

DECLARATION OF EMERGENCY

Department of Environmental Quality Office of Air Quality and Radiation Protection Air Quality Division

Chemical Accident Prevention (LAC 33:III.Chapter 59) (AQ126E)

In accordance with the emergency provisions of the Administrative Procedure Act, R.S. 49:953(B), and under the authority of R.S. 30:2011, the secretary of the Department of Environmental Quality (DEQ) declares that an emergency action is necessary because the current rule LAC 33:III.Chapter 59 provides only for the registration of facilities with regulated substances over a threshold quantity. In the wake of recent events, it is apparent that a problem with accidents and accidental releases involving toxic, flammable or explosive substances needs immediate attention. Without these rules, the people and environment of the state of Louisiana could be exposed to imminent peril from this problem. Failure to adopt these rules through the emergency procedure will delay the implementation of procedures required to provide for the prevention of accidents and the minimization of the off-site consequences of such accidents.

This emergency rule is effective on July 5, 1996, and shall remain in effect for a maximum of 120 days or until a final rule is promulgated, whichever comes first.

Title 33

ENVIRONMENTAL QUALITY

Part III. Air

Chapter 59. Chemical Accident Prevention and Minimization of Consequences

Subchapter A. General Provisions

§5902. General Duty

The owners and operators of stationary sources producing, processing, handling, or storing substances listed in LAC 33:III.5905.Tables 59.1 and 59.2, mentioned in LAC 33:III.5905.A, or listed in Table 59.3, have a general duty in the same manner and to the same extent as Section 654 of Title 29 of the United States Code (Occupational Safety and Health Act) to identify hazards that may result from accidental releases of such substances using appropriate hazard assessment techniques, to design and maintain a safe facility, and to minimize the consequences of accidental releases of such substances that do occur. For the purposes of this Section the provisions of R.S. 30:2026 (Citizen Suits) shall not be available to any person or otherwise be construed to be applicable to this Section. Nothing in this Section shall be interpreted, construed, implied, or applied to create any liability or basis for suit for compensation for bodily injury or any other injury or property damages to any person that may result from accidental releases of such substances.

Table 59.3		
Supplemental List of Regulated Substances and their Threshold Quantities for Accidental Release Prevention		
CAS Number	Chemical Name	Threshold planning quantity (pounds)
Varies	Alkylaluminums	5000
107-05-1	Allyl chloride	1000
7790-98-9	Ammonium perchlorate	7500
7787-36-2	Ammonium permanganate	7500
13863-41-7	Bromine chloride	1500
7789-30-2	Bromine pentafluoride	2500
7787-71-5	Bromine trifluoride	15000
106-96-7	Bromopropyne (3-) (Propargyl bromide)	100
75-91-2	Butyl hydroperoxide (tertiary)	5000
614-45-9	Butyl perbenzoate (tertiary)	7500

353-50-4	Carbonyl fluoride	2500
9004-70-0	Cellulose nitrate (Conc>12.6 percent nitrogen)	2500
13637-63-3	Chlorine pentafluoride	1000
7790-91-2	Chlorine trifluoride	1000
97-00-7	Chloro-2,4-dinitrobenzene (1-)	5000
96-10-6	Chlorodiethylaluminum	5000
76-06-2	Chloropicrin	500
None	Chloropicrin and methyl bromide mixture	1500
None	Chloropicrin and methyl chloride mixture	1500
80-15-9	Cumene hydroperoxide	5000
675-14-9	Cyanuric fluoride	100
110-22-5	Diacetyl peroxide (Conc>70 percent)	5000
334-88-3	Diazomethane	500
94-36-0	Dibenzoyl peroxide	7500
110-05-4	Dibutyl peroxide (tertiary)	5000
7572-29-4	Dichloro acetylene	250
557-20-0	Diethylzinc	10000
105-64-6	Diisopropyl peroxydicarbonate	7500
105-74-8	Dilauroyl peroxide	7500
97-02-9	Dinitroaniline (2,4-)	5000
1338-23-4	Ethyl methyl ketone peroxide (Conc>60 percent)	5000
371-62-0	Ethylene fluorohydrin	100
684-16-2	Hexafluoroacetone	5000
10035-10-6	Hydrogen bromide	5000
7722-84-1	Hydrogen peroxide (conc>=52 percent by weight)	7500
7803-49-8	Hydroxylamine	2500
463-51-4	Ketene	100
78-85-3	Methacrylaldehyde	1000
920-46-7	Methacryloyl chloride	150
30674-80-7	Methacryloyloxyethyl isocyanate	100
74-83-9	Methyl bromide	2500
453-18-9	Methyl fluoroacetate	100
421-20-5	Methyl fluorosulfate	100
74-88-4	Methyl iodide	7500

79-84-4	Methyl vinyl ketone	100
100-01-6	Nitroaniline(p-)	5000
7783-54-2	Nitrogen trifluoride	5000
10544-73-7	Nitrogen trioxide	250
75-52-5	Nitromethane	2500
20816-12-0	Osmium tetroxide	100
7783-41-7	Oxygen difluoride	100
19624-22-7	Pentaborane	100
7601-90-3	Perchloric acid (Conc>60 percent by weight)	5000
7616-94-6	Perchloryl fluoride	5000
627-13-4	Propyl nitrate	2500
107-44-8	Sarin	100
7783-79-1	Selenium hexafluoride	1000
7803-52-3	Stibine (Antimony hydride)	500
5714-22-7	Sulfur pentafluoride	250
7783-80-4	Tellurium hexafluoride	250
10036-47-2	Tetrafluorohydrazine	5000
7719-09-7	Thionyl chloride	250
1558-25-4	Trichloro(chloromethyl)silane	100
27137-85-5	Trichloro(dichlorophenyl)silane	2500
2487-90-3	Trimethoxysilane	1500

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054 and 2063.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 22:

§5903. Definitions

The terms in this Chapter are used as defined in LAC 33:III.111 except those terms specifically defined in an applicable subchapter or defined herein as follows:

* * *

[See Prior Text]

BATF-the Bureau of Alcohol, Tobacco, and Firearms.

