall be monitored ~~on an annual basis~~once per calendar year at a minimum.

de. Unsafe-to-monitor valves~~equipment~~ shall be monitored as soon as possible when conditions ~~would~~ allow these ~~valves~~component to be monitored safely (e.g., during a shutdown).

ef. Any valve that is designated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Clauses D.1.b.iii ~~and v~~ ~~and~~ D.2.b.iiiv of this Section if the valve:

i. has no external actuating mechanism in contact with the process fluid (e.g., diaphragm valves, sealed bellows valves);

ii. is operated with emissions less than 500 ppm above background as measured ~~in accordance with this Section~~ by Method 21; and

iii. is ~~tested~~ monitored for compliance with Clause D.3.e.ii of this Section initially upon designation and ~~annually~~ once per calendar year thereafter.

g. Equipment that begins operation after the initial startup date for the process unit shall be monitored for the first time by the end of the monitoring period in which the process unit startup is completed, or 45 calendar days after the startup period is completed, whichever is later. Equipment that replaces leaking equipment shall continue with the monitoring schedule for the equipment that it replaced.

h. Monitoring to verify repairs that were made during a process unit shutdown shall occur by the end of the monitoring period in which the process unit startup is completed, or 45 calendar days after the startup period is completed, whichever is later.

4. Exemptions: ~~and inspections are~~ is not required on the following:

a. ~~components subject to Paragraph D.1 of this Section (petroleum refineries, SOCMI, MTBE, and polymer manufacturing industry) which contact a process fluid that contains less than 10 percent VOC by volume or components subject to Paragraph D.2 of this Section (natural gas processing plants) which contact a process fluid that contains less than 1.0 percent VOC by weight;~~

b. ~~components in the petroleum refineries, SOCMI, MTBE, and polymer manufacturing industry that contact only a process liquid containing a VOC having a true vapor pressure equal to or less than 0.3 kPa (0.0435 psia) at 20°C (68°F);~~

c. ~~pressure relief valves in liquid service at SOCMI and polymer manufacturing industry, except after venting;~~

~~da.~~ pressure relief devices, pump seals or packing, and compressor seals or packing where leaks are vented to a process or fuel gas system, or equipped with a closed-vent system capable of capturing and transporting leakage to a control device~~either a flare header or vapor recovery device;~~

b. pressure relief devices equipped with a rupture disc, or other similar leak-tight pressure relief component, upstream of the pressure relief device; provided that after each pressure release, the rupture disc, or other similar leak-tight component is replaced as soon as practicable; but not later than 15 calendar days;

ec. equipment in vacuum service;

fd. equipment at natural gas processing plants with less than 40 million standard cubic feet per day (mmcf/d) rated capacity that do not fractionate natural gas liquids;

ge. components contacting only organic compounds exempted under LAC 33:III.2117 or mixtures of same with water;

hf. pumps and compressors that are sealless or have a double mechanical seal;

g. pumps designed with no external shaft penetrating the pump housing;

ih. research and development pilot facilities and small facilities with less than 100 valves in gas/vapor or liquid service;

ji. insulated or buried equipment~~connectors;~~

kj. components that have been placed on a delay-of-repair~~shutdown~~ list ~~for repairs~~ are exempt from further monitoring until a repair has been attempted, except that an owner or operator may monitor components on the delay-of-repair list in accordance with Clause C.3.c.i of this Section in order to attempt to remove equipment from the delay-of-repair list; ~~and~~

lk. check valves;

l. process drains at petroleum refineries subject to New Source Standards, 40 CFR 60.690-699 (Subpart QQQ) as incorporated by reference in LAC 33:III.3003; and

m. process drains at facilities subject to LAC 33:III.2153.

5. Alternate Monitoring Program. Any facility that already has in place a fugitive emission monitoring program which controls emissions to a higher degree than required under this Section shall be exempted from this Section upon submittal of a description of the program to the administrative authority* and approval thereof. A facility which has consolidated into an overall more stringent program in accordance with the Louisiana Consolidated Fugitive Emissions Program (i.e., with a Source Notice and Agreement or a Title V permit) is exempted from having to submit a description of the program to the administrative authority*. (The Louisiana Fugitive Emission Program Consolidation Guidelines are contained in LAC 33:III.2199.Appendix B).

6. Force Majeure

a. If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the administrative authority, in writing, as soon as practical following the date the owner or operator first knew, or through due diligence should have known that the event may cause or has caused a delay in monitoring beyond the regulatory deadline. The notification shall occur before the monitoring deadline unless the initial force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

b. The owner or operator shall provide to the administrative authority a written description of the force majeure event and a rationale for attributing the delay in monitoring beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the monitoring. The monitoring shall be conducted as soon as practicable after the force majeure occurs.

c. The decision to grant an extension to the monitoring deadline is solely within the discretion of the administrative authority. The administrative authority shall

notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practical.

d. Until an extension of the monitoring deadline has been approved by the administrative authority under Subparagraph D.6.c of this Section, the owner or operator of the affected facility remains subject to the requirements of this Section.

