

## NOTICE OF INTENT

Department of Environmental Quality  
Office of Environmental Assessment  
Environmental Planning Division

Under the authority of the Environmental Quality Act, R.S. 30:2001 et seq., and in accordance with the provisions of the Administrative Procedure Act, R.S. 49:950 et seq., the secretary gives notice that rulemaking procedures have been initiated to amend the Solid Waste regulations, LAC 33:VII.Subparts 1 and 3 (Log #SW031).

This proposed rule repeals and replaces in its entirety all previously promulgated Solid Waste regulations cited as LAC 33:VII.Subpart 1. This rule also repeals in its entirety LAC 33:VII.Subpart 3.Louisiana Resource Recovery and Development Authority. This action is being taken to: 1) reorganize the regulations in a more user-friendly manner; 2) correct errors in text; 3) eliminate the Louisiana Resource Recovery and Development Authority (LRRDA) in accordance with Act 524 of the 2001 Louisiana Legislative Session; 4) clarify technical requirements for all solid waste facilities; 5) incorporate into regulations geology and groundwater standards currently required by the department; 6) allow the department to establish the numbers and levels of certified operators at a facility; 7) provide more flexibility regarding characterization of subsurface geology; 8) remove language allowing operations at a proposed facility with a temporary permit; and 9) establish a basis for the phrase "environmentally sound manner." A cross-reference of old to new citations and a list identifying where new language has been added are being provided to aid in the review of the proposed rule. These two documents can be found on the department's website at <http://www.deq.state.la.us/planning/regs/index.htm>. These regulations shall affect all new submittals, including, but not limited to, new permit applications, modifications, and permit renewals. These regulations will not affect those submittals that have been received by the department prior to the effective date of this rule. Further, these regulations will only apply to the modification that is submitted after the effective date, not to the underlying permit that is being modified. The basis and rationale for this rule are to be responsive to the regulated community and to ensure the protection of public health and the environment.

This proposed rule meets an exception listed in R.S. 30:2019.D.(2) and R.S. 49:953.G.(3); therefore, no report regarding environmental/health benefits and social/economic costs is required. This proposed rule has no known impact on family formation, stability, and autonomy as described in R.S. 49:972.

A public hearing will be held on April 24, 2002, at 1:30 p.m. in the Maynard Ketcham Building, Room 326, 7290 Bluebonnet Boulevard, Baton Rouge, LA 70810. Interested persons are invited to attend and submit oral comments on the proposed amendments. Attendees should report directly to the hearing location for DEQ visitor registration, instead of to the security desk in the DEQ Headquarters building. Should individuals with a disability need an accommodation in order to participate, contact Patsy Deaville at the address given below or at (225) 765-0399.

All interested persons are invited to submit written comments on the proposed regulations. Persons commenting should reference this proposed regulation by SW031. Such comments must be received no later than May 1, 2002, at 4:30 p.m., and should be sent to Patsy Deaville, Regulation Development Section, Box 82178, Baton Rouge, LA 70884-2178 or to FAX

(225) 765-0389 or by e-mail to [patsyd@deq.state.la.us](mailto:patsyd@deq.state.la.us). Copies of this proposed regulation can be purchased at the above referenced address. Contact the Regulation Development Section at (225) 765-0399 for pricing information. Check or money order is required in advance for each copy of SW031.

This proposed regulation is available for inspection at the following DEQ office locations from 8 a.m. until 4:30 p.m.: 7290 Bluebonnet Boulevard, Fourth Floor, Baton Rouge, LA 70810; 804 Thirty-first Street, Monroe, LA 71203; State Office Building, 1525 Fairfield Avenue, Shreveport, LA 71101; 3519 Patrick Street, Lake Charles, LA 70605; 201 Evans Road, Building 4, Suite 420, New Orleans, LA 70123; 100 Asma Boulevard, Suite 151, Lafayette, LA 70508; 104 Lococo Drive, Raceland, LA 70394 or on the Internet at <http://www.deq.state.la.us/planning/regs/index.htm>.

James H. Brent, Ph.D.  
Assistant Secretary

**Title 33**  
**ENVIRONMENTAL QUALITY**

**Part VII. Solid Waste**

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**Subpart 3. Louisiana Resource Recovery and Development Authority**

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

**Subpart 1. Solid Waste Regulations****Chapter 1. General Provisions and Definitions****§101. Scope and Purpose**

A. The Louisiana Legislature recognizes that the safety and welfare of state citizens "require efficient and reasonable regulation of solid waste disposal practices as well as a coordinated, statewide resource recovery and management program" (R.S. 30:2152). Therefore, the Department of Environmental Quality has formulated these rules and regulations to:

1. establish standards governing the storage, collection, recovery and reuse, and disposal of solid waste;
2. implement a management program that will protect the air, groundwater, and surface water and the environment from pollution from solid wastes and thus eliminate the potential threat to human health from such pollution;
3. encourage both citizens and industry to reduce the amount of waste developed and generated in the state; and
4. implement the utilization of solid waste for useful purposes whenever practicable.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**§103. Authority**

A. The Louisiana Environmental Quality Act (R.S. 30:2001 et seq.) established the enforcement authority and procedures for carrying out the purposes of the act. These rules and regulations were developed under the authority of the secretary of the Department of Environmental Quality, as mandated by the Louisiana Solid Waste Management and Resource Recovery Law (R.S. 30:2151 et seq.). The Louisiana Solid Waste Operator Certification and Training Program (R.S. 37:3151 et seq.) created the Louisiana Solid Waste Operator Certification and Training Program. The principal domicile of the board shall be that of the Department of Environmental Quality.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30: 2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**§105. Repeals**

A. These regulations repeal and replace in their entirety all previously promulgated regulations cited as LAC 33:VII.Subpart 1.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**§107. Effective Date**

A. These rules and regulations shall be effective on (date to be inserted) for all new submittals, including but not limited to, new permit applications, modifications, and permit renewals. These rules and regulations will not affect those submittals that have been received by the department prior to the effective date. Further, these rules and regulations only apply to a modification that was submitted after the effective date, not to the underlying permit that is being modified.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**§109. Severability**

A. If any provision of these rules and regulations or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of the act and these regulations that can be given effect without the invalid provision or application, and to this end provisions of these rules and regulations are declared to be severable.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**§110. Public Information Service**

A. Responses to Suggestions and Complaints. The department will respond to complaints and suggestions and disseminate all pertinent information concerning solid waste. Information will be disseminated by letter or telephone communication in response to direct inquiries and through a departmental bulletin, issued periodically, that will include lists of permits, enforcement actions, and similar information of general interest, if such a bulletin is available.

B. Public Hearings. A summary of all discussions, presentations, and comments submitted will be prepared after each hearing and made available to all who request it, in accordance with R.S. 44:1, et seq.

C. Mailing List. The department will maintain a mailing list of groups or individuals interested in public hearings and other such activities of the Office of Environmental Services, Permits Division.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### §111. Confidentiality

A. Provisions for confidential information may be found in LAC 33:I.Chapter 5.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### §113. Division of Responsibility

A. The administrative authority is responsible for the following:

1. identifying solid waste processing and disposal facilities;
2. classifying such facilities for "closure" or "upgrade";
3. performing all necessary regulatory operations, including:
  - a. operating the permit system;
  - b. surveillance and monitoring to determine facility compliance; and
  - c. initiating and processing enforcement actions when necessary to meet the purposes of these regulations;
4. soliciting, administering, and distributing federal, state, and other funds; and
5. entering into contracts as necessary to carry out the mandates of the act.

B. Municipalities, parishes, and regional commissions are responsible for the following:

1. planning and operating necessary pickup and collection systems, including recycling programs, and delivering solid waste to permitted processing or disposal facilities;
2. planning and operating permitted processing and/or disposal facilities while cooperating with the department, or other entity, to implement regional management systems;
3. providing necessary financial support for the regional management systems through fees or other means;
4. administering supplementary funds received from federal or state sources through the administrative authority; and
5. entering into contracts when necessary to provide for maximum efficiency of the program.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**§114. Assignment and Reassignment of Responsibilities**

A. Assignment of New Responsibilities. The administrative authority may assign to local authorities new responsibilities required to implement elements of the program not assigned in LAC 33:VII.113.B.

B. Reassignment of Responsibilities. The administrative authority may reassign responsibilities within the department or to local authorities in LAC 33:VII.113.B as may be deemed necessary to operate the program more effectively.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq. and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**§115. Definitions**

A. For all purposes of these rules and regulations, the terms defined in this Section shall have the following meanings, unless the context of use clearly indicates otherwise.

*Access Road*—a passageway for vehicles leading from the entrance of a facility to each unit of the facility.

*Act*—the Louisiana Environmental Quality Act (R.S. 30:2001 et seq.).

*Administrative Authority*—the secretary of the Department of Environmental Quality or his designee or the appropriate assistant secretary or his designee.

*Agricultural Waste*—nonhazardous waste resulting from the production and processing of agricultural products, including manures, prunings, and crop residues. Some examples of agricultural wastes are included in LAC 33:VII.Chapter 7, Appendix D. This term does not include solid wastes defined as industrial solid waste in this Section.

*Air Curtain Destructor*—a unit to facilitate combustion above the fire burning in the combustion chamber pit so that combustion efficiency is increased and smoke and other particulate matter is contained. The unit consists of a combustion chamber pit and an air blower to force air through ducts (known as canisters) to establish a curtain of high velocity air.

*Animal Feed*—any crop, such as pasture crops, forage, and grain grown for consumption by animals.

*Applicant*—any person who intends to be a standard permit holder for a solid waste processing and/or disposal facility and who has submitted a permit application to the Department of Environmental Quality.

*Aquifer*—a formation, group of formations, or part of a formation that contains enough saturated permeable materials to yield significant quantities of water to wells or springs.

*Areal*—pertaining to an area, as an areal map.

*Areal Map*—a geologic map showing the horizontal extent and distribution of rock units exposed at the surface or subsurface.

*Areas Susceptible to Mass Movement*—those areas of influence (i.e., areas characterized as having an active or substantial possibility of mass movement) where the movement of earth material at, beneath, or adjacent to the facility, because of natural or man-induced events, results in the

downslope transport of soil and rock material by means of gravitational influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, soil fluctuation, block sliding, and rock fall.

*Assessment Well*—see *Monitoring Well*.

*Assets*—all existing and all probable future economic benefits obtained or controlled by a particular entity.

*Autoclave*—steam sterilization at a temperature of at least 250° F and a pressure of at least 15 pounds per square inch for at least 30 minutes. Longer times are required depending on the amount of waste, the presence of water, and the type of container used. Alternate patterns of temperature, pressure, and time may be used if compatible with the sterilization equipment being used and demonstrably sufficient to kill disease-causing microorganisms.

*Background Soil pH*—the pH of the soil before the addition of substances that alter the hydrogen-ion concentration (see *Soil pH*).

*Bailing*—a method of obtaining samples of water from a groundwater monitoring well by lowering and raising a weighted bottle, capped length of pipe, or similar device.

*Baler*—a facility that reduces and restrains a solid waste volume by mechanical compaction to achieve a higher-density-per-unit volume.

*Beneficial Use*—the use of waste material for some profitable purpose (e.g., incorporating sludge into soil to amend the soil). Avoidance of processing or disposal cost alone does not constitute beneficial use.

*Board of Certification and Training*—a board for the certification and training of operators of systems or facilities for the disposal of commercial and residential solid waste (established by R.S. 37:3151 et seq.).

*Cation-Exchange Capacity*—the sum of exchangeable cations a soil can absorb, expressed in milliequivalents per 100 grams of soil, as determined by sampling the soil to the depth of cultivation or solid waste placement, whichever is greater, and analyzing, by the summation method, for distinctly acid soils, or, by the sodium acetate method, for neutral, calcareous, or saline soils.

*Clean Closure*—the act of closing a facility whereby all solid waste is removed, including contamination that results from solid waste placement.

*Closure*—the act of securing a facility that has been used to process, store, or dispose of solid waste in a manner that minimizes harm to the public and the environment.

*Closure Plan*—a plan for closure and/or post closure of a facility prepared in accordance with the requirements of LAC 33:VII.Subpart 1.

*Coastal Zone*—the coastal waters and adjacent shorelands within the boundaries of the coastal zone established by the State and Local Coastal Resources Management Act of 1978 (R.S. 49:213.1-213.21).

*Collect*—to accumulate industrial solid waste or solid waste generated by more than one household or commercial establishment or by a storage or processing facility.

*Commercial Establishment*—a business, including its structures and property, that is involved in the exchange or distribution of goods or commodities or that rents, leases, or sells space for such activities.

*Commercial Solid Waste*—all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial solid wastes.

*Compactor*—a solid waste facility, other than collection and transportation vehicles, that reduces a solid waste volume by mechanical compaction to achieve a higher-density-per-unit volume.

*Compost*—a solid waste that has undergone biological decomposition of organic matter and has been stabilized using composting or similar technologies to a degree that is beneficial to plant growth and that is used, or sold for use, as a soil amendment, artificial topsoil, growing-medium amendment, or other similar uses.

*Composting*—a controlled process of degrading organic matter with microorganisms.

*Composting Facility*—a facility where organic matter is processed by natural or mechanical means to aid the microbial decomposition of the organic matter.

*Construct*—to build, erect, excavate, or form any portion of a solid waste facility.

*Construction/Demolition Debris*—nonhazardous waste generally considered not water-soluble, including but not limited to, metal, concrete, brick, asphalt, roofing materials (shingles, sheet rock, plaster), or lumber from a construction or demolition project, but excluding regulated asbestos-contaminated material (RACM), as defined in LAC 33:III.5151.B, white goods, furniture, trash, or treated lumber. The admixture of construction and demolition debris with more than 5 percent by volume of paper associated with such debris or any other type of solid waste (excluding woodwaste or yard waste) will cause it to be classified other than construction/demolition debris.

*Contamination (Environmental)*—the degradation of naturally occurring water, air, or soil quality either directly or indirectly as a result of human activities.

*Contamination (Solid Waste)*—the admixture of any solid waste with any amount of hazardous waste or any other type of waste not meeting the definition of solid waste.

*Contingency Plan*—an organized, planned, coordinated course of action to be followed in the event of a fire, explosion, or discharge or release of waste into the environment that could endanger human health or the environment.

*Cover Material*—soil or other suitable material approved by the administrative authority, applied on the top and side slopes of disposed solid waste to control vectors, gases, erosion, fires, and infiltration of precipitation; to support vegetation; to provide trafficability; or to ensure an aesthetic appearance.

*Crops for Human Consumption*—crops grown for human consumption that are not processed to minimize pathogens before they are distributed to consumers.

*Curing Area*—an area where organic material that has undergone the rapid initial stage of composting is further stabilized into a humus-like material.

*Current Assets*—cash, other assets, or resources commonly identified as those that are reasonably expected to be realized in cash, sold, or consumed during the normal operating cycle of the business.

*Current Liabilities*—obligations whose liquidation is reasonably expected to require the use of existing resources, properly classifiable as current assets, or the creation of other current liabilities.

*Daily Cover*—cover material applied at the end of the operating day to a unit, the working face of a unit, or a facility. (If earthen, cover will consist of a minimum of six inches of cover material).

*Department*—the Department of Environmental Quality as created by R.S. 30:2001 et seq.

*Disease Vector*—animals such as rodents, fleas, flies, mosquitoes, and other arthropods that are capable of transmitting diseases to humans.

*Displacement*—the relative movement of any two sides of a fault measured in any direction.

*Disposal*—the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste on or into any land or water so that such solid waste, or any constituent thereof, may have the potential for entering the environment or being emitted into the air or discharged into any waters of Louisiana.

*Ditch*—an earthen trench or excavation principally used to convey wastewaters without regard to whether solids settling or treatment of wastewater occurs therein.

*Emergency Exemption*—a special authorization issued to a person by the administrative authority that allows freedom from obligation to these regulations or any portion thereof for a specified period of time, owing to emergencies such as strikes or acts of God.

*Estimated Life of Facility*—the length of time a solid waste facility is capable of accepting wastes, based on its current permit or permit application.

*Exemption*—a special authorization issued to a person by the administrative authority that allows freedom from obligation to these regulations or a portion thereof.

*Existing Facility*—any facility (as defined in this Subsection) that receives solid waste or that exists or is being constructed on February 20, 1993, that does or will store, process, or dispose of solid wastes. (Facilities closed prior to January 20, 1981, or facilities that have completed the closure/post closure requirements prior to February 20, 1993, are not considered existing facilities.)

*Existing Operation*—any solid waste operation that manages, collects, stores, processes, or receives solid waste that exists or that is being constructed on February 20, 1993. (Operations closed prior to January 20, 1981, or operations that have completed the closure and/or post closure requirements prior to February 20, 1993, are not considered existing operations.)

*Facility*—actual land and associated appurtenances used for storage, processing, and/or disposal of solid wastes, but possibly consisting of one or more units. (Any earthen ditches leading to or from a unit of a facility and that receive solid waste are considered part of the facility to which they connect, except for ditches lined with materials capable of preventing groundwater contamination. The term facility does not necessarily mean an entire industrial manufacturing plant.)

*Fault*—a fracture or a zone of fractures in any material along which strata on one side have been displaced with respect to those on the other side.

*Final Cover*—cover material that is applied to minimize the infiltration of precipitation in a facility and revegetated to control erosion.

*Flood Plain*—the lowland and relatively flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands, that are inundated by the 100-year flood.

*Food-Chain Crops*—crops grown for human consumption, tobacco, and crops grown to feed animals that are consumed by humans.

*Freeboard*—the vertical distance between the lowest point of the top of a facility levee and the surface of the liquid waste contained therein.

*Freshwater Aquifer*—an aquifer containing water with quantities of total dissolved solids of less than 10,000 mg/L that is capable of yielding usable quantities of groundwater to drinking-water wells, industrial pumps, springs, or streams.

*Friable Asbestos Waste*—waste containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.

*Garbage*—solid waste that includes animal and vegetable matter from the handling, preparation, cooking, and serving of foods, but that does not include industrial solid waste.

*Generator*—any person whose act or process produces solid waste as defined in these regulations.

*Geotechnical Borehole*—an exploratory borehole drilled, augered, bored, or cored to obtain soil samples to be analyzed for chemical and/or physical properties.

*Groundwater*—water below the land surface in the zone of saturation.

*Hazardous Waste*—waste identified as hazardous in the current Louisiana hazardous waste regulations (LAC 33:V) and/or by the federal government under the Resource Conservation and Recovery Act and subsequent amendments.

*Holocene*—the most recent epoch of the Quaternary period, extending from the end of the Pleistocene Epoch to the present.

*Implement*—to carry out, accomplish, and ensure actual fulfillment by specific means or by providing instruments or means of accomplishment.

*Implementation Schedule*—a timetable for completing a predetermined implementation plan.

*Impoundment*—see *Surface Impoundment*.

*Inactive (or Abandoned) Facility*—a solid waste storage, processing, or disposal facility that no longer receives solid waste and has not been closed in accordance with Louisiana solid waste regulations.

*Incinerator*—any enclosed device using controlled-flame combustion that neither meets the criteria for classification as a boiler nor is listed as an industrial furnace and is not a boiler nor an industrial furnace as defined in LAC 33:V.109.

*Incinerator Ash*—residual solid waste that has been received, thermally oxidized, and/or decomposed by an incinerator.

*Incinerator Waste-Handling Facility*—a facility that processes solid waste that has been received, thermally oxidized, and/or decomposed by an incinerator.

*Incorporation into Soil*—the injection of solid waste beneath the surface of soil or the mixing of solid waste with the surface soil.

*Industrial Establishment*—a business, including its structures and property, that is involved in the production or manufacture of goods or commodities.

*Industrial Solid Waste*—solid waste generated by a manufacturing, industrial, or mining process or that is contaminated by solid waste generated by such a process. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power

generation; fertilizer/agricultural chemicals; food and related products; by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; and transportation equipment. This term does not include hazardous waste regulated under the Louisiana hazardous waste regulations or under federal law, or waste that is subject to regulation under the Office of Conservation's Statewide Order No. 29-B or by other agencies.

*Industrial Solid Waste Facility*—a facility for the processing, storage, and/or disposal of industrial solid waste.

*Infectious Waste*—waste that contains pathogens of sufficient virulence and quantity that exposure to it could result in an infectious disease in a susceptible host.

*Initial Promulgation*—the date on which the Louisiana Solid Waste Management Program first became effective, January 20, 1981.

*Interim Compacted Cover*—a minimum of 2 feet of compacted silty or sandy clay.

*Interim Cover*—a minimum of 1 foot of soil that is applied to a portion of a unit or a facility.

*Isopach*—a line drawn on a map through points of equal true thickness of a designated stratigraphic unit or group of stratigraphic units.

*Isopach Map* —a map that shows the thickness of a bed, formation, sill, or other tabular body throughout a geographic area by means of isopachs at regular intervals.

*Karst Terranes*—areas where karst topography, with its characteristic surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terranes include, but are not limited to, sinkholes, sinking streams, caves, large springs, and blind valleys.

*Landfarm*—a facility for the disposal of solid wastes in which wastes are applied to the land and/or incorporated into the soil for biological reduction and soil attenuation.

*Landfill*—a facility for the disposal of solid waste, other than landfarm(s) or surface impoundment(s), that disposes of solid waste by placing it on or into the land surface and usually also compacting and covering with suitable cover material to a depth and at a frequency sufficient to control disease vectors and odors and in a manner that protects human health and the environment.

*Leachate*—a liquid that has passed through or emerged from solid waste and may contain soluble, suspended, or miscible materials removed from such wastes.

*Leak-Detection Well*—a well used to determine the escape of liquids from a permitted solid waste facility.

*Liabilities*—probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

*Liner*—layer or layers of material(s) beneath and on the sides of a solid waste disposal facility that are designed to restrict the escape of wastes or their constituents from the facility.

*Liquid Waste*—any waste material that is determined to contain "free liquids" as defined by Method 9095 (Paint Filter Liquids Test), as described in "Test Methods of Evaluating Solid Wastes, Physical/Chemical Methods," EPA Publication SW-846.

*Lithified Earth Material*—all rock, including all naturally occurring and naturally formed aggregates or masses of minerals or small particles of older rock that formed by crystallization of magma or by induration of loose sediments. This term does not include manmade materials, such as fill, concrete, and asphalt, or unconsolidated earth materials, soil, or regolith lying at or near the earth's surface.

*Litter*—exposed solid waste outside the active portion of a unit of a facility.

*Lower-Explosive Limit*—the lowest percent by volume of a mixture of explosive gases in the air that will propagate a flame at 25° C and atmospheric pressure.

*Major Modification*—any change in a site, facility, process or disposal method, or operation that substantially deviates from the permit or tends to substantially increase the impact of the site, facility, process or disposal method, or operation on the environment.

*Mandatory Modification*—any change in a site, facility, unit, process or disposal method, or operation that is required as a result of these regulations.

*Mandatory Modification Document*—a document submitted by existing facilities in conformance with LAC 33:VII.502 that applies for a mandatory modification and that amends or adds to each portion of the permit at issue so that the permit meets the requirements of these regulations. The document must conform to the requirements for permit modifications found in LAC 33:VII.507.

*Manure*—a solid waste composed of excreta of animals and any residual materials that have been used for bedding, sanitary, or feeding purposes for such animals.

*Maximum Horizontal Acceleration in Lithified Earth Material*—the maximum expected horizontal acceleration depicted on a seismic hazard map, with a 90 percent or greater probability that the acceleration will not be exceeded in 250 years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment.

*Mesophilic Stage*—a biological stage in the composting process characterized by active bacteria that favor a moderate temperature range of 20° to 45° C. It occurs later in the composting process than the thermophilic stage and is associated with a moderate rate of decomposition.

*Minor Modification*—any modification that does not meet the criteria for a major modification.

*Modification*—any change in a site, facility, unit, process or disposal method, or operation that deviates from the specifications in the permit. Routine or emergency maintenance that does not cause the facility to deviate from the specifications of the permit is not considered a modification.

*Monitoring Well*—a well used to obtain hydraulic and/or water-quality data and to satisfy regulatory requirements for groundwater monitoring at regulated units, which is usually installed at or near a known or potential source of groundwater contamination.

*Municipal Solid Waste Landfill or MSW Landfill*—an entire disposal facility in a contiguous geographical space where residential solid waste or commercial solid waste is placed in or on land.

*Net Worth*—total assets minus total liabilities and equivalent to the person's equity.

*Observation Well*—a well used to obtain information on the water resources of an area.

*Off-Site Processing/Disposal Area*—a location for the processing and/or disposal of solid waste that is not on the generator's site.

*100-Year Flood*—a flood that has a 1 percent or greater chance of occurring in any year or a flood of a magnitude equaled or exceeded once in 100 years on average over a significantly long period.

*On-Site Processing/Disposal Area*—the land area and appurtenances thereon used for processing and/or disposal of solid waste on the same property, or on geographically contiguous property, where waste is generated. Two or more pieces of property that are geographically contiguous, but divided by public or private right(s)-of-way are considered a single site.

*Open Burning*—the combustion of solid waste without control of combustion air to maintain adequate temperature for efficient combustion, containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion, and control of the emission of the combustion products.

*Open Dump*—a solid waste processing or disposal facility that has been issued a temporary permit and may not comply with the standards set by these regulations.

*Operating Area*—the portion of a facility that is actively involved in the storage, processing, or disposal of solid waste.

*Order Authorizing Commencement of Operations*—a written authorization issued by the administrative authority after a permit holder has completed all upgrading measures or completed construction measures, provided the required certification and a successful initial start-up inspection has been conducted by a representative of the department.

*Parent Corporation*—a corporation that directly owns at least 50 percent of the voting stock of the corporation that is the facility permit holder; the latter corporation is deemed a "subsidiary" of the parent corporation.

*Permit*—a written authorization issued by the administrative authority to a person for the construction, installation, modification, operation, closure, or post closure of a certain facility used or intended to be used to process or dispose of solid waste in accordance with the act, these regulations, and specified terms and conditions.

*Permittee/Permit Holder*—a person who is issued a permit and is responsible for meeting all conditions of the permit and these regulations at a facility.

*Person*—an individual, trust, firm, joint-stock company, corporation (including a government corporation), partnership, association, state, municipality, commission, political subdivision of the state, interstate body, or the federal government or any agency of the federal government.

*pH*—the logarithm of the reciprocal of hydrogen-ion concentration.

*Pickup Station*—a facility, at which one or more containers are located, which is used to accumulate industrial solid waste or to accumulate solid waste generated by more than one household or commercial establishment for pickup by a transporter. This definition does not include containers that receive only solid waste generated on property that is contiguous with the property on which the container is located (e.g., containers located at and receiving solid waste only from a multiunit dwelling, a commercial establishment, or an industrial establishment.)

*Piezometer*—a well with the sole function of determining groundwater elevation.

*Pilot Hole*—a hole drilled with the intent to install casing and to produce water. It is usually of a smaller diameter than the proposed well and has to be reamed to a larger diameter for the installation of a casing and screen.

*Poor Foundation Conditions*—those areas where features exist that indicate that a natural or man-induced event may result in inadequate foundation support for the structural components of a facility.

*Potable Water*—water with bacteriological, physical, and chemical properties that make it suitable for human consumption.

*Potentiometric Surface*—the surface that represents the static head with reference to a specified datum, such as the National Geodetic Vertical Datum (NGVD). As the term relates to aquifers, it is defined by the levels to which water will rise in tightly cased wells.

*Practice(s)*—act(s) of storing, processing, collecting, transporting, or disposing of solid wastes.

*Process*—a method or technique, including recycling, recovering, compacting (but not including compacting that occurs solely within a transportation vehicle), composting, incinerating, shredding, baling, recovering resources, pyrolyzing, or any other method or technique designed to change the physical, chemical, or biological character or composition of a solid waste to render it safer for transport, reduced in volume, and amenable for recovery, storage, reshipment, or resale. The definition of process does not include treatment of wastewaters to meet state or federal wastewater discharge permit limits. Neither does the definition include activities of an industrial generator to simply separate wastes from the manufacturing process.

*Promiscuous Dump*—a solid waste disposal facility that has resulted from disposal activities of persons other than the landowner and whose operation is not permitted by the administrative authority.

*Putrescible*—susceptible to rapid decomposition by bacteria, fungi, or oxidation, creating noxious odors.

*Reclassified Waste*—a particular solid waste that the administrative authority has determined is no longer classified as a hazardous waste subject to regulation under the Louisiana hazardous waste regulations. Such wastes are "reclassified" as solid waste and are subject to regulation under these regulations.

*Recovery Well*—a well used to remove groundwater that has been determined to be contaminated.

*Refuse-Derived Fuel*—fuel processed from combustible solid waste.

*Refuse-Derived Fuel Facility*—a solid waste facility where fuel is processed from combustible solid waste.

*Residence*—a single or multiunit dwelling, whether owned, leased, or rented by its occupant(s).

*Residential Solid Waste*—any solid waste (including garbage, trash, and sludges from residential septic tanks and wastewater treatment facilities) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

*Resource Recovery*—the process by which solid waste that retains useful physical or chemical properties is reused or recycled for the same or other purposes, including uses as energy sources.

*Runoff*—any rainwater, leachate, or other liquid that drains from any part of a facility.

*Run-On*—any rainwater or other liquid that drains onto any part of a facility.

*Salvaging*—the controlled removal of waste materials for later use.

*Sanitary Landfill*—a landfill for the disposal of commercial or residential solid waste by deposit in a landfill in layers covered with suitable cover material of a depth and at a frequency adequate to control disease vectors and odors, and in such a manner that minimizes the risk to human health and the environment. It is located, contoured, and designed so that it will not constitute a source of water pollution.

*Scavenging*—unauthorized removal of solid waste materials from a disposal or processing facility.

*Seismic-Impact Zone*—an area with a 10 percent or greater probability that the maximum horizontal acceleration in lithified earth material, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10 g in 250 years.

*Separation Facility*—a solid waste facility at which recyclables are separated from the solid waste stream for future use.

*Septage*—the contents of a septic tank, cesspool, or other individual sewage-treatment facility that receives domestic-sewage wastes.

*Service Area*—the geographic area serviced by a solid waste facility in which solid waste is generated, collected, and transported for delivery to that solid waste facility.

*Sewage Sludge*—sludge resulting from treatment of wastewater from publicly or privately owned or operated sewage-treatment plants.

*Shredder*—a solid waste facility that reduces the particle size of solid waste by grinding, milling, shredding, or rasping.

*Site*—the physical location, including land area and appurtenances, of an existing or proposed storage, processing, or disposal facility. A site may consist of a number of facilities, each subject to a permit to process or dispose of solid waste.

*Sludge*—residue produced by or precipitated from a treatment process.

*Soil pH*—a pH value obtained by sampling the soil to the depth of cultivation or solid waste placement. Test methodologies shall be in accordance with "Test Methods for Evaluation of Solid Wastes, Physical/Chemical Methods," EPA Publication SW-846.

*Solid Waste*—any garbage, refuse, or sludge from a wastewater-treatment plant, water-supply treatment plant, or air pollution-control facility, and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities. *Solid waste* does not include solid or dissolved material in domestic sewage; solid or dissolved materials in irrigation-return flows; industrial discharges that are point sources subject to permits under R.S. 30:2075; source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954 (68 Stat. 923 et seq.), as amended; or hazardous waste subject to permits under R.S. 30:2171 et seq.

*Solid Waste Management System*—the entire process of collection, transportation, storage, processing, and disposal of solid waste by any person engaged in such process as a business or by any municipality, authority, trust, parish, or any combination thereof.

*Spill*—any unauthorized discharge or release of solid waste into or onto the land, air, or water.

*Stabilize (Compost)*—compost that has at least passed through the thermophilic stage and in which biological decomposition of the solid waste has occurred to a sufficient degree to allow beneficial use.

*Standard Permit*—written authorization issued by the administrative authority to an applicant who has successfully completed the permit application process for a processing or disposal facility.

*Storage*—the containment of solid waste on surfaces capable of preventing groundwater contamination in a means not constituting processing or disposal.

*Structure Contour Map* – a map depicting lines drawn through points of equal elevation on a stratum, key bed, or horizon in order to depict the attitude of the rocks.

*Surface Application*—placement of solid waste onto a landfarm without incorporating it into the soil.

*Surface Impoundment*—a facility consisting of a natural topographic depression, manmade excavation, or diked area formed primarily of earthen materials (although it may be lined with manmade materials), designed to hold an accumulation of liquid waste and/or sludge, that is not an injection well, landfarm, landfill, or tank. Runoff and containment areas (ROCAs) of landfarms are considered to be surface impoundments.

*Surface-Recharge Zone*—an area where a formation or formations that compose an aquifer intersect the land surface and receive water from percolation, precipitation, or surface-water bodies.

*Tangible Net Worth*—the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents and royalties.

*Tank*—a stationary device designed to contain an accumulation of solid waste and constructed of nonearthen materials that provide structural support. The term *tank* does not include underground storage tanks as defined by the underground storage tank rules and regulations (LAC 33:XI).

*Temporary Permit*—a written authorization issued by the administrative authority, for a specific amount of time, to a person for the construction, installation, closure, or post closure of a particular facility used or intended to be used for processing or disposing of solid waste in accordance with the act, these regulations, and specified terms and conditions.

*Thermophilic Stage*—a biological stage in the composting process characterized by active bacteria that favor a high temperature range of 45° to 75° C. It occurs early in the composting process, before the mesophilic stage, and is associated with a high rate of decomposition.

*Test Hole*—an exploratory borehole drilled to obtain geologic, hydrologic, or water-quality data.

*Topsoil*—the surface layer of soil, capable of promoting growth of vegetation.

*Toxicity Characteristic Leaching Procedure (TCLP)*—a method to determine if a waste exhibits hazardous characteristics, conducted in accordance with LAC 33:V.

*Transfer Station*—a solid waste processing facility where solid waste is transferred from collection vehicles and placed in other vehicles for transportation.

*Transport*—to move industrial solid waste off-site and/or to move solid waste of a commercial establishment or more than one household to a storage, processing, or disposal facility.

*Transporter*—any person who moves industrial solid waste off-site and/or who moves solid waste of a commercial establishment or more than one household to a storage, processing, or disposal facility.

*Trash*—nonputrescible refuse, including white goods, furniture, and wood and metal goods.

*Treatment Zone*—the depth in the soil of a landfarm into which solid waste has been incorporated and additional depths to which decomposition is occurring based on site-specific conditions.

*Type (of Waste)*—a category of waste in a general classification, defined for solid waste management purposes (e.g., commercial, industrial, residential).

*Type I Facility*—a facility used for disposing of industrial solid wastes. (If the facility is also used for disposing of residential or commercial solid waste, it is also a Type II facility).

*Type I-A Facility*—a facility used for processing industrial solid waste (e.g., transfer station, incinerator waste-handling facility, shredder, baler, or compactor). (If the facility is also used for processing residential or commercial solid waste, it is also a Type II-A facility).

*Type II Facility*—a facility used for disposing of residential or commercial solid waste. (If the facility also is used for disposing of industrial solid waste, it is also a Type I facility).

*Type II-A Facility*—a facility used for processing residential, infectious, or commercial solid waste (e.g., transfer station, incinerator waste-handling facility, refuse-derived fuel facility, shredder, baler, autoclave, or compactor). (If the facility is also used for processing industrial solid waste, it is also a Type I-A facility).

*Type III Facility*—a facility used for disposing or processing of construction/demolition debris or woodwaste, composting organic waste to produce a usable material, or separating recyclable wastes (a separation facility). Residential, commercial, or industrial solid waste must not be disposed of or processed in a Type III facility.

*Unauthorized Discharge*—a continuous, intermittent, or one time discharge, whether intentional, anticipated, or unanticipated, from any source, permitted or unpermitted, which is in contravention of any provision of the act or of any permit or license terms and conditions or of any applicable regulation, compliance schedule, variance, or exemption of the administrative authority.

*Unauthorized Dump*—a solid waste disposal facility whose operation is not authorized by the administrative authority.

*Unit of a Facility*—designated area of a facility wherein solid waste is, has been, or will be processed, stored, or disposed of.

*Unstable Area*—a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the landfill structural components responsible for preventing releases from a landfill. Unstable areas can include poor foundation conditions, areas susceptible to mass movement, and Karst terranes.

*Uppermost Aquifer*—the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

*Uppermost Water-Bearing Permeable Zone*—any relatively permeable zone, other than the uppermost aquifer, that may act as a potential contaminant pathway.

*Vector*—see *Disease Vector*.

*Water Table*—the upper surface of the zone of saturation at which the pressure is equal to the atmospheric pressure.

*Wetlands*—those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

*White Goods*—discarded domestic and commercial appliances, such as refrigerators, ranges, washers, and water heaters.

*Woodwaste*—yard trash and types of waste typically generated by sawmills, plywood mills, and woodyards associated with the lumber and paper industry, such as wood residue, cutoffs, wood chips, sawdust, wood shavings, bark, wood refuse, wood-fired boiler ash, and plywood or other bonded materials that contain only phenolic-based glues or other glues that are approved specifically by the administrative authority. Treated or painted lumber is not considered woodwaste under this definition.

*Working Face*—that portion of a landfill where waste is currently being added during the operating day.

*Yard Trash*—vegetative matter resulting from landscaping, maintenance, or land-clearing operations, including tree and shrubbery leaves, limbs, stumps, grass clippings, and flowers.

