

**Title 33**  
**Environmental Quality**  
**Part I. Office of the Secretary**  
**Subpart 1. Departmental Administrative Procedures**

**Chapter 13. Risk Evaluation/Corrective Action Program**

**§1301. Scope**

A. This Chapter constitutes the minimum technical requirements to evaluate and/or remediate sites that have been affected by constituents of concern, except as otherwise specifically provided by statute, rule, or permit.

B. Any remediation performed in accordance with this Chapter shall not relieve any person from:

1. complying with more stringent federal, state, or local requirements; or
2. obtaining any and all permits required by law, except as expressly provided herein.

C. No provision of this Chapter shall be construed to limit the department's authority to require additional remediation based upon site-specific conditions in order to protect human health and the environment.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2272.1.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, LR 24:\*\* (1998).

**§1303. Liberal Construction**

These rules, being necessary to promote the public health and welfare, shall be liberally construed in order to permit the department to effectuate the provisions of the Environmental Quality Act including, but not limited to, R.S. 30:2272.1, 2077, 2195.2(A), 2195.10, 2203(A), 2204(A)(2) and (3), and 2205(C).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2272.1.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, LR 24:\*\* (1998).

**§1305. Applicability**

A. Except as is otherwise specifically provided by statute, rule, or permit, this Chapter establishes the minimum technical requirements to evaluate and/or remediate sites that have been affected by constituents of concern including, without limitation, those sites and activities subject to:

1. the Louisiana Environmental Quality Act, R.S. 30:2001 et seq.;
2. the federal Resource Conservation and Recovery Act (RCRA), as amended by Hazardous and Solid Waste Amendments (HSWA), 42 U.S.C. ~~3251~~ 6901 et seq.; and
3. the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 (CERCLA), 42 U.S.C. 9601 et seq.

B. This Chapter shall not apply to activities conducted in accordance with corrective action plans that were approved by the department prior to the effective date of this rule, except when modification of such a plan is deemed by the department to be necessary to protect human health or the environment or when modification of such a plan is otherwise allowed or required by the department in accordance with law.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2272.1.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, LR 24:\*\* (1998).

**§1307. Adoption by Reference**

The document entitled, “Louisiana Department of Environmental Quality Risk Evaluation/Corrective Action Program (RECAP)” dated December 20, 1998 is hereby adopted and incorporated herein in its entirety. The RECAP document is available for purchase or inspection from 8 a.m. until 4:30 p.m., Monday through Friday from the Louisiana Department of Environmental Quality, Office of Legal Affairs and Enforcement, Investigations and Regulation Development Division, Box 82282 (7290 Bluebonnet Boulevard, 4th Floor), Baton Rouge, LA 70884-2282. For RECAP document availability at other locations, contact the department’s Regulation Development Section at (504) 765-0399. The RECAP document may also be reviewed on the Internet at <http://www.deq.state.la.us>.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2272.1.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, LR 24:\*\* (1998).

**§1309. Severability**

If any provision of these regulations or the application thereof to any person, situation, or circumstance is for any reason adjudged invalid, the adjudication does not affect any other provision or application that can be given effect without the invalid provision or application; to this end, the provisions of these regulations are declared to be severable.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2272.1.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, LR 24:\*\* (1998).

**Title 33**  
**ENVIRONMENTAL QUALITY**  
**Part V. Hazardous Waste and Hazardous Materials**

**Chapter 3. General Conditions for Treatment, Storage, and Disposal Facility Permits**

**§322. Classification of Permit Modifications**

The following is a listing of classifications of permit modifications made at the request of the permittee.

Modifications	Class
* * * [See Prior Text in A - D.1.f]	
<u>g. Changes in the approved closure plan allowing alternative risk assessment based closure protective of human health and the environment in accordance with LAC 33:I.Chapter 13.</u>	<u>3</u>
* * * [See Prior Text in D.2 - N.2]	

<sup>1</sup>Class 1 modifications requiring prior administrative authority approval.

**AUTHORITY NOTE:** Promulgated in accordance with R.S. 30:2180 et seq.

**HISTORICAL NOTE:** Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 16:614 (July 1990), LR 17:658 (July 1991), LR 21:266 (March 1995), LR 21:944 (September 1995), LR 22:815 (September 1996), amended by the Office of the Secretary, LR 24:\*\* (1998).

