Title 33
ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste
Chapter 1. General Provisions and Definitions
§109. Definitions
For all purposes of these rules and regulations, the terms defined in this Chapter shall have the following meanings, unless the context of use clearly indicates otherwise.

**Batch Tank**—a device meeting the definition of *tank* in this Section that receives a batch (or batches) of hazardous waste on a one-time or intermittent basis.

**Continuous-Flow Tank**—a device meeting the definition of *tank* in this Section that receives hazardous waste on an ongoing, continuous basis.

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


Chapter II. Generators
Subchapter A. General
§1109. Pre-Transport Requirements
A. - D. ...
E. Accumulation Time
   1. - 1.a.i.  …
      ii. in tanks and the generator complies with the applicable requirements of LAC 33:V. 1901.E, and/or
      E.1.a.iii. - F.2. ...
     AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.


Chapter 19. Tanks
§1901. Applicability
A. The requirements of this Chapter apply to owners and operators of facilities that use tank systems for storing or treating hazardous waste except as otherwise provided in Subsections A and B of this Section or LAC 33:V.1501.

B. Tank systems that are used to store or treat hazardous waste that contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements of LAC 33:V.1907. To demonstrate the absence or presence of free liquids in the stored/treated waste, the following test method must be used: EPA Method 9095B (Paint Filter Liquids Test) as described in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846, as incorporated by reference in LAC 33:V.110.
C. Tank systems, including sumps, as defined in LAC 33:V.109, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in LAC 33:V.1907.A.

D. Tanks, sumps, and other such collection devices or systems used in conjunction with drip pads, as defined in LAC 33:V.109 and regulated under LAC 33:V.Chapter 28, must meet the requirements of this Chapter.


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


§1907. Containment and Detection of Releases

A. - D.4...

E. In addition to the requirements of Subsections B-D of this Section, secondary containment systems must satisfy the following requirements.

1. External liner systems must be:
   a. - b. ...
   c. free of cracks or gaps;
   d. designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the waste if the waste is released from the tank(s);
   e. impermeable to the extent that it will prevent lateral as well as vertical migration of waste into the environment (this is not intended to address releases to the air); and
   f. if concrete is used as an external liner system:
      i. the liner system must be:
         (a). provided with a coating or lining that is compatible with the stored waste and meets the requirements of Subparagraph E.1.d and e of this Section except as specified in Clause E.1.f.ii and Subsection J of this Section;
         (b). constructed with chemical-resistant water stops in place at all joints (if any), in liner systems installed after June 20, 2010 and in liner systems undergoing significant modification after June 20, 2010; and
         (c). constructed with chemical-resistant joint sealants at all joints and cracks (if any);
      ii. the owner or operator of a tank equipped with an uncoated/unlined concrete external liner system may demonstrate compliance with Subclause E.1.f.i.(a) of this Section by submitting the information described in Subsection J of this Section for review and obtaining written approval by the Office of Environmental Services.

2. Vault systems must be:
   a. - c. ...
   d. constructed with chemical-resistant joint sealants at all joints and cracks (if any), in vault systems installed after June 20, 2010, and in vault systems undergoing significant modification after June 20, 2010;
   e. provided with an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste into the concrete;
   f. provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated:
      i. meets any of the definitions of ignitable waste under LAC 33:V.4903.B; or
      ii. meets the definition of reactive waste under LAC 33:V.4903.D, and may form an ignitable or explosive vapor; and
   g. provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

   E.3. - I.5. ...