*Zone of Incorporation*—the depth to which solid waste has been incorporated into the soil of a landfarm.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **Chapter 3. Applicability, Scope, and Mandatory Provisions of the Program**

#### **§301. Wastes Governed by These Regulations**

A. All solid wastes as defined by the act and these regulations are subject to the provisions of these regulations, except as provided in these regulations.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**§302. Wastes Not Governed by the Regulations**A. The following wastes are not subject to the provisions of these regulations:

1. wastes regulated under other authority and not processed or disposed of in solid waste facilities permitted under these regulations, including but not limited to, the following wastes:

a. agricultural-crop residues, aquacultural residues, silvicultural residues, and other agricultural wastes stored, processed, or disposed of on the site where the crops are grown or that are stored, processed, or disposed in accordance with a best management practice plan that has been provided to the Office of Environmental Services, Permits Division and approved, in writing, by the Department of Agriculture and within the jurisdiction of the Department of Agriculture;

b. mining overburden, spoils, tailings, and related solid wastes within the jurisdiction of the Department of Natural Resources, Office of Conservation;

c. produced-waste fluids and muds resulting from the exploration for or production of petroleum and geothermal energy, and all surface and storage waste facilities incidental to oil and gas exploration and production within the jurisdiction of the Department of Natural Resources, Office of Conservation;

d. uncontaminated dredge or earthen excavation spoil;

e. solid wastes while they are stored at residences or commercial establishments and regulated by local ordinance or within the jurisdiction of the Department of Health and Hospitals;

f. uncontaminated residues from beneficiation of earthen material;

g. uncontaminated stormwater and uncontaminated noncontact cooling water; and

h. infectious waste or other hospital or clinic wastes that are not processed or disposed of in solid waste processing or disposal facilities permitted under these regulations; and

2. wastes excluded by definition of solid waste in the act and/or as otherwise specified in the act, including:

a. hazardous wastes subject to regulation under R.S. 30:2171 et seq.;

b. solid or dissolved material in domestic sewage (such as domestic-oxidation ponds), except separated sludges;

c. solid or dissolved materials in irrigation-return flow;

d. discharges that are downstream from point sources subject to permit under R.S. 30:2075, except waste contained in solid waste facilities prior to the final discharge point. However:

i. wastewaters in existing ditches that are downstream of a designated internal state or federal wastewater discharge point are exempt from the definition of solid waste if they require no further treatment to meet final state or federal wastewater discharge point permit limits or if they require only pH adjustment to meet final pH permit limits or suspended solids settling specifically to meet final total suspended solids permit limits;

ii. wastewaters in existing ditches upstream of a designated final state or federal wastewater discharge point that require no further treatment to meet final state or federal permit limits or that only require pH adjustment to meet final pH permit limits or solids settling specifically to meet total suspended solids permit limits are exempt from the definition of solid waste;

iii. solids or sludges in ditches are exempt from the definition of solid waste until such time as such solids or sludges are removed from the ditches for disposal, provided however, that this exclusion from the definition of solid waste only applies to solids and sludges derived from wastewaters described in Subsection A.2.d.i and ii of this Section; and

iv. the administrative authority reserves the right to withdraw the exemption for wastewaters in Subsection A.2.d.i and ii of this Section if the wastewaters contribute to groundwater contamination;

e. source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.);

f. compost produced by an individual for his own use, as provided in R.S. 30:2416.G; and

g. automotive fluff resulting from the shredding of automobiles by scrap metal recycling facilities and from which metals have been recovered, as provided in R.S. 30:2153(1)(b)(iv).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

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

A. Solid wastes listed in this Section 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. This includes the following solid wastes:

1. wastes resulting from land and right-of-way clearing (trees, stumps) and processed or disposed of on the site where generated;

2. solid wastes in facilities that have been closed in a manner acceptable to the administrative authority prior to January 20, 1981. (This Subsection is not intended to require permitting of any facilities that have been closed in a manner acceptable to the administrative authority and that remain closed.);

3. waste papers, metals, plastics, and glass that are presorted to be recycled or reused and not destined for disposal;

4. uncontaminated earthen materials such as limestone, clays, sands, clamshells, river silt, and uncontaminated residues from beneficiation of earthen materials;

5. brick, stone, reinforced and unreinforced concrete, and asphaltic roadbeds;

6. sludges resulting from the treatment of water at public or privately owned water-supply treatment plants;

7. petroleum-refining catalysts and other materials utilized as feedstocks that are managed at a facility in order to recover these wastes for further use;

8. agricultural wastes, including manures, that are removed from the site of generation by an individual for his own personal use on land owned or controlled by the individual. The amount of wastes covered by this exemption shall not exceed 10 tons per year (wet weight) per individual per use location;

9. solid wastes that are treated or disposed of in a hazardous waste treatment or disposal facility that is regulated under LAC 33:Part V;

10. woodwastes that are beneficially-used in accordance with a best management practice plan approved, in writing, by the Louisiana Department of Agriculture and submitted to the Office of Environmental Services, Permits Division, provided the following requirements are met:

a. the generator must notify the Office of Environmental Services, Permits Division of such activity at each site in accordance with LAC 33:VII.401; and

b. the generator must submit to the Office of Management and Finance, Financial Services Division a disposer annual report in accordance with the standards in LAC 33:VII.1109, which reports amounts of woodwastes beneficially-used at each site;

11. 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:VII.Chapter 11 and approved by the administrative authority;

12. infectious waste that is generated by individuals in a residence, or by health care services that provide medical treatment to individuals at home, provided that these wastes are retained by the patient for processing or disposal; and

13. 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., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§305. Facilities Not Subject to the Permitting Requirements or Processing or Disposal Standards of These Regulations**

A. The following facilities that are operated in an environmentally sound manner are not subject to the permitting requirements or processing or disposal standards of these regulations:

1. incinerators that receive only on-site-generated commercial solid waste and that have a design rate of no more than 250 pounds per hour and an operating rate that does not exceed the design rate;

2. shredders, autoclaves, balers, and compactors, when used for recycling, that receive no waste volume from off-site sources;

3. facilities that process or reuse on-site-generated, nonhazardous, petroleum-contaminated media and debris from underground storage tank corrective action, provided such processing or reuse is completed in less than 12 months and authorized by the underground storage tank regulations;

4. construction/demolition-debris disposal facilities at industrial sites that receive only on-site-generated construction/demolition-debris, provided the following requirements are met:

a. the facility must notify the Office of Environmental Services, Permits Division of such activity in accordance with LAC 33:VII.401; and

b. the facility must submit to the Office of Management and Finance, Financial Services Division a disposer annual report in accordance with the standards for construction/demolition-debris disposal facilities found in LAC 33:VII.727;

5. solid waste injection wells that are under the jurisdiction of the Department of Natural Resources. However, any storage, processing, or disposal (not including injection) incidental to such injection wells is subject to these regulations;
6. industrial facilities that process solid waste by nondestructive and nonthermal means on the site where the waste is generated (i.e., none of the waste is from off-site sources);
7. secondary containment systems (e.g., sumps or dikes) that are designed and operated to contain nonroutine spill events (i.e., do not routinely receive solid waste except for de minimus spillage) from manufacturing or product storage areas within an industrial establishment. This exemption does not include secondary containment systems for solid waste disposal units;
8. woodwaste facilities at which only woodwaste is disposed of on property owned by the generator of the woodwaste, provided the following requirements are met:
  - a. the facility must notify the Office of Environmental Services, Permits Division of such activity in accordance with LAC 33:VII.401;
  - b. the facility must submit to the Office of Management and Finance, Financial Services Division a disposer annual report in accordance with the standards for woodwaste disposal facilities in LAC 33:VII.709;
  - c. the facility must comply with applicable Louisiana water pollution control regulations (LAC 33:IX); and
  - d. the facility must comply with the perimeter barrier, security, and buffer zone requirements in LAC 33:VII.703.A;
9. facilities at which only woodwastes resulting from utility right-of-way clearing are received, provided the following conditions are met:
  - a. the facility property must be controlled by the utility company that generates the woodwaste;
  - b. the facility must comply with the natural or manmade perimeter barrier and security requirements in LAC 33:VII.703.A.2;
  - c. the facility must not receive solid waste from any source other than the utility company (or its authorized contractors) that generates the waste;
  - d. the facility must notify the Office of Environmental Services, Permits Division of its activities in accordance with LAC 33:VII.401;
  - e. the facility must submit to the Office of Management and Finance, Financial Services Division a disposer annual report that accurately estimates volumes of waste disposed in accordance with the standards for woodwaste disposal facilities found in LAC 33:VII.709; and
  - f. the facility must comply with applicable Louisiana water quality regulations (LAC 33:IX);
10. ditches that receive nonroutine spillage (i.e., do not routinely receive solid waste except for de minimus spillage) from manufacturing or product storage areas within an industrial establishment. This exemption does not include ditches for solid waste disposal units such as landfills, landfarms, or surface impoundments;
11. recycling facilities, as described in LAC 33:VII.303.A.3, that receive only source separated recyclables;

12. hospitals and other health care facilities that store or treat regulated infectious waste generated on-site or that accept waste from off-site wholly or partly owned subsidiaries;

13. facilities on which there is burning of leaves, grass, twigs, branches, and vines by a private property owner on his own property for noncommercial purposes in parishes with a population of 300,000 or less, provided the property owner attends the burning of yard waste at all times. The facility must comply with all applicable air quality local, state, and federal regulations. This exception shall not apply in the parish of East Baton Rouge; and

14. facilities on which there is burning of trees, brush, grass, or other vegetable matter in any parish having a population of 90,000 or less, provided the location of the burning is not within the territorial limits of a city or town or adjacent to a city or town in such proximity that the ambient air of the city or town will be affected by smoke from the burning. The facility must comply with all applicable air quality local, state, and federal regulations.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§307. Exemption Requests**

A. Any person subject to these regulations who generates, collects, stores, transports, processes, or disposes of solid waste may petition the administrative authority for exemption from these regulations or any portion thereof.

1. The administrative authority may provide exemptions from these regulations, or any portion thereof, when petitions for such are deemed appropriate after consideration of the factors enumerated in Subsection B.2.a and b of this Section, as well as any other pertinent factors.

2. The administrative authority shall make a decision whether or not to grant the exemption requested within 180 days from the date on which the request for exemption was filed, unless a longer time period is agreed upon by mutual consent of the applicant and the administrative authority. In no case shall the time period be greater than one year.

B. Each request for an exemption must:

1. identify the specific provisions of these regulations from which a specific exemption is sought;

2. provide sufficient justification for the type of exemption sought, which includes, but may not be limited to, the following demonstrations:

a. that compliance with the identified provisions would tend to impose an unreasonable economic, technologic, or safety burden on the person or the public; and

b. that the proposed activity will have no significant adverse impact on the public health, safety, and welfare and the environment and that it will be consistent with the provisions of the act; and

3. include proof of publication of the notice as required in Subsection C.1 of this Section, except for emergency exemptions.

C. Public Notification of Exemption Requests

1. Persons requesting an exemption shall publish a notice of intent to submit a request for an exemption, except as provided in Subsection C.2 of this Section. This notice shall be

published one time as a single classified advertisement measuring three columns by five inches in the legal notices section of a newspaper of general circulation in the area and parish where the facility is located, and one time as a classified advertisement in the legal notices section of the official journal of the state. If the facility is in the same parish or area as the official journal of the state, a single classified advertisement measuring three columns by five inches, in the legal notices section of the official journal of the state, will be the only public notice required.

2. Persons granted emergency exemptions by the administrative authority shall publish a notice to that effect in the legal notices section of a newspaper of general circulation in the area and parish where the facility requesting the exemption is located. The notice shall be published one time as a single classified advertisement measuring three columns by five inches in the legal notices section of a newspaper of general circulation in the area and parish where the facility is located, and one time as a classified advertisement in the legal notices section of the official journal of the state. The notice shall describe the nature of the emergency exemption and the period of time for which the exemption was granted. Proof of publication of the notice shall be forwarded to the Office of Environmental Services, Permits Division within 60 days after the granting of an emergency exemption.

D. Innovative or Alternate Technology Exemption. Persons requesting an exemption based on innovative or alternate technology shall follow the procedure specified in Subsections A, B, and C, except for B.2.a of this Section. Requests for exemptions based on innovative technology may be granted by the administrative authority based on the ability of the applicant to make the following demonstrations:

1. the request is based on innovative or alternative technology;
2. the innovative or alternative technology must satisfy all of the applicable standards in LAC 33:VII other than those for which the exemption is sought; and
3. the innovative or alternative technology must produce performance or provide protection that is equivalent or superior to that required by all the standards for which the exemption is sought.

E. No exemptions shall be granted for Type II landfills that would allow noncompliance with federal regulations, specifically 40 CFR 257 and 258, as amended on October 9, 1991.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§309. Mandatory Provisions**

A. Generating, Collecting, Transporting, Storing, Processing, and Disposing of Solid Waste. Solid waste shall be generated, collected, transported, stored, processed, and disposed of only in accordance with these regulations.

B. Storage of Wastes. No solid waste shall be stored or allowed to be stored in such a manner that it may cause a nuisance or health hazard, as determined by the administrative authority.

C. Access to Facilities. The administrative authority or his representative shall have access to the premises of all facilities used for the management of solid waste for all purposes authorized under R.S. 30:2154 et seq., particularly R.S. 30:2012. These inspections are usually conducted during normal operating hours; however, the department reserves the right to conduct inspections before and

after operating hours. Upon request of the operator or permit holder, the administrative authority or his representative shall discuss the preliminary findings of any such investigation before leaving the premises.

D. Reporting of Unauthorized Discharge. Any discharge, deposit, injection, spill, dumping, leaking, or placing of solid waste into or on the water, air, or land of the state in contravention of the act, these regulations, or the terms and conditions of a permit issued thereunder, or any accident, fire, explosion, or other emergency that results in such unauthorized solid waste discharge, shall be reported by any person causing, allowing, or suffering said discharge or by any person with knowledge of the discharge to the department, as required by the notification regulations and procedures for unauthorized discharges (LAC 33:I.Chapter 39).

E. Cleanup of Unauthorized Discharge. The cleanup, isolation, removal, or otherwise rendering safe of solid waste processed or disposed of in a manner not authorized by these regulations, or at a facility not permitted to receive such wastes, shall be conducted in accordance with the terms and conditions of any order issued by the administrative authority. Such orders shall not preclude other enforcement action under R.S. 30:2025.

F. Notice of Damage to Structures in a Solid Waste Facility. The Office of Environmental Compliance shall be notified within 48 hours by telephone at (225) 763-3908 during office hours; (225) 342-1234 after hours, weekends, and holidays; or by e-mail utilizing the Incident Report Form and procedures found at [www.deq.state.la.us](http://www.deq.state.la.us) or other means of communication when damage to or degradation of any structure of a solid waste facility occurs that would impair the ability of the facility to meet the conditions of its permit.

G. Hazardous or Nuclear Wastes in Solid Waste Facilities. No hazardous waste or nuclear material regulated under the Louisiana hazardous waste rules and regulations or Louisiana radiation regulations shall be processed or disposed of at a solid waste facility except in conformance with those regulations. Collectors, transporters, processors, and disposers of solid waste must determine, according to approved methods, that the waste is not hazardous before collecting, transporting, processing, or disposing of it.

H. Compliance with Other Regulations. All facilities may be subject to applicable federal and state laws and regulations, including but not limited to, Section 402 (NPDES) and Section 404 (Dredge and Fill) of the Clean Water Act; the Coastal Zone Management Act and Federal Aviation Administration regulations; the National Historic Preservation Act of 1966, as amended; the Endangered Species Act; the Wild and Scenic Rivers Act; the Fish and Wildlife Coordination Act; the Clean Air Act; the Toxic Substances Control Act; the Marine Protection Research and Sanctuary Act; the Resource Recovery and Conservation Act; and the Federal Insecticide, Fungicide, and Rodenticide Act.

I. Contamination of the Waters of the State. No person(s) shall cause, allow, or permit solid waste to be disposed of in such a manner that it enters the waters of the state. This does not apply to discharges into waters of the state in accordance with state or federal wastewater-discharge permits.

J. Open burning of solid waste is prohibited, except as otherwise provided in these regulations.

K. Spent Bauxite Waste and By-Product Gypsum and Related Wastes

1. The administrative authority may give special consideration to landfills that receive only by-product gypsum and related wastes (resulting from the production of phosphoric acid, phosphate fertilizers, and hydrofluoric acid), which is generated on-site, with regard to standards for

receipt of liquid waste, standing water, specific design and operation of liners and leachate collection and removal systems, daily cover, and final cover, which may include waiver or modification of these standards.

2. The administrative authority may give special consideration to surface impoundments that receive only spent bauxite waste and related wastes (resulting from production of alumina), which is generated on-site, with regard to standards for liners and final cover, which may include waiver or modification of these standards.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§311 – 319. Reserved**

## **Chapter 4. Administration, Classifications, and Inspection Procedures for Solid Waste Management Systems**

### **§401. Notification**

A. Except as provided for in Subsection B of this Section, persons who generate industrial solid waste and/or persons who transport, process, or dispose of solid waste shall, within 30 days after they become subject to these regulations, notify the Office of Environmental Services, Permits Division, in writing, of such activity. A form to be used for notification shall be obtained from the Office of Environmental Services, Permits Division or through the department's website at [www.deq.state.la.us](http://www.deq.state.la.us).

B. Persons who generate industrial solid waste and persons who transport, process, or dispose of solid waste who have previously notified the department of such activity are not required to renotify, unless changes are warranted.

C. Owners or operators of pickup stations are required to notify the Office of Environmental Services, Permits Division of such activities within 30 days after they become subject to these regulations. Existing facilities that have previously notified the department are not required to renotify.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§403. Existing Facilities Classification**

#### **A. Classification**

1. Existing facilities that have not been previously regulated, classified, or issued a standard permit shall be classified by the administrative authority to the classification categories of "closure" or "upgrade."

2. Within 120 days after the review and acknowledgment of the notification by the administrative authority, a representative of the department shall perform an on-site investigation of

the facility to determine its classification. At the time of the classification inspection, the processor and/or disposer shall provide the representative with a map clearly depicting the location and size of each facility (and units thereof) to be classified and a schematic of the waste entering each unit of a facility to be classified.

3. Within 30 days after the classification inspection, any person who processes or disposes of solid waste shall file with the Office of Environmental Services, Permits Division a notice of his intent to upgrade or close a facility.

B. Existing Facilities Not Operating under a Standard Permit. All facilities without a standard permit, whether operating or inactive, shall be upgraded or closed in accordance with LAC 33:VII.Subpart 1 unless they have previously been satisfactorily closed in accordance with LAC 33:VII.Subpart 1.

C. Permits for Existing Facilities Operating Without a Standard Permit. All existing solid waste facilities classified for upgrading shall apply for a standard permit according to these regulations.

D. Existing facilities that have not previously been classified or that are not operating under a standard permit shall be classified for upgrade or closure by the following criteria and procedure:

1. classification criteria are based on compliance with standards detailed in LAC 33:VII.Chapters 5, 7, and 8, with emphasis on the following:

- a. potential for pollution of surface water;
- b. potential for pollution of groundwater;
- c. potential for pollution of air;
- d. location in flood plains or in wetlands;
- e. potential for danger to health due to disease vectors, use of waste-filled lands for food crops, and similar health-related practices;
- f. safety considerations, including danger from explosive gases, from fires, and from birds attracted to the site that might obstruct the glide path of aircraft; and
- g. threat to endangered species; and

2. the classification procedure comprises identifying, evaluating, and preliminary classification of facilities:

- a. an ongoing effort shall be made to identify all solid waste facilities; and
- b. the facilities shall be evaluated on the basis of the criteria listed in this Subsection and based on the needs and plans of the facility.

E. Issuance of Temporary Permits

1. The administrative authority may issue a temporary permit for upgrading to persons who process or dispose of solid waste. The temporary permit shall require the submission of a permit application. The temporary permit will allow the facility to continue operations in accordance with an approved interim operational plan pending the standard permit application process.

2. The administrative authority may issue a temporary permit for closure to persons who process or dispose of solid waste. The temporary permit shall require the submission of a closure plan permit application and implementation schedule. The temporary permit may allow the

facility to continue operations in accordance with an approved interim operational plan pending the closure process.

3. Temporary permits are subject to annual permit maintenance fees as provided in LAC 33:VII.1505.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

#### **§405. Categorization of Facilities**

- A. All existing and proposed facilities shall be categorized as one of the following:
1. Type I. Industrial disposal facilities (landfills, surface impoundments, or landfarms);
  2. Type I-A. Industrial processing facilities (incinerator waste-handling facilities, compactors, balers, shredders, or transfer stations);
  3. Type II. Nonindustrial disposal facilities (landfills, surface impoundments, or landfarms);
  4. Type II-A. Nonindustrial processing facilities (incinerator waste-handling facilities, compactors, balers, shredders, transfer stations, or refuse-derived fuel facilities); and
  5. Type III. Construction/demolition-debris and woodwaste landfills, separation facilities, composting facilities, or other.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

#### **§407. Inspection Types and Procedures**

A. Classification Inspection. A classification inspection is required for all existing facilities not previously classified, and each facility's initial classification is based on this inspection. It is performed after the department receives notification of operations (LAC 33:VII.401).

B. Compliance Inspections. The department shall inspect each facility and each facility's records periodically to determine the facility's compliance with the terms of standard or temporary permits and these regulations.

##### **C. Initial Start-Up Inspection—Newly Permitted Facilities**

1. For existing facilities, the initial start-up inspection shall be made after a standard permit has been issued, all upgrading measures are completed, new activities as a result of upgrade are implemented, and certification is submitted to the Office of Environmental Services, Permits Division, by a registered engineer licensed in the state of Louisiana, that the facility is constructed and has been upgraded in accordance with the permit.

2. For new facilities, the initial start-up inspection shall be made after a standard permit has been issued, construction measures have been completed, and certification is submitted to the Office of Environmental Services, Permits Division, by a registered engineer licensed in the state of Louisiana, that the facility is constructed in accordance with the permit.

3. All start-up inspections shall be initiated within 10 working days of receipt of certification by the Office of Environmental Assessment, Environmental Technology Division, unless a longer time period is set by mutual agreement.

4. Within 15 working days after a new or existing facility has undergone the initial start-up inspection, the administrative authority shall either issue an order authorizing commencement of operation or a written notice of deficiency to the permittee, unless a longer time period is set by mutual agreement.

D. Construction Inspections. At least 10 days prior to commencing construction of a liner, leak-detection system, leachate-collection system, or monitoring well at a Type I or Type II facility, the permit holder shall notify the Office of Environmental Assessment, Environmental Technology Division, in writing, of the date on which construction will begin, in order to allow a representative of the division the opportunity to witness the construction.

E. Unit Start-Up Inspections—All Facilities

1. Start-up inspections for new units of a standard permitted facility shall be conducted after completion of all construction measures and after submittal of certification to the Office of Environmental Services, Permits Division, by a registered engineer licensed in the state of Louisiana, that the unit is constructed in accordance with the permit.

2. All start-up inspections shall be initiated within 10 working days of receipt of certification by the Office of Environmental Services, Permits Division.

3. Within 10 working days after a new unit of a facility has undergone a unit start-up inspection, the administrative authority shall issue either an approval of the construction or a notice of deficiency. The unit may commence operation only upon approval of the construction of the unit by the administrative authority.

F. Modification Start-Up Inspections—All Facilities

1. Start-up inspections for modified construction of a standard permitted facility shall be conducted after construction measures of the modification are completed and certification is submitted to the Office of Environmental Services, Permits Division, by a registered engineer licensed in the state of Louisiana, that the modified feature/unit has been constructed in accordance with the modification approved by the administrative authority and any conditions specified in such approval.

2. After a modified unit/feature of a facility has successfully undergone a start-up inspection and after the permit holder has been notified, in writing, of this, operation of the modified unit/feature may commence.

G. Closure Inspections. Closure inspections will be conducted within 30 days after the Office of Environmental Services, Permits Division has received written notice from the permit holder that closure requirements have been met in accordance with the approved closure plan and the permit holder has filed a request for a closure inspection. Closure inspections must be conducted before backfilling of a facility takes place. The administrative authority reserves the right to determine if a facility has been closed properly.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

## Chapter 5. Permit Process and Application

### Subchapter A. Permit System for Facilities Classified for Upgrade or Closure

#### §501. Permit System

A. Scope. A permit must be secured by any person who processes and/or disposes of solid waste, with the exception of those wastes or processing and disposal facilities described in LAC 33:VII.301, 302, 303, and 305. Facilities (existing and proposed) subject to the permitting requirements detailed in these regulations are defined in LAC 33:VII.115 and 405.A.

B. Permits for New Facilities. No new solid waste facilities shall be constructed or operated without a permit issued by the administrative authority in accordance with these regulations.

C. Construction of New or Modified Facilities. No construction of a new facility or modification of an existing facility may commence without a permit.

D. The following will not be required to secure permits:

1. generators who are not processors or disposers of solid waste. Generators of industrial solid waste must notify the Office of Environmental Services, Permits Division in accordance with LAC 33:VII.401.A. Generators of industrial solid waste are subject to the applicable standards provided in LAC 33:VII.601;

2. transporters who are not processors or disposers of solid waste. Transporters of solid waste must notify the Office of Environmental Services, Permits Division in accordance with LAC 33:VII.401A. Transporters of solid waste are subject to the applicable standards provided in LAC 33:VII.605;

3. storers who are not processors or disposers of solid waste. Storers of solid waste are subject to the applicable standards provided in LAC 33:VII.603; and

4. pickup stations at which no solid waste is processed or disposed of. Pickup stations are subject to the standards found in LAC 33:VII.603 and 607 and must notify the Office of Environmental Services, Permits Division in accordance with LAC 33:VII.401.

E. Types of Permits

1. Temporary Permit

a. A temporary permit allows continued operation of an existing facility in accordance with an interim operational plan, but does not allow the expansion or modification of the facility without prior approval of the administrative authority. The administrative authority may issue a temporary permit in the following situations:

i. to allow operations to continue at an existing facility while a standard permit application is being processed;

ii. to allow operations to continue at an existing facility while a closure plan permit application is being processed or while a facility is being closed in accordance with a closure plan; or

iii. to allow an applicant for a permit for a proposed facility to begin construction on a limited basis while an application for a proposed facility is being processed for good cause shown.

b. The types of temporary permits issued on or after February 20, 1993, will correspond to the facility categories defined in LAC 33:VII.405.A: Type I, Type I-A, Type II, Type II-A, and Type III.

c. Temporary permits that may have been issued in the form of administrative orders, compliance orders to upgrade, orders to upgrade, compliance orders to close, orders to close, and settlement agreements, prior to February 20, 1993, may remain in effect until otherwise determined by the administrative authority. Notwithstanding this Subparagraph, any such temporary permit holder must comply with applicable upgrade requirements and deadlines in LAC 33:VII.502.

2. Standard Permit. Standard permits may be issued by the administrative authority to applicants for solid waste processing and/or disposal facilities that have successfully completed the standard permit application process. The types of standard permits issued on or after February 20, 1993, will correspond to the facility categories defined in LAC 33:VII.405.A: Type I, Type I-A, Type II, Type II-A, and Type III.

F. Existing Facilities Not Previously Classified or Not Presently Operating Under a Standard Permit

1. Only those existing facilities that the administrative authority classifies for upgrading may apply for a standard permit. The person(s) notifying the Office of Environmental Services, Permits Division shall be issued a temporary permit and may continue operations in accordance with the interim operational plan, pending a decision on the standard permit application.

2. Facilities classified for closure will be issued a temporary permit. That permit may allow operations to continue in accordance with the interim operational plan until closure activities are accomplished and may require that closure and/or post-closure activities be conducted in accordance with the approved closure plan.

G. Duration of Permit

1. Temporary permits are issued for a period not to exceed three years.

2. Standard permits are issued for a period not to exceed 10 years.

a. Processing and/or disposal facilities with an effective standard permit shall submit to the Office of Environmental Services, Permits Division a new permit application at least 455 days before the expiration date of the standard permit, unless permission for later filing is granted by the administrative authority. If the reapplication is submitted on or before the deadline above, and the administrative authority does not issue a final decision on the reapplication on or before the expiration date of the standard permit, the standard permit shall remain in effect until the administrative authority issues a final decision.

b. Permits for processing and/or disposal facilities that have been issued with an expiration date greater than 10 years after the effective date of the permit shall expire 10 years after the date the permit was effective or on August 1, 1996, whichever is later. These facilities shall be subject to the provisions in Subsection G.2.a of this Section.

H. Property Rights. Permits issued by the administrative authority do not convey any property rights of any sort or any exclusive privilege.

I. Public Hearings

1. Public hearings will be held concerning standard permits for facilities when the administrative authority determines that there is sufficient public interest.

2. Public hearings will be held concerning major modifications of standard permits when the administrative authority determines that there is sufficient public interest.

3. Public hearings will not be held concerning mandatory modifications, which are considered an enhancement of a standard permitted facility.

4. Public hearings shall be conducted in accordance with the rules of procedure of the administrative authority for fact-finding hearings or other hearing procedures developed by the administrative authority and the Administrative Procedure Act (R.S. 49:950 et seq.).

#### J. Other Requirements

1. The applicant may be required to obtain additional permits from other local state and federal agencies. A listing of typical permits that may be needed are as follows:

- a. NPDES (section 402 of the Clean Water Act);
- b. Louisiana Water Discharge Permit;
- c. Louisiana Coastal Use Permit (issued by the Department of Natural Resources, Coastal Management Division);
- d. Louisiana Air Emissions Permit;
- e. U.S. Army Corps of Engineers Permit (Dredge and Fill, section 404 of the Clean Water Act); or
- f. appropriate local permits, licenses, certification, registration, or approval.

2. It is the responsibility of the applicant to identify the other applicable permits that may be required. A listing of the permits that the applicant intends to apply for shall be included in the solid waste permit application.

3. The applicant shall provide appropriate documentation to the Office of Environmental Services, Permits Division that the proposed use does not violate zoning or other land-use regulations that exist at the time of the submittal of the standard permit application.

K. Suspension or Revocation of Permit. The administrative authority may review a permit at any time. After review of a permit, the administrative authority may, for cause, suspend or revoke a permit in whole or in part in accordance with the procedures outlined in LAC 33:VII.Chapter 9 and R.S. 30:2025.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

## **§502. Mandatory Modifications Requirements**

A. This Section applies to facilities that have submitted mandatory modification applications to the department. Mandatory modifications were required by the regulations promulgated on February 20, 1993. Subsections B-N of this Section are an upgrade schedule for those facilities.

#### B. Existing Type I Landfills and Type I Landfarms

1. Permit holders for existing Type I landfills and Type I landfarms operating under a standard permit must submit to the Office of Environmental Services, Permits Division a mandatory modification document to address these regulations.

2. Existing Type I landfills and Type I landfarms shall be upgraded in accordance with these regulations.

C. Existing Type II Landfills

1. Permit holders of existing Type II landfills operating under a standard permit must submit to the department a mandatory modification document to address these regulations.

2. Except as provided in Subsection C.3 of this Section, existing Type II landfills shall be upgraded in accordance with these regulations.

3. Special Subtitle D Upgrade Requirements. Notwithstanding Subsection C.1 and 2 of this Section, the following upgrade schedule applies:

a. existing Type II landfills must be upgraded to comply with LAC 33:VII.701.A.4 (regarding airports), 703.A.2.a, b, and c (regarding restriction of public access), 703.A.6 and 711.A.2 (regarding hazardous-waste exclusion), 703.A.7 (regarding discharges to surface water), 705.D.2 (regarding unstable areas), 707.B.1 (regarding 100-year floodplains), 707.B.2 and 3 (regarding run-on/runoff control), 719.C.1 (regarding daily cover), 711.A.2.a (regarding open burning), 719.D.1.c (regarding liquid waste exclusion), 711.C.1 (regarding methane monitoring), and 719.D.3.b (regarding vector control) no later than October 9, 1993;

b. units of Type II landfills that did not receive solid waste prior to October 9, 1993, must comply with LAC 33:VII.701.A.8 (regarding wetlands demonstrations), 701.A.10 (regarding fault areas), 705.D.1 (regarding seismic impact zones), 805 (regarding groundwater monitoring) and 719.C.2 and 3 (regarding plans and specifications for leachate collection and liners) before receiving solid waste;

c. units of Type II landfills that are less than one mile from a drinking water intake must be upgraded to comply with LAC 33:VII.805 (regarding groundwater monitoring);

d. units of Type II landfills that are less than two miles from a drinking water intake must be upgraded to comply with LAC 33:VII.805 (regarding groundwater monitoring);

e. units of Type II landfills that are greater than two miles from a drinking water intake must be upgraded to comply with LAC 33:VII.805 (regarding groundwater monitoring);

f. the administrative authority may extend the date for compliance with LAC 33:VII.502.C.1.a to April 9, 1994, for qualified existing Type II landfill units;

g. the administrative authority may extend the post-closure waste acceptance dates in LAC 33:VII.719.F.2.a and b to April 9, 1994, for existing units of qualified Type II landfills; and

h. for the purposes of Subsection C.3.f and g of this Section, a qualified Type II landfill is one that:

i. received no more than 100 tons per day of solid waste between October 9, 1991, and October 9, 1992, based on a calendar daily average; and

ii. received no more than 100 tons per day of solid waste based on a daily average computed each month between October 9, 1993, and April 9, 1994.

D. All Other Existing Type I, Type I-A, Type II, and Type II-A Facilities

1. Permit holders for all other Type I, Type I-A, Type II, and Type II-A facilities operating under a standard permit must submit to the department a mandatory modification document to address these regulations.

2. Existing Type I, Type I-A, Type II, and Type II-A facilities shall be upgraded in accordance with these regulations.

E. Financial Assurance. Existing Types I, II, or III facilities that are owned or operated by local governments must comply with the financial assurance requirements in LAC 33:VII.Chapter 13. The administrative authority may waive the requirements of this Section for up to one year for good cause if an owner or operator demonstrates that the effective date for the requirements of this Section does not provide sufficient time to comply with these requirements and that such a waiver will not adversely affect human health and the environment. All other facilities must comply by February 20, 1995.

F. Units of existing Type II landfills that are not upgraded in accordance with these regulations must cease accepting waste and complete closure.

G Units of facilities, other than Type II landfills, that are not upgraded in accordance with these regulations must cease accepting waste and complete closure on or before their respective upgrade deadlines provided in Subsection C of this Section.

H. Permit holders of facilities that have earthen ditches that lead to or from units of the facility and receive solid waste must:

1. submit a plan to the department to:
  - a. upgrade the ditches to meet these regulations (This plan must be in the form of a permit modification and may be included in the mandatory modification document for the facility.);
  - b. remove the solid waste from the ditches and line them with materials capable of preventing groundwater contamination; or
  - c. remove the solid waste from the ditches and cease disposing of solid waste in the ditches.
2. upgrade the ditches in accordance with these regulations and the permit modification by February 1, 1998.

I. Type I and II facilities with closure plans approved prior to and that do not receive solid waste on or after October 9, 1993, may complete closure and post-closure under the terms of the approved closure plan, except that Type II landfills that received solid waste on or after October 9, 1991, must meet standards for placement and maintenance of final cover in LAC 33:VII.719.E and F.

J. The permit holder of a Type II facility must submit to the department a new or amended closure plan and a post-closure plan in the form of a permit modification to address these regulations no later than October 9, 1993, or by the initial receipt of waste, whichever is later.

K. Municipal solid waste landfills that commenced construction, reconstruction, or modification or began accepting waste on or after May 30, 1991, are subject to 40 CFR part 60, subpart WWW - Standards of Performance for Municipal Solid Waste Landfills. Described landfills may be required to have an operating permit under the air quality regulations, LAC 33:III.

L. Municipal solid waste landfills that accepted waste on or after November 8, 1987, or for which construction, reconstruction, or modification was commenced before May 30, 1991, may be subject to 40 CFR part 60, subpart Cc - Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. Described landfills may be required to have an operating permit under the air quality regulations, LAC 33:III.

M. Existing Facilities Operating Under a Temporary Permit with Pending Permit Applications. Permit holders of existing facilities operating under a temporary permit must submit to the department, no later than January 1, 1994, an addendum to the permit application to address these regulations. Existing facilities that do not hold a standard permit must be upgraded in accordance with the applicable deadlines according to facility type described in this Section, unless earlier deadlines are required by the administrative authority.

N. Applicants of Proposed Facilities With Pending Permit Applications

1. Applicants of proposed facilities with permit applications on file with the department must submit to the department (Office of Environmental Services, Permits Division), no later than January 1, 1994, an addendum to their application to address these regulations.

2. Failure to submit an addendum to the application by January 1, 1994, shall be considered a withdrawal of the permit application and shall require no further action.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§503. Permit Process for Upgrading Existing Facilities and for Proposed Facilities**

A. Applicant Public Notice

1. No sooner than 45 days prior to the submittal of a standard permit application to the Office of Environmental Services, Permits Division, the prospective applicant shall publish a notice of intent to submit an application for a standard permit. This notice shall be published one time, as a single classified advertisement measuring three columns by five inches, in the legal or public notices section of the official journal of this state and the official journal of the parish where the facility is located. If the affected area is Baton Rouge, a single classified advertisement measuring three columns by five inches in the legal or public notices section of the official journal of the state will be the only public notice required.

2. The public notice shall be published in accordance with the form provided in Appendix A of this Chapter.

3. Proof of publication of the notice shall be included in all applications for existing and proposed facilities submitted to the administrative authority.

B. Permit Application Requirements

1. Any person who generates, transports, or stores solid waste, who is not issued a permit, but is under the jurisdiction of the department, must comply with the applicable provisions of these regulations.