**Title 33**  
**ENVIRONMENTAL QUALITY**  
**Part V. Hazardous Waste and Hazardous Materials**

**Chapter 18. Containment Buildings**

**§1803. Closure and Post-Closure Care**

\* \* \*

[See Prior Text in A]

B. If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in ~~LAC 33:V.1803~~, Subsection A of this Section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must either:

1. close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (LAC 33:V.2521). In addition, for the purposes of closure, post-closure, and financial responsibility, such a containment building is then considered to be a landfill and the owner or operator must meet all of the requirements for landfills specified in LAC 33:V.Chapters 35 and 37; or

2. perform a risk assessment to demonstrate that closure with the remaining contaminant levels is protective of human health and the environment in accordance with LAC 33:I.Chapter 13. Any such risk assessment is subject to approval by the administrative authority and must demonstrate that post-closure care is not necessary to adequately protect human health and the environment.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended by the Office of the Secretary, LR 24:\*\* (1998).

**Title 33**

**ENVIRONMENTAL QUALITY**

**Part V. Hazardous Waste and Hazardous Materials**

**Chapter 19. Tanks**

**§1915. Closure and Post-Closure Care**

\* \* \*

[See Prior Text in A]

B. If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in Subsection A of this Section, then the owner or operator must either:

1. close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills, LAC 33:V.2521. In addition, for the purposes of closure, post-closure, and financial responsibility, such a tank system is then considered to be a landfill, and the owner or operator must meet all the requirements for landfills specified in LAC 33:V.Chapters 35 and 37; or

2. perform a risk assessment to demonstrate that closure with the remaining contaminant levels is protective of human health and the environment in accordance with LAC 33:I.Chapter 13. Any such risk assessment is subject to approval by the administrative authority and must demonstrate that post-closure care is not necessary to adequately protect human health and the environment.

\* \* \*

[See Prior Text in C - D]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 13:651 (November 1987), amended LR 16:614 (July 1990), LR 18:1256 (November 1992), amended by the Office of Waste Services, Hazardous Waste Division, LR 23:1511 (November 1997), amended by the Office of the Secretary, LR 24:\*\* (1998).

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**ENVIRONMENTAL QUALITY**

**Part V. Hazardous Waste and Hazardous Materials**

**Chapter 23. Waste Piles**

**§2315. Closure and Post-Closure Care**

\* \* \*

[See Prior Text in A]

B. If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in ~~LAC 33:V.2315~~, Subsection A of this Section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must either:

1. close the facility and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills as specified in LAC 33:V.2521-; or

2. perform a risk assessment to demonstrate that closure with the remaining contaminant levels is protective of human health and the environment in accordance with LAC 33:I.Chapter 13. Any such risk assessment is subject to approval by the administrative authority and must demonstrate that post-closure care is not necessary to adequately protect human health and the environment.

\* \* \*

[See Prior Text in C - D]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 18:1256 (November 1992), amended by the Office of the Secretary, LR 24:\*\* (1998).

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**ENVIRONMENTAL QUALITY**

**Part V. Hazardous Waste and Hazardous Materials**

**Chapter 28. Drip Pads**

**§2809. Closure**

\* \* \*

[See Prior Text in A]

B. If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in ~~LAC 33:V.2809~~Subsection A of this Section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must either:

1. close the facility and perform post-closure care in accordance with closure and post-closure care requirements that apply to landfills (LAC 33:V.2521). For permitted units, the requirement to have a permit continues throughout the post-closure period. In addition, for the purpose of closure, post-closure, and financial responsibility, such a drip pad is then considered to be a landfill, and the owner or operator must meet all of the requirements for landfills specified in LAC 33:V.Chapters 35 and 37; or

2. perform a risk assessment to demonstrate that closure with the remaining contaminant levels is protective of human health and the environment in accordance with LAC 33:I.Chapter 13. Any such risk assessment is subject to approval by the administrative authority and must demonstrate that post-closure care is not necessary to adequately protect human health and the environment.

\* \* \*

[See Prior Text in C - D]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 18:1375 (December 1992), amended LR 21:944 (September 1995), amended by the Office of the Secretary, LR 24:\*\* (1998).

**Title 33**

**ENVIRONMENTAL QUALITY**

**Part V. Hazardous Waste and Hazardous Materials**

**Chapter 29. Surface Impoundments**

**§2911. Closure and Post-Closure Care**

\* \* \*

[See Prior Text in A]

B. If some waste residues or contaminated materials are left in place at final closure, the owner or operator must either:

1. perform a risk assessment to demonstrate that closure with the remaining contaminant levels is protective of human health and the environment in accordance with LAC 33:I.Chapter 13. Any such risk assessment is subject to approval by the administrative authority and must demonstrate that post-closure care is not necessary to adequately protect human health and the environment; or

2. comply with all post-closure requirements contained in LAC 33:V.3519 and 3527; including maintenance and monitoring throughout the post-closure care period (specified in the permit under LAC 33:V.3521). The owner or operator must:

1a. maintain the integrity and effectiveness of the final cover including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

2b. maintain and monitor the leak detection system in accordance with LAC 33:V.2903 and 2907.E and comply with all other applicable leak detection system requirements of this Chapter;

3c. maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of LAC 33:V.Chapter 33; and

4d. prevent run-on and runoff from eroding or otherwise damaging the final cover.