CAS-Chemical Abstract Service.

Covered Process—a process that has a regulated substance present in more than a threshold quantity as determined under LAC 33:III.5905.

Full-time Employee—2,000 hours per year of full-time equivalent employment. A source would calculate the number of full-time employees by totaling the hours worked during the calendar year by all employees, including contract employees, and dividing that total by 2,000 hours.

Major Stationary Source—for the purposes of LAC 33:III.5901,5902, 5903, and 5911, a stationary source that is classified or would be classified as an A-1 or A-2 source in the Compliance Data System (CDS) maintained by the department, that emits or has the potential to emit 25 tons per year or more of a criteria pollutant (VOC, NO_x, CO, SO₂, PM₁₀, or lead); for the purposes of all other portions of LAC 33:III.Chapter 59, a stationary source that is classified or would be classified as an A-1 or A-2 source in the Compliance Data System (CDS) maintained by the department, that emits or has the potential to emit 25 tons per year or more of a criteria pollutant (VOC, NO_x, CO, SO₂, PM₁₀, or lead), and in addition has a covered process in Standard Industrial Classification (SIC) Code 2611, 2812, 2819, 2821, 2869, 2873, 2879, or 2911.

Mitigation System or Mitigation—activities, technologies, or equipment that is designed to capture or control substances after they are released to the environment or upon loss of containment. Passive mitigation

means equipment, devices, or technologies that function without human, mechanical, or other energy input.

* * *

[See Prior Text]

Process—any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances or combinations of these activities, identified by its intended primary activity. For the purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release from those separate vessels, may be considered a single process.

* * *

[See Prior Text]

Regulated Substance—any substance listed in the Chapter 59 tables or an explosive classified by the U.S. Department of Transportation as Division 1.1 (49 CFR part 172.102) that is defined as an explosive that has a mass explosion hazard.

* * *

[See Prior Text]

Stationary Source—any buildings, structures, equipment, installations, or substance emitting stationary activities:

- a. which belong to the same industrial group;
- b. which are located on one or more contiguous properties;
- c. which are under the control of the same person (or persons under common control); and
- d. from which an accidental release may occur.

* * *

[See Prior Text]

Worst-case Release—the release of one or more regulated substances that has the worst off-site consequences determined by hazard assessment as specified in LAC 33.III.5913. This must be determined by using good engineering judgment. The owner or operator shall first consider the case of the release of the largest quantity of a regulated substance resulting from a single vessel failure or single process line failure. The owner or operator shall also consider the release of a possibly smaller quantity of a regulated substance resulting from a single vessel failure or single process line failure from a vessel or process line in closer proximity to the property line. In determining the worst-case release the owner or operator shall consider the effect of an explosion on nearby vessels and include their contents in the release, if appropriate, or provide documentation if there is no additional impact. Hazard assessments including dispersion modeling of several cases may be required to determine the worst-case release. It shall be assumed that well-designed and well-maintained passive mitigation systems function, but active mitigation systems fail.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054 and 30:2063.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 20:421 (April 1994), amended LR 22:

§5905. Threshold Determination

A. More than a threshold quantity of a regulated substance as listed in Table 59.1 or 10,000 pounds of any regulated substance listed in 59.2 is present at a major stationary source if the total quantity of the regulated substance contained in a process exceeds the threshold quantity. Crude oil and petroleum fractions shall not be considered single compounds, even if they have been assigned CAS numbers. More than a threshold quantity of an explosive is present at a major stationary source if the total quantity present on-site exceeds 5,000 pounds and if it is classified by the U.S. Department of Transportation as Division 1.1 (49 CFR part 172.102), that is, defined as an explosive that has a mass explosion hazard.

B. For the purposes of determining whether more than a threshold quantity of a regulated substance is present at the major stationary source, the following applies:

* * *

[See Prior Text in B.1-6.c]

7. Specific Exemptions

a. Regulated materials that are under active shipping papers (i.e., have not reached their final destination) are exempt provided that:

i. shipping documents are readily accessible to emergency response personnel and proximate to the regulated material; and

ii. all regulated material is properly marked and placarded according to applicable U.S. Department of Transportation regulations as listed in 49 CFR 172 (Hazardous Materials Tables, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements), subparts B, C, D, E, and F.

b. Pipelines, transfer stations, and other activities regulated by the U.S. Department of Transportation under 49 CFR 192, 193, and 195 (Transportation of Natural and Other Gas by Pipeline, Liquefied Natural Gas Facilities, and Transportation of Hazardous Liquids by Pipeline) as transportation of hazardous substances by pipeline or incident to such transportation are exempt. However, loading and unloading equipment for shipping and bulk storage associated with such equipment shall not be exempt.