2. Submittal of Permit Applications

a. Any applicant for a standard permit for existing or proposed processing and disposal facilities shall complete Part I, Part II, and Part III of the standard permit application, following the instructions for the appropriate facility class in LAC 33:VII.407, 501, and 503, and submit four copies to the Office of Environmental Services, Permits Division. Each individual copy of the application shall be a standard three-ring-bound document measuring 8 1/2 by 11 inches. All appendices, references, exhibits, tables, etc. shall be marked with appropriate tabs.

b. Each application for which a standard permit application fee is prescribed shall be accompanied by a remittance in the full amount of the appropriate standard permit application review fee. No application shall be accepted or processed prior to payment of the full amount specified.

c. The completed separate standard permit application for each existing facility shall be submitted to the Office of Environmental Services, Permits Division within 180 days after issuance of the temporary permit.

C. Notices to Parish Governing Authorities. As provided in R.S. 30:2022, upon receipt of a permit application the Office of Environmental Services, Permits Division shall provide written notice on the subject matter to the parish governing authority, who shall promptly notify each parish municipality affected by the application.

D. Permit Application Review and Evaluation

1. LAC 33:VII.Chapters 5, 7, and 8 establish the evaluation criteria used by the administrative authority.

2. The applicant shall make available to the department the assistance of professional engineers or other trained individuals responsible for the design of the facility to explain the design and operation.

3. The applicant shall furnish all other technical information the department may require to evaluate the standard permit application, monitor the performance of the facility, and insure that the purposes of this program are met.

E. Standard Permit Applications Deemed Unacceptable or Deficient

1. Applications deemed unacceptable for technical review will be rejected. For the administrative authority to reconsider the application, the applicant must resubmit the entire standard permit application to the Office of Environmental Services, Permits Division, including the review fee, by a reasonable due date set by the administrative authority.

2. Applicants submitting applications that are acceptable for technical review, but lack the information outlined in these regulations will be informed of such deficiencies. These deficiencies must be corrected by the submission of supplementary information by a reasonable due date set by the administrative authority.

F. Standard Permit Applications Deemed Technically Complete

1. Applications that have been deemed technically complete shall be accepted for public review. When the permit is accepted for public review, the administrative authority shall request an additional five copies, or more if necessary. The copies will be distributed for public review as follows:

- a. one copy to the local parish governing authority;
- b. one copy to the parish public library;
- c. one copy to the appropriate regional office; and
- d. two copies to remain in the department's headquarters in Baton Rouge.

2. Each copy of the permit application shall be provided as a standard three-ring-bound document (8 1/2 by 11 inches). The application shall incorporate, in the appropriate sections, all required plans, narratives, and revisions made during the review process and shall include appropriate

tabbing for all appendices, figures, etc. Permit applications that present revisions made during the review process as a separate supplement to the application will not be accepted.

3. After the five copies are submitted to the Office of Environmental Services, Permits Division, notices shall be placed in the department's bulletin (if one is available), the official journal of the state, and in the official journal of the parish where the facility is located. The Office of Environmental Services, Permits Division shall publish a notice of acceptance for review one time as a single classified advertisement measuring three columns by five inches in the legal or public notices section of the official journal of the state and one time as a classified advertisement in the legal or public notices section of the official journal of the parish where the facility is located. If the affected area is Baton Rouge, a single classified advertisement measuring three columns by five inches in the official journal of the state shall be the only public notice required. The notices will solicit comment from interested individuals and groups. Comments received by the administrative authority within 30 days after the date the notice is published in the local newspaper shall be reviewed by the Office of Environmental Services, Permits Division. The notice shall be published in accordance with the sample public notice provided by the Office of Environmental Services, Permits Division. The applicant is responsible for providing the Office of Environmental Services, Permits Division with proof of publication.

4. Public hearings will be held for all facilities when the administrative authority determines, on the basis of comments received and other information, that a hearing is necessary.

5. Public Opportunity to Request a Hearing. Any person may, within 30 days after the date of publication of the newspaper notice (Subsection F.3 of this Section), request that the administrative authority consider whether a public hearing is necessary. If the administrative authority determines that the requests warrant it, a public hearing will be scheduled. If the administrative authority determines that the requests do not raise genuine and pertinent issues, the Office of Environmental Services, Permits Division shall send the person requesting the hearing written notification of the determination. The request for a hearing must be in writing and must contain the name and affiliation of the person making the request and the comments in support of or in objection to the issuance of a permit.

6. Public Notice of a Public Hearing. If the administrative authority determines that a hearing is necessary, notices shall be published at least 20 days before a fact-finding hearing in the official journal of the state and in the official journal of the parish where the facility is located. The notice shall be published one time as a single classified advertisement measuring three columns by five inches in the legal or public notices section of the official journal of the state and one time as classified advertisement in the legal or public notices section of the official journal of the parish where the facility is located. If the affected area is Baton Rouge, a single classified advertisement measuring three columns by five inches in the official journal of the state shall be the only public notice required. Those persons on the Office of Environmental Services, Permits Division's mailing list for hearings shall be mailed notice of the hearing at least 20 days before a public hearing. A notice shall also be published in the departmental bulletin, if available.

7. Receipt of Comments Following a Public Hearing. Comments received by the Office of Environmental Services, Permits Division until the close of business 30 days after the date of a public hearing shall be reviewed by the Office of Environmental Services, Permits Division.

G. Issuance or Denial of a Permit

1. The administrative authority shall issue a standard permit or shall issue a standard permit application denial, including reasons for the denial.

2. A temporary permit may be issued to allow closure activities to be accomplished at a facility that has been issued a standard permit application denial.

H. Public Notice of Permit Issuance. No later than 10 days following the issuance of a standard permit, the permit holder shall publish a notice of the issuance of the standard permit. This notice shall be published in the official journal of the state and in the official journal of the parish where the facility is located. The notice shall be published one time as a single classified advertisement measuring three columns by five inches in the legal or public notices section of the official journal of the state, and one time as a classified advertisement in the legal or public notices section of the official journal of the parish where the facility is located. If the affected area is Baton Rouge, a single classified advertisement measuring three columns by five inches in the official journal of the state shall be the only public notice required.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§505. Permit Process for Existing Facilities Classified for Closure**

A. Closure Plan Review and Evaluation. LAC 33:VII.403 and Chapters 7 and 8 establish the evaluation criteria used by the Office of Environmental Services, Permits Division.

#### **B. Submittal of Closure Plans**

1. Permit holders for facilities classified for closure shall submit to the Office of Environmental Services, Permits Division four bound copies of a closure plan within 60 days after issuance of the temporary permit for the facility. Each individual copy of the plan shall be a standard three-ring-bound document measuring 8 1/2 by 11 inches. All appendices, references, exhibits, tables, etc., shall be marked with appropriate tabs.

2. The following sections of the regulations must be addressed and incorporated in the closure plan for all solid waste processing and disposal facilities. All responses and exhibits must be identified in the following sequence to facilitate the evaluation. All applicable sections of LAC 33:VII.Chapters 5, 7, and 8 must be addressed and incorporated into the closure plan:

- a. LAC 33:VII.509, Permit Application Form, Part I;
- b. a map clearly delineating the location of the facility;
- c. LAC 33:VII.701.A.10.a and b, Wells and Faults, respectively (only required for Type I and II facilities with on-site closure);
- d. LAC 33:VII.517, Facility Characteristics;
- e. LAC 33:VII.519, Facility Surface Hydrology;
- f. LAC 33:VII.521.A, General Facility Geology (only required for Type I and II facilities that have not undergone clean closure);
- g. LAC 33:VII.521.B, Subsurface Characterization (only required for Type I and II facilities that have not undergone clean closure);
- h. LAC 33:VII.521.C, Groundwater Monitoring (only required for Type I and II facilities that have not undergone clean closure);

- i. LAC 33:VII.523.A.4, Facility Plans and Specifications (only required for Type I and II facilities with on-site closure and with a potential to produce gases);
- j. types (including chemical and physical characteristics) and sources of waste processed or disposed of at the facility;
- k. LAC 33:VII.531.A, Facility Closure;
- l. LAC 33:VII.531.B, Facility Closure (only required for Type I and II facilities and Type III woodwaste and construction/demolition-debris landfills);
- m. LAC 33:VII.533.A, Facility Post Closure;
- n. LAC 33:VII.533.B, Facility Post Closure (only required for Type I and II facilities that have not undergone clean closure);
- o. the name of the person who currently owns the land;
- p. LAC 33:VII.535.A.4, Financial Responsibility; and
- q. a detailed implementation schedule for closure of the facility with built-in flexibility to coincide with the date of approval of the closure plan.

3. Each closure plan for which a closure fee is prescribed shall be accompanied by a remittance in the full amount of the closure plan's review fee. No closure plans shall be accepted or processed prior to payment of the full amount specified.

C. Closure Plans Determined Unacceptable or Deficient

1. Closure plans that are determined unacceptable for a technical review will be rejected. The permit holder shall be required to resubmit the entire application to the Office of Environmental Services, Permits Division, including the review fee, by a date set by the administrative authority.

2. Permit holders submitting closure plans that lack the information contained in Subsection B.2 of this Section and the applicable standards of LAC 33:VII.Chapters 7 and 8 will be informed of such in a closure plan deficiency letter; these must be corrected by submission of supplementary information within 30 days after receipt of the closure plan deficiency letter.

D. Closure Plans Deemed Technically Complete. Closure plans that have been deemed technically complete will be approved. Within 30 days after receipt of closure plan approval, the permit holder shall submit to the Office of Environmental Services, Permits Division three copies of the closure plan that incorporates all revisions made during the closure plan review process. Additional copies will be required if deemed necessary by the administrative authority. Each copy shall be provided as a standard three-ring-bound document measuring 8 1/2 by 11 inches and shall include appropriate tabbing for all appendices, figures, etc. Closure plans must incorporate revisions made during the review process. Closure plans that present revisions made during the review process as a separate supplement to the closure plan shall not be accepted.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**§507. Modification of Permits and Other Authorizations to Operate**

A. Modification Requests

1. The permit holder shall notify the Office of Environmental Services, Permits Division in advance of any change in a facility or deviation from a permit. Such notification shall detail the proposed modification and shall include an assessment of the effects of the modification on the environment and/or the operation. Modification details shall include, but not be limited to, a summary detailing the modification request and all appropriate drawings, narratives, etc., which shall illustrate and describe the originally permitted representations and the proposed modifications thereto. New language requested in the permit narrative and existing language requested to be deleted from the permit narrative shall be identified therein.

a. Initially, four copies of all modification requests shall be provided to the Office of Environmental Services, Permits Division. Each individual copy of the document shall be 8 1/2" by 11" and shall be bound in a standard three-ring binder(s).

b. Each permit modification request for which a permit modification review fee is prescribed shall be accompanied by remittance of the fee. No permit modification requests shall be accepted or processed prior to payment in full of the amount specified.

2. All notifications of proposed changes in ownership of a permit for a facility are the responsibility of the permittee and shall include the following, to be submitted to the Office of Environmental Services, Permits Division:

a. a statement from the proposed permit holder assuming liability for existing violations and conditions;

b. proof of financial responsibility by the proposed permit holder, as required by LAC 33:VII.1301.A and 1303.A; and

c. information required in LAC 33:I.1701.

#### B. Public Notice of Modifications

1. If not otherwise specified, the administrative authority shall determine whether or not a modification warrants public notice. Modifications to a permit that require public notice include, but are not limited to, the following:

a. change in the type(s) of waste to be received at a facility;

b. increase in the volume or rate of waste to be received at a facility;

c. physical expansion of the service area;

d. change in the capacity of a facility;

e. decrease in the personnel or equipment of a facility;

f. changes in the hours or days of operation;

g. change to the facility that may have an impact on traffic patterns;

h. reduction in the number of groundwater sampling parameters or the number of groundwater monitoring wells;

i. lateral or vertical expansion of the permitted area(s) for waste disposal;

or

j. other changes in the permit that tend to make the permit requirements

less stringent.

2. Permit modifications that require public notice and that have been determined by the Office of Environmental Services, Permits Division to be technically complete will be accepted

for public review. When the permit is accepted for public review, the administrative authority will request an additional five copies, or more if necessary. The copies will be distributed for public review as follows:

- a. one copy to the local parish governing authority;
- b. one copy to the parish public library;
- c. one copy to the appropriate regional office; and
- d. two copies to remain in the department's headquarters in Baton Rouge.

3. Each copy of the permit modification shall be provided as a standard three-ring-bound document (8 1/2 by 11 inches). The modification shall incorporate, in the appropriate sections, all required plans, narratives, and revisions made during the review process and shall include appropriate tabbing, if applicable, for all appendices, figures, etc.

4. Upon submittal of the five copies to the Office of Environmental Services, Permits Division, the department shall send a sample public notice to the applicant who shall be responsible for the publication of the notice. The cost of publication shall be borne by the applicant. The notice shall be published in accordance with the sample public notice provided by the Office of Environmental Services, Permits Division. The notice shall be published one time as a single classified advertisement measuring three columns by five inches in the legal or public notices section of the official journal of the state, one time as a classified advertisement in the legal or public notices section of the official journal of the parish where the facility is located, and in the department's bulletin (if one is available). If the affected area is Baton Rouge, a single classified advertisement measuring three columns by five inches in the official journal of the state shall be the only public notice required. The notice will solicit comments from interested individuals and groups. Comments delivered or received within 30 days after the date the notices are published shall be reviewed by the Office of Environmental Services, Permits Division. The applicant is responsible for providing the Office of Environmental Services, Permits Division with proof of publication of the notice.

5. Mandatory modifications are considered to be enhancements and will require neither public notice nor public hearing.

C. No modification may be effected without the written approval of the administrative authority.

D. Operation of a modified construction feature or unit of a standard permitted facility may commence after the provisions of LAC 33:VII.407.F are met.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2014.2.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

## **Subchapter B. Permit Application**

### **§509. Part I: Permit Application Form**

A. The applicant shall complete a standard permit application Part I Form obtained from the Office of Environmental Services, Permits Division or through the department's website at [www.deq.state.la.us](http://www.deq.state.la.us). The following items refer to the items on the form requiring that information:

1. name of applicant (prospective permit holder) applying for a standard permit;

2. facility name;
3. description of the location of the facility (identify by street and number, by intersection of roads, or by mileage and direction from an intersection);
4. geographic location (section, township, range, and parish where the facility is located and the coordinates (as defined by the longitude and latitude to the second) of the centerpoint of the facility);
5. mailing address of the applicant;
6. contact person for the applicant (position or title of the contact person is acceptable);
7. telephone number of the contact person;
8. type and purpose of operation (check each applicable box);
9. status of the facility (if leased, state the number of years of the lease and provide a copy of the lease agreement);
10. operational status of the facility;
11. total site acreage and the amount of acreage that will be used for processing and/or disposal;
12. list of all environmental permits that relate directly to the facility represented in this application;
13. zoning of the facility (if the facility is zoned, note the zone classification and zoning authority and include a zoning affidavit or other documentation stating that the proposed use does not violate existing land-use requirements);
14. types, maximum quantities (wet tons/week), and sources (percentage of the on-site or off-site-generated waste to be received) of waste to be processed or disposed of by the facility;
15. the specific geographic area(s) to be serviced by the solid waste facility;
16. attached proof of publication of the notice regarding the submittal of the permit application as required in LAC 33:VII.503.A;
17. the signature, typed name, and title of the individual authorized to sign the application. Proof of the legal authority of the signatory to sign for the applicant must be provided; and
18. any additional information required by the administrative authority.

**AUTHORITY NOTE:** Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

**HISTORICAL NOTE:** Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§511. Compliance Information**

A. All applicants for solid waste permits shall comply with the requirements of LAC 33:I.1701.

**AUTHORITY NOTE:** Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154 and 2014.2.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§513. Part II: Supplementary Information, All Processing and Disposal Facilities**

A. The information in LAC 33:VII.513- 539 is required in the permit application for solid waste processing and disposal facilities. All responses and exhibits must be identified in the same sequence to facilitate the evaluation. Additionally, all applicable sections of LAC 33:VII.Chapters 5, 6, 7, 8, 13, and 15 must be addressed and incorporated into the application responses. If a section does not apply, the applicant must state that it does not apply and explain why.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§515. Location Characteristics**

A. Standards pertaining to location characteristics are contained in LAC 33:VII.701.A. The following information on location characteristics is required for all facilities:

1. area master plans;
2. access to facilities;
3. a letter concerning the traffic flow for facilities receiving waste generated off-site;
4. distance to airport runway and proof of notification to affected airport and Federal Aviation Administration;
5. existing land use;
6. aerial photograph;
7. environmental characteristics;
8. wetlands demonstration, if applicable;
9. demographic information; and
10. information regarding wells, faults, and utilities, which is required for Type I and II facilities.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§517. Facility Characteristics**

A. Standards concerning facility characteristics are contained in LAC 33:VII.703.A. A facility plan, including drawings and a narrative, describing the information required below must be provided:

1. elements of the process or disposal system employed;
2. the perimeter barrier and other control measures;
3. a buffer zone;
4. fire-protection and medical care measures;
5. landscaping and other beautification efforts;
6. devices or methods to determine, record, and monitor incoming waste;
7. NPDES discharge points (existing and proposed); and
8. other features, as appropriate.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§519. Facility Surface Hydrology**

- A. The following information regarding surface hydrology is required for all facilities:
1. a description of the method to be used to prevent surface drainage through the operating areas of the facility;
  2. a description of the facility runoff/run-on collection system;
  3. the rainfall amount from a 24-hour/25-year storm event;
  4. the location of aquifer recharge areas in the site or within 1,000 feet of the site perimeter, along with a description of the measures planned to protect those areas from the adverse impact of operations at the facility; and
  5. if the facility is located in a flood plain, a plan to ensure that the facility does not restrict the flow of the 100-year base flood or significantly reduce the temporary water-storage capacity of the flood plain, and documentation indicating that the design of the facility is such that the flooding does not affect the integrity of the facility or result in the washout of solid waste.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§521. General Facility Geology, Subsurface Characterization, and Facility Groundwater Monitoring**

A. General facility geology standards governing facility geology are contained in LAC 33:VII.801. The following information regarding general facility geology is required for Type I, Type I-A, Type II, Type II-A, and Type III facilities:

1. demonstration that the person who characterized the subsurface soil and groundwater conditions at the facility is qualified;

2. demonstration that the facility has natural soils of low permeability as provided in LAC 33:VII.801.A.2; and

3. design for surfacing natural soils that do not meet the low permeability standard as provided in LAC 33:VII.801.A.3.

B. Subsurface Characterization. Standards governing subsurface characterization are contained in LAC 33:VII.803.

1. Type I, II, and III facilities must demonstrate that the facility meets the boring requirements provided in LAC 33:VII.803.A.

2. Type I and II facilities must demonstrate that:

a. the facility meets the piezometer requirements as provided in LAC 33:VII.803.B; and

b. the facility meets the geology and groundwater flow characterization requirements provided in LAC 33:VII.803.C.

C. Facility Groundwater Monitoring. Standards governing facility groundwater monitoring are contained in LAC 33:VII.805. The following information regarding groundwater monitoring is required for Type I and II facilities:

1. designation of each zone that will be monitored;

2. a map for each groundwater monitoring zone that depicts the location of all monitoring wells (including any proposed monitoring wells) that are screened in a particular zone and each zone's relevant point of compliance, along with information that demonstrates that monitoring wells meet the standards in LAC 33:VII.805.A.1 and 2. If a monitoring well(s) is being proposed, the response to this requirement shall provide an implementation schedule for submitting a revised well location map(s) showing all existing monitoring wells that are screened in each particular zone;

3. a geologic cross section(s) along the perimeter of the facility showing screen intervals for existing and proposed monitoring wells, along with other applicable information required in LAC 33:VII.803.C.2.a. If a monitoring well(s) is being proposed, the response to this requirement shall include an implementation schedule for revising applicable geologic cross sections to include the screen interval of the newly installed monitoring well(s) and other applicable information required in LAC 33:VII.803.C.2.a;

4. designation of each monitoring well (including any proposed monitoring wells) as either background or downgradient, per zone that will be monitored;

5. a table displaying pertinent well construction details for each monitoring well, including elevation of the reference point for measuring water levels (msl), elevation of the ground surface (msl), drilled depth (feet), the depth to which the well is cased (feet), depth to the top and bottom of the bentonite seal (feet), depth to the top and bottom of the screen (feet), slot size, casing size, type of grout, and as-built diagrams (cross sections) of each well providing the aforementioned well construction details. If a monitoring well(s) is being proposed, the response to this requirement shall provide an implementation schedule for submitting the information specified in this requirement;

6. demonstration that the monitoring wells are constructed according to the standards in LAC 33:VII.805.A.3. If a monitoring well(s) is being proposed, the response to this requirement shall provide an implementation schedule for submitting the information specified in this requirement;

7. for an existing facility, provide all data on samples taken from monitoring wells in place at the time of the permit application. (If this data exists in the department records, the

administrative authority may allow references to the data in the permit application.) For an existing facility with no wells, groundwater data shall be submitted within 90 days after the installation of monitoring wells. For a new facility, groundwater data (one sampling event) shall be submitted before waste is accepted;

8. a sampling and analysis plan that meets the standards in LAC 33:VII.805.B and includes a table that specifies each parameter, analytical method, practical quantitation limit, and Chemical Abstracts Service registry number (CAS RN); and

9. a plan for detecting, reporting, and verifying changes in groundwater.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§523. Facility Plans and Specifications**

A. Facility plans and specifications are required for all facilities. Standards must address the following requirements, when applicable:

1. the person who prepared the permit application must provide the certification required in LAC 33:VII.705.A.1;

2. for Type I and II facilities:

a. detailed plan-view drawing(s) showing original contours, proposed elevations of the base of units prior to installation of the liner system, and proposed final contours;

b. representative cross sections showing original and final grades, drainage, the water table, groundwater conditions, the location and type of liner, and other pertinent information;

c. a description of the liner system, which shall include calculations of anticipated leachate volumes, rationale for particular designs of such systems, and drawings;

d. a description of the leachate collection and removal system, which shall include calculations of anticipated leachate volumes, rationale for particular designs of such systems, and drawings;

e. detailed drawings of slopes, levees, and other pertinent features; and

f. the type of material and its source for levee construction. Calculations shall be submitted demonstrating that an adequate volume of material is available for the required levee construction;

3. for Type I, II, and III landfills:

a. approximate dimensions of daily fill and cover; and

b. the type of cover material and its source for daily, interim, and final cover. Calculations shall be submitted demonstrating that an adequate volume of material is available for daily, interim, and final cover;

4. the facility plans and specifications for Type I and II facilities must address standards for facilities located in seismic impact zones and unstable areas (LAC 33:VII.705.D.1 and 2); and

5. the facility plans and specifications for Type I and II landfills and surface impoundments (surface impoundments with on-site closure and a potential to produce gases, LAC 33:VII.719.C.4 and 721.C.2) must provide a gas collection and treatment or removal system.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§525. Facility Administrative Procedures**

A. In accordance with standards in LAC 33:VII.709, the following information on administrative procedures is required for all facilities:

1. annual report submitted to the administrative authority;
2. recordkeeping system, types of records to be kept, and the use of records by management to control operations, as required;
3. an estimate of the minimum personnel, listed by general job classification, required to operate the facility; and
4. the maximum hours of operation per operating days and week (the maximum hours of operation within a 24-hour day);

B. Administrative procedures for facilities receiving residential and commercial solid waste shall include the number of facility operators certified by the Louisiana Solid Waste Operator Certification and Training Program (R.S. 37:3151 et seq.).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§527. Facility Operational Plans**

A. The following information on operational plans is required for all facilities:

1. types of waste (including chemical, physical, and biological characteristics of industrial wastes generated on-site), maximum quantities of wastes per year, and sources of waste to be processed or disposed of at the facility;
2. waste-handling procedures from entry to final disposition, which could include shipment of recovered materials to a user;
3. minimum equipment to be furnished at the facility;
4. plan to segregate wastes, if applicable;
5. procedures planned in case of breakdowns, inclement weather, and other abnormal conditions (including detailed plans for wet-weather access and operations);
6. procedures, equipment, and contingency plans for protecting employees and the general public from accidents, fires, explosions, etc., and provisions for emergency care should an

accident occur (including proximity to a hospital, fire and emergency services, and training programs); and

7. provisions for controlling vectors, dust, litter, and odors.

B. The following information on operational plans is required for Type I and II facilities:

1. comprehensive operational plan;

2. salvaging procedures and control, if applicable;

3. scavenging control; and

4. for facilities receiving waste with a potential to produce gases, a comprehensive air monitoring plan.

C. The following information on operational plans is required for Type I and II landfarms:

1. the following items to be submitted regardless of land use:

a. a detailed analysis of waste, including but not limited to, pH, phosphorus, nitrogen, potassium, sodium, calcium, magnesium, sodium-adsorption ratio, and total metals (as listed in LAC 33:VII.723.D.3.a);

b. soil classification, cation-exchange capacity, organic matter, content in soil, soil pH, nitrogen, phosphorus, metals (as listed in LAC 33:VII.723.D.3.a), salts, sodium, calcium, magnesium, sodium-adsorption ratio, and PCB concentrations of the treatment zone;

c. annual application rate (dry tons per acre) and weekly hydraulic loading (inches per acre); and

d. an evaluation of the potential for nitrogen to enter the groundwater.

2. the following items to be submitted in order for landfarms to be used for food-chain cropland:

a. a description of the pathogen-reduction method for septage, domestic sewage sludges, and other sludges subject to pathogen production;

b. crops to be grown and the dates for planting;

c. PCB concentrations in waste;

d. annual application rates of cadmium and PCBs; and

e. cumulative applications of cadmium and PCBs.

3. the following items to be submitted for landfarms to be used for nonfood-chain purposes:

a. description of the pathogen-reduction method in septage, domestic sewage sludges, and other sludges subject to pathogen production; and

b. description of control of public and livestock access.

D. The following information on operational plans is required for Type I-A and II-A incinerator waste-handling facilities:

1. a description of the method used to handle process waters and other water discharges that are subject to NPDES permit and state water discharge permit requirements and regulations; and

2. a plan for the disposal and periodic testing of ash (all ash and residue must be disposed of in a permitted facility).

E. The following information on operational plans is required for Type I-A and II-A refuse-derived energy facilities:

1. a description of the method used to handle process waters and other water discharges that are subject to NPDES permit and state water discharge permit requirements and regulations;

2. a plan for the disposal and periodic testing of ash (all ash and residue must be disposed of in a permitted facility); and

3. a description of marketing procedures and control.

F. The following information on operational plans is required for Type III separation and composting facilities:

1. a description of the testing to be performed on the fuel or compost;

2. a description of the uses for and the types of fuel/compost to be produced.; and

3. a description of marketing procedures and control.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§529. Implementation Plan**

A. All facilities must have an implementation plan.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§531. Facility Closure**

A. The closure plan for all facilities must include the following:

1. the date of final closure;

2. the method to be used and steps necessary for closing the facility; and

3. the estimated cost of closure of the facility, based on the cost of hiring a third party to close the facility at the point in the facility's operating life when the extent and manner of its operation would make closure the most expensive.

B. The closure plan for Type I and II landfills and surface impoundments must include:

1. a description of the final cover and the methods and procedures used to install the cover;

2. an estimate of the largest area of the facility ever requiring a final cover at any time during the active life;

3. an estimate of the maximum inventory of solid waste ever on-site over the active life of the facility; and

4. a schedule for completing all activities necessary for closure.

C. The closure plan for all Type I and II facilities and Type III woodwaste and construction/demolition debris facilities shall include the following:

1. the sequence of final closure of each unit of the facility, as applicable;

2. a drawing showing final contours of the facility; and

3. a copy of the document that will be filed upon closure of the facility with the official parish recordkeeper, indicating the location and use of the property for solid waste disposal, unless the closure plan specifies a clean closure.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§533. Facility Post-Closure**

A. The post-closure plan for all facilities must include the following:

1. specification of the long-term use of the facility after closure, as anticipated; and

2. the cost of conducting post-closure of the facility, based on the estimated cost of hiring a third party to conduct post closure activities in accordance with the closure plan.

B. The post-closure plan for Type I and II facilities must include the following:

1. the method for conducting post-closure activities, including a description of the monitoring and maintenance activities and the frequency at which they will be performed;

2. the method for abandonment of monitoring systems, leachate collection systems, gas-collection systems, etc.;

3. measures planned to ensure public safety, including access control and gas control; and

4. a description of the planned uses of the facility during the post-closure period.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§535. Financial Responsibility**

A. Standards governing financial responsibility are contained in LAC 33:VII.Chapter 13. A section documenting financial responsibility according to LAC 33:VII.Chapter 13, which contains the following information, must be included for all facilities:

1. the name and address of the person who currently owns the land and the name and address of the person who will own the land if the standard permit is granted (if different from the

permit holder, provide a copy of the lease or document that evidences the permit holder's authority to occupy the property); or

2. the name of the agency or other public body that is requesting the standard permit; or, if the agency is a public corporation, its published annual report; or, if otherwise, the names of the principal owners, stockholders, general partners, or officers;

3. evidence of liability coverage, including:

- a. personal injury, employees, and the public (coverage, carriers, and any exclusions or limitations);
- b. property damage (coverage and carrier);
- c. environmental risks; and

4. evidence of a financial assurance mechanism for closure and/or post-closure care and corrective action for known releases when needed.

**AUTHORITY NOTE:** Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

**HISTORICAL NOTE:** Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§537. Special Requirements**

A. The administrative authority may require additional information for special processes or systems and for supplementary environmental analysis.

**AUTHORITY NOTE:** Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

**HISTORICAL NOTE:** Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§539. Part III: Additional Supplementary Information**

A. The following supplementary information is required for all solid waste processing and disposal facilities. All responses and exhibits must be identified in the following sequence to facilitate the evaluation:

1. a discussion demonstrating that the potential and real adverse environmental effects of the facility have been avoided to the maximum extent possible;
2. a cost-benefit analysis demonstrating that the social and economic benefits of the facility outweigh the environmental-impact costs;
3. a discussion and description of possible alternative projects that would offer more protection to the environment without unduly curtailing nonenvironmental benefits;
4. a discussion of possible alternative sites that would offer more protection to the environment without unduly curtailing nonenvironmental benefits; and
5. a discussion and description of the mitigating measures that would offer more protection to the environment than the facility, as proposed, without unduly curtailing nonenvironmental benefits.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**Appendix A**

Example of a Public Notice to be Placed in the Local Newspaper for Intention to Submit a Permit Application to the Office of Environmental Services, Permits Division for Existing/Proposed Solid Waste Facilities:

PUBLIC NOTICE  
OF  
INTENT TO SUBMIT PERMIT APPLICATION

(NAME OF APPLICANT/FACILITY)

FACILITY (location), PARISH (location), LOUISIANA

Notice is hereby given that (name of applicant) does intend to submit to the Department of Environmental Quality, Office of Environmental Services, Permits Division, an application for a permit to operate a (type of solid waste facility) in (parish name), Range \_\_, Township \_\_, Section \_\_, which is approximately (identify the physical location of the site by direction and distance from the nearest town).

Comments concerning the facility may be filed with the secretary of the Louisiana Department of Environmental Quality at the following address:

Louisiana Department of Environmental Quality  
Office of Environmental Services  
Permits Division  
Post Office Box 82135  
Baton Rouge, Louisiana 70884-2135.

## Chapter 6. General Standards for Nonpermitted Facilities

### §601. Standards Governing Industrial Solid Waste Generators

#### A. Annual Reports

1. Generators of industrial solid waste shall submit annual reports to the Office of Environmental Services, Environmental Assistance Division listing the types and quantities, in wet-weight tons per year, of industrial solid waste they have disposed of off-site.

2. The generator's annual report shall name the transporter(s) who removed the industrial solid waste from the generator's site and the permitted solid waste processing or disposal facility or facilities that processed or disposed of the waste. The form to be used shall be obtained from the department or through the department's website at [www.deq.state.la.us](http://www.deq.state.la.us).

3. The reporting period shall be from July 1 through June 30.

4. The report shall be submitted to the Office of Environmental Services, Environmental Assistance Division by August 1 of each reporting year.

5. Generators of industrial solid waste shall maintain, for two years, all records concerning the types and quantities of industrial solid waste disposed of off-site.

#### B. Generator Notification and Waste Testing

1. Prior to the initial transport of an industrial solid waste off-site, generators of industrial solid waste shall:

a. submit to the Office of Environmental Services, Permits Division a generator notification form (that is to be provided by the administrative authority) that includes analysis, analytical data, and/or process knowledge that confirms that the waste is not a characteristic or listed hazardous waste as defined in LAC 33:Part V or by federal regulations; and

b. obtain an industrial waste code number from the Office of Environmental Services, Permits Division.

2. Subsequent movements of the same industrial waste off-site shall not require new waste testing or a new industrial waste code number, unless the process that generates the waste or the characteristics of the waste change. However, the waste characterization data and the waste code required in Subsection B.1 of this Section must be maintained by the generator.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### §603. Standards Governing Solid Waste Accumulation and Storage

#### A. Solid Waste Accumulation

1. No solid waste shall be stored or allowed to be stored long enough to cause a nuisance, health hazard, or detriment to the environment as determined by the administrative authority.

2. Containers used for solid waste shall prevent access by rodents and insects, shall minimize the escape of odors, and shall keep out water.

3. On-site processing or disposal, other than the exclusions provided for in LAC 33:VII.301, 302, 303, or 305, is not allowed on the sites of commercial or industrial generators, unless a permit is obtained.

B. Solid Waste Stored in Tanks

1. Storage tanks shall be designed, constructed, and operated to prevent release of their solid waste contents into the surrounding environment.

2. A storage vessel that is partially buried underground must meet the definition of tank provided in LAC 33:VII.115 in order to be considered a tank; otherwise, it will be considered a surface impoundment.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**§605. Standards Governing Collectors and Off-Site Transporters of Solid Waste**

A. Vehicle Requirements

1. The type and size of vehicles shall comply with the regulations and licensing of the Department of Transportation and Development and with applicable local ordinances governing weight and size for the streets that must be traveled for solid waste pickup.

2. Cover

a. The bodies of vehicles used to transport trees, tree limbs, construction materials, or metals shall contain such waste without allowing materials to fall or blow off the vehicle.

b. The bodies of vehicles used to collect or transport all other solid waste shall be covered at all times, except during loading and unloading, in a manner that prevents rain from reaching waste, inhibits access by rodents and insects, prevents waste from falling or blowing from the vehicle, minimizes escape of odors, and does not create a nuisance.

c. The bodies of vehicles used for the transportation of ash shall be leak-resistant and covered so as to prevent emissions.

3. The bodies of all vehicles used to transport solid waste that produces leachate shall be equipped with a collection and containment system to ensure that leachate from the waste is not discharged in violation of these regulations.

4. The interior and exterior of the body of a vehicle used to transport putrescible solid waste shall be washed down as often as needed to ensure that odors generated by putrescible matter are minimized.

B. Vehicle Washdown Area

1. The vehicle washdown area shall be designed, constructed, and operated to prevent leakage that may lead to groundwater contamination or uncontrolled contaminated surface runoff.

2. Water collected shall be discharged and the containment system thoroughly cleaned as often as is needed to minimize odors. The leachate and the cleanout water shall be discharged in accordance with all applicable state and federal regulations.

C. Standards Governing Waste Transportation by Other Modes

1. Barge and Ship Transport
  - a. Barge and ship transport shall be governed by Subsection A.2, 3, and 4 and Subsection B.1 and 2 of this Section.
  - b. Loading and unloading facilities shall comply with LAC 33:VII.607, as applicable.
2. Pipelines
  - a. Transfer points, pumping stations, and other facilities with a potential for spillage shall be located above grade, or in watertight compartments, and shall be in containment areas constructed to hold the maximum potential spill.
  - b. Containment areas shall consist of a base and dikes constructed of concrete, compacted clay, or other impervious materials. All joints must be sealed.
3. Rail
  - a. Rail car transport shall be governed by Subsection A.2, 3, and 4 of this Section and Subsection B.1 and 2 of this Section.
  - b. Loading and unloading facilities shall comply with LAC 33:VII.607, as applicable.
4. Other. Collectors and off-site transporters utilizing facilities not covered by Subsections A and C of this Section shall apply to the administrative authority for regulations governing the proposed facility.

D. Transportation to Processing and Disposal Facilities. Solid waste shall be transported, for processing or disposal, only to facilities permitted to receive such waste.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

#### **§607. Standards Governing Pickup Stations for Solid Waste**

- A. Pickup stations must comply with existing local zoning and comprehensive land-use regulations and ordinances. They must also occupy sufficient land so that vehicles using the station will not block traffic or otherwise constitute a hazard or endanger public safety.
- B. Containers shall provide complete containment of waste, thereby preventing litter, discharges, odor, and other pollution of adjoining areas. Pickup stations must meet the standards found in LAC 33:VII.603.A.
- C. Cleanup of the station must be timed at intervals in order to comply with the requirements of LAC 33:VII.605.B.1 and 2.
- D. No processing or disposal shall occur at a pickup station unless a standard permit is obtained.
- E. Each person must provide written notice to the parish governing authority, at least 30 days prior to construction, of his intent to operate a pick-up station for the offloading and/or transloading of processed solid waste and sewage sludge destined for disposal.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

## Chapter 7. Solid Waste Standards

### Subchapter A. Standards Governing All Solid Waste Facilities

#### §701. Location Characteristic Standards

A. The information on location characteristics listed in this Subsection is required for all solid waste facilities, as outlined in LAC 33:VII.515. Type I-A and II-A facilities and minor processors and disposers must meet only the standards in Subsections A.2, 4, and 7 and B of this Section.