J. Unlined/Uncoated Concrete Liner Systems—Demonstration of Sufficiency Process

1. Submittals to the Office of Environmental Services intended to secure its approval of uncoated/unlined concrete liner systems, as provided for in Clause E.1.f.ii of this Section, must contain documentation regarding the information described below.

   a. The owner or operator must provide detailed information on the uncoated/unlined external liner, including, but not limited to:
      i. the design and installation specifications for any concrete joints, including water stops;
      ii. the characteristics of any joint sealant used, including its compatibility with the waste stored in the tank system; and
      iii. the characteristics of the concrete mix used, the design and construction specifications of the concrete liner and secondary containment system, and any American Concrete Institute or other applicable standards used.
   b. The owner or operator must also provide the following information:
      i. the physical and chemical characteristics of the waste in the tank system, including its potential for migration and its compatibility with the unlined/uncoated concrete external liner system;
      ii. the persistence and permanence of the potential adverse effects from a release of the waste constituents to the environment;
      iii. the risk to human health and the environment posed by a potential release of the waste constituents contained in the tank to the soil or groundwater;
      iv. any factor that specifically influences the potential mobility of the waste contained in the tank and its potential to migrate through the unlined/uncoated concrete external liner system to the environment;
      v. any additional protections afforded by the design and construction of the tank system, such as tank liners, lined piping, welded flanges, double bottoms, and/or elevation of the tank above the unlined/uncoated concrete external liner; and
      vi. any other information requested by the administrative authority.

2. Submittals may also contain other documentation demonstrating that an unlined/uncoated concrete external liner system is appropriate, such as documentation regarding the following:

   a. any natural or man-made hydrogeological characteristic of the facility and surrounding land that...
affords a barrier to the migration of waste into the environment;
  b. any applicable regulation or permit requirement, or standard, such as, for example:
     i. any schedule of more frequent than normal internal inspection of the tank pursuant to appropriate standards (e.g. American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), etc.);
     ii. any schedule of more frequent than normal external inspection of the tank pursuant to appropriate standards (e.g. API, ASME, etc.);
     iii. any certification by a registered professional engineer regarding the permeability of the concrete that comprises the concrete liner system; and
     c. the cost of installing and maintaining an impermeable coating or lining versus the potential benefits to be derived therefrom.
 3. In deciding whether to approve the use of an unlined/uncoated concrete external liner system in lieu of the requirements of Subclause E.1.f.i.(a) of this Section:
     a. the administrative authority shall consider each submittal on its own merits;
     b. the stringency of the administrative authority’s requirements may vary depending on the tank’s contents (e.g., the concentration or type of material involved); and
     c. the administrative authority shall approve the use of an unlined/uncoated concrete external liner system if it reasonably determines that the unlined/uncoated concrete external liner system:
        i. will prevent lateral and vertical migration of waste into the environment; or
        ii. is otherwise appropriate based on the potential risk to human health and the environment.
 4. Within 30 days after receipt of an administratively complete submittal pursuant to this Subsection, the department shall provide written acknowledgment to the owner or operator that the submittal is under consideration. Subclause E.1.f.i.(a) of this Section shall not apply to the concrete external liner system while the administrative authority considers the owner’s or operator’s submittal. The administrative authority shall notify the owner or operator in writing of the administrative authority’s approval or disapproval of the proposed use of an unlined/uncoated concrete external liner system. If the administrative authority does not approve the use of an unlined/uncoated concrete external liner system, it shall give the owner or operator a reasonable period of time to provide an appropriate coating or lining for the concrete external liner system, or another acceptable means of secondary containment.
 5. If the use of an unlined/uncoated concrete external liner system is approved:
     a. the owner or operator shall maintain on-site:
        i. the written approval received from the administrative authority, or a legible copy thereof; and
        ii. documentation sufficient to establish that any conditions upon which that approval was based are being fulfilled; and
     b. the owner or operator shall provide written notification to the Office of Environmental Services of any change in the tank system, the service of the tank system, the concrete external liner system, the waste stored in the tank(s), or the information submitted by the owner or operator pursuant to Paragraph 1 or 2 of this Subsection that could result in a significant increase in the risk to human health or the environment posed by a potential release of waste constituents contained in the tank(s). Such notice shall be provided within 15 days of the owner’s or operator’s discovery of any such change. The department thereafter may require the submittal of additional information by the owner or operator, and/or revoke the approval for the owner’s or operator’s continued use of the unlined/uncoated concrete external liner system.
K. Effective Date/Due Date
   1. Subparagraph E.1.f of this Section shall be effective:
      a. one year from June 20, 2010, for tanks meeting the requirements for the accumulation time exclusion of LAC 33:V.305.C.2 and 1109.E.1; and
      b. 180 days from June 20, 2010, for tanks subject to permitting.
   2. Submittals under Subsection J of this Section shall be due:
      a. within one year from June 20, 2010, for tanks existing prior to this date and that meet the requirements for the accumulation time exclusion of LAC 33:V.305.C.2 and 1109.E.1;
      b. within 180 days from June 20, 2010, for tanks existing prior to this date and that are subject to permitting;
      c. prior to tank installation, for tanks and/or tank systems installed after June 20, 2010 that meet the requirements for the accumulation time exclusion of LAC 33:V.305.C.2 and 1109.E.1;
      d. contemporaneously with the submittal of the permit application, for new tanks and/or tank systems that are installed after June 20, 2010 and are subject to permitting; and
      e. within such reasonable period of time as shall be established by the administrative authority upon request by the owner or operator, for any tank that is installed or undergoes a change in service within one year of June 20, 2010.
   AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
§1909. General Operating Requirements
A. - C. ...
D. Owners or operators must provide documentation, maintained on-site, that batch tanks subject to the accumulation time exclusion of LAC 33:V.1109.E have been emptied and cleaned of all residues and/or sludges at least once in each 90-day period.
   1. A batch tank is deemed emptied and cleaned for the purposes of this Subsection if it has been emptied to the maximum extent practicable and:
      a. - b. …
   2. Notwithstanding the provisions of Paragraph D.1 of this Section, except to the extent otherwise approved by the administrative authority, batch tanks subject to the exclusion of LAC 33:V.1109.E must be completely emptied and
E. Owners or operators must provide documentation, maintained on-site, that continuous-flow tanks subject to the accumulation time exclusion of LAC 33:V.1109.E have been emptied at least once in each 90-day period.