TABLE 59.1		
THE LIST OF REGULATED TOXIC SUBSTANCES AND THEIR THRESHOLD QUANTITIES FOR ACCIDENTAL RELEASE PREVENTION (ALPHABETICAL ORDER)		
CAS Number	Chemical Name	Threshold planning quantity (pounds)
* * *		
[See Prior Text in Acrolein-Nitric Oxide]		
10544-72-6	Nitrogen Tetroxide	250
* * *		
[See Prior Text in Oleum-Table 59.2]		

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054 and 30:2063.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 20:422 (April 1994), amended LR 22:

§5909. Applicability

A. Tier 1. The owner or operator of a major stationary source with a covered process as defined in LAC 33:III.5903 that meets the eligibility criteria of LAC 33:III.5912.A shall comply for that covered process with LAC 33:III.5911 by the date specified therein and LAC 33:III.5912.A no later than November 8, 1998.

B. Tier 2. Except as provided in Subsections A, C, and D of this Section, the owner or operator of a major stationary source with a covered process shall comply for that covered process with LAC 33:III.5911 by the date specified therein and LAC 33:III.5912.B no later than November 8, 1998.

C. Tier 3. Except as provided in Subsection A of this Section, the owner or operator of a major stationary source with 100 or more full-time employees shall comply with LAC 33:III.5911 at the date specified therein and LAC 33:III.5913-5941 no later than November 8, 1998 for any covered process in Standard Industrial Classification (SIC) Code 2611, 2812, 2819, 2821, 2869, 2873, 2879, or 2911. For all other covered processes at the major stationary source, the owner or operator shall comply with LAC 33:III.5911 at the date specified therein and LAC 33:III.5912.B no later than November 8, 1998.

D. Deferred Tier 3. Except as provided in Subsection A of this Section, the owner or operator of a major stationary source that has 20 or more full-time employees, but less than 100 full-time employees and a covered process in SIC Code 2812, 2819, 2869, 2873, or 2911 shall:

1. comply for that covered process with LAC 33:III.5911 at the date specified therein and LAC 33:III.5912.B no later than November 8, 1998; and

2. comply for that covered process with LAC 33:III.5911 at the date specified therein and LAC 33:III.5913-5941 no later than November 8, 2003.

E. Facility Tier Assignment. The overall facility (the major stationary source) shall be assigned to the same tier as the process having the most stringent tier assignment in the major stationary source.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054 and 30:2063.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 20:426 (April 1994), amended LR 22:

§5911. Registration

* * *

[See Prior Text in A]

B. The registration shall include the following:

1. the name of the major stationary source, and its street address, mailing address, parish name, and telephone number;

* * *

[See Prior Text in B.2-4]

5. the name, address, and telephone number of a knowledgeable contact person with overall responsibility as referenced in LAC 33:III.5917.B;

6. the following certification signed by the owner or operator: "The undersigned certifies that, to the best of my knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete";

7. registrations after the date consistent with rules developed under section 112(r) of the federal Clean Air Act Amendments of 1990 shall include the additional phrase, "I certify that I prepared or caused to be prepared a risk management plan that complies with 40 CFR 68.50" [and, when applicable: "and the provisions of 40 CFR 68.60"] "and that I submitted or caused to be submitted copies of the risk management plan to each of the entities listed in 40 CFR 68.50(a)." [Signature];

8. the total number of full-time employees at the major stationary source;
9. the list of the processes at the major stationary source with the SIC code, Louisiana permit number (if any), CDS number (if known), the latitude and longitude of the facility and each process, the universal transverse mercator (UTM) coordinates of the facility (if known), the A-1 or A-2 classification of the facility, and tier assignment, according to LAC 33:III.5909, of each process and facility;
10. the name, address, and telephone number of a contact person who is responsible for invoicing; and
11. the company name (if different from the source name) and its mailing address and telephone number.

C. If at any time after the submission of the registration, information in the registration is no longer accurate, the owner or operator shall submit an amended registration within 60 days to the administrative authority* and the department. However, major stationary sources that registered under this Section prior to November 8, 1995 have until March 7, 1996 to supply the information required in Subsection B.1, 8, 9, 10 and 11 of this Section. After a final determination of necessary revisions under LAC 33:III.5943.F, the owner or operator shall register the revised risk management plan by the date required in LAC 33:III.5943.G.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054 and 30:2063.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 20:426 (April 1994), amended LR 22:

Subchapter B. Risk Management Program Requirements

§5912. Simplified Compliance for Certain Major Stationary Sources

A. No-impact Sources (Tier 1)

1. Sources That Exceed a Threshold Quantity Only for Flammable or Explosive Regulated Substances

a. Eligibility. The owner or operator of a major stationary source that is subject to this Chapter and that does not exceed the threshold quantity for a toxic substance shall comply with Subsection A.1.b of this Section if the source has not had a significant accidental release for five years preceding November 8, 1995 and:

i. for a source that exceeds the threshold for an explosive regulated substance, the source is subject to 27 CFR part 55 (Alcohol, Tobacco Products, and Firearms; Commerce in Explosives) or 30 CFR part 56, 57, or 77 (Mineral Resources; Safety and Health Standard - Surface Metal and Nonmetal Mines; Safety and Health Standard - Underground Metal and Nonmetal Mines; Mandatory Safety Standards, Surface Coal Mines and Surface Work Areas of Underground Coal Mines) and the distance from the process to a public or environmental impact is not closer than the distance to inhabited buildings provided in the American Table of Distances (27 CFR 55.218, Alcohol, Tobacco Products, and Firearms; Commerce in Explosives; Storage; Table of Distances for Storage of Explosive Material) for the quantity of explosives in the process; or

ii. for a source that exceeds the threshold for a flammable regulated substance, the distance from the point of release under the worst-case release scenario to a public or environmental impact is greater than the distance as calculated using the following formula for the maximum quantity present in the process:

Where:

mass = quantity of flammable substance in kilograms

hc = heat of combustion in joules per kilogram.

b. Program and Plan Requirements

i. The owner or operator shall place a sign at all normal access routes that warns the public and emergency responders concerning the hazard presented by the regulated substance at the site and provides an emergency contact telephone number. Such a sign shall be in English and any other language commonly spoken as a primary language in the area.

ii. The owner or operator shall submit the following as a risk management plan to the department, the Louisiana Emergency Response Commission, and the Local Emergency Planning Committee (LEPC) with jurisdiction for the area where the source is located:

(a). a copy of the registration required by LAC 33:III.5911 (this copy may be dated before the certification required by LAC 33:III.5911.B.6);

(b). the following statement:

"Based on the criteria in LAC 33:III.5912.A.1.a, the worst-case accidental release for the source described on the attached form (registration) presents no potential for public or environmental impact, given the nature of the process and the chemicals stored at the source. For the past five years this source has not had a significant accidental release, as defined in LAC 33:III.5903. No additional measures are necessary to prevent public and environmental impacts from accidental releases. In the event of a fire or a release of the regulated substance indicated on the registration, entry within [distance for a given quantity of regulated substance under American Table of Distances (27 CFR 55.218, Alcohol, Tobacco Products, and Firearms; Commerce in Explosives; Storage; Table of Distances for Storage of Explosive Material) or LAC 33:III.5912.A.1.a.ii] of the source may pose a danger to public emergency responders. Therefore, public

emergency responders should not enter this area except as arranged with the contact person indicated on the registration or as authorized by R.S. 30:2376. The undersigned certifies that, to the best of my knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete."

[Signature]

iii. The owner or operator shall maintain for five years documentation of the determination of eligibility under Subsection A.1.a of this Section and a copy of the risk management plan under Subsection A.1.b.ii of this Section.

2. Sources That Exceed a Threshold Quantity for Toxic Regulated Substances.

a. Eligibility. The owner or operator of a major stationary source that exceeds the threshold quantity for a toxic substance shall comply with Subsection A.2.b of this Section if:

i. the major stationary source has not had a significant accidental release in the last five years;

ii. the major stationary source can demonstrate that the lookup table distance (or distance calculated by other methods listed in LAC 33:III.5913.E.2) for a worst-case release is less than the distance to a public or environmental receptor; and

iii. the emergency response plan under 42 U.S.C. 11003 (Emergency Planning and Community Right-to-Know Act; Subtitle A: Emergency Planning and Notification; Comprehensive Emergency Response Plans) addresses appropriate response to an accidental release at the source.

b. Program and Plan Requirements

i. The owner or operator of a major stationary source that meets the eligibility criteria of Subsection A.2.a of this Section shall submit the following as a risk management plan to the department, the Louisiana Emergency Response Commission, and the LEPC with jurisdiction for the area where the source is located:

(a). a copy of the registration required by LAC 33:III.5911 (this copy may be dated before the certification required by LAC 33:III.5911.B.6); and

(b). the following statement:

"Based on the criteria in LAC 33:III.5912.A.2.a, the worst-case accidental release for the source described on the attached form (registration) presents no potential for public or environmental impact within [insert value calculated under Subsection A.2.a.ii of this Section] kilometers of the source, given the nature of the process and the chemicals stored at the source. For the past five years, this source has not had a significant accidental release, as defined in LAC 33:III.5903. No additional measures are necessary to prevent public and environmental impacts from accidental releases. In the event of an accidental release of the regulated substance indicated on the registration, emergency response should be conducted according to the emergency response plan under 42 U.S.C. 11003 (Emergency Planning and Community Right-to-Know Act; Subtitle A: Emergency Planning and Notification; Comprehensive Emergency Response Plans), which is available at [location]. Therefore, public emergency responders should not enter this area except as provided under that plan or as authorized by R.S. 30:2376. The undersigned certifies that, to the best of my knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete."

[Signature].

ii. The owner or operator shall maintain for five years documentation of the determination of eligibility under Subsection A.2.a of this Section and a copy of the risk management plan under Subsection A.2.b.i of this Section.

B. Streamlined Risk Management Program (Tier 2)

1. The owner or operator of a major stationary source eligible for this Subsection shall comply with LAC 33:III.5913.

2. The owner or operator of a major stationary source shall establish a prevention program, which includes safety precautions and maintenance, monitoring, and employee training measures to be used at the source to prevent accidental releases. The prevention program shall identify other federal accident prevention requirements to which the source is subject, including national voluntary standards and measures required by section 112(r)(1) of the federal Clean Air Act.

3. The owner or operator of a major stationary source shall prepare an emergency response program, which documents specific actions to be taken in an emergency response to an accidental release, including:

a. procedures for informing the public and local entities about accidental releases;

b. procedures to be used on site to respond to an accidental release; and

c. a description of the employee training measures used to educate employees regarding emergency situations.