1. Area master plans shall include location maps and/or engineering drawings. The scale of the maps and engineering drawings must be legible. Area master plans shall show:
  - a. the facility;
  - b. the road network;
  - c. major drainage systems;
  - d. drainage-flow patterns;
  - e. the location of the closest population center(s);
  - f. the location of the public-use airport(s) used by turbojet aircraft or piston-type aircraft;
  - g. the location of the 100-year flood plain; and
  - h. other pertinent information.
2. Access to facilities by land or water transportation shall be by all-weather roads or waterways that can meet the demands of the facility and are designed to avoid, to the extent practicable, congestion, sharp turns, obstructions, or other hazards conducive to accidents; and the surface roadways shall be adequate to withstand the weight of transportation vehicles.
3. A letter shall be acquired from the appropriate agency or agencies regarding those facilities receiving waste generated off-site, stating that the facility will not have a significant adverse impact on the traffic flow of area roadways and that the construction, maintenance, or proposed upgrading of such roads is adequate to withstand the weight of the vehicles.
4. Facilities that process or dispose of putrescible solid waste shall not be located within 10,000 feet of any public-use airport runway end used by turbojet aircraft or within 5,000 feet of any public-use airport runway end used by only piston-type aircraft. Permit applicants for proposed Type II landfills to be located within a five-mile radius of any airport runway must notify the affected airport and the Federal Aviation Administration.
5. A description shall be included of the total existing land use within three miles of the facility (by approximate percentage) including, but not limited to:
  - a. residential;
  - b. health-care facilities and schools;
  - c. agricultural;

- d. industrial and manufacturing;
- e. other commercial;
- f. recreational; and
- g. undeveloped.

6. A current aerial photograph, representative of the current land use, of a one-mile radius surrounding the facility is required. The aerial photograph shall be of sufficient scale to depict all pertinent features. (The administrative authority may waive the requirement for an aerial photograph for Type III facilities.)

7. Facilities located in, or within 1,000 feet of, swamps, marshes, wetlands, estuaries, wildlife-hatchery areas, habitat of endangered species, archaeological sites, historic sites, publicly owned recreation areas, and similar critical environmental areas shall be isolated from such areas by effective barriers that eliminate probable adverse impacts from facility operations. The following information on environmental characteristics shall be provided:

- a. a list of all known historic sites, recreation areas, archaeological sites, designated wildlife-management areas, swamps and marshes, wetlands, habitats for endangered species, and other sensitive ecologic areas within 1,000 feet of the facility perimeter or as otherwise appropriate;
- b. documentation from the appropriate state and federal agencies substantiating the historic sites, recreation areas, archaeological sites, designated wildlife-management areas, wetlands, habitats for endangered species, and other sensitive ecologic areas within 1,000 feet of the facility; and
- c. a description of the measures planned to protect the areas listed from the adverse impact of operation at the facility;

8. Units of a disposal facility that have not received waste prior to October 9, 1993, shall not be located in wetlands, unless the permit holder or applicant can make the following demonstrations to the administrative authority:

- a. where applicable under Section 404 of the Clean Water Act or applicable state wetlands laws, the presumption that a practicable alternative to the proposed landfill is available that does not involve wetlands is clearly rebutted;
- b. the construction and operation of the facility will not:
  - i. cause or contribute to violations of any applicable state water-quality standard;
  - ii. violate any applicable toxic effluent standard or prohibition under section 307 of the Clean Water Act;
  - iii. jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of a critical habitat, protected under the Endangered Species Act of 1973; and
  - iv. violate any requirement under the Marine Protection, Research, and Sanctuaries Act of 1972 for the protection of a marine sanctuary;
- c. the facility will not cause or contribute to significant degradation of wetlands. The owner or operator must demonstrate the integrity of the facility and its ability to protect ecological resources by addressing the following factors:

- i. erosion, stability, and migration potential of native wetland soils, muds, and deposits used to support the facility;
  - ii. erosion, stability, and migration potential of dredged and fill materials used to support the facility;
  - iii. the volume and chemical nature of the waste managed in the facility;
  - iv. impacts on fish, wildlife, and other aquatic resources and their habitat from release of the solid waste;
  - v. the potential effects of catastrophic release of waste to the wetland and the resulting impacts on the environment; and
  - vi. any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected;
- d. to the extent required under Section 404 of the Clean Water Act or applicable state wetlands laws, steps have been taken to attempt to achieve no net loss of wetlands (as defined by acreage and function) by first avoiding impacts to wetlands to the maximum extent practicable as required by Subsection A.8.a of this Section; then, minimizing unavoidable impacts to the maximum extent practicable; and, finally, offsetting remaining unavoidable wetland impacts through all appropriate and practicable compensatory mitigation actions (e.g., restoration of existing degraded wetlands or creation of manmade wetlands); and
- e. sufficient information is available to make a reasonable determination with respect to these demonstrations.

9. The estimated population density within a three-mile radius of the facility boundary, based on the latest census figures is required of all facilities.

10. Well, Fault, and Utility Requirements for Type I and II Facilities

a. Wells. A map is required showing the locations of all known or recorded shot holes and seismic lines, private water wells, oil and/or gas wells, operating or abandoned, within the facility and within 2,000 feet of the facility perimeter and the locations of all public water systems, industrial water wells, and irrigation wells within one mile of the facility. A plan shall be provided to prevent adverse effects on the environment from the wells and shot holes located on the facility.

b. Faults

i. A scale map is required showing the locations of all recorded faults within the facility and within one mile of the perimeter of the facility; and

ii. A demonstration, if applicable, is required of alternative fault setback distance. Units of a disposal facility that have not received waste prior to October 9, 1993, shall not be located within 200 feet (60 meters) of a fault that has had displacement in Holocene time unless the permit holder or applicant demonstrates to the administrative authority that an alternative setback distance of less than 200 feet will prevent damage to the structural integrity of the unit and will be protective of human health and the environment.

c. Utilities. A scale map showing the location of all pipelines, power lines, and rights-of-way within the site is required.

B. All facilities may be subject to a comprehensive land-use or zoning plan established by local regulations or ordinances.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### §703. Facility Characteristic Standards

A. The following information on facility characteristics is required for all solid waste facilities, as outlined in LAC 33:VII.517:

1. elements of the process of disposal system employed, including, as applicable, property lines, original contours (shown at not greater than five-foot intervals), buildings, units of the facility, drainage, ditches, and roads. Type I-A, II-A, and minor processors and disposers are exempt from this standard:
2. perimeter barriers and other control measures, such as security and signs as specified below:
  - a. facilities must have a perimeter barrier around the facility that prevents unauthorized ingress or egress, except by willful entry;
  - b. during operating hours, each facility entry point shall be continuously monitored, manned, or locked;
  - c. during nonoperating hours, each facility entry point shall be locked; and
  - d. facilities that receive wastes from off-site sources shall post readable signs that list the types of waste that can be received at the facility.
3. buffer zones (the requirements for which are stated in this Paragraph) shall be provided between the facility and the property line. A reduction in this requirement shall be allowed only with the permission, in the form of a notarized affidavit, of the adjoining landowner and occupants. A copy of the notarized affidavit waiving the buffer zone requirement shall be entered in the mortgage and conveyance records of the parish for the adjoining landowner's property. Buffer zone requirements may be waived or modified by the administrative authority for areas of landfills that have been closed in accordance with LAC 33:VII.307. No storage, processing, or disposal of solid waste shall occur within the buffer zone.
  - a. All Type I, II, I-A, and II-A facilities shall have a buffer zone of not less than 200 feet between the facility and the property line. In addition, composting facilities that receive sewage sludge, septage, or residential or commercial waste must meet this requirement.
  - b. All other facilities, except beneficial-use facilities as described in LAC 33:VII.Chapter 11, shall have a buffer zone of not less than 50 feet between the facility and the property line.
4. All facilities shall have access to required fire protection and medical care, or such services shall be provided internally.
5. All proposed facilities, other than those that are located within the boundaries of a plant, industry, or business that generates the waste to be processed or disposed of, must provide landscaping to improve the aesthetics of the facility.
6. Devices or Methods of Receiving and Monitoring Incoming Wastes

a. Each processing or disposal facility shall be equipped with a device or method to determine quantity (by wet-weight tonnage), sources (whether the waste was generated in-state or out-of-state and, if it is industrial solid waste, where it was generated), and types of incoming waste (i.e., commercial, residential, infectious). The facility shall also be equipped with a device or method to control entry of the waste and prevent entry of unrecorded or unauthorized deliverables (i.e., hazardous waste, PCB waste, and unauthorized or unpermitted solid waste). At type II landfills, this method shall include random inspections of incoming waste loads at a frequency to reasonably ensure exclusion of such prohibited wastes.

b. Each facility shall be equipped with a central control and recordkeeping system for tabulating the information required in Subsection A.6.a of this Section.

7. Discharges from operating units of all facilities must be controlled and must conform to applicable state and federal laws, including the federal Clean Water Act and Louisiana Water Pollution Control Law. Applications for applicable state and federal discharge permits must be filed before a standard permit may be issued.

B. The following information is required for Type I and II facilities:

1. areas for isolating nonputrescible waste or incinerator ash and borrow areas; and
2. location of leachate collection/treatment/removal system.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§705. Facility Plans and Specifications**

A. Plans, specifications, and operations represented and described in the permit application or permit modifications for all facilities must be prepared under the supervision of and certified by a registered engineer, licensed in the state of Louisiana.

1. Certification. The person who prepared the permit application must provide the following certification:

"I certify under penalty of law that I have personally examined and I am familiar with the information submitted in this permit application and that the facility, as described in this permit application, meets the requirements of the solid waste rules and regulations (LAC 33:VII). I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment."

B. The following standards apply to construction of levees for all facilities:

1. levees or other protective measures must be provided in order to protect the facility against the 100-year flood so as to prevent the washout of solid waste; and
2. if levees are required to protect the facility against the 100-year flood, such perimeter levees shall be engineered to minimize wind and water erosion, shall have a grass cover or other protective cover to preserve structural integrity, and shall provide adequate freeboard above the 100-year flood elevation.

C. Additional plans and specification standards regarding daily and interim cover and leachate management can be found for Type I and II landfills in LAC 33:VII.719.C.1 and 2. Type III facility standards can be found in LAC 33:VII.727.

D. The following standards are applicable to Type I and Type II facilities:

1. units of a facility located in a seismic impact zone that have not received waste prior to October 9, 1993, shall be designed and operated so that all containment structures, including liners, leachate collection systems, and surface water control systems, can withstand the stresses caused by the maximum horizontal acceleration in lithified earth material for the site; and

2. facilities shall not be located in an unstable area unless the permit holder or applicant can demonstrate that the facility is designed to ensure the integrity of structural components, such as liners, leak-detection systems, leachate collection, treatment and removal systems, final covers, run-on/runoff systems (or any other component used in the construction and operation of the facility that is necessary for the protection of human health or the environment). In determining whether an area is unstable, the permit holder or applicant must consider, at a minimum, the following factors:

- a. on-site or local soil conditions that may result in significant differential settling;
- b. on-site or local geologic or geomorphological features; and
- c. on-site or local human-made features or events (both surface and subsurface).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§707. Facility Surface Hydrology**

A. Specific standards governing facility surface hydrology are contained in LAC 33:VII.719.B (Type I and II landfills), 721.B (Type I and II surface impoundments), and 723.B (Type I and II landfarms).

B. The following standards apply to all facilities:

1. facilities located in the 100-year flood plain must be filled to bring site elevation above flood levels or perimeter levees or other measures must be provided to maintain adequate protection against the 100-year flood elevation;

2. facilities located in or within 1,000 feet of an aquifer recharge zone shall be designed to protect the areas from adverse impacts of operations at the facility;

3. surface-runoff-diversion levees, canals, or devices shall be installed to prevent drainage from the units of the facility that have not received final cover to adjoining areas during a 24-hour/25-year storm event. When maximum rainfall records are not available, the design standard shall be 12 inches of rainfall below 31 degrees north latitude and 9 inches of rainfall above 31 degrees north latitude. If the 24-hour/25-year storm-event level is lower, the design standard shall be required; and

4. facilities located in the 100-year flood plain shall not restrict the flow of the 100-year flood or significantly reduce the temporary water-storage capacity of the flood plain, and the

design shall ensure that the flooding does not affect the integrity of the facility or result in the washout of solid waste so as to pose a threat to human health and the environment.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

## **§709. Facility Administrative Procedures**

### **A. Reports**

1. The permit holder shall submit annual reports to the administrative authority indicating quantities and types of solid waste (expressed in wet-weight tons per year; for landfarms, expressed in both wet and dry-weight tons per year), received from in-state generators and from out-of-state generators, during the reporting period. The annual report shall also indicate the estimated remaining permitted capacity at the facility as of the end of the reporting period (expressed in wet-weight tons). All calculations used to determine the amounts of solid waste received for disposal during the annual reporting period and to determine remaining capacity shall be submitted to the administrative authority. A form to be used for this purpose must be obtained from the Office of Environmental Services, Environmental Assistance Division or through the department's website at [www.deq.state.la.us](http://www.deq.state.la.us).

2. The reporting period for the disposer and/or processor annual report shall be from July 1 through June 30, commencing July 1, 1992, and terminating upon closure of the facility in accordance with the permit.

3. Annual reports shall be submitted to the administrative authority by August 1 of each reporting year.

4. The annual report is to be provided for each individual permitted facility on a separate annual reporting form.

5. A facility that receives industrial solid waste shall utilize, in its annual report, the seven-digit industrial waste number that has been assigned by the administrative authority to the industrial solid waste generator.

6. The annual reports for composting facilities and separation facilities shall identify the quantity (expressed in wet-weight tons per year) and types of solid waste distributed for reuse and/or recycling and the ultimate use of the product.

7. The annual report for composting facilities, separation facilities, incinerator waste-handling facilities, shredders, balers, compactors, and transfer stations shall identify the quantity (expressed in wet-weight tons per year) and types of solid waste transported for disposal. The report shall also identify the permitted facility used for disposal of the waste.

8. The annual report for portable air curtain destructors shall identify the site and quantity of solid waste processed at each individual site.

### **B. Recordkeeping**

1. The permit holder shall maintain at the facility all records specified in the application as necessary for the effective management of the facility and for preparing the required reports. These records shall be maintained for the life of the facility and shall be kept on file for at least three years after closure.

2. The permit holder shall maintain records of transporters transporting waste for processing or disposal at the facility. The records shall include the date of receipt of shipments of waste and the transporter's solid waste identification number issued by the administrative authority.

3. Records kept on site for all facilities shall include, but not be limited to:

- a. copies of the current Louisiana solid waste rules and regulations;
- b. the permit;
- c. the permit application; and
- d. permit modifications.

4. The following additional records shall be kept for Type I and Type II facilities, including landfarms:

- a. certified field notes for construction;
- b. operator training programs;
- c. daily log;
- d. quality-assurance/quality-control records;
- e. inspections by the permit holder or operator including, but not limited to, inspections to detect incoming hazardous waste loads;
- f. Board of Certification and Training for Solid Waste Disposal System Operators certificates (if applicable);
- g. records demonstrating that liners, leachate-control systems, and leak-detection and cover systems are constructed or installed in accordance with appropriate quality assurance procedures (if applicable);
- h. records on the leachate volume and results of the leachate sampling (if applicable);
- i. monitoring, testing, or analytical data;
- j. any other applicable or required data deemed necessary by the administrative authority;
- k. records on groundwater sampling results;
- l. post-closure monitoring reports;
- m. copies of all documents received from and submitted to the department; and
- n. additional information in the annual report for landfarms shall be submitted as provided in LAC 33:VII.723.C.

#### C. Personnel

1. Facilities shall have the personnel necessary to achieve the operational requirements of the facility. All personnel involved in waste handling at the facility must be trained adequately in procedures to recognize and exclude receipt or disposal of hazardous wastes and PCB wastes.

2. Facilities receiving residential and commercial solid waste shall have the numbers and levels of certified operators employed at the facility as required by the department. No

person shall operate a solid waste facility unless the Board of Certification and Training for Solid Waste Disposal System Operators has certified the competency of the operators. Operator certificates shall be prominently displayed at the facility. The Board of Certification and Training for Solid Waste Disposal System Operators and the Office of Environmental Services, Permits Division shall be notified within 30 days of any changes in the employment status of certified operators. The requirements of this Paragraph are not applicable to facilities meeting the criteria of LAC 33:VII.305.E.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

## **§711. Facility Operations**

### **A. Facility Limitations**

1. The receipt of hazardous waste and PCB waste shall be strictly prohibited and prevented. Permit holders of Type II landfills must implement a program of random inspections of incoming loads to detect and prevent the disposal of hazardous waste or PCB waste and must keep records of these inspections. Any other wastes that present special handling or disposal problems may be excluded by the administrative authority.

2. Open burning shall not be practiced unless authorization is first obtained from the administrative authority and any other applicable federal, state, and local authorities.

3. Open burning of solid waste shall not be practiced at Type I or II landfills.

4. Salvaging shall be prevented unless approved by the administrative authority.

5. Scavenging shall be prevented.

6. The following waste receipt limitations apply:

a. incinerator ash, industrial solid waste, and nonhazardous petroleum-contaminated media and debris generated by underground storage tanks (UST) corrective action may be disposed of only in Type I facilities. A comprehensive quality-assurance/quality-control plan shall be in place before the receipt of these wastes;

b. industrial solid waste, incinerator ash, and nonhazardous petroleum-contaminated media and debris generated by underground storage tanks (UST) corrective action shall be processed only in Type I-A facilities. A comprehensive quality-assurance/quality-control plan shall be in place before the receipt of these wastes.

7. The receipt of mercury and/or cadmium-bearing batteries by Type I-A and II-A incinerator waste-handling facilities is strictly prohibited.

### **B. General Facility Operational Plans**

1. Operational plans shall be provided that describe in specific detail how the waste will be managed during all phases of processing or disposal operations. At a minimum, the plan shall address:

a. the route the waste will follow after receipt;

b. the sequence in which the waste will be processed or disposed of within a unit;

c. the method and operational changes that will be used during wet weather (particular attention should be given to maintenance of access roads and to water management);

d. the recordkeeping procedures to be employed to ensure that all pertinent activities are properly documented;

e. the sampling protocol, chain of custody, and test methods that will be used in the gas-monitoring systems;

f. the engineering protocols and testing frequencies that will be used to ensure that the grade and slope of both the on-site drainage system and the run-on diversion system are maintained and serve their intended functions;

g. the engineering protocols and testing frequencies that will be used to ensure that:

i. for surface impoundments, the designed capacity remains unchanged; or

ii. for landfills, the leachate collection and treatment system is functioning as designed; and

h. the measuring protocol to be used and the frequency with which the depth of leachate within the collection system will be checked, as well as how the leachate will be removed and transported to the treatment facility.

2. Sufficient equipment shall be provided and maintained at all facilities to meet the facilities' operational needs.

### 3. Facility Operations, Emergency Procedures, and Contingency Plans

a. A plan outlining facility operations and emergency procedures to be followed in case of accident, fire, explosion, or other emergencies shall be developed and filed with the administrative authority and with the local fire department and the closest hospital or clinic. The plans shall be updated annually or when implementation demonstrates that a revision is needed.

b. Training sessions concerning the procedures outlined in Subsection B.3.a of this Section shall be conducted annually for all employees working at the facility. A copy of the training program shall be filed with the administrative authority.

### C. Operational Standards for Type I and II Disposal Facilities

1. Facilities receiving waste with a potential to produce methane gas shall be subject to the air-monitoring requirements.

a. The permit holder or applicant subject to air-monitoring requirements shall submit to the Office of Environmental Services, Permits Division a comprehensive air-monitoring plan that will limit methane gas levels to less than the lower-explosive limits at the facility boundary and to 25 percent of the lower-explosive limits in facility buildings.

b. The type and frequency of monitoring must be determined based on the following factors:

i. soil conditions;

ii. hydrogeologic conditions surrounding the facility;

iii. hydraulic conditions surrounding the facility; and

iv. the location of facility structures and property boundaries.

- c. The minimum frequency of monitoring shall be quarterly.
  - d. If methane gas levels exceeding the limits specified in Subsection C.1.a of this Section are detected, the owner or operator must:
    - i. immediately take all necessary steps to ensure protection of human health and notify the administrative authority;
    - ii. within seven days of detection, submit a report to the administrative authority that provides the methane gas levels detected and a description of the steps taken to protect human health; and
    - iii. within 30 days of detection, submit a remediation plan for the methane gas releases to the administrative authority. The plan shall describe the nature and extent of the problems and the proposed remedy and shall include an implementation schedule. The plan must be implemented within 60 days of detection.
  - e. The permit holder shall notify the Office of Environmental Compliance by telephone at (225) 763-3908 during office hours; (225) 342-1234 after hours, weekends, and holidays; or by e-mail utilizing the Incident Report Form and procedures found at [www.deq.state.la.us/surveillance](http://www.deq.state.la.us/surveillance) when strong odors occur at facility boundaries or when methane gas levels exceed the limit specified in Subsection C.1.a of this Section.
  - f. Records of inspections, surveys, and gas monitoring results shall be maintained at the facility.
  - g. Odors shall be controlled by the best means practicable.
  - h. Facilities must ensure that the units do not violate any applicable requirements developed under a state implementation plan (SIP) approved or promulgated in accordance with section 110 of the Clean Air Act, as amended.
2. Waste Testing. The following operational standards apply to waste testing for facilities receiving domestic sewage sludge, industrial solid waste, incinerator ash, or nonhazardous petroleum-contaminated media and debris generated by underground storage tanks (UST) corrective action:
- a. facilities that receive domestic septage or sewage sludge from publicly owned treatment works shall require the waste be tested for toxicity characteristics leachate procedure (TCLP) analysis and priority pollutants prior to acceptance of the waste and annually for two years following acceptance. Every year thereafter, the generator must certify that the waste remains unchanged;
  - b. facilities that receive industrial waste (Type I) shall require testing for TCLP constituents prior to acceptance of the waste and annually thereafter, or documented process knowledge that confirms that the waste is not a characteristic or listed hazardous waste as defined in LAC 33:V.Subpart 1 or by federal regulations. Any waste that has a concentration equal to or higher than the TCLP test parameter limits shall not be accepted at the facilities, even if the waste is classified as nonhazardous. Nonhazardous petroleum-contaminated media and debris generated from underground storage tanks (UST) corrective action shall require testing for the appropriate constituents of TCLP prior to acceptance of the waste; and
3. Type I facilities that receive incinerator ash shall require testing of the ash for TCLP metals and dioxins prior to acceptance and thereafter quarterly for TCLP metals and annually for dioxins.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### §713. Facility Implementation Plans

A. The implementation plans for all facilities must include the following:

1. a construction schedule for existing facilities, which shall include beginning and ending time-frames and time-frames for the installation of all major features, such as monitoring wells and liners. (Time-frames must be specified in days, with day one being the date of standard permit issuance); and
2. details on phased implementation if any proposed facility is to be constructed in phases.

B. The implementation plans for Type I and II facilities must include a plan for closing and upgrading existing operating areas if the application is for expansion of a facility or construction of a replacement facility.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### §715. Facility Closure

A. Specific standards governing facility closure are contained in LAC 33:VII.719.E (Type I and II landfills), 721.E (Type I and II surface impoundments), 723.E (Type I and II landfarms), 725.B (Type I-A and II-A facilities), 727.D (construction and demolition debris and woodwaste landfills), 729.C (Type III composting facilities), and 731.B (Type III separation facilities).

B. Notification of Intent to Close a Facility. All permit holders shall notify the Office of Environmental Services, Permits Division, in writing, at least 90 days before closure or intent to close, seal, or abandon any individual units within a facility and shall provide the following information:

1. date of planned closure;
2. changes, if any, requested in the approved closure plan; and
3. closure schedule and estimated cost.

C. For effective drainage, side slopes for disposal facilities shall be no steeper than 3(H):1(V), and the top slope of the unit of a facility shall be a minimum of 4 percent slope.

D. Upon determination by the administrative authority that a facility has completed closure in accordance with an approved plan, the administrative authority shall release the closure fund to the permit holder. The permit holder must submit a request for the release of this fund to the Office of Management and Finance, Financial Services Division.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§717. Facility Post-Closure**

A. Standards governing post-closure requirements are contained in LAC 33:VII.719.F (Type I and II landfills), 721.F (Type I and II surface impoundments), 723.F (Type I and II landfarms), and 727.E (Type III construction and demolition debris and woodwaste landfills).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

## **Subchapter B. Specific Facility Standards**

### **§719. Specific Standards Governing Landfills (Type I and II)**

A. The topics presented in the subsections of this Section will be addressed in the permit application.

#### **B. Facility Surface Hydrology**

1. Trenches or areas used for waste disposal shall be graded to facilitate drainage.
2. A run-on control system shall be installed to prevent run-on during the peak discharge from a 25-year storm event.
3. Runoff from operating areas or areas that contain solid waste and have not yet received interim compacted cover or final cover shall be considered contaminated and shall not be allowed to mix with noncontaminated surface runoff.

#### **C. Facility Plans and Specifications**

1. Daily and Interim Cover Requirements
  - a. Cover material must:
    - i. minimize vector-breeding areas and animal attraction by controlling:
      - (a). fly, mosquito, and other insect emergence and entrance;
      - (b). rodent burrowing for food and harborage; and
      - (c). bird and animal attraction;
    - ii. control leachate generation by:
      - (a). minimizing external-moisture infiltration;
      - (b). minimizing erosion; and
      - (c). utilizing materials with minimum free-liquid content and minimum concentrations of constituents monitored in leachate;

atmospheric oxygen;

methane and other gases;

- iii. reduce fire-hazard potential by minimizing inward movement of atmospheric oxygen;
  - iv. minimize blowing paper and litter;
  - v. reduce noxious odors by minimizing outward movement of methane and other gases;
  - vi. provide an aesthetic appearance to the landfill operation; and
  - vii. allow accessibility regardless of weather.
- b. Silty or sandy clays applied a minimum of 6 inches thick at the end of each operating day are satisfactory for daily cover, and silty clays applied a minimum of 1 foot thick are satisfactory for interim cover.

c. Alternative daily cover materials may be approved by the administrative authority provided the standards of Subsection C.1.a of this Section are met. The administrative authority reserves the right to require testing to confirm acceptability. The administrative authority may waive the requirements for daily cover, for Type I landfills only, if the permit holder or applicant can demonstrate that the nature of the waste is such that daily cover is not necessary. Daily cover requirements may not be waived for Type II landfills.

d. Alternative daily cover materials submitted for approval shall be available on a regular basis and demonstrate reasonably consistent composition and performance characteristics.

e. Interim cover or interim compacted cover shall be applied on all operating areas of a facility that will not receive solid waste for a period longer than 60 days. Interim cover or interim compacted cover must be applied within 48 hours of the last receipt of solid waste in the operating area. Facilities that provide interim cover or interim compacted cover shall also implement an erosion control plan.

f. Daily and interim cover must be applied and maintained in a condition that will meet the purposes of Subsection C.1.a of this Section.

g. The source of daily and interim cover must be accessible regardless of weather.

## 2. Leachate Control, Collection, Treatment, and Removal Systems

a. The standards in Subsection C.2 of this Section apply to leachate control, collection, treatment, and removal systems for proposed landfills and units of existing landfills that receive waste on or after the required upgrade date specified in LAC 33:VII.502. These standards also apply to units of Type II landfills that have not received waste prior to October 9, 1993.

b. Leachate Control, Collection, Treatment, and Removal Standards

i. Leachate shall not be managed by allowing the leachate to be absorbed in the waste.

ii. Infiltration of water into the waste shall be minimized by daily, interim, and final cover, as required by these regulations.

iii. The impact of leachate on the environment shall be minimized by a leachate collection and removal system and a leachate treatment system designed to ensure positive removal and treatment of generated leachate.

- iv. Leachate removed shall be handled in such a manner that it does not adversely affect the environment.
- v. Migration of leachate shall be prevented by liners or other barriers.
- vi. Representative samples of raw leachate shall be collected and analyzed annually for the same parameters that are required for the facility groundwater monitoring wells in LAC 33:VII.Chapter 8, Appendix A, Table 2.
- c. Minimum Standards for Leachate Collection and Removal Systems
  - i. The leachate collection system shall be located above the primary liner.
  - ii. All leachate collection pipes shall be perforated, a minimum of 6 inches in diameter, and constructed of materials resistant to the leachate.
  - iii. Leachate cleanout risers or manholes must be provided for each leachate collection line. The maximum length of leachate collection lines shall not exceed the capabilities of the cleanout device.
  - iv. A granular leachate collection drainage blanket, consisting of natural or synthetic material with a permeability of  $1 \times 10^{-3}$  cm/sec or higher, must be provided to trap fines and prevent waste from entering the leachate removal system while allowing the passage of leachate. If natural material is used for the drainage blanket, the thickness of the material shall be at least 12 inches, unless otherwise approved by the administrative authority.
  - v. The flow path of leachate on the liner surface shall be no greater than 100 feet to the point of collection (For the purpose of determining this distance, the permit holder or applicant may assume that the leachate flow path is perpendicular to the leachate collection pipe.).
  - vi. The slope on the surface of the liner toward the leachate collection lines shall be a minimum of 2 percent.
  - vii. The slope of all leachate collection pipes shall be a minimum of 1 percent.
  - viii. The leachate head shall be maintained in a pumped-down condition, such that not more than 1 foot of head shall exist above the lowest bottom elevation of the leachate collection lines.
  - ix. The equipment used to remove leachate from the collection system shall be adequately sized to accommodate normal facility operations.
  - x. Trenches or swales shall be provided to protect the leachate collection pipes.
  - xi. The leachate collection lines shall be sloped down toward the perimeter of the unit.
  - xii. An adequate thickness of gravel shall be placed on all sides of the leachate pipes.
  - xiii. Gravel size shall be selected carefully to ensure that it is larger than the perforations in the collection pipe.

xiv. A geotextile shall be used to line the base and sidewalls of all leachate collection trenches or swales. The migration of fines into the tops of the trenches shall be minimized by a properly designed, graded soil filter or geotextile.

xv. Materials such as limestone and dolomite shall not be used in the leachate collection system. However, the administrative authority may allow alternate materials to be used in construction of the leachate collection system if the permit holder or applicant can demonstrate that the materials can provide equivalent or superior performance.

xvi. Leachate lines (and other engineering structures) shall not penetrate the liner. The administrative authority may waive this requirement to allow horizontal penetration of the liner only if the permit holder or applicant can demonstrate that special or unusual circumstances warrant such a waiver and that liner integrity can be protected.

xvii. An antiseep collar should be placed around the leachate line that penetrates the liner. A minimum of three feet of recompacted clay or equivalent material shall be placed around the collar.

xviii. All leachate transfer (force-main) lines shall be pressure tested prior to their use.

xix. All control systems for pumps, valves, and meters shall be designed to be operated from the ground level.

### 3. Liners

a. The standards in Subsection C.3 of this Section apply to liners for proposed landfills and units of existing landfills that receive waste on or after the required upgrade date in LAC 33:VII.502. These standards also apply to units of Type II landfills that did not receive waste before October 9, 1993, as provided in LAC 33:VII.502.

b. The permit holder or applicant must provide and implement a quality-control and quality-assurance plan for liner construction and maintenance that will ensure that liners are designed, constructed, installed, and maintained properly. All facilities must have quality-control plans for the excavations. All excavations and liners shall be inspected and certified by a registered engineer, licensed in the state of Louisiana, with the appropriate expertise.

c. The permit holder or applicant must demonstrate that the liner is placed upon a base that provides the following:

- i. adequate support for the contents;
- ii. maximum resistance to settlement of a magnitude sufficient to affect the integrity of the liner or the proper positioning of the leachate collection or leak-detection system;
- iii. maximum resistance to hydrostatic heave on the sides or bottom of the excavation; and
- iv. maximum resistance to desiccation.

d. Units of landfills shall be lined along the sides and bottom with a liner system installed under the supervision of a registered engineer licensed in the state of Louisiana and with the appropriate expertise, which consists of the following, in descending order:

- i. a leachate collection system designed and constructed in accordance with Subsection C.2 of this Section; and

ii. a composite liner that consists of a geomembrane liner at least 30-mil thick installed directly above and in uniform contact with a 3-foot recompacted clay liner having a hydraulic conductivity no greater than  $1 \times 10^{-7}$  cm/sec (If the geomembrane component is high-density polyethylene, then the geomembrane component must be at least 60-mil thick. Any geomembrane liner used must be compatible with the solid waste and leachate in the unit); or

iii. subject to the approval of the administrative authority, an alternative liner. Permit holders or applicants seeking to use an alternative liner must successfully make the following demonstration to the administrative authority:

(a). the unit receives and will receive only industrial solid waste generated on site; and

(b). the alternative liner system will provide equivalent or greater groundwater protection at the site as compared to the composite liner design in Subsection C.3.d.ii of this Section, as demonstrated by generally accepted modeling techniques and based on factors specific to the site and to the solid wastes received. The burden of proof of adequacy of the alternative liner design shall be on the permit holder or applicant.

e. Secondary liners may be constructed below and in addition to the required composite liner. The specifications of secondary liners must be approved by the administrative authority on an individual basis.

f. A leak-detection system may be constructed between the required composite liner and any secondary liner.

g. Special design conditions may be required in areas where the groundwater table is high or where other circumstances warrant such conditions as determined by the administrative authority. These special design standards may include more protective or stringent standards, such as secondary liners (described in Subsection C.3.e of this Section) or leak-detection systems, or other conditions.

#### 4. Gas Collection and Treatment or Removal System

a. Each unit of the facility with a potential for methane gas production and migration shall be provided with a methane gas collection and treatment or removal system.

b. The collection system shall be vented to the atmosphere or connected to a dispersal system or resource recovery system in accordance with accepted practices.

c. The gas collection and treatment or removal system shall be such that it limits methane gas to lower-explosive limits at the facility boundary and to 25 percent of the lower explosive limits in facility buildings.

d. Sampling protocol, chain of custody, and test methods shall be established for all gas collection and treatment or removal systems.

#### D. Facility Operations

##### 1. Specific Facility Limitations

a. Only infectious waste from hospitals or clinics that has been properly packaged and identified and is certified noninfectious by the Department of Health and Hospitals may be deposited in Type I or II landfills.

b. Grazing of domestic livestock shall not be allowed on operating areas.

c. Liquid wastes shall not be disposed of in a landfill, and facilities that plan to accept liquid wastes shall provide a means for solidifying and an appropriate quality assurance/quality-control program, except as follows:

i. bulk or noncontainerized liquid shall not be placed in a landfill unless the waste is residential waste, other than septic waste; and

ii. containers holding liquid waste shall not be placed in a landfill unless:

(a). the container is a small container similar to that normally found in residential waste;

(b). the container is designed to hold liquids for use other than storage; or

(c). the waste is residential waste.

d. Residential, commercial, and other wastes deemed acceptable by the administrative authority on a site-specific basis may be disposed of in Type I and II landfills. A comprehensive quality-assurance/quality-control plan shall be provided for facilities receiving friable asbestos and dewatered domestic wastewater treatment plant sludge.

e. No solid waste shall be deposited in standing water.

2. Facility Operational Plans. In addition to the general standards described in LAC 33:VII.711.B, the following specific standards in regard to segregation of wastes are required:

a. white goods may be stored in a unit separate from other solid wastes and shall be removed every 30 days. The facility shall maintain a log of dates and volumes of white goods removed from the facility;

b. tree limbs, leaves, clippings, and similar residues may be segregated and deposited in a permitted unit separate from other solid waste and shall be covered every 30 days or more often if necessary to control blowing and prevent rodent harborage; and

c. construction material and woodwastes may be deposited in a permitted unit separate from other solid wastes and covered every 30 days. This unit must meet the standards provided in this Subsection and in LAC 33:VII.721.

3. Specific Operational Standards. In addition to the general standards described in LAC 33:VII.711.B, the following specific standards are required:

a. waste shall be deposited under facility supervision in the smallest practicable area, spread in layers, and compacted to approximately 2 feet thick or, if baled, stacked and daily cover applied; and

b. in regard to vector control standards:

i. food or harborage shall be denied to rats, insects, and birds to the extent possible by using proper cover or other means acceptable on a site-specific basis. Where necessary, an approved pesticide shall be applied in accordance with applicable state and federal laws; and

ii. a schedule of the type and frequency of vector control measures to be used shall be submitted to the administrative authority for approval in the operational plan.

#### E. Facility Closure Requirements

##### 1. Preclosure Requirements

a. Final cover installation shall be initiated no later than 30 days after, and shall be completed no later than 90 days after, final grades are reached in each unit of a facility or the date of known final receipt of solid waste in the unit, whichever comes first. These deadlines may be extended by the administrative authority, if necessary, due to inclement weather or other circumstances to a maximum of 60 days for initiation and a maximum of 180 days for completion.

b. Standing water shall be solidified or removed.

c. The runoff-diversion system shall be maintained until the final cover is installed.

d. The runoff-diversion system shall be maintained and modified to prevent overflow of the landfill to adjoining areas.

e. Insect and rodent inspection is required to be documented before installation of final cover, and extermination measures must be provided if required as a result of the facility inspection.

f. Final machine compacting and grading shall be completed before capping.

g. All facilities with a potential for gas production or migration shall provide a gas collection and treatment or removal system.