\* \* \*

[See Prior Text in C - E]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 18:1256 (November 1992), LR 20:1000 (September 1994), LR 20:1109 (October 1994), amended by the Office of the Secretary, LR 24:\*\* (1998).

**Title 33****ENVIRONMENTAL QUALITY****Part V. Hazardous Waste and Hazardous Materials****Chapter 32. Miscellaneous Units****§3207. Closure and Post-Closure Care**

A. A miscellaneous unit that is a disposal unit must be maintained in a manner that complies with LAC 33:V.3203 during the post-closure care period. In addition, if a treatment or storage unit has contaminated soils or groundwater that cannot be completely removed or decontaminated during closure, then that unit must also meet the requirements of LAC 33:V.3203 during post-closure care. The post-closure plan under LAC 33:V.3523 must specify the procedures that will be used to satisfy this requirement.

B. For a miscellaneous unit that is not a disposal unit, at closure the owner or operator must remove or decontaminate all waste residues, contaminated system components (liners, etc.), contaminated subsoils, structures, and equipment contaminated with waste and leachate and manage them as hazardous waste unless LAC 33:V.109.Hazardous Waste.65 applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for miscellaneous units must meet all of the requirements specified in LAC 33:V.Chapters 35 and 37.

C. If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in Subsection B of this Section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must either:

1. close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (LAC 33:V.2521); in addition, for the purposes of closure, post-closure, and financial responsibility, such a miscellaneous unit is then considered to be a landfill and the owner or operator must meet all of the requirements for landfills specified in LAC 33:V.Chapters 35 and 37 ; or

2. perform a risk assessment to demonstrate that closure with the remaining contaminant levels is protective of human health and the environment in accordance with LAC 33:I.Chapter 13. Any such risk assessment is subject to approval by the administrative authority and must demonstrate that post-closure care is not necessary to adequately protect human health and the environment.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 16:399 (May 1990), amended LR 18:1256 (November 1992), amended by the Office of the Secretary, LR 24:\*\* (1998).

### Title 33

## ENVIRONMENTAL QUALITY

### Part V. Hazardous Waste and Hazardous Materials

#### Chapter 33. Groundwater Protection

##### §3309. Concentration Limits

\* \* \*

[See Prior Text in A - Table 1, Note 1]

B. The administrative authority may establish an alternate concentration limit for a hazardous constituent if he finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternate concentration limit is not exceeded. ~~In no case shall alternate concentration limits of hazardous constituents be established which will result in the potential for concentrations of hazardous constituents in potable water aquifers that exceed recognized U.S. Environmental Protection Agency Drinking Water Quality Standards or background levels whichever are higher, at the property boundary of the permitted site. In setting such alternative concentration limits, the administrative authority will consider the best available evidence accepted by the scientific community, including nationally accepted guidelines which have been established by risk assessment methodology.~~ The establishment of such alternative concentration limits shall be in accordance with LAC 33:1.Chapter 13. In establishing alternate concentration limits, the administrative authority will consider the following factors:

1. potential adverse effects on groundwater quality, considering:
  - a. the physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;
  - b. the hydrogeological characteristics of the facility and surrounding land;
  - c. the quantity of groundwater and the direction of groundwater flow;
  - d. the proximity and withdrawal rates of groundwater users;
  - e. the current and future uses of groundwater in the area;
  - f. the existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality;
  - g. the potential for health risks caused by human exposure to waste constituents;
  - h. the potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;
  - i. the persistence and permanence of the potential adverse effects; and
2. potential adverse effects on hydraulically-connected surface water quality, considering:
  - a. the volume and physical and chemical characteristics of the waste in the regulated unit;

- b. the hydrogeological characteristics of the facility and surrounding land;
- c. the quantity and quality of groundwater and the direction of groundwater flow;
- d. the patterns of rainfall in the region;
- e. the proximity of the regulated unit to surface waters;
- f. the current and future uses of surface waters in the area and any water quality standards established for those surface waters;
- g. the existing quality of surface water, including other sources of contamination and the cumulative impact on surface water quality;
- h. the potential for health risks caused by human exposure to waste constituents;
- i. the potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and
- j. the persistence and permanence of the potential adverse effects.