4. The owner or operator of a major stationary source shall submit a risk management plan summarizing Subsections B.1-3 of this Section to the department, the Louisiana Emergency Response Commission, and the LEPC with jurisdiction for the area where the source is located. The owner or operator shall retain a copy of the risk management plan for five years.

C. Alternate Means of Compliance for Tier 3 Sources

1. A Tier 3 major stationary source may elect to satisfy the requirements of LAC 33:III.5915 and 5919-5935 by meeting the requirements of 29 CFR 1910.119 (Labor; Occupational Safety and Health Standards; Process Safety Management (PSM) of Highly Dangerous Materials). A Tier 3 major stationary source electing this option shall be exempt from the requirements of LAC 33:III.5915 and 5919-5935 if it meets all the requirements of 29 CFR 1910.119 and Subsection C.2 of this Section. The department may then enforce and audit the requirements of 29 CFR 1910.119 used to satisfy the requirements of this Chapter. The exemptions listed under 29 CFR 1910.119(a) shall not apply under this Subsection unless they are listed as exemptions elsewhere in this Chapter.

2. A Tier 3 major stationary source electing to comply with the provisions of this Subsection shall do a supplementary review of the Process Hazard Analysis (PHA) required by 29 CFR 1910.119(e) to determine any off-site consequences not addressed by the PHA. Both the potential hazards and the action items for the potential hazards in the PHA shall be reviewed for off-site consequences, using the same methodology as in the PHA. Any off-site consequences so determined shall then be dealt with as additional items under 29 CFR 1910.119. Also, a significant accidental release shall be investigated and reported in the same manner as an incident involving a catastrophic release under 29 CFR 1910.119.

3. A Tier 3 major stationary source electing to comply with the provisions of this Subsection shall do a hazard assessment according to LAC 33:III.5913, documentation of a management system according to LAC 33:III.5917, an emergency response program according to LAC 33:III.5937, and a risk management program according to LAC 33:III.5939 on the basis of the requirements of 29 CFR 1910.119 and the additions from the supplementary review under Subsection C.2. of this Section.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054 and 2063.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 22:

§5913. Hazard Assessment

A. The purpose of the hazard assessment is to evaluate the impact of significant accidental releases on the public health and environment and to develop a history of such releases.

B. Hazard assessments shall be conducted for each regulated substance present at the stationary source above the threshold quantity. For each regulated substance the hazard assessment shall include the following steps:

1. determine a single worst-case release scenario for all flammables at the stationary source and a single worst-case release scenario for all explosives. Determine a single worst-case scenario for all toxic regulated substances for each process at the major stationary source; the worst-case scenario for each covered process must be substantiated for each toxic regulated substance. Report all worst-case scenarios, including the worst-case scenarios for toxics for every covered process at the major stationary source, in the risk management plan required under LAC 33:III.5939. Provide documentation substantiating all worst-case scenarios for all processes and all substances to the department on request;

2. identify other more likely significant accidental releases for each process where the regulated substance is present above the threshold quantity, including processes where the substance is manufactured, processed, or used, and where the regulated substance is stored, loaded, or unloaded. Identify a single more likely release scenario for all flammables and a single more likely release scenario for all explosives, but a separate more likely release scenario for each toxic regulated substance at the major stationary source;

3. analyze the off-site consequences of the worst-case release scenarios and the other more likely significant accidental release scenarios identified in Subsection B.2 of this Section; and

4. develop a history of significant accidental releases of each regulated substance beginning five years before November 8, 1995.

C. To determine a worst-case release scenario, the owner or operator shall examine each process handling each regulated substance. The owner or operator shall assume that gaseous substances are released in 10 minutes. The owner or operator shall assume that liquid substances form a pool in 10 minutes, with the release rate to the air determined by volatilization, unless dispersion by explosion or other factors could be involved. The owner or operator shall at least examine the case of the release of the largest quantity of a regulated substance resulting from a vessel or process line failure for each process. The owner or operator shall assume that well-designed and well-maintained passive mitigation systems function but active mitigation systems fail.

D. The owner or operator shall determine other more likely significant accidental releases such as, but not limited to:

1. transfer hose failure, excess flow valve or emergency shutoff failure, and subsequent loss of piping and shipping container contents (truck or rail);

2. process piping failure and loss of contents from both directions from the break;

3. vents directly to the atmosphere from pressure relief devices; and

4. reactor or other process vessel failure where the contents are at temperatures and pressures above ambient conditions. In these situations well-designed and well-maintained active mitigation systems and well-designed and well-maintained passive mitigation systems are assumed to work to minimize the

consequences of the release.