E. ~~Alternate Monitoring Frequency Control Techniques.~~ The monitoring schedule in ~~Subsection D~~Paragraph D.1 or 2 of this Section may be modified as follows.

1. ~~Alternate Standards for Valves Subject to Subparagraph D.1.b or D.2.b of This Section—Skip Period Leak Detection and Repair~~

a. An owner or operator may elect to comply with one of the alternative work practices specified in Subparagraphs E.1.b, c, ~~or eg or Paragraph E.2~~ of this Section. However, the administrative authority^{*} ~~must~~shall be notified in writing before ~~implementing~~ one of the alternative work practices is implemented.

b. After two consecutive quarterly leak detection periods with the percent of leaking valves (Equation 1) equal to or less than 2.0, an owner or operator may begin to skip one of the quarterly leak detection periods for ~~the~~ valves in gas/vapor and/or light liquid service.

c. After five consecutive quarterly leak detection periods with the percent of leaking valves (Equation 1) equal to or less than 2.0, an owner or operator may begin to skip three of the quarterly leak detection periods for ~~the~~ valves in gas/vapor and/or light liquid service.

d. If, after implementing one of the alternate work practices in Subparagraph E.1.b or c of this Section, the percent of leaking valves (Equation 1) increases ~~is to~~ greater than 2.0, or the total percent of leaking and ~~delay-of-repair~~unrepairable valves (Equation 2) ~~is~~increases to greater than 4.0, the owner or operator shall comply with the requirements ~~described in Subsection~~Paragraph D.1 or 2 of this Section, but subsequently may ~~again~~ elect to use this Subsection when the requirements are met.

e. ~~—The percent of leaking valves (Equation 1) shall be determined by dividing the sum of components found leaking during the current monitoring period by the total number of valves which were tested and multiplying the results by 100 percent.~~

f. ~~—An owner or operator must keep a record of the percent of valves found leaking during each leak detection period and the total percentage of leaking and unrepairable valves.~~

ge. Existing equipment that has been monitored under LAC 33:III.2121 for fugitives at the leak definition of 10,000 ppmv can initially elect to use this alternate standard if the unit has data documented with the ~~department~~administrative authority by either January 1, 1996, or for the 12 months prior to becoming subject to this Section, that indicates the percent of leaking valves (Equation 1) is less than or equal to a 2.0 percent leak rate at 10,000 ppmv for the required time periods as specified in Subparagraph E.1.b or c of this Section.

2. ~~Alternative Standards for Valves Subject to Subparagraph D.1.b or D.2.b of this Section—Increased Monitoring Frequency.~~ If the percent of leaking valves (Equation 1) ~~in a test period~~ is greater than 2.0, or the total percent of leaking and ~~delay-of-repair~~unrepairable valves (Equation 2) is greater than 4.0, then an increase in the frequency of monitoring may be required by the administrative authority*.

3. ~~Alternate Standards for Flanged Connectors Subject to Clause D.1.d.ii of ¶This Section—Skip Period Leak Detection and Repair~~

a. An owner or operator may elect to comply with~~one of the~~ alternative work practices specified in ~~Clause~~Subparagraph E.3.b or Paragraph E.4 of this Section. However, the administrative authority* ~~must~~shall be notified in writing before~~implementing one of the alternative work practices~~ is implemented.

b. After four consecutive quarterly leak detection periods with the percent of leaking flanged connectors (Equation 1) equal to or less than 1.0, an owner or operator may begin to skip three of the quarterly leak detection periods for~~the~~ flanged connectors in gas/vapor and~~or~~ light liquid service.

c. If, after implementing the AWP in Subparagraph E.3.b of this Section, the percent of leaking flanged connectors (Equation 1) is increases to greater than 1.0, or the total percent of leaking and delay-of-repairunrepairable flanged connectors (Equation 2) is increases to greater than 2.0, the owner or operator shall comply with the requirements as described in Subsection Clause D.1.d.ii of this Section, but subsequently mayean again elect to use this Subsection when the requirements are met.

~~d. — The percent of leaking flanged connectors (Equation 1) shall be determined by dividing the sum of components found leaking during the current monitoring period by the total number of flanged connectors that were tested and multiplying the results by 100 percent.~~

~~e. — An owner or operator must keep a record of the percent of flanged connectors found leaking during each leak detection period and the total percentage of leaking and unrepairable flanged connectors.~~

4. Alternative Standards for Flanged Connectors Subject to Clause D.1.d.ii of this Section—Increased Monitoring Frequency. If the percent of leaking flanged connectors (Equation 1) ~~in a test period~~ is greater than 1.0, or the total percent of leaking and delay-of-repairunrepairable flanged connectors (Equation 2) is greater than 2.0, then an increase in the frequency of monitoring may be required by the administrative authority*.