C. In making any determination under ~~LAC 33:V.3309~~, Subsection B of this Section about the use of groundwater in the area around the facility, the administrative authority will consider any identification of underground sources of drinking water and exempted aquifers identified in the permit application under LAC 33:V.Chapter 3. Any identification of underground sources of drinking water shall be in accordance with LAC 33:I.Chapter 13.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:280 (April 1984), LR 10:496 (July 1984), LR 16:614 (July 1990), LR 24:684 (April 1998), amended by the Office of the Secretary, LR 24:\*\* (1998).

### **§3322. Corrective Action**

\* \* \*

[See Prior Text in A - C]

D. Any risk-assessment-based corrective action must be protective of human health and the environment in accordance with LAC 33:I.Chapter 13.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 16:614 (July 1990), LR 20:1000 (September 1994), LR 21:266 (March 1995), amended by the Office of the Secretary, LR 24:\*\* (1998).

**Title 33****ENVIRONMENTAL QUALITY****Part V. Hazardous Waste and Hazardous Materials****Chapter 35. Closure and Post-Closure****§3507. Closure Performance Standards**

~~A.~~ Pursuant to In accordance with LAC 33:V.3509, the owner or operator must close his facility in a manner that:

~~A~~1. minimizes the need for further maintenance; and

~~B~~2. controls, minimizes, or eliminates, to the extent necessary to prevent threats to human health and the environment, post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the groundwater, surface waters, or to the atmosphere; and

~~C~~3. complies with closure requirements of this Chapter, including, but not limited to, the requirements of LAC 33:V.1803, 1911, 1915, 2117, 2315, 2521, 2719, 2911, 3121, and 3203) 3207.

B. As a means of satisfying the closure requirements of Subsection A.2 of this Section, the owner or operator may demonstrate an alternative risk-assessment-based closure in accordance with LAC 33:I.Chapter 13.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 16:399 (May 1990), LR 18:1256 (November 1992), LR 21:266 (March 1995), amended by the Office of the Secretary, LR 24:\*\* (1998).

**§3515. Disposal or Decontamination of Equipment, Structures, and Soils**

During the partial and final closure periods, all contaminated equipment, structures, and soils must be properly disposed of or decontaminated, unless otherwise specified in LAC 33:V.~~1803~~, 1915, 2315, 2521, 2719, 2809, and 2911, or under the authority of LAC 33:V.3203 and 3207. By removing any hazardous waste or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of LAC 33:V.Chapter 11.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 16:399 (May 1990), LR 16:614 (July 1990), amended by the Office of

the Secretary, LR 24:\*\* (1998).

**§3521. Post-Closure Care and Use of Property**

\* \* \*

[See Prior Text in A - A.2.b]

3. The owner or operator may elect to demonstrate a shortened post-closure care period meets the requirements of Subsection A.2.a of this Section by using risk assessment methodology. The risk assessment must demonstrate that the shortened post-closure care period is protective of human health and the environment in accordance with LAC 33:I.Chapter 13.

\* \* \*

[See Prior Text in B - D]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 16:399 (May 1990), amended by the Office of the Secretary, LR 24:\*\* (1998).

**Title 33**

**ENVIRONMENTAL QUALITY**

**Part V. Hazardous Waste and Hazardous Materials**

**Chapter 43. Interim Status**

**Subchapter E. Groundwater Monitoring**

**§4373. Preparation, Evaluation, and Response**

\* \* \*

[See Prior Text in A - K]

1. a list of hazardous constituents, concentration limits, the compliance points, and the compliance period; The administrative authority may establish alternative risk-assessment-based concentration limits. Any alternative risk-assessment-based concentration limit must be protective of human health and the environment, as demonstrated in accordance with LAC 33:I.Chapter 13.

\* \* \*

[See Prior Text in K.2 - M]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 14:791 (November 1988), LR 18:723 (July 1992), amended by the Office of the Secretary, LR 24:\*\* (1998).

**Subchapter F. Closure and Post-Closure**

**§4379. Closure Performance Standard**

A. The owner or operator must close his facility in a manner that:

A1. minimizes the need for further maintenance;~~and;~~

B2. controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated rainfall, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere;~~and~~

C3. complies with the closure requirements of these regulations including, but not limited to, LAC 33:V.~~4442, 4457, 4475, 4489, 4501, 4521, 4531, and 4543, and 4705.~~

B. As a means of satisfying the closure requirements of Subsection A.2 of this Section, the owner or operator may demonstrate an alternative risk-assessment-based closure in accordance with LAC 33:I.Chapter 13.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 15:181 (March 1989), LR 21:266 (March 1995), LR 24:1744 (September 1998), amended by the Office of the Secretary, LR 24:\*\* (1998).