E. For each regulated substance, the off-site consequences of the worst-case or more likely significant accidental release scenarios shall be analyzed as follows:

1. the rate and quantity of substance lost to the air and the duration of the event;
2. the distances, in all directions, at which exposure to the substance or damage to off-site property or the environment from the release could occur using both worst-case meteorological conditions (i.e., F stability and 1.5 m/sec wind speed) and meteorological conditions most often occurring at the major stationary source. The owner or operator shall use the American Table of Distances (27 CFR 55.218, Alcohol, Tobacco Products, and Firearms; Commerce in Explosives; Storage; Table of Distances for Storage of Explosive Material) for explosives. For toxics and flammables the owner or operator may use lookup tables to be developed by EPA for this purpose, or the owner or operator also may use "Technical Guidance for Hazards Analysis - Emergency Planning for Extremely Hazardous Substances," EPA/FEMA/DOT, December 1987. As an alternative to either of these, the owner or operator may use a dense-gas model approved by the department;
3. the total population and the total sensitive population within these distances that could be exposed to the vapor cloud, pressure wave, or debris, depending on wind direction and meteorological conditions. The owner or operator may use U.S. Census Data to identify these populations, taking the number of children under age 18 and people over age 65 as a proxy for sensitive population;
4. a description of the environments within these distances, including consideration of sensitive ecosystems, migration routes, vulnerable natural areas, and critical habitats for threatened or endangered species. The owner or operator may use the National Oceanic and Atmospheric Administration document "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14714, March 29, 1994), as guidance in considering what to describe in environments within these distances;
5. a general description of other major stationary sources, other industrial, commercial, military, and institutional facilities, or other types of facilities of which the owner or operator has reasonable knowledge within these distances that might become dangerous to the public in the event of a significant accidental release from the owner or operator's major stationary source; and
6. a general description of highways and roads, highway crossings, railways and rail yards, airports and air fields, and any other transportation facilities of which the owner or operator has reasonable knowledge that might be affected by a significant accidental release from the major stationary source.

F. The owner or operator shall prepare a five-year history, beginning five years before November 8, 1995, of significant accidental releases and releases with potential for off-site consequences for each regulated substance handled at the major stationary source. The history shall list the release date and time, substance and quantity released, the duration of the release, the concentration of the substance released, and any off-site consequences such as deaths, injuries, hospitalizations, medical treatments, evacuations, sheltering-in-place, and major off-site environmental impacts such as soil, groundwater, or drinking water contamination, fish kills, and vegetation damage.

G. The hazard assessment shall be reviewed and updated at least once every five years. If changes in process, management, or any other relevant aspect of the major stationary source or its surroundings (e.g., new housing developments or improved emergency response services) might reasonably be expected to make the results of the hazard assessment inaccurate (i.e., if either the worst-case release scenario or the estimate of off-site effects might reasonably be expected to change), the owner or operator shall complete a new or revised hazard assessment within 60 days of such change.

H. The owner or operator shall maintain the following records documenting the hazard assessment and analysis of off-site consequences:

1. a description of the worst-case scenarios, assumptions used, analyses or worksheets used to derive the accident scenarios, and the rationale for selection of specific scenarios;
2. a description of the other more likely significant accidental release scenarios identified in Subsection B.2 of this Section, assumptions used, analyses or worksheets used to derive the accident scenarios, and the rationale for selection of specific scenarios; and
3. documentation for how the off-site consequences for each scenario were determined including:
 - a. estimated quantity of substance released, rate of release, and duration of the release;
 - b. meteorological data used for typical conditions at the major stationary source;
 - c. for toxic substances, the concentration used to determine the level of exposure and the data used for that concentration;
 - d. calculations for determination of the distances downwind to the acute toxicity concentration; and
 - e. data used for estimation of the populations exposed, environments, and affected industrial and transportation facilities identified.

I. A summary of the information required under Subsection H of this Section and a table showing the data for the five-year accident history under Subsection F of this Section shall be included in the Risk Management Plan (RMP) required under LAC 33:III.5939.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054 and 2063.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 22:

§5919. Prevention Program - Process Hazard Analysis

A. The purpose of the process hazard analysis (hazard evaluation) is to examine, in a systematic, step-by-step way, the equipment, systems, and procedures for handling regulated substances and to identify the mishaps that could occur, analyze the likelihood that mishaps will occur, evaluate the consequences of these mishaps, and analyze the likelihood that safety systems, mitigation systems, and emergency alarms will function properly to eliminate or reduce the consequences of a mishap. A thorough process hazard analysis is the foundation for the remaining elements of the prevention program.

B. The owner or operator shall perform an initial process hazard analysis on processes covered by this Chapter. The process hazard analysis shall be appropriate to the complexity of the process and shall identify, evaluate, and control the hazards involved in the process. The owner or operator shall determine and document the priority order for conducting process hazard analyses based on a rationale that includes such considerations as the extent of process hazards, off-site consequences, age of the process, and operating history of the process. The process hazard analysis shall be completed no later than November 8, 1998.

C. Process hazard analyses completed after November 8, 1990 that meet the requirements of this Section are acceptable as initial process hazard analyses. These process hazard analyses shall be updated and revalidated, based on their completion date, in accordance with Subsection H of this Section.

D. The owner or operator shall use one or more of the following methodologies that are appropriate to determine and evaluate the hazards of the process being analyzed:

1. what-if;
2. checklist;
3. what-if/checklist;
4. hazard and operability study (HAZOP);
5. failure mode and effects analysis (FMEA);
6. fault tree analysis; or
7. an appropriate equivalent methodology.

E. The process hazard analysis shall address the following:

1. the hazards of the process;
2. the identification of any previous incident that had a likely potential for significant off-site consequences;
3. engineering and administrative controls applicable to the hazards and their interrelationships, such as appropriate application of detection methodologies to provide early warning of releases. Acceptable detection methods might include process monitoring and control instrumentation with alarms and detection hardware such as hydrocarbon sensors;
4. consequences of failure of engineering and administrative controls;
5. major stationary source siting;
6. human factors; and
7. a qualitative evaluation of a range of possible safety and health effects of failure of the controls on public health and the environment.