5. The percent of leaking components for which alternate control techniques are allowed by this Subsection shall be determined for each process unit using Equation 1 below. (Equation 1 shall be calculated separately for each component type.)

Equation 1

where:

%C_L = percent of leaking components

C_L = number of components found leaking by Method 21 during the monitoring period, not including components remonitored to verify repair or components on the delay-of-repair list at the end of the previous monitoring period

C_T = number of components monitored by Method 21 during the monitoring period, not including components remonitored to verify repair or components on the delay-of-repair list at the end of the previous monitoring period

6. The total percent of leaking and delay-of-repair components for which alternate control techniques are allowed by this Subsection shall be determined for each process unit using Equation 2. (Equation 2 shall be calculated separately for each component type.)

Equation 2

where:

$\%C_{T2}$ = total percent of leaking components including delay-of-repair list components

C_L = number of components found leaking by Method 21 during the monitoring period, not including components remonitored to verify repair or components on the delay-of-repair list at the end of the previous monitoring period

C_{TU} = number of components on the delay-of-repair list at the end of the previous monitoring period

C_T = number of components monitored by Method 21 during the monitoring period, not including components remonitored to verify repair or components on the delay-of-repair list at the end of the previous monitoring period

57. Alternate Standard for Batch Processes. As an alternate to complying with the requirements in Subsection D of this Section an owner or operator of a batch process in VOC service may elect to comply with one of the following alternative work practices. The batch product-process equipment shall be tested with a gas using the procedures specified in Subparagraph E.57.a of this Section or with a liquid as using the procedure specified in Subparagraph E.57.b of this Section.

a. The following procedures shall be used to pressure test batch product-process equipment using a gas (e.g., air or nitrogen) to demonstrate compliance.

i. The batch product-process equipment train, or section of the train, shall be pressurized with a gas to the operating pressure of the equipment. The

equipment shall ~~not~~ be tested at a pressure ~~greater~~lower than the lowest pressure setting of ~~any~~the lowest relief ~~device~~valve setting.

ii. Once the test pressure is obtained, the gas source shall be shut off.

iii. The test shall continue for not less than 15 minutes, unless it can be determined in a shorter period of time that the allowable rate of pressure drop was exceeded. The pressure in the batch product-process equipment shall be measured after the gas source is shut off and at the end of the test period. The rate of change in pressure in the batch product-process equipment shall be calculated using Equation 3~~, the following equation:~~

Equation 3

$$\frac{P}{t} = \frac{P_f - P_i}{t_f - t_i}$$

where:

P/t = change in pressure, psia/hr

P_f = final pressure, psia

P_i = initial pressure, psia

$t_f - t_i$ = elapsed time, hours

iv. The pressure shall be measured using a pressure measurement device (e.g., gauge, manometer, or equivalent) that has a precision of ± 2.5 millimeters (± 0.05 psig) of mercury ~~in over~~ the range of measured test pressures and is capable of measuring pressures up to the ~~relief set pressure~~lowest of the pressure setting of any relief device.

v. A leak is detected if the rate of change in pressure (Equation 3) is greater than 6.9 kPa (1 psig) ~~in one~~per hour or if there is visible, audible, or olfactory evidence of a leak~~fluid loss~~.

b. The following procedures shall be used to pressure test batch product-process equipment using a liquid to demonstrate compliance.

i. The batch product-process equipment train, or section of the train, shall be filled with the test liquid (e.g., water, alcohol). Once the equipment is filled, the liquid source shall be shut off.

ii. The test shall be conducted for a period not less than ~~of at least~~ 60 minutes, unless it can be determined in a shorter period of time that the test is a failure.

iii. Each seal in the equipment being tested shall be inspected for indications of liquid dripping or other indications of fluid loss. If there are any indications of liquids dripping or of fluid loss, a leak is detected.

~~iv.c.~~ If a leak is detected, it shall be repaired and the batch product-process equipment shall be retested before VOCs are fed to the equipment.

~~vd.~~ If the batch product-process equipment fails the retest or the second of two consecutive pressure tests, it shall be repaired as soon as practicable, but not later than 30 calendar days after the equipment is placed in VOC service.

F. Recordkeeping

1. When a component which has a leak that cannot be repaired, as described in ~~Subsection C~~ Subparagraph C.3.a of this Section, ~~is located~~, a weatherproof and readily visible tag bearing an identification number and the date the leak ~~is~~ was located shall be affixed to the leaking component. After the leak has been repaired the tag ~~identifying the component as a leaking component~~ may be removed.