### **§4385. Disposal or Decontamination of Equipment, Structures, and Soils**

During the partial and final closure periods, all contaminated equipment, structures, and soil must be properly disposed of; or decontaminated, unless specified otherwise in LAC 33:V.4442, 4457, 4475, 4489, ~~or 4501, 4601, or 4705~~. By removing all hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that hazardous waste in accordance with all applicable requirements of LAC 33:V.Chapter 11.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 16:614 (July 1990), amended by the Office of the Secretary, LR 24:\*\* (1998).

### **§4389. Post-Closure Care and Use of Property**

\* \* \*

[See Prior Text in A - B.2]

C. The owner or operator may elect to demonstrate a shortened post-closure care period meets the requirements of Subsection B.1 of this Section by using risk assessment methodology. The risk assessment must demonstrate that the shortened post-closure care period is protective of human health and the environment in accordance with LAC 33:I.Chapter 13.

D. The administrative authority may require, at partial and final closure, continuation of any of the security requirements of LAC 33:V.4315 during part or all of the post-closure period when:

1. hazardous wastes may remain exposed after completion of partial or final closure; or
2. access by the public or domestic livestock may pose a hazard to human health.

E. Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the facility's monitoring systems, unless the administrative authority finds that the disturbance:

1. is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

2. is necessary to reduce a threat to human health or the environment.

EE. All post-closure care activities must be in accordance with the provisions of the approved post-closure plan as specified in LAC 33:V.4391.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 13:433 (August 1987), LR 18:723 (July 1992), amended by the Office of the Secretary, LR 24:\*\* (1998).

## **Subchapter J. Surface Impoundments**

### **§4457. Closure and Post-Closure**

A. At closure, the owner or operator must:

1. remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless LAC 33:V.4905.A.4 applies; or

2. if some waste residues or contaminated materials are left in place at final closure, the owner or operator must either:

a. perform a risk assessment to demonstrate that closure with the remaining contaminant levels is protective of human health and the environment in accordance with LAC 33:I.Chapter 13. Any such risk assessment is subject to approval by the administrative authority and must demonstrate that post-closure care is not necessary to adequately protect human health and the environment; or

b. close the impoundment and provide post-closure care in accordance with Subsection B of this Section.

B. If the owner or operator elects to comply with Subsection A.2.b of this Section, he must ~~E~~close the impoundment and provide post-closure care for a landfill under LAC 33:V.4501, including the following:

a1. eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues;

b2. stabilize remaining wastes to a bearing capacity sufficient to support the final cover; and

e3. cover the surface impoundment with a final cover designed and constructed to:

ia. provide long-term minimization of the migration of liquids through the closed impoundment;:

iib. function with minimum maintenance;:

- iii. promote drainage and minimize erosion or abrasion of the cover;
- iv. accommodate settling and subsidence so that the cover's integrity is maintained; and
- v. have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

BC. In addition to the requirements of LAC 33:V.4501, during the post-closure care period, the owner or operator of a surface impoundment in which wastes, waste residues, or contaminated materials remain after closure in accordance with the provisions of ~~LAC 33:V.4457~~. Subsection A.2.b of this Section must:

1. maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events;
2. maintain and monitor the leak detection system in accordance with LAC 33:V.4455.B and comply with all other applicable leak detection system requirements of LAC 33:V.Chapter 43.
3. maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of LAC 33:V.4367; and
4. prevent run-on and runoff from eroding or otherwise damaging the final cover.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 15:470 (June 1989), LR 18:723 (July 1992), LR 21:266 (March 1995); amended by the Office of the Secretary, LR 24:\*\* (1998).

## Subchapter K. Waste Piles

### §4475. Closure and Post-Closure Care

\* \* \*

[See Prior Text in A]

B. If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in ~~LAC 33:V.4475~~. Subsection A of this Section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must either:

1. close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (LAC 33:V.Chapter 43, Subchapter M-); or
2. perform a risk assessment to demonstrate that closure with the remaining contaminant levels is protective of human health and the environment in accordance with LAC 33:I.Chapter

13. Any such risk assessment is subject to approval by the administrative authority and must demonstrate that post-closure care is not necessary to adequately protect human health and the environment.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 18:723 (July 1992), amended by the Office of the Secretary, LR 24:\*\* (1998).

## **Subchapter T. Containment Buildings**

### **§4705. Closure and Post-Closure Care**

\* \* \*

[See Prior Text in A]

B. If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in LAC 33:V.4705.A, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must either:

1. close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (LAC 33:V.4501). In addition, for the purposes of closure, post-closure, and financial responsibility, such a containment building is then considered to be a landfill and the owner or operator must meet all of the requirements for landfills specified in LAC 33:V.Chapter 43.Subchapters F and G; or

2. perform a risk assessment to demonstrate that closure with the remaining contaminant levels is protective of human health and the environment in accordance with LAC 33:I.Chapter 13. Any such risk assessment is subject to approval by the administrative authority and must demonstrate that post-closure care is not necessary to adequately protect human health and the environment.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended by the Office of the Secretary, LR 24:\*\* ( September 1998).