1. A continuous-flow tank is deemed emptied if the owner or operator can demonstrate, via a mass balance approach and appropriate documentation or methodology, that hazardous waste has not been stored therein for more than 90 days. The key parameters in the mass balance approach are the volume of the tank (e.g., 6,000 gallons), the daily throughput of the hazardous waste (e.g., 300 gallons per day), and the time period the hazardous waste “resides” in the tank. In this example, the hazardous waste would have a residence time of 20 days ((6,000 gallons/300 gallons per day) = 20 days) and would meet the requirements of LAC 33:V.1109.E since the hazardous waste has been in the tank for less than 90 days.

2. The documentation or methodology that is used by the owner or operator to confirm a continuous-flow tank’s compliance with Paragraph E.1 of this Section must be reasonable and easily discernible to the department.

3. A continuous-flow tank in which a significant amount of residue or sludge is accumulated may not qualify for the exclusion of LAC 33:V.1109.E. Therefore, the owner or operator of a continuous-flow tank for which that exclusion is claimed must ensure that significant accumulation of residue or sludge does not occur in the tank by satisfying the requirements either of Subsection D of this Section (in which case the words “continuous-flow tank” shall be substituted for the words “batch tank” in each instance where “batch tank” appears in that Subsection), or of Paragraph E.4 of this Section.

4. The owner or operator must provide documentation, maintained on-site, establishing that significant accumulations of residue or sludge do not occur within the tank; i.e., almost all residues or sludges in the tank at the beginning of the 90-day period have been removed (or displaced by incoming waste or newly-formed residues or sludges) by the end of the ninetieth day. The determination of what constitutes “significant accumulation of residue or sludge” shall be made on a case-by-case basis. However, no significant accumulation of residues or sludges shall be deemed to have occurred if the residues or sludges that accumulate in the tank constitute less than 5 percent by volume of the total tank capacity. To the extent that there is no significant accumulation of residue or sludge in the tank, the one-year storage prohibition under LAC 33:V.2205 shall not apply to any residue or sludge contained therein.