2. A survey log shall be maintained by the owner or operator and shall include the following:

a. the name of the process unit where the leaking component is located;

b. the ~~name~~ type of the leaking component;

c. the stream identification at the leak;

d. the identification number from the tag required by Paragraph F.1 of this Section;

e. the date the leak was located;

- f. the date maintenance was performed;
- g. the date(s) the component was rechecked after maintenance, and the results (i.e., instrument reading; visual, audible, or olfactory results; soap bubble test results; AWP video) as well as the instrument reading(s) upon recheck (For natural gas processing plants the soap bubble test commonly performed in the industry is satisfactory.);
- h. a record of ~~leak detection device~~the monitor calibration or AWP daily instrument check;
- i. a delay-of-repair list of leaks not repaired until turnaround;
- j. a bypassed or isolated component list; and
- jk. a record list of total number of items checked versus the total found leaking all monitoring, imaging, and inspection results.

3. The owner or operator shall retain the survey log for two years after the ~~latest~~rest date specified in Paragraph F.2 of this Section and make ~~said~~the log available to the administrative authority* upon request.

4. The optional use of the AWP shall require storing video and other records of the daily instrument check and inspections as required in 40 CFR 60.18.

G. Reporting Requirements. The owner or operator of the affected facility shall submit a report semiannually to the Office of Environmental ~~Assessment~~Services containing the information listed in Paragraphs G.1-5 of this Section below for each calendar quarter during the reporting period, except for affected facilities that elect to meet the requirements of the alternate standard for batch processes in Paragraph E.5 of this Section, for which the report shall include the information listed in Paragraphs G.6-9 of this Section. The reports are due by the last day of the month (January and July) following the monitoring period or by an alternate date approved by the administrative authority~~department~~. The reports shall include the following information for each quarter of the reporting period:

- 1. the number of items checked each component type for which monitoring is required by Subsection D or E of this Section versus the number monitored found leaking;

2. ~~the percent of leaking components (Equation 1) for each component type~~leaking for the test period, as defined in Paragraph C.4 of this Section;

3. ~~the total percent of leakersleaking and delay-of-repair components (Equation 2) for each component type, as defined in Paragraph C.5 of this Section;~~

4. a listing of all leaks that were identified, but not repaired, within the 15-day limit, including the following information:

a. the name of the process unit where the leaking component is located and the date of last unit shutdown;

b. the typename of the leaking component;

c. the stream identification at the leak;

d. the identification number from the tag required by Paragraph F.1 of this Section, if the component is on the delay-of-repair list;

~~e.~~ the date the leak was located;

f. the monitoring or inspection results;

eg. the date maintenance was ~~attempted~~performed;

~~fh.~~ the date the leak is expected to~~will~~ be repaired if the component is on the delay-of-repair list~~awaiting a shutdown~~; and

~~gi.~~ the reason repairs failed or were postponed;

5. ~~the list of items awaiting turnaround for repair; and~~

~~6.~~ a signed statement attesting to the fact that all requirements of this Section have been met~~other monitoring has been performed as required by the regulations.;~~

6. the batch process equipment train identification;

7. the number of pressure tests conducted;

8. the number of pressure tests that the equipment train failed; and

9. a signed statement attesting to the fact that all requirements of this Section have been met.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 20:1102 (October 1994), repromulgated LR 20:1279 (November 1994), amended LR 22:1129 (November 1996), LR 22:1212 (December 1996), repromulgated LR 23:197 (February 1997), amended LR 23:1678 (December 1997), LR 24:22 (January 1998), LR 24:1285 (July 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2453 (November 2000), LR 28:1764 (August 2002), LR 30:1660 (August 2004), repromulgated by the Office of Environmental Assessment, LR 30:2030 (September 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2440 (October 2005), LR 33:2086 (October 2007); amended by the Office of the Secretary, Legal Division, LR 39:**.

Subchapter N. Capture Efficiency Test Procedures

[Editor's Note: This Subchapter was moved and renumbered from Chapter 61 (December 1996).]

§2199. Appendix A and B

Appendix A. ...

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Appendix B. Louisiana Consolidated Fugitive Emissions Program (LCFEP)

Through a memorandum of understanding signed in 1996, the Louisiana Department of Environmental Quality (LDEQ) entered into an agreement with the U.S. Environmental Protection Agency (EPA) Region 6 to administer a program titled the Louisiana Consolidated Fugitive Emissions Program (LCFEP). The agreement established guidelines for the consolidation of multiple leak detection and repair (LDAR) programs at industrial facilities into a single program. At facilities that are subject to multiple LDAR standards, LCFEP provides the option of consulting a prioritized stringency table of programs in order to determine the overall most stringent program applicable to the facility, and then administer that program solely in lieu of implementing all fugitive programs simultaneously.

Under the current agreements between EPA and LDEQ, and between LDEQ and individual facilities, participating industry conducts the most stringent LDAR program and submits a single report, greatly reducing the regulatory burden created by overlapping state and federal LDAR programs.