**Title 33**

**ENVIRONMENTAL QUALITY**

**Part VII.Solid Waste**

**Chapter 3. Scope and Mandatory Provisions of the Program**

**§303. Wastes Not Subject to the Permitting Requirements or Processing or Disposal Standards of These Regulations**

The following solid wastes, that are processed or disposed of in an environmentally sound manner are not subject to the permitting requirements or processing or disposal standards of these regulations:

\* \* \*

[See Prior Text in A - J.1]

2. the generator must submit a disposer annual report in accordance with the standards in LAC 33:VII.1109, which report amounts of woodwastes beneficially-used at each site; and

K. solid wastes re-used in a manner protective of human health and the environment, as demonstrated by a soil re-use plan prepared in accordance with LAC 33:I.Chapter 13 and approved by the administrative authority; and

L. other wastes deemed acceptable by the administrative authority based on possible environmental impact.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), amended by the Office of the Secretary, LR 24:\*\* (1998).

**Title 33**  
**ENVIRONMENTAL QUALITY**  
**Part VII. Solid Waste**

**Chapter 7. Solid Waste Standards**

**Subchapter B. Landfills, Surface Impoundments, Landfarms**

**§709. Standards Governing All Solid Waste Disposal Facilities (Type I and II)**

\* \* \*

[See Prior Text in A - E.4.f.ii]

iii. upon consultation with and approval of the administrative authority, implement any interim measures necessary to ensure the protection of human health and the environment. Interim measures should, to the greatest extent practicable, be in accordance with LAC 33:I.Chapter 13 and be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to Subsection E.6 of this Section. The following factors must be considered by a permit holder in determining whether interim measures are necessary:

\* \* \*

[See Prior Text in E.4.f.iii.(a) - v]

g. The permit holder must establish a groundwater protection standard for each Appendix C, Table 2 parameter or constituent detected in the groundwater. The groundwater protection standard shall be in accordance with LAC 33:I.Chapter 13 and shall be:

\* \* \*

[See Prior Text in E.4.g.i - ii]

iii. for parameters or constituents for which MCLs have not been promulgated, the background concentration for the parameter or constituent established from wells in accordance with Subsection E.4 of this Section; or the administrative authority may allow the standard to be set in accordance with LAC 33:I.Chapter 13 on a case-by-case basis;

iv. for Type I facilities, the administrative authority may allow the standard for all parameters or constituents to be set in accordance with LAC 33:I.Chapter 13 on a case-by-case basis;

v. for parameters or constituents for which the background level is higher than the MCL identified under Subsection E.4.g.i or ii of this Section, the background concentration for the parameter or constituent established from wells in accordance with Subsection E.4 of this Section; or

vi. the administrative authority may establish a more stringent groundwater protection standard if necessary to protect human health or the environment.

\* \* \*

[See Prior Text in E.5 - 6]

a. Based on the results of the corrective measures assessment conducted under Subsection E.5 of this Section, the permit holder must select a remedy that, at a minimum, meets the standards of Subsection E.6.b of this Section. Within 180 days after initiation of the corrective measures assessment required in Subsection E.5 of this Section, the permit holder must submit four bound copies (8 ½ by 11 inches) of a corrective-action plan, describing the selected remedy, which will meet the requirements of Subsection E.6.b-d of this Section and be in accordance with LAC 33:I.Chapter 13. The corrective-action plan must also provide for a corrective-action groundwater monitoring program as described in Subsection E.7.a.i of this Section.

\* \* \*

[See Prior Text in E.6.b - 7.d]

e. If the administrative authority approves, in writing, the demonstration submitted pursuant to Subsection E.7.d of this Section, the permit holder must, within 30 days of the approval, submit a plan to the Solid Waste Division (which includes an implementation schedule) to implement alternate measures in accordance with LAC 33:I.Chapter 13:

\* \* \*

[See Prior Text in E.7.e.i - 8.c.ii]

iii. upon consultation with and approval of the

administrative authority, must implement any interim measures necessary to ensure the protection of human health and the environment. Interim measures should be in accordance with LAC 33:I.Chapter 13 and, to the greatest extent practicable, be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to Subsection E.6 of this Section. The following factors must be considered by a permit holder in determining whether interim measures are necessary:

\* \* \*

[See Prior Text in E.8.c.iii.(a) - 9]

a. Corrective action at solid waste disposal facilities other than Type II landfills and associated Type II surface impoundments must be performed in accordance with Subsection E.9 of this Section and LAC 33:I.Chapter 13.