## 2. Closure Requirements

### a. Final Cover

i. Final cover shall be placed on top of the daily or intermediate cover that is used as the grading layer to provide a stable base for subsequent layers.

ii. Final cover shall be a minimum of 24 inches of recompacted clay with a permeability of less than  $1 \times 10^{-7}$  cm/sec or shall be at least as impermeable as the liner system beneath the cover, whichever is less.

iii. The Office of Environmental Compliance, Surveillance Division shall be notified after the final cover is applied, but prior to the planting of ground cover. The permit holder shall also notify the Office of Environmental Compliance, Surveillance Division once the ground cover is established.

iv. A minimum of 6 inches of topsoil shall be installed on top of the soil cover to support vegetative growth, to prevent erosion, and to return the facility location to a more natural appearance.

v. Quality-control procedures must be developed and implemented to ensure that the final cover is designed, constructed, and installed properly. An engineering certification verifying that the facility meets the final cover requirements shall be prepared under the supervision of a registered engineer licensed in the state of Louisiana. This certification shall be submitted to the Office of Environmental Assessment, Environmental Technology Division for approval.

vi. Other covers that satisfy the purposes of minimizing infiltration of precipitation, fire hazards, odors, vector food, and harborage, as well as discouraging scavenging and limiting erosion, may be submitted for consideration by the administrative authority.

vii. Synthetic material or a combination of clay and synthetic material approved by the administrative authority may also be used as a final cover.

viii. Alternate final cover used in accordance with Subsection E.2.a.vi and vii of this Section must provide performance equivalent to or better than the final cover requirements in Subsection E.3.a.ii and iv of this Section.

ix. For effective drainage, the side slopes shall be no steeper than 3(H):1(V) and the top of the final cap shall be at minimum a 4 percent slope.

b. Landfills must be closed in a manner that minimizes the need for further maintenance and minimizes the post-closure release of leachate to ground or surface waters to the extent necessary to protect human health and the environment.

c. The permit holder shall update the parish mortgage and conveyance records by entering 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 and address of the person with knowledge of the contents of the facility. An example of the form to be used for this purpose is provided in Appendix C of this Chapter. The latest version of this form can be found on the department's web site, [www.deq.state.la.us](http://www.deq.state.la.us). The facility shall provide the Office of Environmental Services, Permits Division with a true copy of the document filed and certified by the parish clerk of court.

3. Upon determination by the administrative authority that a facility has completed closure in accordance with an approved plan, the administrative authority shall release the closure fund to the permit holder. A request for the release of this fund shall be submitted to the Office of Management and Finance, Financial Services Division.

#### F. Facility Post-Closure Requirements

1. The post-closure period begins when the Office of Environmental Services, Permits Division approves closure. The length of the post-closure care period for landfills may be:

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.

#### 2. Post-Closure Care Length

a. Facilities that receive solid waste on or after October 9, 1993, must remain in post-closure care for 30 years after closure of the facility .

b. Existing facilities that do not receive waste on or after October 9, 1993, must remain in post-closure care for three years after closure of the facility.

c. However, if the facility received waste on or after October 9, 1991, the final cover must be maintained, as specified in Subsection F.3.a of this Section, for 30 years after closure.

3. The post-closure care, except as otherwise specified above, must consist of at least the following:

a. maintaining 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), preventing run-on and runoff from eroding or otherwise damaging the final cover, and providing annual reports to the Office of Environmental Compliance, Surveillance Division on the integrity of the final cap. The Office of Environmental Assessment, Environmental Technology Division and the Office of Environmental Compliance, Surveillance Division shall be notified of any problems and corrective action measures associated with the integrity and effectiveness of the final cover:

- 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;
- c. maintaining and operating the gas collection and treatment or removal system and the gas-monitoring system; and
- d. maintaining the groundwater-monitoring system and monitoring the groundwater in accordance with LAC 33:VII.805.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

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

A. General standards for location characteristics, facility characteristics, facility plans and specifications, facility administrative procedures, facility operational plans, and implementation plans are addressed in other sections of this Chapter.

### **B. Facility Surface Hydrology**

1. Existing surface impoundments, including existing ditches that receive solid waste, that are designed to collect or transport run-on (e.g., stormwater) are not required to comply with any of the requirements of Subsection B.2 of this Section and LAC 33:VII.707.B.3 and 4. This Subsection does not relieve such facilities from compliance with the Louisiana water quality regulations (LAC 33:Part IX).

2. Surface run-on from outside the facility shall be diverted and prevented from entering the facility, with provisions for maintaining adequate freeboard above the requirements of LAC 33:VII.705.B.1. A run-on control system shall be installed to prevent run-on during the peak discharge from a 25-year storm event.

3. Adequate freeboard shall be provided to prevent over-topping by wave action.

### **C. Facility Plans and Specifications**

1. Plans, specifications, and operations represented and described in the permit application or permit modifications for all facilities must be prepared under the supervision of and certified by a registered engineer licensed in the state of Louisiana.

#### **2. Liners**

a. The standards in this Paragraph apply to liners for Type I and II proposed surface impoundments and for surface impoundments constructed subsequent to the required upgrade date specified in LAC 33:VII.503 (Units of surface impoundments on which construction is

completed prior to the upgrade date specified in LAC 33:VII.503 and that have received a temporary permit or standard permit prior to February 1, 1993, are not governed by these liner standards.)

b. The permit holder or applicant must provide and implement a quality-control and quality-assurance plan for liner construction and maintenance that will ensure that liners are designed, constructed, installed, and maintained properly. All facilities must have quality-control plans for the excavations. All excavations and liners shall be inspected and certified by a registered engineer licensed in the state of Louisiana and with the appropriate expertise.

c. The permit holder or applicant must demonstrate that the liner is placed upon a base that provides the following:

- i. adequate support for the contents;
- ii. maximum resistance to settlement of a magnitude sufficient to affect the integrity of the liner or the proper positioning of the leachate-collection or leak-detection system;
- iii. maximum resistance to hydrostatic heave on the sides or bottom of the excavation; and
- iv. maximum resistance to desiccation.

d. Units of surface impoundments shall be lined along the sides and bottom with a composite liner consisting of a geomembrane liner at least 30-mil thick installed directly above and in uniform contact with a three-foot recompacted clay liner having a hydraulic conductivity no greater than  $1 \times 10^{-7}$  cm/sec that has been installed under the supervision of a registered engineer licensed in the state of Louisiana and with the appropriate expertise. (If the geomembrane component is high-density polyethylene, then the geomembrane component must be at least 60-mil thick. Any geomembrane liner used must be compatible with the solid waste and leachate in the unit.) An alternative liner system that will provide equivalent or greater groundwater protection at the site as compared to the composite liner, as demonstrated by generally accepted modeling techniques and based on factors specific to the site and to the solid wastes received, may be used. The burden of proof of adequacy of the alternate liner design shall be on the permit holder or applicant.

e. Secondary liners may be constructed below and in addition to the required composite liner. The specifications of secondary liners must be approved by the administrative authority on an individual basis.

f. A leak-detection system may be constructed between the required composite liner and any secondary liner. The specifications of the leak-detection system must be approved by the administrative authority on an individual basis.

g. Special design conditions may be required in areas where the groundwater table is high or where other circumstances warrant such conditions, as determined by the administrative authority. These special design standards may include more protective or stringent standards such as secondary liners (described in Subsection C.2.e of this Section) or leak-detection systems or other conditions.

3. Gas Collection and Treatment or Removal System. The following standards apply to Type I and II surface impoundments not performing clean closure:

a. each unit of the facility with a potential for methane gas production and migration shall be provided with a methane gas collection and treatment or removal system;

b. the collection system shall be vented to the atmosphere or connected to a dispersal system or resource recovery system in accordance with accepted practices;

c. the gas collection and treatment or removal system shall be such that it limits methane gas to lower-explosive limits at the facility boundary and to 25 percent of the lower-explosive limits in facility buildings; and

d. sampling protocol, chain of custody, and test methods shall be established for all gas collection and treatment or removal systems.

D. Facility Operations

1. Specific facility operational plans shall address the methods and inspection frequencies that will be used to establish that the levees and required freeboards are maintained.

2. Specific Facility Operational Standards

a. Surface impoundments shall be designed, constructed, maintained, and operated to prevent overtopping by overfilling, wave action, or action of storms.

b. Surface impoundments shall be inspected daily and after storms to detect evidence of deterioration of the dikes and levees, overtopping, malfunctions, or improper operation. Excessive vegetative growth that prevents proper access, inspection, or operation or may provide a conduit for groundwater contamination shall be removed.

c. If a leak in an impoundment is found, the administrative authority shall be notified in accordance with LAC 33:I.Subpart 2.

E. Facility Closure Requirements

1. Preclosure Requirements. The following standards apply to preclosure requirements for surface impoundments with on-site closure:

a. all facilities with a potential for gas production or migration shall provide a gas collection and treatment or removal system; and

b. the runoff-diversion system shall be maintained and modified to prevent overflow of the facility to adjoining areas.

2. Closure Requirements

a. Surface liquids and sludges containing free liquids shall be dewatered or removed.

b. If a clean closure is achieved, there are no further post-closure requirements. The closure plan must reflect a method for determining that all waste has been removed and such a plan shall, at a minimum, include the following:

i. identification (waste analysis) of the wastes that have entered the facility;

ii. selection of the indicator parameters to be sampled that are intrinsic to the waste that have entered the facility in order to establish clean-closure criteria. Justification of the parameters selected shall be provided in the closure plan;

iii. sampling and analyses of the uncontaminated soils in the general area of the facility for a determination of background levels using the indicator parameters selected. A diagram showing the location of the area proposed for the background sampling, along with a description of the sampling and testing methods, shall be provided. In addition, the Office of Environmental Compliance, Surveillance Division shall be notified at least five days prior to any sampling event;

iv. a discussion of the sampling and analyses of the "clean" soils for the selected parameters after the waste and contaminated soils have been excavated. Documentation regarding the sampling and testing methods (i.e., including a plan view of the facility, sampling locations, and sampling quality-assurance/quality-control programs) shall be provided;

v. a discussion of a comparison of the sample(s) from the area of the excavated facility to the background sample. Concentrations of the selected parameter(s) of the bottom and side soil samples of the facility must be equal to or less than the background sample to meet clean closure criteria;

vi. analyses to be sent to the Office of Environmental Services, Permits Division confirming that clean closure has been achieved;

vii. identification of the facility to be used for the disposal of the excavated waste; and

viii. a statement from the permit holder indicating that, after the closure requirements have been met, the permit holder will file a request for a closure inspection with the Office of Environmental Services, Permits Division before backfilling takes place. The administrative authority shall determine whether the facility has been closed properly.

c. If solid waste remains at the facility, the closure and post-closure requirements for industrial (Type I) solid waste landfills or nonindustrial (Type II) landfills shall apply.

3. 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.

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.3.b of this Section shall not apply. The requirements of Subsection F of this Section (Facility Post-Closure Requirements) shall apply.

b. With the exception of those sites closed in accordance with Subsection E.3.a of this Section, within 90 days after a closure is completed, the permit holder must have recorded in the mortgage and conveyance records of the parish in which the property is located, a notation stating that solid waste remains at the site and providing the indicator levels obtained during closure.

#### F. Facility Post-Closure Requirements

1. The post-closure period begins when the Office of Environmental Services, Permits Division approves closure. The length of the post-closure care period for surface impoundments may be:

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.

2. The following standards regarding post-closure requirements apply to surface impoundments with on-site closure:

##### a. Post-Closure Care Length

i. facilities that receive solid waste on or after October 9, 1993, must remain in post-closure care for 30 years after closure of the facility;

ii. existing facilities that do not receive waste on or after October 9, 1993, must remain in post-closure care for three years after closure of the facility; and

iii. however, if the facility received waste on or after October 9, 1991, the final cover must be maintained, as specified in Subsection F.2.b of this Section, for 30 years after closure.

b. The post-closure care, except as otherwise specified above, must consist of at least the following:

i. maintaining 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), preventing run-on and runoff from eroding or otherwise damaging the final cover, and providing annual reports to the Office of Environmental Compliance, Surveillance Division on the integrity of the final cap;

ii. maintaining and operating, if applicable, the leak-detection system;

iii. maintaining and operating the gas-collection and treatment or,removal system and the gas-monitoring system; and

iv. maintaining and monitoring the groundwater-monitoring system.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

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

A. General standards for location characteristics, facility characteristics, facility plans and specifications, facility administrative procedures, facility operational plans, and implementation plans are addressed in other parts of this Chapter.

#### B. Facility Surface and Subsurface Hydrology

1. A run-on control system shall be installed to prevent run-on during the peak discharge from a 25-year storm event.

2. Land slope shall be controlled to prevent erosion.

3. The topography of the facility shall provide for drainage to prevent standing water and shall allow for drainage away from the facility.

4. Landfarms shall be located in a hydrologic section where the high-water table is at a minimum three-foot depth below the zone of incorporation, or the water table at the facility shall be controlled to a minimum of a three-foot depth below this zone.

#### C. Facility Administrative Procedures

1. Additional records shall be kept for Type I and Type II landfarms as follows:

a a copy of the semiannual soil waste mixtures tests and analyses of the results with conclusions shall be submitted to the Office of Environmental Assessment, Environmental Technology Division, semiannually, or more frequently if deemed necessary by the administrative authority;

b. test parameters shall consist of cation-exchange capacity, soil pH, total nitrogen, phosphorus, organic matter, salts (intrinsic to the waste), cumulative metals, and others as deemed necessary on a site and waste specific basis;

c. annual reports shall be kept of the analysis of all tests results on the soils, including land-use, crop information, calculated amounts of waste applied per acre, total amounts of nitrogen applied per acre, and cumulative-metals loading; and

d. annual reports shall be submitted to the Office of Environmental Assessment, Environmental Technology Division for a minimum of three years (Type II landfarms) and 10 years (Type I landfarms) after closure and shall contain analyses of all test results of the soils. The post-closure monitoring annual reporting may be reduced for certain types of landfarms if the permit holder demonstrates to the administrative authority's satisfaction that such reduction is warranted.

D. Facility Operations

1. Facility Limitations

a. Grazing by animals whose products are consumed by humans shall be prevented.

b. Only waste that is demonstrated to be biodegradable will be considered for disposal in a landfarm.

c. A comprehensive quality-assurance/quality-control plan shall be provided to ensure that incoming wastes are in conformance with the facility permit.

2. Facility operational plans shall include a comprehensive operational management plan for the facility that indicates with calculations that the acreages and methods are adequate for treating the type and volume of wastes anticipated. The plan shall include contingencies for variations.

3. Facility Operational Standards

a. The maximum allowable lifetime metal loading shall be restricted to the limits specified in the following table. It varies depending upon the value of the soil cation-exchange capacity ( soil CEC).

<b>Maximum Allowable Metal Loading (lb/acre)*</b>			
<b>Soil CEC (meq/100g)</b>	<b>&lt;5</b>	<b>5-15</b>	<b>&gt;15</b>
Lead (Pb)	500	1000	2000
Zinc(Zn)	250	500	1000
Copper (Cu)	125	250	500
Nickel (Ni)	125	250	500
Cadmium (Cd)	5	10	20

\*Other metals not listed may be subject to restrictions based upon the metal content of the waste.

b. Surface application of liquid waste shall not exceed 2 inches per week.

c. Soils shall maintain a sufficiently high cation-exchange capacity (CEC) to absorb metallic elements in the solid waste by natural (pH range of soil) or artificial (additives) means. Soil in the zone of incorporation must be monitored to assess the effectiveness of ongoing treatment, management needs, and soil integrity.

d. Nitrogen concentrations in the waste must be within the limits deemed acceptable, as determined by plant-nitrogen uptake and soil and waste analyses (which shall indicate

the movement of all forms of nitrogen). The potential for nitrogen to enter the groundwater shall be addressed.

e. Waste shall be applied to the land surface or incorporated into the soil within 3 feet of the surface.

f. A comprehensive quality-assurance/quality-control plan shall be provided to ensure that all incoming wastes are in conformance with the facility permit and these regulations.

g. Tests of soil/waste mixtures and analyses of the results, with conclusions, shall be conducted semiannually, or more frequently if deemed necessary by the administrative authority. Test parameters shall consist of CEC, soil pH, total nitrogen, phosphorus, salts intrinsic to waste, cumulative metals, organic matter, and others deemed necessary by the administrative authority.

h. The administrative authority may provide additional requirements necessary on a site-specific basis depending on waste type and method of application.

i. Landfarms that Receive Domestic Sewage Sludge and Septic Tank Pumpings

i. If spread on or incorporated in non-food-chain cropland, waste shall be treated by a process to significantly reduce pathogens (see Appendix A of this Chapter) prior to application or incorporation, and public access shall be controlled for 12 months following the final application. Grazing by animals whose products are consumed by humans shall be prevented for at least 30 days.

ii. If spread on or incorporated into land used to grow crops for human consumption, the waste must be treated by a process to further reduce pathogens (see Appendix B of this Chapter) before application or incorporation. If there is no contact between the waste and edible portions of the crop, or if crops are grown more than 18 months after application or incorporation, the conditions specified in Subsection D.3.j.i of this Section apply.

iii. The administrative authority may provide additional requirements necessary on a site-specific basis, depending upon waste type, land use, and methods of application.

j. Land Use Requirements

i. Food-Chain Cropland

(a). The pH of the solid waste and soil mixture shall be maintained at or above 6.5.

(b). The annual application of cadmium from the waste shall not exceed 0.5 lb/acre.

(c). Cumulative application of cadmium from sewage sludge for soils with a background pH of less than 6.5 shall not exceed five lb/acre unless the pH of the sludge and soil mixture is adjusted and maintained at 6.5 or greater whenever food-chain crops are grown.

ii. Land Used for Animal Feed Only

(a). The pH of the waste-soil mixture must be 6.5 or greater at the time of solid waste application or when the crop is planted, whichever occurs later, and this pH level must be maintained whenever food-chain crops are grown. Crops requiring a lower pH will be considered on a site-specific basis.

(b). An operating plan for the facility shall be filed with the Office of Environmental Services, Permits Division that demonstrates how the animal feed will be distributed to preclude ingestion by humans and that describes the measures to be taken to safeguard against possible health hazards from the entry of cadmium or other heavy metals into the food chain, as may result from alternative land use.

(c). Solid waste with concentrations of polychlorinated biphenyls (PCBs) of 10 mg/kg or more shall not be allowed.

E. Facility Closure. During the closure period the permit holder must:

1. continue with all operations (including pH control) necessary to continue normal waste treatment within the treatment zone;
2. maintain the run-on control system;
3. maintain the runoff management system;
4. control wind dispersal of odors and/or waste; and
5. continue to comply with any prohibitions or conditions concerning growth of food-chain crops.

F. Facility Post-Closure Requirements

1. The post-closure period begins when the Office of Environmental Services, Permits Division approves closure. The length of the post-closure care period for landfarms may be:

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.

2. Type I Landfarms. For facilities that receive waste on or after October 9, 1993, the permit holder shall continue to comply with any prohibitions or conditions under LAC 33:VII.715 for 10 years after closure. For facilities that did not receive waste on or after October 9, 1993, the permit holder shall continue to comply with any prohibitions or conditions under LAC 33:VII.715 for three years after closure.

3. Post-Closure Requirements of Type II Landfarms

a. The permit holder shall continue to comply with any prohibitions or conditions under LAC 33:VII.715 for three years after closure.

b. Annual reports shall be submitted to the Office of Environmental Compliance, Surveillance Division for a period of three years after closure and shall contain results of analysis of all soil/waste.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**§725. Specific Standards Governing All Solid Waste Processors (Type I-A and II-A)****A. Facility Operational Standards**

1. All containers shall provide containment of the wastes and thereby control litter, odor, and other pollution of adjoining areas.
2. Provisions shall be made for at least daily cleanup of the facility, including equipment and waste-handling areas.
3. No solid waste shall be stored long enough to cause a nuisance, health hazard, or detriment to the environment.
4. Treatment facilities for washdown and other contaminated water shall be provided.
5. Facilities that employ incineration shall develop an ash-management plan that includes, at a minimum, testing, handling, transportation, and disposal of ash at a permitted facility.
6. Facilities shall have a plan for handling contaminated water.
7. Specific Operational Standards for Incinerator Waste-Handling Facilities
  - a. Handling. Ash shall be properly wetted and contained so as to ensure that there are no dust emissions during loading, transporting, or unloading.
  - b. Testing
    - i. Testing procedures, schedules, and methods must be submitted to the Office of Environmental Services, Permits Division for review and approval before disposal operations begin. Disposal of ash shall be only in a permitted Type I facility. Processing of ash shall be only in a permitted Type I-A facility.
    - ii. Testing of ash shall be performed quarterly for TCLP metals and annually for dioxins.

**B. Facility Closure Requirements**

1. An insect and rodent inspection is required and shall be documented before closure. Extermination measures, if required, must be provided.
2. All remaining waste shall be removed to a permitted facility for disposal.
3. 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.721.E.2, 3, and 4 must be provided to the administrative authority. The Office of Environmental Compliance, Surveillance Division shall conduct a closure inspection to verify that the facility was cleaned in accordance with the approved closure plan.

**AUTHORITY NOTE:** Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

**HISTORICAL NOTE:** Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**§727. Construction and Demolition Debris and Woodwaste Landfills and Processing Facilities**

## A. Facility Plans and Specifications

## 1. Interim Cover Requirements

## a. Cover material must:

- i. minimize vector-breeding areas and animal attraction by controlling:
  - (a). fly, mosquito, and other insect emergence and entrance;
  - (b). rodent burrowing for food and harborage; and
  - (c). bird and animal attraction;
- ii. control leachate generation by:
  - (a). minimizing external-moisture infiltration;
  - (b). minimizing erosion; and
  - (c). utilizing materials with minimum free-liquid content and minimum concentrations of constituents monitored in leachate;
- iii. reduce fire hazard potential by minimizing inward movement of atmospheric oxygen;
- iv. minimize blowing paper and litter;
- v. reduce noxious odors by minimizing outward movement of methane and other gases;
- vi. provide aesthetic appearance to the landfill operation; and
- vii. allow accessibility regardless of weather.

2. Wastes shall be deposited in the smallest practical area each day and compacted. The wastes shall be covered with silty clays, applied a minimum of 12 inches thick, at least every 30 days.

3. Levee construction shall be in accordance with LAC 33:VII.705.B.

## B. Facility Operations

## 1. Facility Limitations

- a. The following types of waste may be disposed of:
  - i. construction/demolition debris as defined in LAC 33:VII.115 and a maximum of 5 percent by volume of paper waste associated with such debris;
  - ii. woodwastes as defined in LAC 33:VII.115; and
  - iii. yard waste as defined in LAC 33:VII.115.
- b. The disposal of liquid waste, infectious waste, residential waste, industrial waste, commercial waste, friable asbestos, and putrescible waste shall be strictly prohibited and prevented.

2. Facility Operational Plans—Segregation of Wastes. Waste determined to be unacceptable at a woodwaste/construction/demolition-debris landfill shall be removed from the facility at least every seven days. Storage of this waste shall be in a closed container that prevents vector and odor problems. The facility shall maintain a log of dates and volumes of waste removed from the facility.

C. Facility Closure Requirements

1. Preclosure Requirements

a. Final cover shall be applied within 30 days after final grades are reached in each unit of a facility. This deadline may be extended by the administrative authority if necessary due to inclement weather or other circumstances.

b. Standing water shall be solidified or removed.

c. The runoff-diversion system shall be maintained until the final cover is installed.

d. The runoff-diversion system shall be maintained and modified to prevent overflow of the landfill to adjoining areas.

e. Insect and rodent inspection is required to be documented before installation of final cover, and extermination measures must be provided, if required, according to the facility inspection.

f. Final machine compacting and grading shall be completed before capping.

2. Closure Requirements

a. Final Cover

i. Final cover shall consist of a minimum of 24 inches of silty clays and six inches of topsoil cover for supporting vegetative growth; however, other covers that provide a more practical answer and satisfy the purposes of minimizing fire hazards, odors, vector food and harborage, and infiltration of precipitation, as well as discouraging scavenging and limiting erosion, may be submitted for approval by the administrative authority. After a closure inspection and approval, the permit holder shall plant a ground cover to prevent erosion and to return the facility location to a more natural appearance.

ii. The Office of Environmental Compliance, Surveillance Division shall be notified prior to planting a ground cover, and the permit holder shall notify the Office of Environmental Compliance, Surveillance Division once the ground cover is established.

iii. Quality-control procedures must be developed and implemented to ensure that the final cover is designed, constructed, and installed properly. An engineering certification verifying that the facility meets the final cover requirements shall be prepared under the supervision of a registered engineer licensed in the state of Louisiana. This certification shall be submitted to the Office of Environmental Assessment, Environmental Technology Division for approval.

iv. A combination of clay and synthetic material, approved by the administrative authority, may also be used as final cover.

b. The permit holder shall update the parish mortgage and conveyance records by recording 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 and address of the person with knowledge of the contents of the facility. A form to be used for this purpose is provided in LAC 33:VII.Chapter 11, Appendix D. The facility shall provide the Office of Environmental Services, Permits Division with a true copy of the document filed and certified by the parish clerk of court.

D. Facility Post-Closure Requirements

1. The post-closure period begins when the Office of Environmental Services, Permits Division approves closure. 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.

2. The integrity of the grade and cap must be maintained for no less than three years after the date of the administrative authority's approval of the closure of the facility. The Office of Environmental Assessment, Environmental Technology Division and the Office of Environmental Compliance, Surveillance Division shall be notified of any problems and corrective action measures associated with the integrity and effectiveness of the final cover.

3. Annual reports concerning the integrity of the cap shall be submitted to the Office of Environmental Compliance, Surveillance Division for a period of three years after closure.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§729. Composting Facilities**

#### A. Facility Plans and Specifications

1. Levee construction shall be in accordance with LAC 33:VII.705.B.

2. Leachate Management

a. Leachate produced in the composting process must be collected and treated or disposed of at a permitted facility.

b. Leachate may also be reused in the composting process as a source of moisture.

#### B. Facility Operations

1. Facility Limitations

a. The following types of wastes may be processed:

i. yard trash and woodwaste as defined in LAC 33:VII.115;

ii. manure as defined in LAC 33:VII.115;

iii. sewage sludge or septage as defined in LAC 33:VII.115;

iv. residential or commercial solid waste as defined in LAC 33:VII.115; and

v. other materials deemed acceptable by the administrative authority.

b. The processing of infectious waste and asbestos waste shall be strictly prohibited and prevented.

c. No solid waste shall be deposited in standing water.

2. Facility Operational Standards

a. Composting facilities that receive domestic septage or sewage sludge from publicly owned treatment works shall require that the waste be tested for toxicity characteristics leachate procedure (TCLP) analysis and priority pollutants prior to acceptance of the waste and

annually for two years following acceptance. Each year thereafter, the generator must certify that the waste remains unchanged.

b. The operation of composting facilities shall be by methods that result in the aerobic, biochemical decomposition of the organic material received.

c. The facility must be designed and operated to control vectors, odors, dust, and litter.

d. The construction and turning frequency (if turning is necessary) of a composting facility must be sufficient to maintain aerobic conditions and to produce a compost product in a time-frame that is consistent with the level of technology employed and acceptable to the administrative authority.

e. In-vessel composting shall be conducted in accordance with the manufacturer's specifications and these regulations.

f. The following special requirements apply to facilities handling sewage sludge, septage, and residential or commercial waste:

i. if the compost is to be used exclusively for application to non-food-chain cropland, the criteria for a process to significantly reduce pathogens (see Appendix A of this Chapter) must be met. Otherwise, the facility must meet the criteria for a process to further reduce pathogens (see Appendix B of this Chapter); and

ii. the facility must include the following components:

(a). a receiving area, mixing area, curing area, compost storage area, drying and screening areas, and truck wash area located on surfaces capable of preventing groundwater contamination (periodic inspections of the surface shall be made to ensure that the underlying soils and the surrounding land surface are not being contaminated);

(b). runoff collection system; and

(c). leachate collection and on-site/off-site treatment system.

g. The following parameters are to be monitored and recorded during the operation in the time-frame specified (the samples taken for these parameters shall be representative of the compost unit):

i. temperature, daily;

ii. process odors, daily;

iii. blower operation, daily; and

iv. other parameters as deemed appropriate by the administrative authority.

h. Compost shall be classified based on the type of waste processed, compost maturity, particle size, and organic matter. The following characteristics shall be used:

i. Compost Maturity. A plot of time versus temperature (to indicate that the temperature of the compost has stabilized over a period of time) or other acceptable methods may be used to determine the level of maturity of compost, as defined in this Clause.

(a). *Fresh Organic Matter*—raw material before undergoing decomposition (or at beginning of process).

(b). *Fresh Compost*—organic matter that has been through the thermophilic stage and has undergone partial decomposition.

(c). *Semimature Compost*—compost material that is at the mesophilic stage.

(d). *Mature Compost*—a highly stabilized product that results from exposing compost to a prolonged period of humidification and mineralization, beyond the stage of maturity. Mature compost shall have been cured for at least 60 days after the mesophilic stage is complete. Minimum starting moisture content for curing semimature compost should be above 45 percent (by weight) and should be raised to this value if necessary.

ii. Particle Size. Particle size shall be determined by using the screen sizes, listed in this Clause, that the compost passed through. Organic matter content shall be determined by measuring the volatile solids content using the Environmental Protection Agency's (EPA's) approved methods.

(a). Fine: < 12 mm and organic matter > 25 percent.

(b). Medium: < 15 mm and organic matter > 30 percent.

(c). Coarse: < 30 mm and organic matter > 35 percent.

iii. Moisture Content. In the finished compost, moisture content shall not exceed 55 percent (by weight). The moisture content shall be determined by using the EPA's approved methods.

iv. Concentration Levels. The concentration level of finished compost shall be as shown in the following table.

Concentration Levels of Finished Compost

(shown in mg/kg in dry weight)

Parameter	Category 1	Category 2
Cadmium	<15	15 - 25
Copper	<450	450 - 1000
Lead	<200	200 - 800
Nickel	<50	50 - 100
Zinc	<1000	1000 - 2000

i. Finished Compost

i. The finished compost shall be sufficiently stable that it can be stored or applied to land without causing a health hazard, detriment, or nuisance to the environment, as determined by the administrative authority.

ii. All distributed compost must be accompanied with a label or leaflet that indicates, at a minimum, the type of waste from which the compost was derived, any restriction on the use of the product, and recommended application rates.

iii. Compost derived from sewage sludge, septage, or residential or commercial waste must meet the criteria of the process to significantly reduce pathogens (see Appendix A of this Chapter) or the process to further reduce pathogens (see Appendix B of this Chapter) as provided in Subsection B.2.f.i of this Section. Such compost shall not be offered for sale to, or otherwise distributed to, the general public unless it meets the criteria of the process to further reduce pathogens.

- iv. Any compost made from solid waste that cannot be used in accordance with these regulations shall be reprocessed or disposed of in an approved solid waste facility.
- v. Waste received at a composting facility shall be used as compost, sold as compost, or disposed of at a permitted disposal facility within 36 months after receipt.
- vi. The sampling and testing methods shall be the EPA's approved methods.
- vii. Compost produced outside of the state of Louisiana that is used or sold for use within the state shall comply with the requirements of these regulations.
- viii. Classes of Finished Compost
  - (a). Class M1—compost made only from manure or manure with yard trash and/or woodwaste that is mature or semimature, fine or medium, and that meets the metals concentrations of Category 1 of Subsection B.2.h.iv of this Section shall have unrestricted distribution except as provided in Subsection B.2.f.i of this Section.
  - (b). Class M2—compost made only from manure or manure with yard trash and/or woodwaste, that is mature or semimature, fine or medium, and that meets the metals concentrations of Category 2 (but not of Category 1) of Subsection B.2.h.iv of this Section shall be restricted to use with non-food-chain crops.
  - (c). Class S1—compost made from solid waste, other than only manure or manure with yard trash and/or woodwaste that is mature, fine, and that meets the metals concentrations in Category 1 of Subsection B.2.h.iv of this Section shall have unrestricted distribution except as provided in Subsection B.2.f.i of this Section.
  - (d). Class S2—compost made from solid waste, other than only manure or manure with yard trash and/or woodwaste, that is mature or semimature, fine or medium and that meets concentrations in Category 1 or Category 2 of Subsection B.2.h.iv of this Section, but which does not meet the requirements of Class S1 compost, shall be restricted to use with non-food-chain crops and shall not be used in areas where public contact is likely, such as parks or recreation areas.
  - (e). Class YW—compost made only from yard trash and/or woodwaste that is mature or semimature, fine or medium shall have unrestricted distribution, except as provided in Subsection B.2.f.i of this Section.
- ix. All classes of compost shall be used in accordance with the maximum-loading rates provided in the following table and are subject to the restrictions provided in Subsection B.2.f.i of this Section. The following loading rates apply unless soil analyses of cation-exchange capacity and pH justify higher loadings.

Maximum Applied Metal (lb/acre)

Lead	500
Zinc	250
Copper	125
Nickel	125
Cadmium	5

x. Testing of Finished Compost. Composite samples of batches produced at compost facilities shall be analyzed in accordance with “Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods,” EPA Publication SW-846 at intervals of every three months (see Liquid Waste definition) for the following parameters:

- (a). moisture;
- (b). total nitrogen;
- (c). total phosphorus;
- (d). total potassium;
- (e). pH;
- (f). cadmium;
- (g). copper;
- (h). lead;
- (i). nickel;
- (j). zinc; and
- (k). fecal coliform (analyzed in accordance with Standard Methods for the Examination of Water and Wastewater, 18th edition).

Methods for the Examination of Water and Wastewater, 18th edition).

### 3. Segregation of Waste

a. Composting facilities involving residential and commercial solid waste shall provide a waste-segregation plan and a recyclables separation program, which shall be instituted prior to composting operations.

b. Wastes not intended for composting shall be removed from the facility to a permitted facility at least every seven days. Storage of wastes not intended for composting shall be in a closed container that prevents vector and odor problems. The facility shall maintain a log of dates and volumes of waste removed from the facility due to its inability to be composted.

c. Recyclable waste removed from the waste stream shall be stored in a manner that prevents vector and odor problems and shall be removed from the facility at least every 90 days. The facility shall maintain a log of dates and volumes of recycled waste removed from the facility.

### C. Facility Closure Requirements

1. An insect and rodent inspection is required, and shall be documented, before closure. Extermination measures, if required, must be provided.

2. All remaining waste shall be removed to a permitted facility for disposal, and documentation shall be provided.

3. 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.721.E.2, 3, and 4 must be provided to the Office of Environmental Services, Permits Division. The Office of Environmental Compliance, Surveillance Division shall conduct a closure inspection to verify that the facility was cleaned in accordance with the approved closure plan.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

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

A. Facility Operational Standards

1. All containers shall provide containment of the wastes and thereby control litter, odor, and other pollution of adjoining areas.

2. Provisions shall be made for at least daily cleanup of the facility, including equipment and waste-handling areas.

3. No solid waste shall be stored long enough to cause a nuisance, health hazard, or detriment to the environment.

4. Treatment facilities for washdown and other contaminated water shall be provided.

5. Facilities shall have a plan for handling contaminated water.

B. Facility Closure Requirements

1. An insect and rodent inspection is required, and shall be documented, before closure. Extermination measures, if required, must be provided.

2. All remaining waste shall be removed to a permitted facility for disposal or properly disposed of on-site as provided for in LAC 33:VII.305.H. If waste is removed from the facility, documentation must be provided that the material was properly disposed of in a permitted facility.

3. 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.721.E.2, 3, and 4 must be provided to the Office of Environmental Services, Permits Division. The Office of Environmental Compliance, Surveillance Division shall conduct a closure inspection to verify that the facility was cleaned in accordance with the approved closure plan.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**Appendix A**

<b>Processes to Significantly Reduce Pathogens</b>	
Aerobic Digestion	A process conducted by agitating sludge with air or oxygen to maintain aerobic conditions at residence times ranging from 60 days at 15°C to 40 days at 20°C, with a volatile-solids reduction of at least 38 percent.
Air Drying	A process that allows liquid sludge to drain and/or dry on under-drained sand beds or on paved or unpaved basins in which the depth of the sludge is 9 inches. A minimum of three months is needed for this process; during two of these months daily temperatures must average above 0° C.
Anaerobic Digestion	A process conducted in the absence of air during a residence time ranging from 60 days at 20°C to 15 days at 35-55°C, with a volatile-solids reduction of at least 38 percent.
Composting	A process conducted by either the within-vessel, static-aerated-pile or windrow method whereby the solid waste is maintained at minimum operating conditions of 40°C for five days. For four hours during this period, the temperature must exceed 55°C.
Lime Stabilization	A process in which sufficient lime is added to produce a pH of 12 after two hours of contact.
Other Methods	Other methods or operating conditions for significantly reducing pathogens may be acceptable if pathogens and vector attraction of the waste (volatile solids) are reduced to an extent equivalent to the reduction achieved by any of the above methods.

**Appendix B**

<b>Processes to Further Reduce Pathogens</b>	
Composting	A process conducted by either the within-vessel, static aerated-pile, or windrow method. If the within-vessel or static-aerated-pile method is used, the solid waste is maintained at operating conditions of 55°C or greater for three days. If the windrow method is used, the solid waste attains a temperature of 55°C or greater for at least 15 days during the composting period, and the windrow is turned at least five times during this high-temperature period.
Heat Drying	A process in which dewatered sludge cake is dried by direct or indirect contact with hot gases and moisture content is reduced to 10 percent or less. Sludge particles reach temperatures well in excess of 80° C or the wet-bulb temperature of the gas stream, in contact with the sludge at the point where it leaves the dryer, is in excess of 80° C.
Heat Treatment	A process in which liquid sludge is heated to temperatures of 180° C for 30 minutes.
Thermophilic Aerobic Digestion	A process in which liquid sludge is agitated with air or oxygen to maintain aerobic conditions at residence times of 10 days at 55-60° C, with a volatile-solids reduction of at least 38 percent.
Other Methods	Other methods or operating conditions for further reducing pathogens may be acceptable if pathogens and vector attraction of the waste (volatile solids) are reduced to an extent equivalent to the reduction achieved by any of the above methods.
Any of the processes listed below, used in conjunction with the processes described above, will further reduce pathogens. The processes listed below will not, however, reduce the attraction of disease vectors if they are not used in conjunction with one of the above processes, and therefore are not sufficient alone.	
Beta-Ray Irradiation	A process in which sludge is irradiated with beta rays from an accelerator at dosages of at least 1.0 megarad at room temperature (approximately 20° C).
Gamma-Ray Irradiation	A process in which sludge is irradiated with gamma rays from certain isotopes, such as <sup>60</sup> Cobalt and <sup>137</sup> Cesium, at dosages of at least 1.0 megarad at room temperature (approximately 20° C).
Pasteurization	A process in which sludge is maintained for at least 30 minutes at a minimum temperature of 70° C.
Other Methods	Other methods or operating conditions may be acceptable if pathogens are reduced to an extent equivalent to the reduction achieved by any of the above add-on methods.