The governing memorandum of understanding states:

State and EPA Region 6 agree to implement and enforce fugitive emission program requirements in accordance with the Louisiana Fugitive Emission Program Consolidation Guidelines to provide a mechanism for consolidating overlapping state and federal equipment leak programs in agreement with the affected source. EPA Region 6 and the State accept federal and state

enforceability of the consolidated program. The State and EPA Region 6 further agree that compliance with a consolidated program in accordance with the Guidelines will be considered compliance with each of the fugitive emission programs being consolidated. Furthermore, it is understood that an affected source's noncompliance with the consolidated program requirements may subject the affected source to enforcement action for one or more of the requirements of fugitive emissions programs being consolidated. This agreement will be implemented only through a Source Notice and Agreement signed by and specific to each affected source. If in the future, a new federal standard is promulgated (i.e., consolidated air rule, MACT, etc.) that could potentially change the established Guidelines, the Guidelines will be revisited and modified as necessary.

The Source Notice and Agreement (SNA) is a memorandum submitted by an interested facility which contains a detailed list of programs to be consolidated. Consolidation is done on either a unit-by-unit or a facility-wide basis. The SNA is required to be signed by a facility representative meeting EPA's responsible official designation, defined under 40 CFR 63.2. Once the SNA is signed by the facility and accepted by LDEQ, the agreement is considered to be in effect for compliance purposes. SNAs are accepted or denied based on the correctness of the consolidation table, and the signature of a proper representative.

Facilities operating a consolidated fugitive program must abide by the program's consolidation guidelines. The guidelines consist of a set of rules called the workpractice terms and conditions and the stringency table (Table 9).

Louisiana Fugitive Emission Program Consolidation Guidelines

Workpractice Terms and Conditions

These terms and conditions are to be used in conjunction with the stringency table (Table 9). Of the applicable equipment leak programs being consolidated, the program highest in the table hierarchy is to be considered the overall most stringent program under the guidelines. The guidelines may be used only in accordance with a SNA or a Title V permit.

Applicability and Exemptions

The consolidated program shall apply to the combined universe of components subject to any of the programs being consolidated.

The consolidation of fugitive programs shall be conducted at a minimum of the process unit level, and may also be on a facility-wide basis.

Consolidation of RCRA programs shall first be approved by LDEQ's Waste Permits Division.

Component types which do not require periodic monitoring under the overall

most stringent program, shall be monitored as required by the most stringent requirements of any other program being consolidated and will not be exempted.

The consolidated program shall include any exemptions based on size of component available in any of the programs being consolidated.

The consolidated program cannot be used to replace requirements for area monitoring under the Vinyl Chloride NESHAP.

For any compressor subject to a federal rule requiring a seal system including barrier fluid, sensor, and alarm, periodic monitoring of compressors may not be used in lieu of the seal system requirements, regardless of the overall most stringent program.

Leak Definitions

Leak definitions are based on the overall most stringent program as determined from Table 9.

Phase-in periods allowed under federal regulations are not eliminated as long as there is no backsliding of existing monitoring programs.

Monitoring Frequency

Monitoring frequency shall be based on the overall most stringent program as determined from Table 9.

Annual monitoring shall be defined as once every four quarters, regardless of the overall most stringent program. Some allowance may be made in the first year of the consolidation in order to allow for transition from existing monitoring schedules.

Calibration

Use of dilution device for calibration, as defined in Method 21, is acceptable.

Identification of Components

All leaking components must be tagged.

If the Benzene NESHAP and a more stringent program are applicable, the overall most stringent program prevails and physical tagging of components is therefore not required. Identification, either by list or location (area or group) of affected components is acceptable.

Leak Performance

The determination of leak performance is based on the overall most stringent program as determined from Table 9.

Repair

Repair period requirements are always first attempt within 5 days of detecting the leak and final repair within 15 days of detecting the leak, regardless of the overall most stringent program.

Post Repair

Post repair inspection consists of remonitoring once within 3 months after repair of leaks, regardless of the overall most stringent program.

Recordkeeping and Reporting

Recordkeeping and reporting information requirements shall be based on the overall most stringent program as determined from Table 9.

Reporting frequency shall be semiannual regardless of the overall most stringent program.

Reports shall include records for any monitoring performed within the semiannual reporting period.

Louisiana Consolidated Fugitive Emission Program Stringency Table

Stringency Table (Table 9)

This stringency table is to be used in conjunction with the workpractice terms and conditions. Consolidation is done between the groups listed. Of the applicable equipment leak programs being consolidated, the program in the highest group in the table hierarchy is to be considered the overall most stringent program under the guidelines. Referencing Subparts shall comply with the referenced program in the manner required by the provisions of the referencing Subpart. The guidelines may be used only in accordance with a SNA or a Title V permit. Programs shall be consolidated on a unit-wide or a facility-wide basis.