\* \* \*

[See Prior Text in E.9.b. - 10]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), repromulgated LR 19:1315 (October 1993), amended by the Office of the Secretary, LR 24:\*\* (1998).

**§711. Standards Governing Landfills (Type I and II)**

\* \* \*

[See Prior Text in A - F.1]

a. decreased by the administrative authority if the permit holder demonstrates that the reduced period is sufficient to protect human health and the environment in accordance with LAC 33:I.Chapter 13, and this demonstration is approved by the administrative authority (Any demonstration must provide supporting data, including adequate groundwater monitoring data.); or

b. increased by the administrative authority if the administrative authority determines that the lengthened period is necessary to protect human health and the environment in

accordance with LAC 33:I.Chapter 13.

\* \* \*

[See Prior Text in F.2 - 3.a]

b. maintaining and operating the leachate collection and removal system, until leachate is no longer generated or until the permit holder can demonstrate that the leachate no longer poses a threat to human health or the environment in accordance with LAC 33:I.Chapter 13;

\* \* \*

[See Prior Text in F.3.c - d]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), amended LR 19:1143 (September 1993), repromulgated LR 19:1316 (October 1993), amended by the Office of the Secretary, LR 24:\*\* (1998).

**§713. Standards Governing Surface Impoundments (Type I and II)**

\* \* \*

[See Prior Text in A - E.3.c]

4. If the permit holder demonstrates that removal of most of the solid waste to achieve an alternate level of contaminants based on indicator parameters in the contaminated soil will be adequately protective of human health and the environment (including groundwater) in accordance with LAC 33:I.Chapter 13, the administrative authority may decrease or eliminate the post-closure period. ~~Within 90 days after such a closure is completed, the permit holder must have entered in the mortgage and conveyance records of the parish for the property, a notation stating that solid waste remains at the site and providing the indicator levels obtained during closure.~~

a. If levels of contamination at the time of closure meet residential standards as specified in LAC 33:I.Chapter 13 and approval of the administrative authority is granted, the requirements of Subsection E.4.b of this Section shall not apply. The

requirements of Subsection F of this Section, “Facility Post-closure Requirements,” shall apply.

b. Excepting those sites closed in accordance with Subsection E.4.a of this Section, within 90 days after a closure is completed, the permit holder must have entered in the mortgage and conveyance records of the parish for the property, a notation stating that solid waste remains at the site and providing the indicator levels obtained during closure.

\* \* \*

[See Prior Text in E.5 - F.1]

a. decreased by the administrative authority if the permit holder demonstrates that the reduced period is sufficient to protect human health and the environment in accordance with LAC 33:I.Chapter 13 and this demonstration is approved by the administrative authority (Any demonstration must provide supporting data, including adequate groundwater monitoring data.); or

b. increased by the administrative authority if the administrative authority determines that the lengthened period is necessary to protect human health and the environment in accordance with LAC 33:I.Chapter 13.

\* \* \*

[See Prior Text in F.2 - 2.b.iv]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), repromulgated LR 19:1316 (October 1993), amended by the Office of the Secretary, LR 24:\*\* (1998).

**§715. Standards Governing Landfarms (Type I and II)**

\* \* \*

[See Prior Text in A - F.1]

a. decreased by the administrative authority if the permit holder demonstrates that the reduced period is sufficient to protect

human health and the environment in accordance with LAC 33:I.Chapter 13 and this demonstration is approved by the administrative authority (Any demonstration must provide supporting data, including adequate groundwater monitoring data.); or

b. increased by the administrative authority if the administrative authority determines that the lengthened period is necessary to protect human health and the environment in accordance with LAC 33:I.Chapter 13.

\* \* \*

[See Prior Text in F.2 - 3.b]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), repromulgated LR 19:1316 (October 1993), amended by the Office of the Secretary, LR 24:\*\* (1998).

**Subchapter C. Solid Waste Processors**

**§717. Standards Governing All Solid Waste Processors (Type I-A and II-A)**

\* \* \*

[See Prior Text in A - I.2.b]

c. The permit holder shall verify that the underlying soils have not been contaminated due to the operation of the facility. If contamination exists, a remediation/removal program developed to meet the standards of LAC 33:VII.713.E.3, 4, and 5 must be provided to the administrative authority.

\* \* \*

[See Prior Text in I.3]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), amended by the

Office of the Secretary, LR 24:\*\* (1998).