F. The process hazard analysis shall be performed by a team with expertise in engineering and process operations, and the team shall include at least one employee who has experience and knowledge specific to the process being evaluated. Also, one member of the team must be knowledgeable in the specific process hazard analysis methodology being used.

G. The owner or operator shall establish a system to promptly address the team's findings and recommendations; ensure that the recommendations are resolved in a timely manner and that the resolution is documented; document what actions are to be taken; complete actions as soon as possible; develop a written schedule of when these actions are to be completed; and communicate the action to operating, maintenance, and other employees whose work assignments are in the process and who are affected by the recommendations or actions.

H. At least every five years after the completion of the initial process hazard analysis, the process hazard analysis shall be updated and revalidated by a team meeting the requirements in Subsection F of this Section to ensure that the process hazard analysis is consistent with the current process.

I. The owner or operator shall retain process hazard analyses and updates or revalidations for each process covered by this Chapter, as well as the documented resolution of recommendations described in Subsection G of this Section, for the life of the process.

J. Based on the findings and recommendations of the process hazard analysis, the owner or operator shall also investigate, evaluate, and document a plan for, or rationale for not, installing (if not already in place) the following:

1. monitors, detectors, sensors, or alarms for early detection of accidental releases;
2. secondary containment or control devices such as, but not limited to, flares, scrubbers, quench, surge, or dump tanks, to capture releases; and

3. mitigation systems to reduce the downwind consequences of the release.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054 and 2063.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 22:

§5931. Prevention Program - Management of Change

A. The purpose of a management of change program is to ensure that any alteration of equipment, procedures, substances, or processes is thoroughly analyzed to identify hazards, the consequences of failures, and impacts of the change on existing equipment, procedures, substances, and processes prior to implementation of the change.

B. For process equipment, devices, or controls, replacement is not a change if the design, materials of construction, and parameters for flow, pressure, and temperature satisfy the design specifications of the device replaced.

C. The owner or operator shall establish and implement written procedures to manage changes to process chemicals, technology, equipment, and procedures and changes to major stationary sources that affect a covered process.

D. The procedures shall ensure that the following considerations are addressed prior to any change:

1. the technical basis for the proposed change;
2. impact of change on likelihood of a significant accidental release;
3. modifications to operating procedures;
4. necessary time period for the change; and
5. authorization requirements for the proposed change.

E. Employees involved in operating a process and maintenance and contract employees whose job tasks will be directly affected by a change in the process shall be informed of and trained in the change prior to the start-up of the process or affected part of the process.

F. If a change covered by this Section results in a change in the process safety information required by LAC 33:III.5921, such information shall be updated accordingly.

G. If a change covered by this Section results in a change in the operating procedures or practices required by LAC 33:III.5923, such procedures or practices shall be updated accordingly.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054 and 2063.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 22:

§5939. Risk Management Plan (RMP)

A. The owner or operator of a major stationary source covered by this Chapter shall submit a risk management plan (report) summarizing the key elements of its risk management program to the department and shall submit copies to the Louisiana Emergency Response Commission and the Local Emergency Planning Committee with jurisdiction for the area where the source is located. The owner or operator shall submit to the LEPC having jurisdiction selected portions of the risk management plan in printed and/or electronic form useful to the LEPC for purposes of emergency response. Each report submitted by the major stationary source shall address all regulated substances present at the major stationary source in quantities above the threshold quantity.

B. The report shall include a copy of the registration form with updated information to ensure that the registration information is accurate.

C. The report shall include, for each regulated substance, a summary of the hazard assessment and analysis of off-site consequences and accident history data required by LAC 33:III.5913.I.

D. The report shall include, for the major stationary source, a description of the major hazards (e.g., equipment failure, human error, natural phenomena, or other factors or a combination of such factors, which could lead to a significant accidental release) identified through the process hazard analyses, a description of the consequences of a failure to control for each identified major hazard, a summary of all actions taken or planned to address these hazards, and how significant accidental releases are prevented or mitigated or the consequences reduced by these actions. The purpose of the summary is to identify major hazards and provide an overview of the prevention program being implemented by the major stationary source to prevent significant accidental releases. For each action taken to address a hazard the report shall include the date on which the action was started (or is scheduled to start) and the actual or scheduled completion date. Where the same actions (e.g., training, certain controls, preventive maintenance programs, improved emergency response plan) address a number of hazards, the description may be organized by actions rather than hazards. If any requirement for the risk management program specified in this Section is not covered in the summary of actions taken to address hazards, the report shall include a brief description of the major stationary source's implementation of the requirement.

E. The report shall include a summary of the major stationary source's emergency response plan. The summary shall include:

1. the procedures adopted to inform emergency response authorities and the public;
2. the name or position of the point of contact between the major stationary source and the public authorities;

3. the dates of drills and exercises completed and planned and the results of completed drills; and
4. a description of coordination with the local emergency planning committee.

F. The report shall include a description of the management system developed to implement and coordinate the elements of the hazard assessment, prevention program, and emergency response program at the major stationary source. The description shall define the person or position at the major stationary source that is responsible for the overall implementation and coordination of the risk management program requirements. Where regulated substances are present above their threshold quantities at several locations at the major stationary source or where responsibility for implementing individual requirements is delegated to separate groups at the major stationary source, an organization chart shall be included to describe the lines of responsibility.