Table 9
Stringency Table

<ul style="list-style-type: none"> ● 40 CFR 65 Subpart F – Consolidated Air Rule
<ul style="list-style-type: none"> ● 40 CFR 63 Subpart H – SOCMH HON MACT and Referencing Subparts <ul style="list-style-type: none"> ○ 40 CFR 63 Subpart EEEE – Organic Liquids Distribution (Non-Gasoline) MACT (HON Option) ○ 40 CFR 63 Subpart UUUU – Cellulose Products MACT (HON Option) ○ 40 CFR 63 Subpart W – Polymers and Resins II MACT ○ 40 CFR 63 Subpart PPP – Polyether Polyols Production MACT
<ul style="list-style-type: none"> ● 40 CFR 63 Subpart UU – General MACT for Equipment Leaks – Control Level II and Referencing Subparts <ul style="list-style-type: none"> ○ 40 CFR 63 Subpart YY – Generic MACT (Acetal Resins Production, Acrylic and Modacrylic Fibers Production, Cyanide Chemicals Manufacturing, Polycarbonates Production, Ethylene Processes) (UU Option) ○ 40 CFR 63 Subpart OOO – Amino/Phenolic Resins Manufacturing MACT ○ 40 CFR 63 Subpart EEEE – Organic Liquids Distribution (Non-Gasoline) MACT (Subpart UU Option) ○ 40 CFR 63 Subpart FFFF – Miscellaneous Organic Chemical Manufacturing (Subpart UU Option) ○ 40 CFR 63 Subpart UUUU – Cellulose Products MACT (Subpart UU Option) ○ 40 CFR 63 Subpart GGGGG – Site Remediation MACT (Subpart UU Option) ○ 40 CFR 63 Subpart HHHHH – Miscellaneous Coating Manufacturing MACT (Subpart UU Option)
<ul style="list-style-type: none"> ● 40 CFR 63 Subpart U – Polymers and Resins I, Elastomer MACT
<ul style="list-style-type: none"> ● 40 CFR 63 Subpart GGG – Pharmaceuticals Production MACT ● 40 CFR 63 Subpart MMM – Pesticide Active Ingredient Production MACT
<ul style="list-style-type: none"> ● Louisiana MACT Determination for Non-HON Sources w/ Consent Decree Enhancements ● Louisiana MACT Determination for Refineries w/ Consent Decree Enhancements

Table 9
Stringency Table

<ul style="list-style-type: none"> ● 40 CFR 60 Subpart VVa – NSPS for Equipment Leaks In SOCFI Facilities <ul style="list-style-type: none"> ○ 40 CFR 60 Subpart GGGa – NSPS for Equipment Leaks in Petroleum Refineries
<ul style="list-style-type: none"> ● Louisiana MACT Determination for Non-HON Sources ● Louisiana MACT Determination for Refineries
<ul style="list-style-type: none"> ● LAC 33:III.2122 – Louisiana Fugitive Emission Control for Nonattainment
<ul style="list-style-type: none"> ● 40 CFR 63 Subpart CC – Refining MACT Modified HON option
<ul style="list-style-type: none"> ● 40 CFR 61 Subpart F – National Emission Standard for Vinyl Chloride ● 40 CFR 61 Subpart V – National Emission Standard for Equipment Leaks and Referencing Subparts <ul style="list-style-type: none"> ○ 40 CFR 61 Subpart J – National Emission Standard for Equipment Leaks of Benzene ● 40 CFR 63 Subpart HH – Oil and Natural Gas Production MACT
<ul style="list-style-type: none"> ● 40 CFR 60 Subpart VV – NSPS for Equipment Leaks In SOCFI Facilities <ul style="list-style-type: none"> ○ 40 CFR 60 Subpart GGG – NSPS for Equipment Leaks in Petroleum Refineries ○ 40 CFR 60 Subpart KKK – NSPS for Equipment Leaks in Onshore Natural Gas Processing Plants ○ 40 CFR 63 Subpart CC – Refinery MACT NSPS Option