**Appendix C**

**DOCUMENT TO BE FILED IN THE PARISH RECORDS UPON FINAL  
CLOSURE OF A SOLID WASTE DISPOSAL FACILITY**

(Name of permit holder) hereby notifies the public that the following described property was used for the disposal of solid waste. This site was closed on (date facility was closed) in accordance with the *Louisiana Administrative Code*, Title 33, Part VII. Inquiries regarding the contents of (the facility) may be directed to (name of person with knowledge of the contents of the facility) at (address of person with knowledge of the contents of the facility).

Property Description

(Provide the specific description of the location of the facility)

\_\_\_\_\_  
Signature of Person Filing Parish Record

\_\_\_\_\_  
Typed Name and Title of Person Filing  
Parish Record

\_\_\_\_\_  
Date

(A true copy of the document must be certified by the parish clerk of court.)

**Appendix D**

**EXAMPLES OF AGRICULTURAL WASTES THAT MAY BE MANAGED  
UNDER APPROVED BEST MANAGEMENT PRACTICE PLANS:**

Sugar mill bagasse ash

Bagasse

Filter press mud from sugar mills

Chicken litter

Dead poultry carcasses

Rice hulls

Rice hull ash

Shells from crawfish and shellfish processing

Potato peels from potato processing

Cotton gin trash

**Chapter 8. Standards Governing General Facility Geology, Subsurface Characterization, and Facility Groundwater Monitoring (Type I, I-A, II, II-A, III)**

**§801. General Facility Geology**

A. The following standards regarding facility geology are applicable to all Type I, Type I-A, Type II, Type II-A, and Type III facilities:

1. the subsurface soils and groundwater conditions at facilities shall be characterized by a geologist or by a registered engineer licensed in the state of Louisiana, with expertise in geotechnical engineering and geohydrology;

2. except as provided in Subsection A.3 of this Section, facilities shall have natural soils of low permeability for the area occupied by the solid waste facility, including vehicle parking and turnaround areas, that should provide a barrier to prevent any penetration of surface spills into groundwater aquifers underlying the area or to a sand or other permeable strata that would provide a conduit to such aquifers; and

3. a design for surfacing natural soils that do not meet the requirement in Subsection A.2 of this Section shall be prepared and installed under the supervision of a registered engineer licensed in the state of Louisiana, with expertise in geotechnical engineering and geohydrology. Written certification by the engineer that the surface satisfies the requirements of Subsection A.2 of this Section shall be provided.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**§803. Subsurface Characterization**

A. Boring Requirements

1. Boring Requirements Applicable to All Type I, II, and III Facilities

a. The number, spacing, and depths of borings shall be sufficient to adequately characterize the subsurface soils and groundwater conditions for the facility.

b. Borings shall be installed and plugged and abandoned in accordance with the standards in this Chapter, as well as the guidelines established in the latest versions of the department's and the Louisiana Department of Transportation and Development's (LDOTD) *Construction of Geotechnical Boreholes and Groundwater Monitoring Systems Handbook* and the LDOTD's *Water Well Rules, Regulations, and Standards in LAC 70:XIII*. The administrative authority may approve other forms of geological investigation for Type III facilities, such as hand augered borings, test pits, excavations, etc., provided that subsurface conditions are characterized by an individual that meets the requirements in LAC 33:VII.801.A, and any holes, test pits, etc., are properly plugged and abandoned.

c. Geotechnical field tests and laboratory tests shall be conducted according to the standards of the American Society for Testing and Materials (ASTM) or the EPA or other applicable standards approved by the administrative authority.

d. Boring logs shall be submitted for each borehole, including boreholes for monitoring wells and piezometers, and shall include information for boring logs established in the latest versions of the department's and LDOTD's *Construction of Geotechnical Boreholes and Groundwater Monitoring Systems Handbook* and the LDOTD's Water Well Rules, Regulations, and Standards in LAC 70:XIII, including the ground surface elevation with respect to mean sea level, lithology and intervals that were cored continuously, and depth of first encountered groundwater.

e. A plan view map(s) shall be provided that shows existing topographic contours and locations of all borings, monitoring wells, and piezometers with respect to the facility.

f. A detailed plan-view drawing shall be provided that shows the proposed elevations of the base of units prior to installation of the liner system and boring locations.

g. Logs of borings and other forms of geological investigation approved by the administrative authority for Type III facilities shall be submitted on a geologic cross section(s) and shall include applicable information required in LAC 33:VII.803.C.2.a.

## 2. Requirements Applicable to Type I and Type II Facilities

a. Geotechnical borehole spacing shall be no greater than 450 feet (minimum of four borings required) except for Type II landfarms that require a sufficient spacing between borings to adequately characterize the subsurface soils and groundwater conditions for the facility.

b. The elevation (msl) of the lowest point of excavation shall be provided.

c. All boreholes shall extend to a depth of at least 30 feet below the elevation (msl) of the lowest point of the excavation (or the lowest point of the zone of incorporation for landfarms). At least 10 percent of the borings (minimum of three borings) shall extend to 100 feet below grade level to characterize the shallow geology.

d. All borings shall be continuously sampled to at least 30 feet below the elevation (msl) of the lowest point of excavation (or lowest point of the zone of incorporation for landfarms), with the use of thin-wall and/or split-spoon devices or similar coring devices. After 30 feet, samples shall be at a maximum of five-foot intervals. The administrative authority may approve other forms of borehole logging on a case by case basis and with proper justification.

## B. Groundwater Flow Determination Requirements Applicable to Type I and II Facilities

1. Groundwater flow direction(s) shall be determined using a minimum of three piezometers or monitoring wells in each water-bearing zone including zone(s) that comprise the uppermost aquifer and uppermost water-bearing permeable zone (if present).

2. Piezometers and monitoring wells that are used to characterize groundwater flow direction(s) must be constructed in accordance with the applicable well construction standards in LAC 33:VII.805.A.3.

3. As-built diagrams for each piezometer and monitoring well used to determine groundwater flow direction(s) shall be submitted in accordance with applicable sections of LAC 33:VII.805.A.3.

4. The reference point of each piezometer and monitoring well that is used for measuring water levels shall be surveyed by a licensed surveyor.

5. Water levels of piezometers and monitoring wells that are used for determining groundwater flow direction(s) shall be measured at least four times in a one-year period (quarterly) to provide seasonal and temporal fluctuations in groundwater flow rate(s) and direction(s).

C. Geology and Groundwater Flow Characterization Requirements Applicable to Type I and II Facilities

1. Regional Geology and Groundwater Flow Characterization

a. A geologic cross-section from available published information that depicts the stratigraphy to a depth of at least 200 feet below the ground surface shall be provided.

b. The areal extent, thickness, and depth to the upper surface and any interconnection of aquifers, from all available information, shall be provided for all recognized aquifers that have their upper surfaces within 200 feet of the ground surface.

c. The rate(s) and direction(s) of groundwater flow shall be provided for all recognized aquifers that have their upper surface within 200 feet of the ground surface, shown on potentiometric maps.

2. Facility Geology and Groundwater Flow Characterization

a. Geologic cross sections shall be provided for each transect (line of borings) and shall depict the following information in relation to mean sea level (MSL):

i. lithologic and boring log data from all borings drilled at the facility, including borings for existing as well as plugged and abandoned monitoring wells and piezometers;

ii. boring locations, including monitoring wells and piezometers and depths;

iii. excavation depths (or depths of the zone of incorporation for landfarms) on applicable cross section(s);

iv. screen intervals of all existing and plugged and abandoned monitoring wells and piezometers;

v. other applicable features such as faults, slurry walls, groundwater dewatering systems, etc.; and

vi. identification of individual stratigraphic units, including units that comprise the uppermost aquifer, uppermost water-bearing permeable

zone (if present), lower confining unit, and confining unit that underlies the uppermost water-bearing permeable zone (if present).

b. The areal extent, depths, and thickness of all saturated permeable zones to a depth of at least 30 feet below the lowest point of excavation (or zone of incorporation for landfarms) shall be provided on structure maps (top and/or bottom of zone maps) and isopach maps, including the zone(s) that comprise the uppermost aquifer and uppermost water-bearing permeable zone (if present). Structure maps and isopach maps must display the location of the facility, boring locations, and corresponding elevation or thickness measurement at each boring location.

c. The areal extent, depths, and thickness of the lower confining unit for the uppermost aquifer and the confining unit underlying the uppermost water-bearing permeable zone (if present) shall be provided on structure maps (top and/or bottom of zone maps) and isopach maps. Structure maps and isopach maps must display the location of the facility, boring locations, and corresponding elevation or thickness measurement at each boring location.

d. Any faults that are mapped as existing through the facility shall be displayed on structure maps and shall show the fault trace and arrows pointing to the downthrown side of fault.

e. At least four scaled potentiometric surface maps shall be provided over a one-year period (quarterly) for each saturated permeable zone to a depth of at least 30 feet below the lowest point of excavation (or zone of incorporation for landfarms), including the zone that comprises the uppermost aquifer and uppermost water-bearing permeable zone. Scaled potentiometric surface maps shall display the location of the facility, monitoring well and piezometer locations, and corresponding water level elevation measurement at each well location.

f. Characterization of groundwater flow direction(s) shall be provided between saturated permeable zones that are interconnected and relatively thick saturated permeable zones. The characterization shall include the use of various illustrations such as potentiometric surface maps, flow nets depicting vertical and horizontal flow directions, etc.

g. Discussion of any change in groundwater flow direction anticipated to result from any facility activities shall be provided.

h. Establishment of zone(s) that comprise the uppermost aquifer, uppermost water-bearing permeable zone (if present), and lower confining unit shall be provided.

i. Groundwater flow rate(s) and calculations shall be provided for each zone(s) that comprises the uppermost aquifer and uppermost water-bearing permeable zone (if present).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**§805. Facility Groundwater Monitoring****A. Groundwater Monitoring System**

1. At each facility, a groundwater-monitoring system must be installed that consists of a sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer and from the uppermost water-bearing permeable zone (if this zone is present at the facility and the administrative authority deems that it is subject to the groundwater monitoring requirements of this Section for providing adequate groundwater monitoring at the facility) which will yield sufficient quantities of water for sampling that:

a. represent the quality of the background groundwater that has not been affected by leakage from a unit; and

b. represent the quality of groundwater passing the relevant point of compliance. For the purposes of these regulations, the relevant point of compliance is the vertical surface that is located no more than 150 meters downgradient from the unit(s) being monitored and extends down into the uppermost aquifer underlying the facility and any other permeable zones being monitored. The relevant point of compliance must be on property owned or controlled by the permit holder and must be selected and subject to the approval of the administrative authority based on at least the following factors:

- i. hydrological characteristics of the facility and the surrounding land;
- ii. volume and physical and chemical characteristics of the leachate;
- iii. quantity, quality, and direction of flow of groundwater;
- iv. proximity and withdrawal rate of the groundwater users;
- v. availability of alternative drinking water supplies;
- vi. existing quality of the groundwater, including other sources of contamination and their cumulative impacts on the groundwater, and whether the groundwater is currently used or reasonably expected to be used for drinking water;
- vii. public health, safety, and welfare effects; and
- viii. practicable capability of the owner or operator.

**2. Location of Wells**

a. Enough monitoring wells must be located hydraulically upgradient of the facility to yield samples that represent background groundwater quality as required in Subsection A.1 of this Section.

b. A minimum of one upgradient well per zone monitored is required.

c. Monitoring wells other than upgradient of the facility may be sampled for background groundwater quality if:

i. hydrologic conditions do not allow the permit holder to determine which wells are hydraulically upgradient; or

ii. sampling at other wells will provide an indication of background groundwater quality that is more representative than sampling of upgradient wells.

d. Enough monitoring wells must be located hydraulically downgradient from the facility to yield samples that are representative of the groundwater passing the relevant point of compliance. Downgradient monitoring well locations and screen intervals shall target the most likely contaminant pathway(s). At least two downgradient wells per zone monitored must be provided. The downgradient wells must be screened in the same zone as the upgradient wells. Spacing between downgradient wells shall not exceed 800 feet.

e. The number, spacing, and depths of monitoring wells shall be determined based upon site-specific technical information that must include thorough characterization of:

i. aquifer thickness, groundwater flow rate, groundwater flow direction including seasonal and temporal fluctuations in groundwater flow; and

ii. saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer, including, but not limited to, thickness, stratigraphy, lithology, hydraulic conductivities, porosities, and effective porosities.

f. The administrative authority will consider for approval multi-unit groundwater monitoring systems, provided these systems meet the requirements of Subsection A.1 of this Section and will be as protective of human health and the environment as groundwater monitoring systems for individual units.

g. The administrative authority may modify the requirements of this Subsection for site-specific considerations in approving groundwater monitoring systems for ditches.

### 3. Well Construction

a. Well construction shall be in accordance with LDOTD's Water Wells Rules, Regulations, and Standards in LAC 70:XIII, as well as the latest version of the department's and LDOTD's *Construction of Geotechnical Boreholes and Groundwater Monitoring Systems Handbook.*

b. Construction of monitoring wells for facilities regulated by the department shall require approval of the administrative authority prior to construction.

c. In addition to the construction standards set forth in LDOTD's Water Wells Rules, Regulations, and Standards in LAC 70:XIII, the following is required for monitoring wells:

- i. all wells must have protective casing with locking covers and a secure locking device in place;
- ii. all wells must have guard posts firmly anchored outside the well slab, but not in contact with the slab;
- iii. the maximum allowable screen length must not exceed 10 feet; and
- iv. a sign or plate must be permanently affixed to the protective well casing and must prominently display:
  - (a). well identification number;
  - (b). identification of well as upgradient or downgradient;
  - (c). elevation of top of well casing in relation to mean sea level;
  - (d). screen depth in relation to mean sea level; and
  - (e). date of well installation and any subsequent repairs.

4. Post Construction. Within 90 days after construction of the wells, the permit holder or applicant must submit to the Office of Environmental Services, Permits Division well-completion details to verify that the wells were constructed according to the approved specifications and to document construction procedures. A permit modification fee will not be required. Well-completion details shall include, but are not limited to:

- a. daily field notes documenting construction procedures and any unusual occurrences, such as grout loss, etc.;
- b. boring log for each well including surface elevation(s) with respect to mean sea level or comparable reference points; and
- c. as-built diagrams for each well showing all pertinent features, such as elevation of reference point for measuring groundwater levels, screen interval, and ground surface. If features change from the approved plans, then a permit-modification request must be submitted in accordance with LAC 33:VII.507.

5. Plugging and Abandonment of Monitoring Wells and Geotechnical Borings

a. LDOTD's Water Wells Rules, Regulations, and Standards in LAC 70:XIII, as well as the latest version of the department's and LDOTD's *Construction of Geotechnical Boreholes and Groundwater Monitoring Systems Handbook*, shall apply to all plugging and abandonment of wells and holes including, but not limited to, observation wells, monitoring wells, piezometer wells, leak-detection wells, assessment wells, recovery wells, abandoned pilot holes, test holes, and geotechnical boreholes.

b. In addition to the standards in LAC 70:XIII and the latest version of the department's and LDOTD's *Construction of Geotechnical Boreholes and*

Groundwater Monitoring Systems Handbook, the following standards shall apply to plugging and abandonment:

i. for any well, the primary method of plugging and abandonment shall be removal of the well's casing and other components of the well including, but not limited to, the screen, grout, bentonite seal, filter pack, concrete slab, protective casing, guard posts, and native soil in immediate contact with the grout and subsequent installation of cement-bentonite grout, from the bottom of the resulting borehole to the ground surface using the tremie method;

ii. in areas where all or a part of the well's casing and other components of the well cannot be plugged and abandoned in accordance with the procedure stated in Subsection A.5.b.i of this Section, the well shall be plugged and abandoned by installation of cement-bentonite grout inside the well's casing, from the bottom of the well to the ground surface, provided that the annular seal is demonstrated to be adequately sealed and the following items are submitted:

(a). supporting documentation, prior to plugging the well, that demonstrates that removal of all or part of the well's casing and other components of the well in accordance with the procedure stated in Subsection A.5 of this Section will be detrimental to the environment; and/or

(b). certification and supporting documentation by a qualified professional that shows that removal of the well's casing was attempted and that continued attempts to remove all or a part of the well's casing and other components of the well, as stated in Subsection A.5 of this Section, would have been detrimental to the environment;

iii. after plugging and abandoning a well, all surface features of the well including, but not limited to, the concrete slab, guard posts and protective casing, shall be dismantled and disposed of in an environmentally sound manner and the surface shall be restored to its original condition; and

iv. the permit holder must notify the Office of Environmental Assessment, Environmental Technology Division of the plugging and abandonment of monitoring wells or geotechnical borings and keep records of such abandonments.

6. Monitoring wells, piezometers, and other measurement, sampling, and analytical devices must be operated and maintained so that they perform to design specifications throughout the life of the monitoring program.

#### B. Groundwater Sampling and Analysis Requirements

1. A groundwater-monitoring program must be implemented at each facility that includes consistent sampling and analysis procedures that ensure monitoring results are representative of groundwater quality at the background and downgradient well locations.

2. A groundwater sampling and analysis plan must be prepared that meets the requirements of Subsection B.2 of this Section, as well as the requirements of Appendix B of this Chapter, and that includes procedures and techniques for:

- a. sample collection that ensures that collected samples are representative of the zone(s) being monitored and prevents cross-contamination of or tampering with samples;
  - b. sample preservation and shipment that ensure the integrity and reliability of the sample collected for analysis;
  - c. chain of custody control;
  - d. quality-assurance/quality-control, including detection limits, precision and accuracy of analyses, field blanks, and laboratory spikes and blanks; and
  - e. statistical evaluation of the groundwater monitoring data for each parameter or constituent sampled at each monitoring well.
3. The sampling and analysis plan must provide the sampling frequency and include the:
- a. selection of parameters or constituents to be sampled and analyzed during detection monitoring and justification for parameters or constituents where applicable;
  - b. identification of analytical procedures to be followed (reference source of analytical method); and
  - c. practical quantitation limit for each parameter or constituent.
4. The practical quantitation limit (pql) for each groundwater monitoring parameter or constituent shall be:
- a. the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility; and
  - b. equal to or lower than the groundwater protection standard for that parameter or constituent as set in accordance with LAC 33:I.Chapter 13 when applicable.
5. Background groundwater quality must be established for the facility in a hydraulically upgradient well(s), or other well(s) as provided in Subsection A.2.c of this Section, for each groundwater parameter or constituent.
6. Statistical Methods
- a. The number of samples collected to establish groundwater quality data must be consistent with the appropriate statistical procedures used.
  - b. One of the following statistical methods to be used in evaluating groundwater data must be specified in the sampling and analysis plan for each parameter or constituent to be monitored. The statistical test chosen shall be conducted separately for each parameter or constituent in each well:
    - i. a parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between

each compliance well's mean and the background mean levels for each parameter or constituent;

ii. an analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each parameter or constituent;

iii. a tolerance or prediction interval procedure in which an interval for each parameter or constituent is established from the distribution of the background data, and the level of each parameter or constituent in each compliance well is compared to the upper tolerance or prediction limit;

iv. a control chart approach that gives control limits for each parameter or constituent; and

v. another statistical test method that meets the performance standards of Subsection B.6.c of this Section. The permit holder must place a justification for this alternative in the operating record and notify the administrative authority of the use of this alternative test. The justification must demonstrate that the alternative method meets the performance standards of Subsection B.6.c of this Section.

c. Any statistical method chosen under Subsection B.6.b of this Section shall comply with the following performance standards, as appropriate:

i. the statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of the parameters or constituents. If the distribution of the chemical parameters or constituents or hazardous parameters or constituents is shown by the permit holder to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the parameters or constituents differ, more than one statistical method may be needed;

ii. if an individual well comparison procedure is used to compare an individual compliance well parameter or constituent concentration with background parameters or constituent concentrations or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experimentwide error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts;

iii. if a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter or constituent values shall be protective of human health and the environment. The parameters or constituents shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each parameter or constituent of concern;

iv. if a tolerance interval or a predictional interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance

intervals, the percentage of the population that the interval must contain, shall be protective of human health and the environment. These parameters or constituents shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each parameter or constituent of concern;

v. the statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantitation limit (pql) that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility; and

vi. if necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

d. The permit holder must determine whether or not there is a statistically significant increase over background values for each parameter or constituent required in the particular groundwater monitoring program that applies to the facility, as determined under Subsection C and D of this Section.

i. In determining whether a statistically significant increase has occurred, the permit holder must compare the groundwater quality of each parameter or constituent at each monitoring well designated in accordance with Subsection A.1.b of this Section to the background value of that parameter or constituent, according to the statistical procedures and performance standards specified under Subsection B.6.b and c of this Section.

ii. Within 90 days after the date of sampling, the permit holder must determine whether there has been a statistically significant increase over background at each monitoring well.

#### C. Detection Monitoring Program

1. All Type I and II facilities must conduct a detection monitoring program as described in Subsection C of this Section.

##### 2. Initial Sampling

a. For a new facility, monitoring wells must be sampled and the groundwater monitoring data for a sampling event must be submitted to the Office of Environmental Assessment, Environmental Technology Division before waste is accepted.

b. For an existing facility with no wells in place at the time of the application submittal or at the time at which the facility becomes subject to these regulations, the groundwater monitoring data shall be submitted to the Office of Environmental Assessment, Environmental Technology Division within 90 days after installation of the monitoring wells.

c. A minimum of four independent samples from each well (upgradient and downgradient) must be collected and analyzed during the initial sampling event for a facility. The initial sampling event shall consist of quarterly sampling over a

one-year period. Thereafter, at least one sample must be collected and analyzed at each well for each sampling event.

3. For the first year of monitoring and thereafter, sampling and analysis of all wells must be conducted every six months.

4. The groundwater monitoring program must be conducted for the life of the facility and for the duration of the post-closure care period of the facility, which is specified in LAC 33:VII.719.F, 721.F, or 723.F. Groundwater monitoring may be extended beyond the period specified if deemed necessary by the administrative authority.

5. The permit holder or applicant must submit three bound copies (8 1/2 by 11 inches) of a report of all groundwater sampling results to the Office of Environmental Assessment, Environmental Technology Division no later than 90 days after each sampling event. The reports must be submitted on forms provided by the administrative authority and shall include at a minimum:

a. documentation of the chain of custody of all sampling and analyses;

b. scaled potentiometric surface maps showing monitoring well and piezometer locations and groundwater elevations with respect to mean sea level for each stratum monitored;

c. plots by well showing concentration of parameters or constituents versus time. If the facility is conducting assessment or corrective action monitoring, then in addition to the plots by well of concentration versus time, an isopleth map shall be submitted for each zone monitored; and

d. a statement of whether a statistically significant difference in concentration over background concentrations is detected.

6. If a statistically significant increase over background concentrations is determined for one or more parameters or constituents required to be monitored, the permit holder must:

a. submit to the Office of Environmental Assessment, Environmental Technology Division:

i. within 14 days after the determination is made, a report that identifies which parameters or constituents were determined to have shown statistically significant changes over background; and

ii. written notification for conducting any verification resampling events at least 14 days prior to conducting the resampling events; and

b. within 90 days after the determination is made:

i. initiate an assessment monitoring program for the facility meeting the requirements of Subsection D of this Section; or

ii. submit a report to the Office of Environmental Assessment, Environmental Technology Division demonstrating that a source other than the facility being sampled caused the contamination or that the statistically significant

increase resulted from an error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. If the administrative authority approves this demonstration, in writing, the permit holder may continue the detection monitoring program. If the administrative authority does not approve the demonstration, in writing, the permit holder must establish an assessment monitoring program meeting the requirements of Subsection D of this Section within 90 days after the determination in Subsection C.6 of this Section is made.

7. Detection Monitoring Parameters or Constituents

a. During detection monitoring, Type I landfills and Type I surface impoundments (except Type I landfills that are also Type II landfills and Type I surface impoundments that are associated with such Type I landfills) shall monitor for at least 10 chemical parameters or constituents, both inorganic and organic, which are indicator parameters or constituents or reaction products of the waste and that provide a reliable indication of the presence of contaminants in the groundwater. The administrative authority may reduce the number of parameters if appropriate based on site-specific and waste-specific consideration. Selection of these parameters or constituents is subject to the approval of the administrative authority and must be based on the following factors:

- i. types, quantities, and concentrations of constituents in the wastes disposed of at the facility;
- ii. mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the facility;
- iii. detectability of indicator parameters, waste constituents, or their reaction products in the groundwater; and
- iv. concentrations or values and coefficients of variation of the proposed monitoring parameters or constituents in the background groundwater at the facility.

b. During detection monitoring, Type II landfills, including Type II surface impoundments associated with Type II landfills, shall be monitored for all the parameters or constituents listed in Appendix B, Table 1 of this Chapter.

c. During detection monitoring, Type I landfarms, including runoff and containment areas (ROCAs) or surface impoundments associated with Type I landfarms, shall be monitored for the same parameters or constituents as provided for Type II landfarms in Subsection C.7.d of this Section and also for at least six parameters or constituents, both organic and inorganic, which are intrinsic to the wastes being disposed at the facility. The intrinsic parameters or constituents shall be selected on the basis of the factors in Subsection C.7.a.i-iv of this Section and shall be subject to the approval of the administrative authority.

d. During detection monitoring, Type II landfarms that receive domestic sewage sludge and any runoff and containment areas (ROCAs) or surface impoundments associated with such landfarms shall be monitored for five-day biochemical oxygen demand (BOD<sub>5</sub>), fecal coliform, total dissolved solids (TDS), nitrate, total Kjeldahl nitrogen, and polychlorinated biphenyls (PCBs), if applicable.

e. Type II surface impoundments that receive domestic sewage sludge shall be monitored for the same parameters or constituents as provided for Type II landfills in Subsection C.7.d of this Section.

f. The administrative authority may waive or require additional parameters or constituents, based on site-specific or waste-specific information.

D. Assessment Monitoring Program for Type I and Type II Facilities

1. An assessment monitoring program as described in this Subsection is required to be conducted at Type I and Type II facilities whenever a statistically significant increase over background concentrations is detected for one or more of the parameters or constituents sampled and analyzed during the detection monitoring program.

2. The assessment monitoring parameters for:

a. Type II landfills and associated Type II impoundments shall be the parameters listed on Table 2 of Appendix B of this Chapter; and

b. Type I and Type II facilities, other than Type II landfills and associated Type II impoundments, shall be the detection monitoring parameters or constituents although the administrative authority may add additional parameters or constituents on a site-specific and waste-specific basis.

3. Within 90 days of triggering an assessment monitoring program, and annually thereafter, the permit holder must sample and analyze the groundwater for the assessment monitoring parameters. A minimum of one sample from each downgradient well must be collected and analyzed during each sampling event. For any parameter or constituent detected in the downgradient wells as a result of sampling for the assessment monitoring parameters or constituent, a minimum of four independent samples from each well (background and downgradient) must be collected and analyzed to establish background for the parameters or constituents. The administrative authority:

a. may specify an appropriate subset of the wells to be sampled and analyzed for assessment monitoring parameters or constituents during assessment monitoring; and

b. may delete any of the assessment monitoring parameters or constituents for a facility if it can be shown that the omitted parameters or constituents are not reasonably expected to be in or derived from the waste contained in the unit.

4. No later than 90 days after the completion of the initial or subsequent sampling events for all assessment monitoring parameters or constituents required in Subsection E.4.b of this Section, the permit holder must submit a report to the Office of Environmental Assessment, Environmental Technology Division identifying the assessment monitoring parameters or constituents that have been detected. No later than 180 days after completion of the initial or subsequent sampling events for all assessment monitoring parameters or constituents required in Subsection D.3 of this Section, the permit holder must:

a. resample all wells and analyze for all detection monitoring parameters or constituents and for those assessment monitoring parameters or constituents that are detected in response to Subsection D.3 of this Section. At least one sample must be

collected from each well (background and downgradient) during these sampling events. This sampling must be repeated semiannually thereafter;

b. establish background groundwater concentrations for any parameter or constituent detected in accordance with Subsection D.3 or 4 of this Section; and

c. establish groundwater protection standards for all parameters or constituents detected in accordance with Subsection D.3 or 4 of this Section. The groundwater protection standards shall be established in accordance with Subsection D.8 of this Section.

5. If the concentrations of all assessment monitoring parameters or constituents are shown to be at or below background values, using the statistical procedures in Subsection B.6 of this Section, for two consecutive sampling events, the permit holder must notify the Office of Environmental Assessment, Environmental Technology Division, and upon written approval of the administrative authority, may return to detection monitoring.

6. If the concentrations of any assessment monitoring parameters or constituents are above background values, but all concentrations are below the groundwater protection standard established under Subsection D.8 of this Section, using the statistical procedures in Subsection B.6 of this Section, the permit holder must continue assessment monitoring.

7. If one or more assessment monitoring parameters or constituents are detected at statistically significant levels above the groundwater protection standard established under Subsection D.8 of this Section, in any sampling event, using the statistical procedures in Subsection B.6 of this Section, the permit holder must, within 14 days of the determination, notify all appropriate local government officials and submit a report to the Office of Environmental Assessment, Environmental Technology Division identifying the assessment monitoring parameters or constituents that have exceeded the groundwater protection standard. The permit holder must also:

a. within 90 days after the determination is made, submit four bound copies (8 1/2 x 11 inches) of an assessment plan to the Office of Environmental Assessment, Environmental Technology Division, as well as any necessary permit modification to the Office of Environmental Services, Permits Division that provides for:

i. characterization of the nature and extent of the release by installing and sampling additional monitoring wells as necessary;

ii. installation of at least one additional monitoring well at the facility boundary in the direction of the contaminant migration and sampling of this well in accordance with Subsection D.4.b of this Section; and

iii. a schedule for implementing the plan;

b. notify all persons who own the land or reside on the land that directly overlies any part of the plume of contamination if contaminants have migrated off site as indicated by the sampling of the wells in accordance with Subsection D.7.a of this Section; and

c. 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 in accordance with Subsection F of this Section. The following factors must be considered by a permit holder in determining whether interim measures are necessary:

- i. time required to develop and implement a final remedy;
  - ii. actual or potential exposure of nearby populations or environmental receptors to hazardous parameters or constituents;
  - iii. actual or potential contamination of drinking water supplies or sensitive ecosystems;
  - iv. further degradation of the groundwater that may occur if remedial action is not initiated expeditiously;
  - v. weather conditions that may cause hazardous parameters or constituents to migrate or be released;
  - vi. risk of fire or explosion, or potential for exposure to hazardous parameters or constituents as a result of an accident or failure of a container or handling system; and
  - vii. other situations that may pose threats to human health and the environment; and
- d. initiate an assessment of corrective measures as required by Subsection E of this Section; or

e. may submit a report to the Office of Environmental Assessment, Environmental Technology Division demonstrating that a source other than the facility being sampled caused the contamination, or the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. If the administrative authority approves this demonstration in writing, the permit holder must continue assessment monitoring at the facility in accordance with this Subsection or may return to detection monitoring if the assessment monitoring parameters or constituents are below background as specified in Subsection D.5 of this Section. Until such a written approval is given, the permit holder must comply with Subsection D.7 of this Section, including initiating an assessment of corrective action measures.

8. The permit holder must establish a groundwater protection standard for each assessment monitoring parameter or constituent detected in the groundwater. The groundwater protection standard shall be in accordance with LAC 33:I.Chapter 13 and shall be:

- a. for parameters or constituents for which a maximum contaminant level (MCL) has been promulgated under the federal Safe Drinking Water Act, the MCL for that parameter or constituent;

- b. for parameters or constituents for which the state of Louisiana has promulgated a MCL, the MCL for that parameter or constituent;
- c. 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 this Subsection 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;
- d. for Type I facilities, as may be allowed by the administrative authority, the standard for all parameters or constituents set in accordance with LAC 33:I.Chapter 13 on a case-by-case basis;
- e. for parameters or constituents for which the background level is higher than the MCL identified under Subsection D.8.a or b of this Section, the background concentration for the parameter or constituent established from wells in accordance with this Subsection; or
- f. as may be established by the administrative authority, a more stringent groundwater protection standard, if necessary, to protect human health or the environment.

E. Assessment of Corrective Measures at Type I and Type II Facilities

1. Within 90 days of finding that any of the assessment monitoring parameters or constituents have been detected at a statistically significant level exceeding the groundwater protection standards defined under Subsection D.8 of this Section, the permit holder must initiate an assessment of corrective measures.
2. The permit holder must continue to monitor in accordance with the assessment monitoring program throughout the period of corrective action, as specified in Subsection D of this Section.
3. The assessment shall include an analysis of the effectiveness of potential corrective measures in meeting all of the requirements and objectives of the remedy as described under Subsection F of this Section, addressing at least the following:
  - a. performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination;
  - b. time required to begin and complete the remedy;
  - c. costs of remedy implementation; and
  - d. institutional requirements such as state or local permit requirements or other environmental or public health requirements that may substantially affect implementation of the remedy.
4. For Type II landfills and associated surface impoundments, the results of the corrective measures assessment must be discussed by the permit holder, in a public meeting prior to the selection of remedy, with interested and affected parties.

F. Selection of Remedy and Corrective Action Plan at Type II Landfills and Associated Surface Impoundments

1. Based on the results of the corrective measures assessment conducted under Subsection E of this Section, the permit holder must select a remedy that, at a minimum, meets the standards of Subsection F.2 of this Section. Within 180 days after initiation of the corrective measures assessment required in Subsection E of this Section, the permit holder must submit four bound copies (8 ½ by 11 inches) of a corrective-action plan to the Office of Environmental Assessment, Environmental Technology Division, describing the selected remedy, which will meet the requirements of Subsection F.2-4 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 G.1.a of this Section.

2. Remedies must:

- a. be protective of human health and the environment;
- b. attain the groundwater protection standard as specified in accordance with Subsection D.8 of this Section;
- c. control the source(s) of releases so as to reduce or eliminate, to the maximum extent practicable, further releases of assessment monitoring parameters or constituents into the environment that may pose a threat to human health or the environment; and
- d. comply with standards for management of wastes as specified in Subsection G.7 of this Section;

3. In selecting a remedy that meets the standards of Subsection F.2 of this Section, the permit holder shall consider the following evaluation factors:

- a. long-term and short-term effectiveness and protectiveness of the potential remedy(s), along with the degree of certainty that the remedy will prove successful based on consideration of the following:
  - i. magnitude of reduction of existing risks;
  - ii. magnitude of residual risks in terms of likelihood of further releases due to waste remaining following implementation of a remedy;
  - iii. type and degree of long-term management required, including monitoring, operation, and maintenance;
  - iv. short-term risks that might be posed to the community, workers, or the environment during implementation of such a remedy, including potential threats to human health and the environment associated with excavation, transportation, and redisposal of containment;
  - v. time until full protection is achieved;
  - vi. potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal, or containment;
  - vii. long-term reliability of the engineering and institutional controls; and

- viii. potential need for replacement of the remedy;
- b. effectiveness of the remedy in controlling the source to reduce further releases based on consideration of the following factors:
  - i. extent to which containment practices will reduce further releases; and
  - ii. extent to which treatment technologies may be used;
- c. ease or difficulty of implementing a potential remedy(s) based on consideration of the following types of factors:
  - i. degree of difficulty associated with constructing the technology;
  - ii. expected operational reliability of the technologies;
  - iii. need to coordinate with and obtain necessary approvals and permits from other agencies;
  - iv. availability of necessary equipment and specialists; and
  - v. available capacity and location of needed treatment, storage, and disposal services;
- d. practicable capability of the permit holder, including a consideration of the technical and economic capability; and
- e. degree to which community concerns are addressed by a potential remedy(s).

4. The permit holder shall specify, as part of the selected remedy, a schedule(s) for initiating and completing remedial activities. Such a schedule must require the initiation of remedial activities within a reasonable period of time. The permit holder must consider the following factors in determining the schedule of remedial activities:

- a. extent and nature of contamination;
- b. practical capabilities of remedial technologies in achieving compliance with groundwater protection standards established under Subsection D.8 of this Section and other objectives of the remedy;
- c. availability of treatment or disposal capacity for wastes managed during implementation of the remedy;
- d. desirability of utilizing technologies that are not currently available, but which may offer significant advantages over already available technologies in terms of effectiveness, reliability, safety, or ability to achieve remedial objectives;
- e. potential risks to human health and the environment from exposure to contamination prior to completion of the remedy;
- f. resource value of the aquifer including:
  - i. current and future uses;

- ii. proximity and withdrawal rate of users;
- iii. groundwater quantity and quality;
- iv. potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to parameters or constituents;
- v. hydrogeologic characteristic of the facility and surrounding land;
- vi. groundwater removal and treatment costs;
- vii. cost and availability of alternative water supplies; and
- viii. practicable capability of the permit holder; and
- g. other relevant factors.