G. The report shall include a certification by the owner or operator that, to the best of the signer's knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete.

H. The report shall be reviewed and updated at least every five years and resubmitted to the department and copies shall be submitted to the Louisiana Emergency Response Commission and the LEPC. The owner or operator shall submit to the LEPC having jurisdiction selected portions of the updated risk management plan in printed and/or electronic form useful to the LEPC for purposes of emergency response. If a change such as the introduction of a new regulated substance or process occurs that requires a revised or updated hazard assessment or process hazard analysis, then the report shall be updated and resubmitted within six months of the introduction of the new process or substance.

I. The report shall be available to the public under section 114(c) of the federal Clean Air Act.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054 and 2063.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 22:

§5941. Recordkeeping Requirements

A. The owner or operator of a major stationary source covered by this Section shall develop and maintain at the major stationary source, for five years, records supporting the implementation of the risk management program and the development of the risk management plan.

B. For the process hazard analysis, safety audit, and accident investigation, the records required to be maintained under Subsection A of this Section shall include management's response to each recommendation that is required to be made, addressed, and documented under LAC 33:III.5919.G, 5933.E, and 5935.F and G. For implemented recommendations and recommendations to be implemented, the documentation shall include the date (or scheduled date) for starting implementation and the date (or scheduled date) for completion of the implementation. For each recommendation not implemented, the documentation shall include an explanation of the decision.

C. For pre-start-up reviews and management of change, the documentation shall include the findings of the review and any additional steps (including a description of the steps and the reasons they were implemented) that were taken prior to implementation of the start-up or change.

D. The owner or operator shall maintain copies of all standard operating, maintenance, management of change, emergency response, and accident investigation procedures required under this Section.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054 and 2063.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 22:

§5943. Audits

A. In addition to inspections for the purpose of regulatory development and enforcement of this Chapter, the department shall periodically audit RMPs registered under LAC 33:III.5939 in order to review the adequacy of such RMPs and require revisions of RMPs when necessary to ensure compliance with LAC 33:III.5939.

B. Major stationary sources shall be selected for audits based on any of the following criteria:

1. accident history of the major stationary source;
2. accident history of other major stationary sources in the same industry;
3. quantity of regulated substances present at the major stationary source;
4. location of the major stationary source and its proximity to the public and sensitive environments;
5. the presence of specific regulated substances;
6. the hazards identified in the RMP; or
7. a plan providing for neutral, random oversight.

C. The department shall have access to the major stationary source, supporting documentation, and any area where an accidental release could occur.

D. Based on the audit, the department may issue an owner or operator of a major stationary source a written preliminary determination of necessary revisions to the source's RMP in order to ensure that the RMP meets the criteria of LAC 33:III.5939 and reflects the purposes of this Chapter. This preliminary determination shall include an explanation for the basis for the revisions, reflecting industry standards and

guidelines (such as AIChE (American Institute of Chemical Engineers)/CCPS (Center for Chemical Process Safety) guidelines and ASME (American Society of Mechanical Engineers) and API (American Petroleum Institute) standards) to the extent that such standards and guidelines are applicable, and shall include a timetable for their implementation.

E. Written Response to a Preliminary Determination

1. The owner or operator shall respond in writing to a preliminary determination made in accordance with Subsection D of this Section. The response shall state that the owner or operator shall implement the revisions contained in the preliminary determination in accordance with the timetable included in the preliminary determination or shall state that the owner rejects the revisions in whole or in part. For each rejected revision the owner or operator shall explain the basis for rejecting such revision. Such explanation may include substitute revisions.

2. The written response under Subsection E.1 of this Section shall be received by the department within 90 days of the issuance of the preliminary determination or a shorter period of time as the department specifies in the preliminary determination as necessary to protect human health and the environment. Prior to the written response being due and upon written request from the owner or operator, the department may provide in writing additional time for the response to be received.

F. After providing the owner or operator an opportunity to respond under Subsection E of this Section, the department may issue the owner or operator a written final determination of necessary revisions to the source's RMP. The final determination may adopt or modify the revisions contained in the preliminary determination under Subsection D of this Section or may adopt the substitute revisions provided in the response under Subsection E of this Section. A final determination that adopts a revision rejected by the owner or operator shall include an explanation of the basis for the revision. A final determination that fails to adopt a substitute revision provided under Subsection E of this Section shall include an explanation of the basis for finding such substitute revision unreasonable.

G. Thirty days after the issuance of a final determination under Subsection F of this Section, the owner or operator shall be in violation of LAC 33:III.5911, 5939.A, and this Section unless the owner or operator revises the RMP prepared under LAC 33:III.5939 as required by the final determination, submits copies of the revised RMP to the entities identified in LAC 33:III.5939.A, and registers the revised plan as provided in LAC 33:III.5911.B and C.

H. The public shall have access to the preliminary determinations, responses, and final determinations under this Section.

I. Nothing in this Section shall preclude, limit, or interfere in any way with the authority of EPA or the state to exercise its enforcement, investigatory, and information gathering authorities concerning 40 CFR part 68 under the federal Clean Air Act.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054 and 2063.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 22:

For more information concerning AQ126E, you may contact DEQ's Investigations and Regulation Development Division at (504) 765-0399.

Gus Von Bodungen
Assistant Secretary