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


Chapter 43. Interim Status

Subchapter I. Tanks

§4437. Containment and Detection of Releases

A. - D.4...
i. the design and installation specifications for any concrete joints, including water stops;
ii. the characteristics of any joint sealant used, including its compatibility with the waste stored in the tank system; and
iii. the characteristics of the concrete mix used, the design and construction specifications of the concrete liner and secondary containment system, and any American Concrete Institute or other applicable standards used.

b. The owner or operator must also provide the following information:
i. the physical and chemical characteristics of the waste in the tank system, including its potential for migration and its compatibility with the unlined/uncoated concrete external liner system;
ii. the persistence and permanence of the potential adverse effects from a release of the waste constituents to the environment;
iii. the risk to human health and the environment posed by a potential release of the waste constituents contained in the tank to the soil or groundwater;
iv. any factors that specifically influence the potential mobility of the waste contained in the tank and its potential to migrate through the unlined/uncoated concrete external liner system to the environment;
v. any additional protections afforded by the design and construction of the tank system; such as tank liners, lined piping, welded flanges, double bottoms, and/or elevation of the tank above the unlined/uncoated concrete external liner; and
vi. any other information requested by the administrative authority.

2. The submittal may also contain other documentation demonstrating that an unlined/uncoated concrete external liner system is appropriate, such as documentation regarding the following:
   a. any natural or man-made hydrogeological characteristic of the facility and surrounding land that affords a barrier to the migration of waste into the environment;
   b. any applicable regulation or permit requirement, or standard, such as, for example:
      i. any schedule of more frequent than normal internal inspection of the tank pursuant to appropriate standards (e.g. American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), etc.);
      ii. any schedule of more frequent than normal external inspection of the tank pursuant to appropriate standards (e.g. API, ASME, etc.);
      iii. any certification by a registered professional engineer regarding the permeability of the concrete that comprises the concrete liner system; and
   c. the cost of installing and maintaining an impermeable coating or lining versus the potential benefits to be derived therefrom.

3. In deciding whether to approve the use of an unlined/uncoated concrete external liner system in lieu of the requirements of Subclause E.1.f.i.(a) of this Section:
   a. the administrative authority shall consider each submittal on its own merits;
   b. the stringency of the administrative authority’s requirements may vary depending on the tank’s contents (e.g., the concentration or type of material involved); and
   c. the administrative authority shall approve the use of an unlined/uncoated concrete external liner system if it reasonably determines that the unlined/uncoated concrete external liner system:
      i. will prevent lateral and vertical migration of waste into the environment; or
      ii. is otherwise appropriate based on the potential risk to human health and the environment.

4. Within 30 days after receipt of an administratively complete submittal pursuant to this Subsection, the department shall provide written acknowledgment to the owner or operator that the submittal is under consideration.

   Subclause E.1.f.i.(a) of this Section shall not apply to the concrete external liner system while the administrative authority considers the owner’s or operator’s submittal. The administrative authority shall notify the owner or operator in writing of the administrative authority’s approval or disapproval of the proposed use of an unlined/uncoated concrete external liner system. If the administrative authority does not approve the use of an unlined/uncoated concrete external liner system, it shall give the owner or operator a reasonable period of time to provide an appropriate coating or lining for the concrete external liner system, or another acceptable means of secondary containment.

5. If the use of an unlined/uncoated concrete external liner system is approved:
   a. the owner or operator shall maintain on-site:
      i. the written approval received from the administrative authority, or a legible copy thereof; and
      ii. documentation sufficient to establish that any conditions upon which that approval was based are being fulfilled; and
   b. the owner or operator shall provide written notification to the Office of Environmental Services of any change in the tank system, the service of the tank system, the concrete external liner system, the waste stored in the tank(s), or the information submitted by the owner or operator pursuant to Paragraph 1 or 2 of this Subsection that could result in a significant increase in the risk to human health or the environment posed by a potential release of the waste constituents contained in the tank(s). Such notice shall be provided within 15 days of the owner’s or operator’s discovery of any such change. The department thereafter may require the submittal of additional information by the owner or operator, and/or revoke the approval for the owner’s or operator’s continued use of the unlined/uncoated concrete external liner system.

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