Table 9
Stringency Table

<ul style="list-style-type: none"> ● 40 CFR 63 Subpart TT – General MACT for Equipment Leaks – Control Level I and Referencing Subparts <ul style="list-style-type: none"> ○ 40 CFR 63 Subpart EEEE – Organic Liquids Distribution (Non-Gasoline) MACT (Subpart TT Option) ○ 40 CFR 63 Subpart FFFF – Miscellaneous Organic Chemical Production and Processes MACT (Subpart TT Option) ○ 40 CFR 63 Subpart GGGGG – Site Remediation MACT (Subpart TT Option) ○ 40 CFR 63 Subpart HHHHH – Miscellaneous Coating Manufacturing MACT (Subpart TT Option) ○ 40 CFR 63 Subpart YY – Generic MACT (Acetal Resins Production, Acrylic and Modacrylic Fibers Production, Cyanide Chemicals Manufacturing, and Polycarbonates Production) (TT Option)
<ul style="list-style-type: none"> ● 40 CFR 264 – RCRA Subpart BB (LAC 33:V.1717.Subchapter B) ● 40 CFR 265 – RCRA Subpart BB (LAC 33:V.4561.Subchapter R)
<ul style="list-style-type: none"> ● LAC 33:III.2121 – Louisiana Fugitive Emission Control ● 40 CFR 63 Subpart III – Flexible Polyurethane Foam Production MACT
<ul style="list-style-type: none"> ● 40 CFR 63 Subpart R – Gasoline Distribution Terminals MACT and Referencing Subpart <ul style="list-style-type: none"> ○ 40 CFR 63 Subpart HHHHH – Miscellaneous Coating Manufacturing MACT (Subpart R Option) ● 40 CFR 63 Subpart YY – Generic MACT (Hydrogen Fluoride Manufacturing)

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Nuclear Energy, LR 11:529 (May 1985) amended by the Office of Air Quality and Radiation Protection, Air Quality Division, LR 17:654 (July 1991), LR 23:1508 (November 1997), amended by the Office of the Secretary, Legal Division, LR 39:**.

Person

Preparing John DyerStatement: john.dyer@la.gov
(email address)Phone: (225) 219-3452Dept.: Environmental QualityOffice: Environmental Services

Return

Address: 602 North Fifth Street
Baton Rouge, LA 70802Rule Control of Emissions of Organic Compounds:Title: Fugitive Emission Control
LAC 33:III.2121, 2122, and Appendix B

Date Rule

Takes Effect: Upon Promulgation

SUMMARY

(Use complete sentences)

In accordance with Section 953 of Title 49 of the Louisiana Revised Statutes, there is hereby submitted a fiscal and economic impact statement on the rule proposed for adoption, repeal or amendment. THE FOLLOWING STATEMENTS SUMMARIZE ATTACHED WORKSHEETS, I THROUGH IV AND WILL BE PUBLISHED IN THE LOUISIANA REGISTER WITH THE PROPOSED AGENCY RULE.

I. ESTIMATED IMPLEMENTATION COSTS (SAVINGS) TO STATE OR LOCAL GOVERNMENTAL UNITS (Summary)

There will be no costs or savings to state or local governmental units resulting from implementation of the rule change. The proposed change will revise air regulations for fugitive emission control for attainment and nonattainment areas. New definitions are being added and current definitions will be amended to closely resemble federal definitions. Modifications are made to conflicting requirements on control and monitoring for leaks discovered by sight, sound or smell.

II. ESTIMATED EFFECT ON REVENUE COLLECTIONS OF STATE OR LOCAL GOVERNMENTAL UNITS (Summary)

There is no estimated effect on revenue collections of state or local governmental units as a result of the proposed rule.

III. ESTIMATED COSTS AND/OR ECONOMIC BENEFITS TO DIRECTLY AFFECTED PERSONS OR NON-GOVERNMENTAL GROUPS (Summary)

There are no costs or economic benefits to the industrial facilities affected by the rule changes, since the changes are primarily clarifications of existing organic fugitives standards and monitoring requirements.

IV. ESTIMATED EFFECT ON COMPETITION AND EMPLOYMENT (Summary)

There will be no estimated effect on competition or employment in the public or private sectors. All affected facilities must follow the same rules. There is no change in the number of affected facilities,

since the rule changes are minor and do not affect applicability to current regulations.

Signature of Agency Head or Designee

Legislative Fiscal Officer or Designee

Herman Robinson, CPM, Executive Counsel
Typed Name and Title of Agency Head or Designee

Date of Signature

Date of Signature

FISCAL AND ECONOMIC IMPACT STATEMENT
FOR ADMINISTRATIVE RULES

The following information is requested in order to assist the Legislative Fiscal Office in its review of the fiscal and economic impact statement and to assist the appropriate legislative oversight subcommittee in its deliberation on the proposed rule.

- A. Provide a brief summary of the content of the rule (if proposed for adoption, or repeal) or a brief summary of the change in the rule (if proposed for amendment). Attach a copy of the notice of intent and a copy of the rule proposed for initial adoption or repeal (or, in the case of a rule change, copies of both the current and proposed rules with amended portions indicated).

The proposed rule will amend fugitive emission control air regulations in designated attainment and nonattainment areas. New definitions are being added and current definitions will be amended to closely resemble federal definitions. Modifications have been made to conflicting requirements on control and monitoring for leaks discovered by sight, sound, or smell.

- B. Summarize the circumstances which require this action. If the Action is required by federal regulation, attach a copy of the applicable regulation.

The regulated community requested the department to update the state fugitive emission control regulations, add definitions for regulated fugitive components, and to clarify some inconsistencies in the regulations. This rule represents the second phase to amend the regulations. The initial phase was promulgated in 2004.