5. The administrative authority may determine that remediation of a release of an assessment monitoring parameter or constituent from a facility is not necessary if the permit holder demonstrates to the satisfaction of the administrative authority that:

- a. the groundwater is additionally contaminated by substances that have originated from a source other than a facility and those substances are present in such concentrations that cleanup of the release from the facility would provide no significant reduction in risk to actual or potential receptors;
- b. parameter or constituent is present in groundwater that:
  - i. is not currently or reasonably expected to be a source of drinking water; and
  - ii. is not hydraulically connected with waters to which the parameters or constituents are migrating or are likely to migrate in a concentration that would exceed the groundwater protection standards established under Subsection D.8 of this Section;
- c. remediation of the release(s) is technically impracticable; or
- d. remediation results in unacceptable cross-media impacts.

6. A determination by the administrative authority in accordance with Subsection F.5 of this Section shall not affect the authority of the administrative authority to require the permit holder to undertake source control measures or other measures that may be necessary to eliminate or minimize further releases to the groundwater, to prevent exposure to the groundwater, or to remediate the groundwater to concentrations that are technically practicable and that significantly reduce threats to human health or the environment.

#### G. Implementation of the Corrective Action Programs at Type I and Type II Facilities

1. After the corrective action plan has been approved by the administrative authority and, based on the corrective action plan schedule established under

Subsection F.4 of this Section for initiation and completion of remedial activities, the permit holder must:

- a. implement a corrective-action groundwater monitoring program as described in the approved corrective-action plan that:
  - i. at a minimum, meets the requirements of an assessment monitoring program under Subsection D of this Section;
  - ii. indicates the effectiveness of the corrective action remedy; and
  - iii. demonstrates compliance with the groundwater protection standard in accordance with Subsection D.8 of this Section; and
- b. implement the corrective-action plan established under Subsection F of this Section.

2. A permit holder may submit a report to the Office of Environmental Assessment, Environmental Technology Division demonstrating, based on information developed after implementation of the corrective action plan has begun or other information, that compliance with requirements of Subsection F.2 of this Section are not being achieved through the remedy selected. A revised corrective-action plan providing other methods or techniques that could practically achieve compliance with the requirements of Subsection F.2 of this Section must accompany the demonstration.

3. If the administrative authority approves, in writing, the demonstration and revised corrective action plan submitted in accordance with Subsection G.2 of this Section, the permit holder must implement the revised corrective-action plan.

4. The permit holder may submit a report to the Office of Environmental Assessment, Environmental Technology Division demonstrating that compliance with the requirements under Subsection F.2 of this Section cannot be achieved with any currently available methods.

5. If the administrative authority approves, in writing, the demonstration submitted in accordance with Subsection G.4 of this Section, the permit holder must, within 30 days of the approval, submit a plan to the Office of Environmental Assessment, Environmental Technology Division (which includes an implementation schedule) to implement alternate measures in accordance with LAC 33:I.Chapter 13:

- a. to control exposure of humans and the environment to residual contamination as necessary to protect human health and the environment; and
- b. for the control of the sources of contamination, or for the removal or decontamination of equipment, devices, or structures, that are technically practicable and consistent with the overall objective of the remedy.

6. If the administrative authority approves the plan for alternate measures submitted in accordance with Subsection G.5 of this Section, the permit holder must implement the plan.

7. All solid wastes that are managed in accordance with a remedy required under Subsection E.6 of this Section, or an interim measure required under Subsection E.4.f.iii of this Section, shall be managed in a manner:

- a. that is protective of human health and the environment; and
- b. that complies with applicable RCRA requirements.

8. Remedies selected in accordance with Subsection F of this Section shall be considered complete when:

a. the permit holder complies with the groundwater protection standards established under Subsection D.8 of this Section at all points within the plume of contamination that lie beyond the groundwater monitoring well system established under Subsection E.1 of this Section; and

b. compliance with the groundwater protection standards established under Subsection D.8 of this Section has been achieved by demonstrating that concentrations of assessment monitoring parameters or constituents have not exceeded the groundwater protection standard(s) for a period of three consecutive years using the statistical procedures and performance standards in Subsection B.6 of this Section. The administrative authority may specify an alternative length of time during which the permit holder must demonstrate that concentrations of the assessment monitoring parameters or constituents have not exceeded the groundwater protection standard(s) taking into consideration:

- i. extent and concentration of the release(s);
- ii. behavior characteristics of the hazardous parameters or constituents in the groundwater;
- iii. accuracy of monitoring or modeling techniques, including any seasonal, meteorological, or other environmental variabilities that may affect the accuracy; and

iv. characteristics of the groundwater; and

c. all actions required to complete the remedy have been satisfied.

i. Upon completion of the remedy, the permit holder must submit to the administrative authority within 14 days a certification that the remedy has been completed in compliance with the requirements of Subsection G.8 of this Section. The certification must be signed by the permit holder and approved by the administrative authority.

ii. When, upon completion of the certification, the administrative authority determines that the corrective action remedy has been completed in accordance with the requirements under Subsection G.8 of this Section, the permit holder shall be released from the requirements for financial assurance for corrective action under LAC 33:VII.1305.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.,  
and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental  
Quality, Office of Environmental Assessment, Environmental Planning Division, LR  
28:\*\*.

## **Appendix A**

### **GROUNDWATER SAMPLING AND ANALYSIS PLAN**

- i. All wells must be measured for total depth and depth to water on the same day and immediately prior to purging. Measurements must be to the nearest 0.01 foot, and the values must be recorded in the field notebook. If 10 percent of the screened interval is blocked by sediments, the well must be redeveloped prior to the next required sampling event. Wells with dedicated sampling devices that preclude total-depth measurement must be measured annually.
- ii. Each well must be purged by evacuation to dryness or by removing a minimum of three casing volumes. The well must be sampled immediately upon purging and/or when sufficient water for sampling has recharged the well. Purging and sampling methods must be consistent throughout the life of the facility.
- iii. Samples must be withdrawn using dedicated or adequately cleaned equipment for each well. No equipment or method may be used that will chemically alter or influence the sample. Sampling devices, other than bailers, must be approved by the administrative authority prior to use in monitoring programs. Care must be taken to avoid placing clean sampling equipment on the ground or on any contaminated surface. Sampling methods and equipment must be compatible throughout the life of the facility.
- iv. Sample preservation, handling, and analysis must meet the specifications of the "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," third edition EPA Publication SW-846, 1986, as revised December, 1987 (SW-846) or an equivalent substitute as approved by the administrative authority. Parameters, containers, preservation methods, and analytical limits are listed in Tables 1 and 2.
- v. Analytical methods with the equivalency to SW-846, or analytical methods for parameters not listed in SW-846, must be approved by the administrative authority prior to implementation.
- vi. A chain of custody must be employed that will allow for the possession and handling of samples to be traced from the time of collection through laboratory analysis. All sample containers must be labeled to prevent misidentification, have proper seals, and indicate the test parameters required.
- vii. At the site, an up-to-date field logbook must be kept, which documents for each sample the well identification number, total well depth, elevation of top of casing, water level, water color, well-evacuation procedures and equipment, date, time, sample identification numbers, field measurements (pH, specific conductance, etc.) and methods, name of collector, field observations, calculations of the standing-water volume in the well, and the total volume evacuated.

**Table 1**  
**Detection Monitoring Parameters<sup>1</sup>**

<b>Common Name<sup>2</sup></b>		<b>CAS RN<sup>3</sup></b>
(1)	Antimony	(Total)
(2)	Arsenic	(Total)
(3)	Barium	(Total)
(4)	Beryllium	(Total)
(5)	Cadmium	(Total)
(6)	Chromium	(Total)
(7)	Cobalt	(Total)
(8)	Copper	(Total)
(9)	Lead	(Total)
(10)	Nickel	(Total)
(11)	Selenium	(Total)
(12)	Silver	(Total)
(13)	Thallium	(Total)
(14)	Vanadium	(Total)
(15)	Zinc	(Total)
<b>Organic Constituents:</b>		
(16)	Acetone	67-64-1
(17)	Acrylonitrile	107-13-1
(18)	Benzene	71-43-2
(19)	Bromochloromethane	74-97-5
(20)	Bromodichloromethane	75-27-4
(21)	Bromoform; Tribromomethane	75-25-2
(22)	Carbon disulfide	75-15-0
(23)	Carbon tetrachloride	56-23-5
(24)	Chlorobenzene	108-90-7
(25)	Chloroethane; Ethyl chloride	75-00-3
(26)	Chloroform; Trichloromethane	67-66-3
(27)	Dibromochloromethane; Chlorodibromomethane	124-48-1
(28)	1,2-Dibromo-3-chloropropane; DBCP	96-12-8
(29)	1,2-Dibromoethane; Ethylene dibromide; EDB	106-93-4
(30)	o-Dichlorobenzene; 1,2-Dichlorobenzene	95-50-1
(31)	p-Dichlorobenzene; 1,4-Dichlorobenzene	106-46-7
(32)	trans-1,4-Dichloro-2-butene	110-57-6
(33)	1,1-Dichloroethane; Ethylidene chloride	75-34-3
(34)	1,2-Dichloroethane; Ethylene dichloride	107-06-2
(35)	1,1-Dichloroethylene; 1,1- Dichloroethene; Vinylidene chloride	75-35-4
(36)	cis-1,2-Dichloroethylene; cis-1,2- Dichloroethene	156-59-2
(37)	trans-1,2-Dichloroethylene; trans-1,2- Dichloroethene	156-60-5
(38)	1,2-Dichloropropane; Propylene dichloride	78-87-5
(39)	cis-1,3-Dichloropropene	10061-01-5

**Table 1**  
**Detection Monitoring Parameters<sup>1</sup>**

	<b>Common Name<sup>2</sup></b>	<b>CAS RN<sup>3</sup></b>
(40)	trans-1,3-Dichloropropene	10061-02-6
(41)	Ethylbenzene	100-41-4
(42)	2-Hexanone; Methyl butyl ketone	591-78-6
(43)	Methyl bromide; Bromomethane	74-83-9
(44)	Methyl chloride; Chloromethane	74-87-3
(45)	Methylene bromide; Dibromomethane	74-95-3
(46)	Methylene chloride; Dichloromethane	75-09-2
(47)	Methyl ethyl ketone; MEK; 2-Butanone	78-93-3
(48)	Methyl iodide; Iodomethane	74-88-4
(49)	4-Methyl-2-pentanone; Methyl isobutyl ketone	108-10-1
(50)	Styrene	100-42-5
(51)	1,1,1,2-Tetrachloroethane	630-20-6
(52)	1,1,2,2-Tetrachloroethane	79-34-5
(53)	Tetrachloroethylene; Tetrachloroethene; Perchloroethylene	127-18-4
(54)	Toluene	108-88-3
(55)	1,1,1-Trichloroethane; Methylchloroform	71-55-6
(56)	1,1,2-Trichloroethane	79-00-5
(57)	Trichloroethylene; Trichloroethene	79-01-6
(58)	Trichlorofluoromethane; CFC-11	75-69-4
(59)	1,2,3-Trichloropropane	96-18-4
(60)	Vinyl acetate	108-05-4
(61)	Vinyl chloride	75-01-4
(62)	Xylenes	1330-20-7

Notes:

<sup>1</sup> This list contains 47 volatile organics for which possible analytical procedures provided in SW-846 includes Method 8260; and 15 metals for which SW-846 provides either Method 6010 or a method from the 7000 series of methods.

<sup>2</sup> Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

<sup>3</sup> Chemical Abstracts Service registry number. Where "Total" is entered, all species in the groundwater that contain this element are included.

**Table 2**  
**Assessment Monitoring Parameters<sup>1</sup>**

<b>Common Name<sup>2</sup></b>	<b>CAS RN<sup>3</sup></b>	<b>Chemical Abstracts Service Index Name<sup>4</sup></b>	<b>Suggest ed Method s<sup>5</sup></b>	<b>PQL (µg/L) 6<sup>6</sup></b>
Acenaphthene	83-32-9	Acenaphthylene, 1,2- dihydro-	8100 8270	200 10
Acenaphthylene	208-96-8	Acenaphthylene	8100 8270	200 10
Acetone	67-64-1	2-Propanone	8260	100
Acetonitrile; Methyl cyanide	75-05-8	Acetonitrile	8015	100
Acetophenone	98-86-2	Ethanone, 1-phenyl-	8270	10
2-Acetylaminofluorene; 2-AAF	53-96-3	Acetamide, N-9H- fluoren-2-yl-	8270	20
Acrolein	107-02-8	2-Propenal	8030 8260	5 100
Acrylonitrile	107-13-1	2-Propenenitrile	8030 8260	5 200
Aldrin	309-00-22	1,4:5,8-Dimethano-naphthalene; 1,2,3,4,10,10-hexachloro- 1,4,4a,5,8,8a,-hexa- hydro-(1α,4α,4aβ,5β,8α,8aβ)	8080 8270	0.05 10
Allyl chloride	107-05-1	1-Propene, 3-chloro-	8010 8260	5 10
4-Amino-bipheny	92-67-1	[1,1'-Biphenyl]- 4-amine	8270	20
Anathracene	120-12-7	Anthracene	8100 8270	200 10
Antimony	(Total)	Antimony	6010 7040 7041	300 2,000 30
Arsenic	(Total)	Arsenic	6010 7060 7061	500 10 20
Barium	(Total)	Barium	6010 7080	20 1,000

**Table 2**  
**Assessment Monitoring Parameters<sup>1</sup>**

Common Name <sup>2</sup>	CAS RN <sup>3</sup>	Chemical Abstracts Service Index Name <sup>4</sup>	Suggested Method s <sup>5</sup>	PQL (µg/L) 6 <sup>6</sup>
Benzene	71-43-2	Benzene	8020	2
			8021	0.1
			8260	5
Benzo[a]anthracene Benanthracene	56-55-3	Benz[a]anthracene	8100	200
			8270	10
Benzo[b]fluoranthene	205-99-2	Benz[e]acephenanthrylene	8100	200
			8270	10
Benzo[k]fluoranthene	207-08-9	Benzo[k]fluoranthene	8100	200
			8270	10
Benzo[ghi]perylene	191-24-2	Benzo[ghi]perylene	8100	200
			8270	10
Benzo[a]pyrene	50-32-8	Benzo[a]pyrene	8100	200
			8270	10
Benzyl alcohol	100-51-6	Benzenemethanol	8270	20
Beryllium	(Total)	Beryllium	6010	3
			7090	50
			7091	2
alpha-BHC	319-84-6	Cyclohexane; 1,2,3, 4,5,-hexachloro-,(1α, 2α,3β,4α,5β,6β)	8080	0.05
			8270	10
beta-BHC	319-85-7	Cyclohexane; 1,2,3, 4,5,6-hexa- chloro-,(1α,2β,3α,4β,5α,6β)-	8080	0.05
			8270	20
delta-BHC	319-86-8	Cyclohexane,1,2,3,4,5,6-hexachloro - (1α,2α,3α,4β, 5α,6β)-	8080	0.1
			8270	20
gamma-BHC; Lindane	58-89-9	Cyclohexane, 1,2, 3,4,5,6-hexachloro-, (1α,2α,3β,4α,5α,6β)	8080	0.05
			8270	20
Bis(2-chloroethoxy)methane	111-91-1	Ethane; 1,1'- [methylenebis(oxy)]bis[2- chloro-	8110	5
			8270	10
Bis(2-chloroethyl)ether	111-44-4	Ethane, 1,1'-oxybis[2-chloro-	8110	3
			8270	10

**Table 2**  
**Assessment Monitoring Parameters<sup>1</sup>**

Common Name <sup>2</sup>	CAS RN <sup>3</sup>	Chemical Abstracts Service Index Name <sup>4</sup>	Suggest ed Method s <sup>5</sup>	PQL (µg/L) 6 <sup>6</sup>
Bis(2-chloro- 1-methylethyl) ether; 2,2'-Dichlorodiisopropyl ether	108-60-1	Propane, 2,2'-oxybis [1-chloro-	8110	10
	See Note 7		8270	10
Bis(2-ethyl-hexyl) phthalat	117-81-7	1,2-Benzene- dicarboxylic acid, bis(2-ethyl-hexyl) ester	8060	20
Bromochloro methane; Chloro-bromomethane	74-97-5	Methane, bromochloro-	8021	0.1
			8260	5
Bromodichloro methane	75-27-4	Methane, bromodichloro-	8010	1
			8021	0.2
			8260	5
Bromoform; Tribromomethane	75-25-2	Methane, tribromo-	8010	2
			8021	15
			8260	5
4-Bromophenyl phenyl ether	101-55-3	Benzene, 1-bromo-4-phenoxy-	8110	25
			8270	10
Butyl benzyl phthalate; Benzyl butyl phthalate	85-68-7	1,2-Benzene- dicarboxylic acid, butyl phenylmethyl ester	8060	5
			8270	10
Cadmium	(Total)	Cadmium	6010	40
			7130	50
			7131	1
Carbon disulfide	75-15-0	Carbon disulfide	8260	100
Carbon tetrachloride	56-23-5	Methane, tetrachloro-	8010	1
			8021	0.1
			8260	10
Chlordane	57-74-9	4,7-Methano-1H- indene,1,2,4,5,6,7,8, 8-octachloro-2,3,3a,4, 7,7a-hexahydro-	8080	0.1
	See Note 8		8270	50
p-Chloroaniline	106-47-8	Benzenamine, 4-chloro-	8270	20

**Table 2**  
**Assessment Monitoring Parameters<sup>1</sup>**

Common Name <sup>2</sup>	CAS RN <sup>3</sup>	Chemical Abstracts Service Index Name <sup>4</sup>	Suggested Method s <sup>5</sup>	PQL (µg/L) 6 <sup>6</sup>
Chlorobenzene	108-90-7	Benzene, chloro-	8010	2
			8020	2
			8021	0.1
			8260	5
Chlorobenzilate	510-15-6	Benzeneacetic acid, 4-chloro- $\alpha$ -(4-chlorophenyl)- $\alpha$ - hydroxy-, ethyl ester	8270	10
p-Chloro-m-cresol	59-50-7	Phenol, 4-chloro- 3-methyl-	8040	5
			8270	20
Chloroethane; Ethyl chloride	75-00-3	Ethane, chloro-	8010	5
			8021	1
			8260	10
Chloroform	67-66-3	Methane, trichloro-	8010	0.5
			8021	0.2
			8260	5
2-Chloronaphthalene	91-58-7	Naphthalene, 2-chloro-	8120	10
			8270	10
2-Chlorophenol	95-57-8	Phenol, 2-chloro-	8040	5
			8270	10
4-Chlorophenyl phenyl ether	7005-72-3	Benzene, 1-chloro-4-phenoxy-	8110	40
			8270	10
Chloroprene	126-99-8	1,3-Butadiene, 2- chloro-	8010	50
			8260	20
Chromium	(Total)	Chromium	6010	70
			7190	500
			7191	10
Chrysene	218-01-9	Chrysene	8100	200
			8270	10
Cobalt	(Total)	Cobalt	6010	70
			7200	500
			7201	10

**Table 2**  
**Assessment Monitoring Parameters<sup>1</sup>**

Common Name <sup>2</sup>	CAS RN <sup>3</sup>	Chemical Abstracts Service Index Name <sup>4</sup>	Suggested Method s <sup>5</sup>	PQL (µg/L) 6 <sup>6</sup>
Copper	(Total)	Copper	6010	60
			7210	200
m-Cresol	108-39-4	Phenol, 3-methyl-	8270	10
o-Cresol	95-48-7	Phenol, 2-methyl-	8270	10
p-Cresol	106-44-5	Phenol, 4-methyl-	8270	10
Cyanide	57-12-5	Cyanide	9010	200
2,4-D; 2,4-Dichloro- phenoxyacetic acid	94-75-7	Acetic acid, (2,4- dichlorophenoxy)-	8150	10
4,4'-DDD	72-54-8	Benzene 1,1'-(2,2- dichloroethylidene) bis[4-chloro-	8080	0.1
			8270	10
4,4'-DDE	72-55-9	Benzene, 1,1'-(dichloroethenylidene) bis[4-chloro-	8080	0.05
			8270	10
4,4'-DDT	50-29-3	Benzene, 1,1'-(2,2,2-trichloro- ethylidene) bis[4-chloro-	8080	0.1
			8270	10
Diallate	2303-16-4	Carbamothioic acid, bis(1-methyl- ethyl)-, S-(2,3-dichloro-2-propenyl) ester	8270	10
Dibenz[a,h]- anthracene	53-70-3	Dibenz[a,h] anthracene	8100	200
			8270	10
Dibenzofuran	132-64-9	Dibenzofuran	8270	10
Dibromochloromethane; Chlorodibromomethane	124-48-1	Methane, diboro- chloro-	8010	1
			8021	0.3
			8260	5
1,2-Dibromo- 3-chloropropane; DBCP	96-12-8	Propane, 1,2-dibromo-3-chloro-	8011	0.1
			8021	30
			8260	25
1,2-Dibromoethane; Ethylene dibromide	106-93-4	Ethane, 1,2-dibromo-	8011	0.1
			8021	10
			8260	5

**Table 2**  
**Assessment Monitoring Parameters<sup>1</sup>**

Common Name <sup>2</sup>	CAS RN <sup>3</sup>	Chemical Abstracts Service Index Name <sup>4</sup>	Suggested Methods <sup>5</sup>	PQL (µg/L) <sup>6</sup>
Di-n-butyl phthalate	84-74-2	1,2-Benzene dicarboxylic acid, dibutyl ester	8060	5
			8270	10
o-Dichlorobenzene	95-50-1	Benzene, 1,2-dichloro-	8010	2
			8020	5
			8021	0.5
			8120	10
			8260	5
			8270	10
m-Dichlorobenzene	541-73-1	Benzene, 1,3- dichloro-	8010	5
			8020	5
			8021	0.2
			8120	10
			8260	5
			8270	10
p-Dichlorobenzene	106-46-7	Benzene, 1,4-dichloro-	8010	2
			8020	5
			8021	0.1
			8120	15
			8260	5
			8270	10
3,3'-Dichlorobenzidine	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-	8270	20
trans-1,4-; Dichloro-2-butene	110-57-6	2-Butene, 1,4-dichloro-, (E)-	8260	100
Dichlorodifluoromethane	75-71-8	Methane, dichlorodifluoro-	8021	0.5
			8260	5
1,1-Dichloroethane	75-34-3	Ethane, 1,1-dichloro-	8010	1
			8021	0.5
			8260	5

**Table 2**  
**Assessment Monitoring Parameters<sup>1</sup>**

Common Name <sup>2</sup>	CAS RN <sup>3</sup>	Chemical Abstracts Service Index Name <sup>4</sup>	Suggested Method <sup>5</sup>	PQL (µg/L) <sup>6</sup>
1,2-Dichloroethane; Ethylene dichloride	107-06-2	Ethane, 1,2-dichloro-	8010	0.5
			8021	0.3
			8260	5
1,1-Dichloroethylene; Vinylidene chloride	75-35-4	Ethene, 1,1-dichloro	8010	1
			8021	0.5
			8260	5
cis-1,2-Dichloro-ethylene; cis-1,2-Dichloroethene	156-59-2	Ethene, 1,2-dichloro-, (Z)-	8021	0.2
			8260	5
trans-1,2-Dichloroethylene	156-60-5	Ethene, 1,2-dichloro-(E)-	8010	1
			8021	0.5
			8260	5
2,4-Dichlorophenol	120-83-2	Phenol, 2,4-dichloro-	8040	5
			8270	10
2,6-Dichlorophenol	87-65-0	Phenol, 2,6-dichloro-	8270	10
1,2-Dichloropropane	78-87-5	Propane, 1,2-dichloro-	8010	0.5
			8021	0.05
			8260	5
1,3-Dichloropropane; Trimethylene dichloride	142-28-9	Propane, 1,3-dichloro-	8021	0.3
			8260	5
2,2-Dichloropropane; Isopropylidene chloride	594-20-7	Propane, 2,2-dichloro-	8021	0.5
			8260	15
1,1-Dichloropropene	563-58-6	1-Propene, 1,1-dichloro-	8021	0.2
			8260	5
cis-1,3-Dichloropropene	10061-01-5	1-Propene, 1,3-dichloro-,(Z)-	8010	20
			8260	10
trans-1,3-Dichloropropene	10061-02-6	1-Propene, 1,3-dichloro-,(E)-	8010	5
			8240	5

**Table 2**  
**Assessment Monitoring Parameters<sup>1</sup>**

Common Name <sup>2</sup>	CAS RN <sup>3</sup>	Chemical Abstracts Service Index Name <sup>4</sup>	Suggested Methods <sup>5</sup>	PQL (µg/L) <sup>6</sup>
Dieldrin	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxi-rene,3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-,(1α,2β,2α,3β,6β,6α,7β,7aα)-	8080 8270	0.05 10
Diethyl phthalate	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester	8060 8270	5 10
O,O-Diethyl O-2-pyrazinyl phosphorothioate; Thionazin	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	8141 8270	5 20
Dimethoate	60-51-5	Phosphorodithioic acid, O,O-dimethyl-S-[2-(methylamino)-2-oxoethyl] ester	8141 8270	3 20
p-(Dimethylamino)azobenzene	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-	8270	10
7,12-Dimethylbenz[a]anthracene	57-97-6	Benz[a]anthracene, 7,12-dimethyl-	8270	10
3,3'-Dimethylbenzidine	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-	8270	10
2,4-Dimethylphenol	105-67-9	Phenol, 2,4-dimethyl-	8040	5
Dimethyl phthalate	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester	8060 8270	5 10
m-Dinitrobenzene	99-65-0	Benzene, 1,3-dinitro-	8270	20
4,6-Dinitro-o-cresol	534-52-1	Phenol, 2-methyl-4,6-dinitro-	8040 8270	150 50
2,4-Dinitrophenol	51-28-5	Phenol, 2,4-dinitro-	8040 8270	150 50
2,4-Dinitrotoluene	121-14-2	Benzene, 1-methyl-2,4-dinitro-	8090 8270	0.2 10
2,6-Dinitrotoluene	606-20-2	Benzene, 2-methyl-1,3-dinitro-	8090 8270	0.1 10
Dinoseb; DNBP; 2-sec-Butyl-4,6-dinitrophenol	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-	8150 8270	1 20

**Table 2**  
**Assessment Monitoring Parameters<sup>1</sup>**

Common Name <sup>2</sup>	CAS RN <sup>3</sup>	Chemical Abstracts Service Index Name <sup>4</sup>	Suggest ed Method s <sup>5</sup>	PQL (µg/L) 6 <sup>6</sup>
Di-n-octyl phthalate	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester	8060	30
			8270	10
Diphenylamine	122-39-4	Benzenamine, N-phenyl-	8270	10
Disulfoton	298-04-4	Phosphorodithioic acid, O,O-diethyl S- [2-(ethylthio) ethyl]ester	8140	2
			8141	0.5
			8270	10
Endosulfan I	959-98-8	6,9-Methano-2,4,3 benzodioxathiepin, 6,7,8,9,10,10- hexachloro-1,5,5a, 6,9,9a-hexahydro-, 3-oxide,(3α,5aβ,6α, 9α,9aβ)-	8080	0.1
			8270	20
Endosulfan II	33213-65-9	6,9-Methano-2,4,3 benzodioxathiepin, 6,7,8,9,10,10- hexachloro- 1,5,5a, 6,9,9a-hexahydro-, 3-oxide,(3α,5aα,6β, 9β,9aα)-	8080	0.05
			8270	20
Endosulfan sulfate	1031-07-8	6,9-Methano-2,4,3 benzodioxathiepin, 6,7,8,9,10,10-hexa- chloro-1,5,5a,6,9, 9a-hexahydro-,3,3- dioxide	8080	0.5
			8270	10
Endrin	72-20-8	2,7:3,6-Dimethano- naphth[2,3-b]oxi-rene,3,4,5,6,9,9- hexachloro-1a,2,2a, 3,6,6a,7,7a-octa- hydro-,(1α,2β,2aβ,3α,6α,6aβ,7β,7a α)-	8080	0.1
			8270	20
Endrin aldehyde	7421-93-4	1,2,4-Metheno-cyclopenta[cd]- pentalene-5-car-boxaldehyde, 2,2a,3,3,4,7-hexachlorodeca- hydro-,(1α,2β,2aβ, 4β,4aβ,5β,6aβ,6bβ, 7R*)	8080	0.2
			8270	10
Ethylbenzene	100-41-4	Benzene, ethyl-	8020	2
			8221	0.05
			8260	5

**Table 2**  
**Assessment Monitoring Parameters<sup>1</sup>**

Common Name <sup>2</sup>	CAS RN <sup>3</sup>	Chemical Abstracts Service Index Name <sup>4</sup>	Suggested Method s <sup>5</sup>	PQL (µg/L) 6 <sup>6</sup>
Ethyl methacrylate	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester	8015	5
			8260	10
			8270	10
Ethyl methanesulfonate	62-50-0	Methanesulfonic acid, ethyl ester	8270	20
Famphur	52-85-7	Phosphorothioic acid, O-[4-[(dimethyl-amino)-sulfonyl] phenyl]-O,O-di- methyl ester	8270	20
Fluoranthene	206-44-0	Fluoranthene	8100	200
			8270	10
Fluorene	86-73-7	9H-Fluorene	8100	200
			8270	10
Heptachlor	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8, 8-heptachloro-3a, 4,7,7a-tetrahydro-	8080	0.05
			8270	10
Heptachlor epoxide	1024-57-3	2,5-Methano-2H- indeno [1,2- b]oxi- rene,2,3,4,5,6,7,7- heptachloro-1a,1b,5,5a,6,6a- hexahydro-, (1α,1β,2α,5α, 5aβ,6β,6α)	8080	1
			8270	10
Hexachlorobenzene	118-74-1	Benzene, hexachloro-	8120	0.5
			8270	10
Hexachlorobutadiene	87-68-3	1,3-Butadiene, 1,1,2,3,4,4- hexachloro-	8021	0.5
			8120	5
			8260	10
			8270	10
Hexachlorocyclopentadiene	77-47-4	1,3-Cyclopentadiene	8120	5
			8270	10
Hexachloroethane	67-72-1	Ethane, hexachloro-	8120	0.5
			8260	10
			8270	10
Hexachloropropene	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-	8270	10
2-Hexanone	591-78-6	2-Hexanone	8260	50

**Table 2**  
**Assessment Monitoring Parameters<sup>1</sup>**

Common Name <sup>2</sup>	CAS RN <sup>3</sup>	Chemical Abstracts Service Index Name <sup>4</sup>	Suggested Method <sup>5</sup>	PQL (µg/L) <sup>6</sup>
Indeno(1,2,3-cd) pyrene	193-39-5	Indeno[1,2,3-cd] pyrene	8100	200
			8270	10
Isobutyl alcohol	78-83-1	1-Propanol, 2-methyl-	8015	50
			8240	100
Isodrin	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a hexahydro-(1α,4α,4aβ,5β,8β, 8aβ)-	8270	20
			8260	10
Isophorone	78-59-1	2-Cyclohexen-1-one, 3,5,5-trimethyl-	8090	60
			8270	10
Isosafrole	120-58-1	1,3-Benaodioxole, 5-(1-propenyl)-	8270	10
Kepone	143-50-0	1,3,4-Metheno-2H-cyclobuta-[cd]pentalen-2-one, 1,1a, 3,3a,4,5,5,5a,5b,6-decachlorooctahydro-	8270	20
Lead	(Total)	Lead	6010	400
			7420	1,000
			7421	10
Mercury	(Total)	Mercury	7470	2
Methacrylonitrile	126-98-7	2-Propene, nitrile 2-methyl-	8015	5
			8260	100
Methapyrilene	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-	8270	100
Methoxychlor	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene) bis[4-methoxy-	8080	2
			8270	10
Methyl bromide; Bromomethane	74-83-9	Methane, bromo-	8010	20
			8021	10
Methyl chloride; Chloromethane	74-87-3	Methane, chloro-	8010	1
			8021	0.3
3-Methylchol anthrene	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	8270	10

**Table 2**  
**Assessment Monitoring Parameters<sup>1</sup>**

Common Name <sup>2</sup>	CAS RN <sup>3</sup>	Chemical Abstracts Service Index Name <sup>4</sup>	Suggested Method s <sup>5</sup>	PQL (µg/L) 6 <sup>6</sup>
Methyl ethyl ketone; MEK	78-93-3	2-Butanone	8015	10
			8260	100
Methyl iodide; Iodomethane	74-88-4	Methane, iodo-	8010	40
			8260	10
Methyl methacrylate	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester	8015	2
			8260	30
Methyl methanesulfonate	66-27-3	methanesulfonic acid, methyl ester	8270	10
2-Methylnaphthalene	91-57-6	Naphthalene, 2-methyl-	8270	10
Methyl parathion; arathion methyl	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	8140	0.5
			8141	1
			8270	10
4-Methyl-2- pentanone; Methyl isobutyl ketone	108-10-1	2-Pentanone, 4-methyl	8015	5
			8260	100
Methylene bromide; Dibromo-methane	74-95-3	Methane, dibromo-	8010	15
			8021	20
			8260	10
Methylene chloride; Dichloromethane	75-09-2	Methane, dichloro-	8010	5
			8021	0.2
			8060	10
Naphthalene	91-20-3	Naphthalene	8021	0.5
			8100	200
			8260	5
			8270	10
1,4-Naphthoquinone	130-15-4	1,4-Naphthalenedione	8270	10
1-Naphthylamine	134-32-7	1-Naphthalenamine	8270	10
2-Naphthylamine	91-59-8	2-Naphthalenamine	8270	10
Nickel	(Total)	Nickel	6010	50
			7520	400
o-Nitroaniline	88-74-4	Benzenamine, 2-nitro-	8270	50
m-Nitroaniline	99-09-2	Benzenamine, 3-nitro-	8270	50
p-Nitroaniline	100-01-6	Benzenamine, 4-nitro-	8270	50

**Table 2**  
**Assessment Monitoring Parameters<sup>1</sup>**

<b>Common Name<sup>2</sup></b>	<b>CAS RN<sup>3</sup></b>	<b>Chemical Abstracts Service Index Name<sup>4</sup></b>	<b>Suggest ed Method s<sup>5</sup></b>	<b>PQL (µg/L) 6<sup>6</sup></b>
Nitrobenzene	98-95-3	Benzene, nitro-	8090	40
			8270	10
o-Nitrophenol	88-75-5	Phenol, 2-nitro-	8040	5
			8270	10
p-Nitrophenol	100-02-7	Phenol, 4-nitro	8040	10
			8270	50
N-Nitrosodi-n- butylamine	924-16-3	1-Butanamine, N-butyl-N-nitroso	8270	10
N-Nitroso- diethylamine	55-18-5	Ethanamine, N-ethyl-N-nitroso	8270	20
N-Nitroso- dimethylamine	62-75-9	Methanamine, N-methyl-N-nitroso-	8070	2
N-Nitroso- diphenylamine	86-30-6	Benzenamine, N-nitroso-N-phenyl-	8070	5
N-Nitroso- dipropylamine; Di-n-propyl- nitrosamine	621-64-7	1-Propanamine, N-nitroso-N-propyl-	8070	10
N-Nitrosom- ethylethylamine	10595-95-6	Ethanamine, N-methyl-N-nitroso-	8270	10
N-Nitrosopiperidine	100-75-4	Piperidine, 1-nitroso-	8270	20
N-Nitrosopyrrolidine	930-55-2	Pyrrolidine, 1-nitroso-	8270	40
5-Nitro-o-toluidine	99-55-8	Benzenamine, 2- methyl-5-nitro-	8270	10
Parathion	56-38-2	Phosphorothioic acid, O,O-diethyl- O-(4-nitrophenyl) ester	8141	0.5
			8270	10
Pentachlorobenzene	608-93-5	Benzene, pentachloro-	8270	10
Pentachloro-nitrobenzene	82-68-8	Benzene, penta-chloronitro-	8270	20
Pentachlorophenol	87-86-5	Phenol, pentachloro-	8040	5
			8270	50
Phenacetin	62-44-2	Acetamide, N-(4-ethoxyphenyl)	8270	20
Phenanthrene	85-01-8	Phenanthrene	8100	200
			8270	10
Phenol	108-95-2	Phenol	8040	1
			8270	10
p-Phenylenediamine	106-50-3	1,4-Benzenediamine	8270	10
Phorate	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)-methyl] ester	8140	2
			8141	0.5
			8270	10
Polychlorinated biphenyls; PCBs	See Note 9	1,1'-Biphenyl, chloro derivatives	8080	50
			8270	200

**Table 2**  
**Assessment Monitoring Parameters<sup>1</sup>**

<b>Common Name<sup>2</sup></b>	<b>CAS RN<sup>3</sup></b>	<b>Chemical Abstracts Service Index Name<sup>4</sup></b>	<b>Suggest ed Method s<sup>5</sup></b>	<b>PQL (µg/L) 6<sup>6</sup></b>
Pronamide	23950-58-5	Benzamide, 3,5- dichloro-N-(1,1-di- methyl-2-propynyl)-	8270	10
Propionitrile; Ethyl cyanide	107-12-0	Propanenitrile	8015 8260	60 150
Pyrene	129-00-0	Pyrene	8100 8270	200 10
Safrole	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-	8270	10
Selenium	(Total)	Selenium	6010 7740 7741	750 20 20
Silver	(Total)	Silver	6010 7760	70 100
Silvex; 2,4,5-TP	93-72-1	Propanoic acid, 2-(2,4,5-trichloro- phenoxy)-	8150	2
Styrene	100-42-5	Benzene, ethenyl-	8020 8021 8260	1 0.1 10
Sulfide	18496-25-8	Sulfide	9030	4,000
2,4,5-T; 2,4,5- Trichloro- phenoxyacetic acid	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-	8150	2
1,2,4,5-Tetrachlorobenzene	95-94-3	Benzene, 1,2,4,5-tetrachloro-	8270	10
1,1,1,2-Tetrachloroethane	630-20-6	Ethane, 1,1,1,2-tetrachloro-	8010 8021 8260	5 0.05 5
1,1,2,2-Tetrachloroethane	79-34-5	Ethane, 1,1,2,2-tetrachloro-	8010 8021 8260	0.5 0.1 5
Tetrachloroethylene; Perchloroethylene; Tetrachloroethene	127-18-4	Ethene, tetrachloro-	8010 8021 8260	0.5 0.5 5
2,3,4,6-Tetrachlorophenol	58-90-2	Phenol, 2,3,4,6- tetrachloro-	8270	10

**Table 2**  
**Assessment Monitoring Parameters<sup>1</sup>**

Common Name <sup>2</sup>	CAS RN <sup>3</sup>	Chemical Abstracts Service Index Name <sup>4</sup>	Suggested Method <sup>5</sup>	PQL (µg/L) <sup>6</sup>
Thallium	(Total)	Thallium	6010	400
			7840	1,000
			7841	10
Tin	(Total)	Tin	6010	40
Toluene	108-88-3	Benzene, methyl-	8020	2
			8021	0.1
			8260	5
o-Toluidine	95-53-4	Benzenamine, 2- methyl-	8270	10
Toxaphene	8001-35-2	Toxaphene	8080	2
	See note 10			
1,2,4-Trichlorobenzene	120-82-1	Benzene, 1,2,4-trichloro	8021	0.3
			8120	0.5
			8260	10
			8270	10
1,1,1-Trichloroethane; Methylchloroform	71-55-6	Ethane, 1,1,1- trichloro-	8010	0.3
			8021	0.3
			8260	5
1,1,2-Trichloroethane	79-00-5	Ethane, 1,1,2-trichloro-	8010	0.2
			8260	5
Trichloroethylene; Trichloroethene	79-01-6	Ethene, trichloro-	8010	1
			8021	0.2
			8260	5
Trichlorofluoromethane	75-69-4	Methane, trichlorofluoro-	8010	10
			8021	0.3
			8260	5
2,4,5-Trichlorophenol	95-95-4	Phenol, 2,4,5- trichloro-	8270	10
2,4,6-Trichlorophenol	88-06-2	Phenol, 2,4,6-trichloro-	8040	5
			8270	10
1,2,3-Trichloropropane	96-18-4	Propane, 1,2,3-trichloro-	8010	10
			8021	5
			8260	15

**Table 2**  
**Assessment Monitoring Parameters<sup>1</sup>**

Common Name <sup>2</sup>	CAS RN <sup>3</sup>	Chemical Abstracts Service Index Name <sup>4</sup>	Suggested Method <sup>5</sup>	PQL (µg/L) <sup>6</sup>
O,O,O-Triethyl phosphorothioate	126-68-1	Phosphorothioic acid, O,O,O-triethyl ester	8270	10
sym-Trinitrobenzene	99-35-4	Benzene, 1,3,5-trinitro	8270	10
Vanadium	(Total)	Vanadium	6010	80
			7910	2,000
			7911	40
Vinyl acetate	108-05-4	Acetic acid, ethenyl ester	8260	50
Vinyl chloride	75-01-4	Ethene, chloro-	8010	2
			8021	0.4
			8260	10
Xylene (total)	1330-20-7 See Note 11	Benzene, dimethyl-	8020	5
			8021	0.2
			8260	5
Zinc	(Total)	Zinc	6010	20
			7950	50
			7951	0.5

Notes:

<sup>1</sup> The regulatory requirements pertain only to the list of substances; the right-hand columns (Methods and PQL) are given for informational purposes only. See also footnotes 5 and 6.