**Subchapter D. Minor Processing and Disposal Facilities**

**§721. Construction and Demolition Debris and Woodwaste Landfills and Processing Facilities (Type III)**

\* \* \*

[See Prior Text in A - E]

1. The time-frame of post-closure care may be lengthened, if necessary, to protect human health or the environment in accordance with LAC 33:I.Chapter 13.

\* \* \*

[See Prior Text in E.2 - 3]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), amended LR 20:1001 (September 1994), amended by the Office of the Secretary, LR 24:\*\* (1998).

**§723. Composting Facilities (Type III)**

\* \* \*

[See Prior Text in A - D.2.b]

c. The permit holder shall verify that the underlying soils have not been contaminated in the operation of the facility. If contamination exists, a remediation/removal program developed to meet the standards of LAC 33:VII.713.E.3, 4, and 5 must be provided to the administrative authority.

\* \* \*

[See Prior Text in D.3]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), amended LR 20:1001

(September 1994), amended by the Office of the Secretary, LR 24:\*\* (1998).

**§725. Separation and Woodwaste Processing Facilities (Type III)**

\* \* \*

[See Prior Text in A - D.2.b]

c. The permit holder shall verify that the underlying soils have not been contaminated from the operation of the facility. If contamination exists, a remediation/removal program developed to meet the standards of LAC 33:VII.713.E.3, 4, and 5 must be provided to the administrative authority.

\* \* \*

[See Prior Text in A - D.3]

**AUTHORITY NOTE:** Promulgated in accordance with R.S. 30:2001 et seq.

**HISTORICAL NOTE:** Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), amended LR 20:1001 (September 1994), LR 22:280 (April 1996), amended by the Office of the Secretary, LR 24:\*\* (1998).

**Title 33**  
**ENVIRONMENTAL QUALITY**  
**Part VII.Solid Waste**

**Chapter 9. Enforcement**

**§909. Closing Unauthorized and Promiscuous Dumps**

Unauthorized and promiscuous dumps shall be closed through the following procedure.

\* \* \*

[See Prior Text in A - B]

C. Requirements for on-site closure are as follows:

1. if required, or authorized and approved, by the administrative authority, closure shall be conducted in accordance with LAC 33:I.Chapter 13. However, the requirements of Subsection C.2.g of this Section will apply. If closure in accordance with LAC 33:I.Chapter 13 results in constituent-of-concern levels remaining above those allowed for residential scenarios, the requirements of Subsection C.2.f of this Section will also apply; and

2. if closure will not be conducted in accordance with Subsection C.1 of this Section, then approval or authorization may be granted by the administrative authority for the following alternative closure requirements:

1a. extinguish all fires;

2b. dewater and either solidify waste for return to the landfill or discharge it as governed by a NPDES permit, if applicable;

3c. implement a rodent-extermination program, if applicable, to prevent migration of rats;

4d. compact the waste with suitable equipment;

5e. provide a final cover consisting of a minimum of 24 inches of silty clays and six inches of topsoil cover for supporting vegetative growth and revegetate the area to control erosion if necessary;

6f. ~~update~~record in the parish mortgage and conveyance records entering a document describing the specific location of the facility and specifying that the property was used for the disposal of solid waste. The document shall identify the name of the person with knowledge of the contents of the facility, as well as providing the chemical levels remaining, if present. A true copy of the document, filed and certified by the parish clerk of court, shall be sent to the Solid Waste Division; and

7g. conduct long-term monitoring in accordance with ~~LAC 33:VII.909.Subsection E~~ of this Section, if deemed necessary by the administrative authority.

\* \* \*

[See Prior Text in D - E.2]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), amended by the Office of the Secretary, LR 24:\*\* (1998).

**Title 33**

**ENVIRONMENTAL QUALITY**

**Part XI. Underground Storage Tanks**

**Chapter 7. Methods of Release Detection and Release Reporting, Investigation, Confirmation, and Response**

**§715. Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances**

A. Applicability. Owners and operators of petroleum or hazardous substance UST systems must, in response to a confirmed release from the UST system, comply with the requirements of this Section except for USTs excluded under LAC 33:XI.101.B and UST systems subject to the department's Hazardous Waste Regulations. ~~The American Petroleum Institute Publication 1628 ("A Guide to the Assessment and Remediation of Underground Petroleum Releases") may be used as an aid to complying with these requirements.~~ Investigations and corrective actions required by this Section must comply with LAC 33:I.Chapter 13, Risk Evaluation/Corrective Action Program.

\* \* \*

[See Prior Text in B - H.4]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Underground Storage Tank Division, LR 16:614 (July 1990), amended LR 17:658 (July 1991), amended by the Office of the Secretary, LR 24:\*\* (1998).