This action is not required by a federal regulation.

- C. Compliance with Act 11 of the 1986 First Extraordinary Session
(1) Will the proposed rule change result in any increase in the expenditure of funds? If so, specify amount and source of funding.

The proposed rule change will not result in an increase in the expenditure of funds.

(2) If the answer to (1) above is yes, has the Legislature specifically appropriated the funds necessary for the associated expenditure increase?

(a) ___ Yes. If yes, attach documentation.

(b) ___ No. If no, provide justification as to why this rule change should be published at this time.

FISCAL AND ECONOMIC IMPACT STATEMENT

WORKSHEET

I. A. COSTS OR SAVINGS TO STATE AGENCIES RESULTING FROM THE ACTION PROPOSED

1. What is the anticipated increase (decrease) in costs to implement the proposed action?

There is no anticipated increase in costs to implement the proposed action. No anticipated savings will occur from the proposed action.

COSTS	FY12-13	FY13-14	FY14-15
PERSONAL SERVICES	0	0	0
OPERATING EXPENSES	0	0	0
PROFESSIONAL SERVICES	0	0	0
OTHER CHARGES	0	0	0
EQUIPMENT	0	0	0
TOTAL	0	0	0
MAJOR REPAIR & CONSTR	0	0	0
POSITIONS (#)	0	0	0

2. Provide a narrative explanation of the costs or savings shown in "A.1.", including the increase or reduction in workload or additional paperwork (number of new forms, additional documentation, etc.) anticipated as a result of the implementation of the proposed action. Describe all data, assumptions, and methods used in calculating these costs.

Not applicable.

3. Sources of funding for implementing the proposed rule or rule change.

SOURCE	FY12-13	FY13-14	FY14-15
STATE GENERAL FUND	0	0	0
AGENCY SELF-GENERATED	0	0	0
DEDICATED	0	0	0
FEDERAL FUNDS	0	0	0
OTHER (Specify)	0	0	0
TOTAL	0	0	0

4. Does your agency currently have sufficient funds to implement the proposed action? If not, how and when do you anticipate obtaining such funds?

No funds are required to implement the proposed action.

B. COST OR SAVINGS TO LOCAL GOVERNMENTAL UNITS RESULTING FROM THE ACTION PROPOSED.

1. Provide an estimate of the anticipated impact of the proposed action on local governmental units, including adjustments in workload and paperwork requirements. Describe all data, assumptions and methods used in calculating this impact.

No impact on local governmental units is anticipated, including adjustments in workload and paperwork requirements.

2. Indicate the sources of funding of the local governmental unit which will be affected by these costs or savings.

There are no costs or savings to local governmental units and no funding is needed.

FISCAL AND ECONOMIC IMPACT STATEMENT

WORKSHEET

II. EFFECT ON REVENUE COLLECTIONS OF STATE AND LOCAL GOVERNMENTAL UNITS

- A. What increase (decrease) in revenues can be anticipated from the proposed action?

No increase or decrease in revenues is anticipated from the proposed action.

REVENUE INCREASE/DECREASE	FY12-13	FY13-14	FY14-15
STATE GENERAL FUND	0	0	0
AGENCY SELF-GENERATED	0	0	0
RESTRICTED FUNDS*	0	0	0
FEDERAL FUNDS	0	0	0
LOCAL FUNDS	0	0	0
TOTAL	0	0	0

*Specify the particular fund being impacted.

- B. Provide a narrative explanation of each increase or decrease in revenues shown in "A." Describe all data, assumptions, and methods used in calculating these increases or decreases.

There is no effect on revenue collections of state and local governmental units.

III. COSTS AND/OR ECONOMIC BENEFITS TO DIRECTLY AFFECTED PERSONS OR NONGOVERNMENTAL GROUPS

- A. What persons or non-governmental groups would be directly affected by the proposed action? For each, provide an estimate and a narrative description of any effect on costs, including workload adjustments and additional paperwork (number of new forms, additional documentation, etc.), they may have to incur as a result of the proposed action.

The rule changes will affect the industrial facilities that are already subject to the fugitive emission control air regulations of LAC 33:III.2121 and 2122. Since the changes are minor, involving primarily clarifications of the existing rule, there will be no additional economic costs to the affected industries.

- B. Also provide an estimate and a narrative description of any impact on receipts and/or income resulting from this rule or rule change to these groups.

There are no estimated impacts on receipts or income from the proposed rule.

IV. EFFECTS ON COMPETITION AND EMPLOYMENT

Identify and provide estimates of the impact of the proposed action on competition and employment in the public and private sectors. Include a summary of any data, assumptions and methods used in making these estimates.

There will be no estimated effect on competition or employment in the public or private sectors. All affected facilities must follow the same rules. There is no change in the number of affected facilities, since the rule changes are minor and do not affect applicability to current regulations.