<sup>2</sup> Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

<sup>3</sup> Chemical Abstracts Service registry number. Where "Total" is entered, all species in the groundwater that contain this element are included.

<sup>4</sup> CAS index numbers are those used in the 9th Collective Index.

<sup>5</sup> Suggested Methods refer to analytical procedure numbers used in SW-846. Analytical details can be found in SW-846 and in documentation on file at the agency.

**Caution:** The methods listed are representative of SW-846 procedures and may not always be the most suitable method(s) for monitoring an analyte under the regulations.

<sup>6</sup> Practical Quantitation Limits (PQLs) are the lowest concentrations of analytes in ground waters that can be reliably determined within specified limits of precision and accuracy by

the indicated methods under routine laboratory operating conditions. The PQLs listed are generally stated to one significant figure. PQLs are based on 5-ml samples for volatile organics and 1-L samples for semivolatile organics.

**Caution:** The PQL values in many cases are based only on a general estimate for the method and not on a determination for individual compounds; PQLs are not a part of the regulation.

<sup>7</sup> This substance is often called Bis(2-chloroisopropyl) ether, the name Chemical Abstracts Service applies to its noncommercial isomer, Propane, 2,2"-oxybis[2-chloro- (CAS RN 39638-32-9).

<sup>8</sup> Chlordane: This entry includes alpha-chlordane (CAS RN 5103-71-9), beta-chlordane (CAS RN 5103-74-2), gamma-chlordane (CAS RN 5566-34-7), and constituents of chlordane (CAS RN 57-74-9 and CAS RN 12789-03-6). PQL shown is for technical chlordane. PQLs of specific isomers are about 20 ug/L by method 8270.

<sup>9</sup> Polychlorinated biphenyls (CAS RN 1336-36-3); this category contains congener chemicals, including constituents of Aroclor 1016 (CAS RN 12674-11-2), Aroclor 1221 (CAS RN 11104-28-2), Aroclor 1232 (CAS RN 11141-16-5), Aroclor 1242 (CAS RN 53469-21-9), Aroclor 1248 (CAS RN 12672-29-6), Aroclor 1254 (CAS RN 11097-69-1), and Aroclor 1260 (CAS RN 11096-82-5). The PQL shown is an average value for PCB congeners.

<sup>10</sup> Toxaphene: This entry includes congener chemicals contained in technical toxaphene (CAS RN 8001-35-20), i.e., chlorinated camphene.

<sup>11</sup> Xylene (total): This entry includes o-xylene (CAS RN 96-47-6), m-xylene (CAS RN 108-38-3), p-xylene (CAS RN 106-42-3), and unspecified xylenes (dimethylbenzenes) (CAS RN 1330-20-7). PQLs for method 8021 are 0.2 for o-xylene and 0.1 for m- or p-xylene. The PQL for m-xylene is 2.0 ug/L by method 8020 or 8260.

## **Chapter 9. Enforcement**

### **§901. Failure to Comply**

A. Failure of any person to comply with any of the provisions of these regulations or of the terms and conditions of any permit granted or order issued hereunder constitutes a violation of the act.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001, et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§903. Investigations: Purposes, Notice**

A. Investigations shall be undertaken to determine whether a violation has occurred or is about to occur, the scope and nature of the violation, and the persons or parties involved. The results of an investigation shall be given to any complainant who provided the information prompting the investigation, upon written request and, if advisable, to the person under investigation, if the identity of such person is known.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001, et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§905. Development of Facts, Reports**

A. The administrative authority may conduct inquiries and develop facts in investigations by staff investigatory procedures or formal investigations and may conduct inspections and examinations of facilities and records. The administrative authority or his presiding officer may hold public hearings and/or issue subpoenas in accordance with R.S. 30:2025.I and require attendance of witnesses and production of documents, or may take such other action as may be necessary and authorized by the act or rules promulgated by the administrative authority. At the conclusion of the investigation, all facts and information concerning any alleged violation that have been developed shall be compiled by the staff of the department. A report of the investigation shall be presented to the administrative authority for use in possible enforcement proceedings. Any complainant who provided the information prompting the investigation shall be notified of its results.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001, et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§907. Enforcement Action**

A. When the administrative authority determines that a violation of the act or these regulations or the terms and conditions of any permit issued hereunder has occurred

or is about to occur, he shall initiate one or more of the actions set forth in R.S. 30:2025, or as otherwise provided by appropriate rules.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001, et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

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

A. After an unauthorized or promiscuous dump is discovered, the administrative authority may issue an enforcement action with a closure directive to the person or persons legally responsible for the facility. Directives issued for unauthorized or promiscuous dumps shall require closure of the facility in accordance with the procedures indicated in this Section.

B. The administrative authority shall require closure of unauthorized or promiscuous dumps either by removal to a solid waste facility or by completing on-site closure requirements. The method of closure shall be determined by the administrative authority.

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 shall 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 shall 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:

- a. extinguish all fires;
- b. dewater and either solidify waste for return to the landfill or discharge it as governed by a NPDES permit, if applicable;
- c. implement a disease vector extermination program;
- d. compact the waste with suitable equipment;
- e. provide a final cover consisting of a minimum of 24 inches of silty clays and 6 inches of topsoil cover for supporting vegetative growth and revegetate the area to control erosion if necessary;
- f. record in the parish mortgage and conveyance records 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 Office of Environmental Compliance; and

g. conduct long-term monitoring in accordance with Subsection E of this Section, if deemed necessary by the administrative authority.

D. Inspection and Reports. The administrative authority reserves the right to inspect the facility to determine if the requirements for closure have been met.

E. Long-Term Monitoring Responsibilities. The administrative authority may require the following or other long-term monitoring responsibilities of the person legally responsible for the unauthorized or promiscuous dump, if deemed necessary:

1. installation of groundwater monitoring wells in accordance with LAC 33:VII.805 may be required along with semiannual reporting for a period of 10 years of monitoring of the facility after closure, or longer if deemed necessary, on a facility-specific basis; and

2. annual reports may be required for a period of three years or longer, if deemed necessary, on the condition of the final cover and the use of the property.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

## **Chapter 11. Beneficial-Use Facilities**

### **§1101. General Requirements**

A. Except as otherwise specified in this Chapter, beneficial-use facilities and permit holders shall be subject to the requirements of LAC 33:VII.Chapters 1, 3, 5, 6, 7, 8, 9, 13, and 15 including, but not limited to, definitions, permitting and public notice requirements, fees, standards, and enforcement.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§1103. Permit Requirements**

A. Solid waste shall not be discharged, applied, incorporated, injected, or deposited onto or into the land for the purpose of beneficial use unless a beneficial-use permit is first obtained from the administrative authority. If a beneficial-use permit is issued to anyone other than the generator of the solid waste, the permit holder must comply with the financial assurance requirements in LAC 33:VII.1301.A for Type III facilities during operation, except that the liability amount shall be \$250,000 per permit, rather than per site.

B. No permit for beneficial use shall be issued by the administrative authority unless the applicant supplies written documentation from a qualified, independent third party, such as the Louisiana Cooperative Extension Service, the Louisiana Department of Agriculture, the Louisiana Department of Transportation and Development, or other appropriate organization that the proposed activity is a legitimate beneficial use of solid waste.

C. The administrative authority may issue a single beneficial-use permit for multiple beneficial-use locations provided that the permit application includes required information for each location, each location meets the standards provided in this Chapter, and the same solid waste stream (from a single generation site) is disposed of at all locations. The multiple locations shall be considered as one facility and each location shall be a unit of the facility.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

#### **§1105. Part I Application Form for Beneficial-Use Facilities**

A. The applicant shall complete a beneficial-use application Part I form, which may be obtained from the Office of Environmental Services, Permits Division or through the department's website at [www.deq.state.la.us](http://www.deq.state.la.us). The following notes refer to the items on the form requiring that information:

1. name of applicant (prospective permit holder) applying for a beneficial-use permit (also name of property owner if different from permit holder);
2. facility name;
3. description of the location(s) of the facility (identify by street and number or by intersection of roads or by mileage and direction from an intersection);
4. geographic location(s) (section, township, range, and parish where the facility is located), and the coordinates (as defined by the longitude and latitude to the second) of the centerpoint of the facility;
5. mailing address of the applicant and the name(s) of the property owner if different from applicant;
6. contact and phone number for the applicant and for the property owner (position or title of the contact person is acceptable);
7. type and purpose of operation (check each applicable block);
8. a list of all environmental permits that relate directly to the facility represented in this application;
9. zoning of the facility (If the facility is zoned, note the classification and zoning authority, and include a zoning affidavit or other documentation stating that the proposed use does not violate existing land use requirements.);
10. types and maximum quantities (wet-weight tons per week) of waste to be applied at the facility;

11. proof of publication of the notice regarding submittal of the permit application as required in LAC 33:VII.503.A;

12. the signature, typed name, and the title of the individual(s) authorized to sign the application by the applicant and the property owner (Proof of legal authority of the signatory to sign for the applicant must be provided.);

13. third party documentation as required in LAC 33:VII.1103.B; and

14. other information required by the administrative authority.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§1107. Part II Supplementary Information Required for Beneficial-Use Facilities**

A. The following information is required in the permit application for beneficial-use facilities. All responses and exhibits must be identified within the following sequence to facilitate the evaluation. Additionally, all applicable sections of LAC 33:VII.1109 must be addressed and incorporated into the application responses. If a section does not apply, the applicant must state that it does not apply and why it does not apply:

1. location characteristics as provided in LAC 33:VII.1109.A;
2. facility characteristics as provided in LAC 33:VII.1109.B;
3. facility geology as provided in LAC 33:VII.1109.C;
4. facility surface hydrology as provided in LAC 33:VII.1109.D;
5. certification as provided in LAC 33:VII.1109.E;
3. facility administrative procedures as provided in LAC 33:VII.1109.F;
7. facility implementation plans as provided in 1109.G;
8. facility operations as provided in LAC 33:VII.1109.H; and
9. facility closure requirements as provided in LAC 33:VII.1109.I.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§1109. Standards Governing Beneficial-Use Facilities**

- A. Location Characteristics

1. Area Master Plan. A location map showing the facility, major drainage systems, drainage flow patterns, location of the 100-year flood plain, and other pertinent information is required. The scale of the maps and drawings must be legible, and engineering drawings are required.

2. Environmental Characteristics. The following information is required:

a. a list of all known recreation areas, designated wildlife management areas, swamps and marshes, wetlands, habitat for endangered species, and other sensitive ecologic areas within 1,000 feet of the facility perimeter or as otherwise appropriate;

b. documentation from the appropriate state and federal agencies substantiating the recreation areas, designated wildlife management areas, wetlands, habitat for endangered species, and other sensitive ecologic areas within 1,000 feet of the facility; and

c. a map showing all known locations of all public water systems, industrial water wells, and irrigation wells within one mile of the facility.

B. Facility Characteristics. The following information must be provided in a facility plan that includes drawings and a narrative:

1. the elements of the beneficial-use system employed, including as applicable, property lines, original contours (shown at not greater than five-foot intervals), units of the facility, drainage, ditches, and roads;

2. the perimeter barriers, security, and signs for all facilities that warn of restricted access, which must be of sufficient size and posted;

3. buffer zones for beneficial-use facilities that:

a. shall not be less than 100 feet between the facility and the property line. A reduction in this requirement shall be allowed only with the permission (in the form of a notarized affidavit) of the adjoining landowner and occupants. Buffer zone requirements may be exempted by the administrative authority in accordance with LAC 33:VII.307; and

b. shall have no storage or application of solid waste within the buffer zone;

4. that all facilities have access to required fire protection and medical care;

5. all facilities receiving and monitoring incoming wastes that:

a. shall control the entry of waste and prevent entry of unrecorded or unauthorized waste; and

b. shall maintain records regarding application rates, application dates, and methods of application;

6. discharges from beneficial-use facilities that must be controlled and must conform to applicable state and federal laws; and

7. other features, as appropriate.

C. Facility Geology. The following information regarding geology is required:

1. a general description of the soils, provided by a qualified professional (such as a geotechnical engineer, soil scientist, or geologist), a description of the method used to determine soil characteristics, and documentation that soils meet the requirements in Subsection D.3 of this Section;

2. logs of all known soil borings taken on the facility; and

3. demonstration that facilities have natural stable soils suitable for the beneficial application of the waste.

D. Facility Surface Hydrology. The following standards regarding surface hydrological characteristics apply to beneficial-use facilities:

1. land slope shall be controlled to prevent erosion;

2. waste shall be applied in accordance with the slope guidelines in the following table;

Slope Percent	Application Restriction
0-3	None; liquid or solid material may be applied to surface.
3-6	Surface application of liquid or solid material may be made; a 100-foot vegetated runoff area is required at the downslope end of the application area with liquid applications.
6-12	Liquid material must be injected; solid material must be incorporated into soil if not vegetated; a 100-foot vegetated runoff area is required at the downslope end of the application area for all application.
>12	Unsuitable for application unless a 200-foot buffer area with slope less than 3 percent is provided at the downslope edge of the application area.

3. the topography of the facility shall provide for drainage to prevent standing water and shall allow for drainage away from the facility;

4. wastes shall not be surface-applied within 100 feet of clean water ponds, lakes, or the 10-year high water mark for streams. In this 100-foot zone wastes must be injected; and

5. wastes shall not be applied within 300 feet of drinking water wells, irrigation wells, or industrial water supply wells.

E. Certification. The person preparing the permit application must provide the following certification:

"I certify under penalty of law that I have personally examined and I am familiar with the information submitted in this permit application and that the facility, as described in this permit application, meets the requirements of the solid waste rules and regulations. I

am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment."

F. Facility Administrative Procedures

1. The following information on administrative procedures is required for all facilities:

a. a recordkeeping system, types of records to be kept, and the use of records by management to control operations;

b. an estimate of the minimum personnel, listed by general job classification, required to operate the facility; and

c. the maximum hours of operation per operating days and weeks (the maximum hours of operation within a 24-hour day).

2. Reports. The permit holder shall submit annual reports to the Office of Environmental Services, Environmental Assistance Division indicating quantities and types of solid waste beneficially used (expressed in wet-weight tons and dry-weight tons per year) during the reporting period. All calculations used to determine the amounts of solid waste received for processing or disposal during the annual reporting period shall be submitted to the Office of Environmental Services, Environmental Assistance Division. A form for this purpose must be obtained from the Office of Environmental Services, Environmental Assistance Division or the department's website at [www.deq.state.la.us](http://www.deq.state.la.us). The following standards apply to reports:

a. the reporting period for the annual report shall be from July 1 through June 30, commencing July 1, 1992, and terminating upon closure of the facility in accordance with the permit;

b. annual reports shall be submitted to the administrative authority by August 1 of each reporting year;

c. the annual report is to be provided for each individual permitted facility on a separate annual reporting form;

d. facilities that receive industrial solid waste shall utilize, in their annual report, the seven-digit industrial waste number that has been assigned by the department to the industrial solid waste generator; and

e. reports shall be submitted as provided in Subsection F.3.b.vi-viii of this Section.

3. Recordkeeping

a. The permit holder shall maintain all records specified in the application as necessary for the effective management of the facility and for preparing the required reports. These records shall be maintained for the life of the facility and shall be kept on file for at least three years after closure.

b. Records kept by the permit holder shall include (but not be limited to):

i. daily log;

- ii. quality-assurance/quality-control records;
- iii. inspections by the permit holder or operator;
- iv. monitoring, testing, or analytical data;
- v. any other applicable or required data deemed necessary by the administrative authority;
- vi. copy of the semiannual soil waste mixtures tests and analyses of the results, with conclusions, submitted semiannually to the Office of Environmental Assessment, Environmental Technology Division, or more frequently if deemed necessary by the administrative authority;
- vii. test parameters consisting of cation-exchange capacity, soil pH, total nitrogen, phosphorus, organic matter, salts (intrinsic to the waste), cumulative metals, and any others deemed necessary on a site-specific and waste-specific basis; and
- viii. annual reports of the analysis of all tests results on the soils, land-use and crop information, calculated amounts of waste applied per acre, total amounts of nitrogen applied per acre, and cumulative metals loading per acre, which shall be submitted to the Office of Environmental Assessment, Environmental Technology Division.

4. Personnel. All facilities shall have the personnel necessary to achieve the operational requirements of the facility.

G. Facility Implementation Plans. The implementation plans for all facilities must include the following:

1. construction schedule for existing facilities, which shall include beginning and ending time-frames and time-frames for the installation of all major features. (Time-frames must be specified in days, with day one being the date of standard permit issuance); and

2. details on phased implementation, if any proposed facility is to be constructed in phases.

#### H. Facility Operations

##### 1. Facility Limitations

a. The receipt of hazardous waste shall be strictly prohibited and prevented. Any other wastes that present special handling or disposal problems may be excluded by the administrative authority.

b. Only waste with a demonstrated beneficial use may be applied.

c. A comprehensive quality-assurance/quality-control plan shall be in place to ensure that incoming wastes conform to the facility's permit and these regulations.

##### 2. Facility Operational Plans

a. Operational plans shall be provided that describe in specific

detail how the waste will be managed. At a minimum, the following information shall be provided in this plan:

- i. types of waste (including chemical, physical, and biological characteristics), maximum quantities of wastes per year, and sources of wastes that are to be beneficially used;
  - ii. the sequence in which the waste will be applied;
  - iii. waste-handling procedures from entry to final application;
  - iv. minimum equipment to be used at the facility;
  - v. procedures planned in case of breakdowns, inclement weather, and other abnormal conditions;
  - vi. procedures, equipment, and contingency plans for protecting employees and the general public from accidents, fires, explosions, etc., and provisions for emergency care should an accident occur (including the proximity to a hospital, fire and emergency services, and training programs);
  - vii. provisions for vector, dust, litter, and odor control;
  - viii. detailed description of day-to-day operational activities including inspection procedures to ensure that only permitted wastes are accepted, equipment operation, and personnel involvement;
  - ix. detailed analysis of waste including, but not limited to, pH, phosphorus, nitrogen, potassium, sodium, calcium, magnesium, sodium adsorption ratio, and total metals (as listed in LAC 33:VII.1109.H.2.a.i);
  - x. soil classification, cation-exchange capacity, organic matter, soil pH, soil content including nitrogen, phosphorus, metals listed in LAC 33:VII:1109.H.2.a.i, salts, sodium, calcium, magnesium, sodium adsorption ratio, and PCB concentrations of the treatment zone;
  - xi. annual application rate (dry-tons per acre) and weekly hydraulic loading (inches per acre);
  - xii. an evaluation of the potential for nitrogen to enter the groundwater;
  - xiii. the recordkeeping procedures to be employed to ensure that all pertinent activities are properly documented; and
  - xiv. a comprehensive operational management plan for the facility which indicates with calculations that the acreages and methods are adequate for treating the type and volumes of wastes anticipated. The plan shall include contingencies for variations.
- b. If the facility is to be used for food-chain cropland, the following information is required:
- i. a description of the pathogen-reduction method for domestic septage, sewage sludges, and other sludges subject to pathogen production;

- ii. crops to be grown and the dates for planting;
  - iii. PCB concentrations in waste;
  - iv. annual application rates of cadmium and PCB application; and
  - v. cumulative applications of cadmium and PCBs.
- c. If the facility is to be used for non-food-chain purposes, the following information is required:
- i. a description of the pathogen-reduction method in septage, domestic sewage sludges, and other sludges subject to pathogen production; and
  - ii. a description of control of public and livestock access.
3. Facility Operational Standards
- a. General Standards
- i. The maximum allowable lifetime metal loading shall be restricted to the limits specified in the following table. It varies depending upon the value of the soil cation-exchange capacity (CEC).

<b>Maximum Allowable Metal Loading (lb/acre)*</b>			
<b>Soil CEC (meq/100g)</b>	<b>&lt;5</b>	<b>5-15</b>	<b>&gt;15</b>
Lead (Pb)	500	1000	2000
Zinc(Zn)	250	500	1000
Copper (Cu)	125	250	500
Nickel (Ni)	125	250	500
Cadmium (Cd)	5	10	20

\*Other metals not listed may be subject to restrictions based upon the metals content of the waste.

- ii. Surface application of liquid wastes shall not exceed 2 inches per week.
- iii. Soils shall maintain a sufficiently high cation-exchange capacity (CEC) to allow absorption of the metallic elements in the solid waste. This may be achieved naturally by controlling soil pH or artificially by using soil additives. Soil in the zone of incorporation must be monitored to assess the effectiveness of ongoing treatment, management needs, and soil integrity.
- iv. Nitrogen concentrations in the waste must be within the limits deemed acceptable as determined by plant nitrogen uptake, soil analyses, and waste analyses detailing the movement of all forms of nitrogen. The potential for nitrogen to enter the groundwater shall be addressed.
- v. Wastes shall be applied to the land surface or incorporated into the soil within 3 feet of the surface.
- vi. Tests of soil/waste mixtures and an analysis of the results with conclusions shall be conducted semiannually, or more frequently, if deemed

necessary by the administrative authority. Test parameters shall consist of CEC, soil pH, total nitrogen, phosphorus, organic matter, salts (intrinsic to the waste), cumulative metals, and others as deemed necessary by the administrative authority.

vii. The administrative authority may provide additional requirements as necessary on a site-specific basis depending on waste type, land use, and method of application.

b. The following additional standards apply to facilities that receive domestic sewage sludge and septic tank pumpings:

i. if spread on or incorporated into non-food-chain cropland, waste shall be treated by a process to significantly reduce pathogens (LAC 33:VII.Chapter 7, Appendix A) prior to application or incorporation, and public access shall be controlled for 12 months following the final application. Grazing by animals whose products are consumed by humans shall be prevented for at least 30 days; and

ii. if spread on or incorporated into land used to grow crops for human consumption, the waste must be treated by a process to further reduce pathogens (LAC 33:VII.Chapter 7, Appendix B) before application or incorporation. If there is no contact between the waste and edible portions of the crop, or if crops are grown more than 18 months after application or incorporation, the conditions specified in Subsection H.2.b.i of this Section apply.

c. The following standards apply to land used for food-chain cropland:

i. the pH of the solid waste and soil mixture shall be maintained at or above 6.5;

ii. the annual application of cadmium from the waste shall not exceed 0.5 lb per acre; and

iii. cumulative application of cadmium from sewage sludge for soils with a background pH of less than 6.5 shall not exceed 5 lb per acre unless the pH of the sludge and soil mixture is adjusted and maintained at 6.5 or greater whenever food-chain crops are grown.

d. Standards for Land Used for Animal Feed Only

i. The pH of waste-soil mixture must be at 6.5 or greater at the time of solid waste application or when the non food-chain crop is planted, whichever occurs later. Crops requiring a lower pH will be considered on a site-specific basis.

ii. An operating plan for the facility shall be filed with the administrative authority demonstrating how the animal feed will be distributed to preclude ingestion by humans and that describes the measures to be taken to safeguard against possible health hazards from the entry of cadmium or other heavy metals into the food chain, as may result from alternative land use.

iii. Solid waste with concentrations of polychlorinated biphenyls (PCBs) of 10 mg/kg or more shall not be allowed.

- e. The following operational standards apply to waste testing:
- i. facilities that receive sewage sludge, domestic septage, or incinerator ash shall require the waste be tested for TCLP constituents prior to acceptance of the waste and annually for two years following acceptance; and
  - ii. facilities that receive industrial solid waste (Type I) shall require testing for TCLP constituents prior to acceptance of waste and annually thereafter or must have documented process knowledge that the waste is not a characteristic or listed hazardous waste as defined in LAC 33:V.Subpart 1 or by federal regulations.

#### I. Facility Closure Requirements

1. All permit holders shall notify the Office of Environmental Services, Permits Division, in writing, at least 90 days before closure or intention to close or abandon any individual units within a facility and shall provide the following information:

- a. date of planned closure; and
- b. closure schedule.

2. During the closure period the permit holder must continue to comply with any prohibitions or conditions concerning growth of food-chain crops.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### §1111. Part III: Additional Supplementary Information

A. The following supplementary information is required for all solid waste processing and disposal facilities. All responses and exhibits must be identified in the following sequence to facilitate the evaluation:

1. a discussion demonstrating that the potential and real adverse environmental effects of the facility have been avoided to the maximum extent possible;
2. a cost-benefit analysis demonstrating that the social and economic benefits of the facility outweigh the environmental-impact costs;
3. a discussion and description of possible alternative projects that would offer more protection to the environment without unduly curtailing nonenvironmental benefits;
4. a discussion of possible alternative sites that would offer more protection to the environment without unduly curtailing nonenvironmental benefits; and
5. a discussion and description of the mitigating measures that would offer more protection to the environment than the facility, as proposed, without unduly curtailing nonenvironmental benefits.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

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## **Chapter 13. Financial Assurance for All Processors and Disposers of Solid Waste**

### **§1301. Financial Responsibility During Operation**

A. Permit holders or applicants for standard permits of Type I, I-A, II, II-A, and III facilities have the following financial responsibilities while the facility is in operation:

1. Type I and II facilities shall maintain liability insurance, or its equivalent, for sudden and accidental occurrences in the amount of \$1 million per occurrence and \$1 million annual aggregate, per site, exclusive of legal-defense costs, for claims arising from injury to persons or property, owing to the operation of the site. Evidence of this coverage shall be updated annually and provided to the Office of Management and Finance, Financial Services Division;

2. Type I-A and II-A facilities shall maintain liability insurance, or its equivalent, for sudden and accidental occurrences in the amount of \$500,000 per occurrence, and \$500,000 annual aggregate, per site, exclusive of legal-defense costs, for claims arising from injury to persons or property, owing to the operation of the site. Evidence of this coverage shall be updated annually and provided to the Office of Management and Finance, Financial Services Division; and

3. Type III facilities shall maintain liability insurance, or its equivalent, for sudden and accidental occurrences in the amount of \$250,000 per occurrence, and \$250,000 annual aggregate, per site, exclusive of legal-defense costs, for claims arising from injury to persons or property, owing to the operation of the site. Evidence of this coverage shall be updated annually and provided to the Office of Management and Finance, Financial Services Division.

B. Establishment of Financial Responsibility. The financial responsibility may be established by any one or a combination of the following:

1. Evidence of Liability Insurance. Evidence of liability insurance shall consist of either a signed duplicate original of a solid waste liability endorsement or a certificate of insurance. All liability endorsements and certificates of insurance must include:

- a. a statement of coverage relative to environmental risks;
- b. a statement of all exclusions to the policy; and
- c. a certification by the insurer that the insurance afforded with respect to such sudden accidental occurrences is subject to all of the terms and conditions of the policy, provided, however, that any provisions of the policy inconsistent with the following clauses are amended to conform with said clauses:

- i. bankruptcy or insolvency of the insured shall not relieve the insurer of its obligations under the policy;
- ii. the insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in Subsection E, F, or G of this Section;
- iii. whenever requested by the administrative authority, the insurer agrees to furnish to the administrative authority a signed duplicate original of the policy and all endorsements;
- iv. cancellation of the policy, whether by the insurer or the insured, shall be effective only upon written notice and upon lapse of 60 days after a copy of such written notice is received by the Office of Management and Finance, Financial Services Division;
- v. any other termination of the policy shall be effective only upon written notice and upon lapse of 30 days after a copy of such written notice is received by the Office of Management and Finance, Financial Services Division; and
- vi. the insurer is admitted, authorized, or eligible to conduct insurance business in Louisiana.

2. Liability Endorsement. The wording of the liability endorsement shall be identical to the wording in Appendix A of this Chapter, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted.

3. Liability Insurance. The wording of the certificate of insurance shall be identical to the wording in Appendix B of this Chapter, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted.

C. Letter of Credit. A permit holder or applicant may satisfy the requirements of this Section by obtaining an irrevocable standby letter of credit that conforms to the following requirements, and by submitting the letter to the administrative authority:

1. the issuing institution must be an entity that has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency;
2. a permit holder or applicant who uses a letter of credit to satisfy the requirements of this Section must also provide to the administrative authority evidence of the establishment of a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the administrative authority will be deposited by the issuing institution directly into the standby trust fund. The wording of the standby trust fund agreement shall be as specified in LAC 33:VII.1303.C.9;
3. the letter of credit must be accompanied by a letter from the permit holder or applicant referring to the letter of credit by number, name of issuing institution, and date, and providing the following information:
  - a. solid waste identification number;

- b. site name;
  - c. facility name;
  - d. facility permit number; and
  - e. the amount of funds assured for liability coverage of the facility by the letter of credit;
4. the letter of credit must be irrevocable and issued for a period of at least one year unless, at least 120 days before the current expiration date, the issuing institution notifies both the permit holder and the administrative authority by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days shall begin on the date when both the permit holder and the Office of Management and Finance, Financial Services Division receive the notice, as evidenced by the return receipts; and
5. the wording of the letter of credit shall be identical to the wording in Appendix C of this Chapter, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted.

#### D. Financial Test

1. To meet this test, the applicant, permit holder, parent corporation of the applicant (corporate guarantor), or permit holder must submit to the Office of Management and Finance, Financial Services Division the documents required by Subsection A of this Section demonstrating that the requirements of that subsection have been met. Use of the financial test may be disallowed on the basis of the accessibility of the assets of the permit holder, applicant, or parent corporation (corporate guarantor). If the applicant, permit holder, or parent corporation is using the financial test to demonstrate liability coverage and closure and post-closure care, only one letter from the chief financial officer is required.
2. The assets of the parent corporation of the applicant or permit holder shall not be used to determine whether the applicant or permit holder satisfies the financial test, unless the parent corporation has supplied a corporate guarantee as authorized in Subsection E of this Section.
3. The wording of the financial test shall be as specified in LAC 33:VII.1303.H.4.

E. Corporate Guarantee. A permit holder or applicant may meet the requirements of Subsection A of this Section for liability coverage by obtaining a written guarantee, hereafter referred to as a "corporate guarantee." The guarantor must demonstrate to the administrative authority that the guarantor meets the requirements in LAC 33:VII.1303.H and must comply with the terms of the corporate guarantee. The corporate guarantee must accompany the items sent to the administrative authority specified in LAC 33:VII.1303.H.2 and 4. The terms of the corporate guarantee must be in an authentic act signed and sworn to by an authorized officer of the corporation before a notary public and must provide that:

1. the guarantor meets or exceeds the financial-test criteria and agrees to comply with the reporting requirements for guarantors as specified in LAC 33:VII.1303.H;
2. the guarantor is the parent corporation of the permit holder or applicant of the solid waste facility or facilities to be covered by the guarantee, and the guarantee extends to certain facilities;
3. if the permit holder or applicant fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden and accidental occurrences (or both as the case may be), arising from the operation of facilities covered by the corporate guarantee, or fails to pay an amount agreed to in settlement of the claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage;
4. the guarantor agrees that if, at the end of any fiscal year before termination of the guarantee, the guarantor fails to meet the financial-test criteria, the guarantor shall send within 90 days, by certified mail, notice to the Office of Management and Finance, Financial Services Division, and to the permit holder or applicant, that he intends to provide alternative financial assurance as specified in Subsection A of this Section, in the name of the permit holder or applicant, and that within 120 days after the end of said fiscal year the guarantor shall establish such financial assurance, unless the permit holder or applicant has done so;
5. the guarantor agrees to notify the Office of Management and Finance, Financial Services Division by certified mail of a voluntary or involuntary proceeding under Title 11 (bankruptcy), U.S. Code, naming the guarantor as debtor, within 10 days after commencement of the proceeding;
6. the guarantor agrees that within 30 days after being notified by the administrative authority of a determination that the guarantor no longer meets the financial-test criteria or that he or she is disallowed from continuing as a guarantor of closure or post-closure care, he or she shall establish alternate financial assurance as specified in Subsection A of this Section in the name of the permit holder or applicant, unless the permit holder or applicant has done so;
7. the guarantor agrees to remain bound under the guarantee notwithstanding any or all of the following: amendment or modification of the permit or any other modification or alteration of an obligation of the permit holder or applicant in accordance with these regulations;
8. the guarantor agrees to remain bound under the guarantee for as long as the permit holder or applicant must comply with the applicable financial assurance requirements of Subsection A of this Section for the above-listed facilities, except that the guarantor may cancel this guarantee by sending notice by certified mail to the administrative authority and the permit holder or applicant. Such cancellation will become effective no earlier than 90 days after receipt of such notice by both the administrative authority and the permit holder, as evidenced by the return receipts;
9. the guarantor agrees that if the permit holder or applicant fails to provide alternate financial assurance, as specified in Subsection A of this Section, and

obtain written approval of such assurance from the administrative authority within 60 days after the administrative authority receives the guarantor's notice of cancellation, the guarantor shall provide such alternate financial assurance in the name of the permit holder or applicant;

10. the guarantor expressly waives notice of acceptance of the guarantee by the administrative authority or by the permit holder or applicant. Guarantor also expressly waives notice of amendments or modifications of the facility permit(s); and

11. the wording of the corporate guarantee shall be as specified in LAC 33:VII.1303.H.9.I. A corporate guarantee may be used to satisfy the requirements of this Section only if the attorney general(s) or insurance commissioner(s) of the state in which the guarantor is incorporated, and the state in which the facility covered by the guarantee is located, has submitted a written statement to the Office of Management and Finance, Financial Services Division that a corporate guarantee is a legally valid and enforceable obligation in that state.

F. The use of a particular financial responsibility mechanism is subject to the approval of the administrative authority.

G. Permit holders of existing facilities must submit, on or before February 20, 1995, financial responsibility documentation that complies with the requirements of Subsection A of this Section. Applicants for permits for new facilities must submit evidence of financial assurance in accordance with this Chapter at least 60 days before the date on which solid waste is first received for processing or disposal.

### **§1303. Financial Responsibility for Closure and Post-Closure Care**

A. Financial Responsibility for Type I, I-A, II, II-A, and III Facilities. Permit holders or applicants of Type I, I-A, II, II-A, and III facilities have the following financial responsibilities for closure and post-closure care:

1. permit holders or applicants for processing or disposal facilities shall establish and maintain financial assurance for closure and post-closure care;

2. the applicant or permit holder shall submit to the Office of Management and Finance, Financial Services Division the estimated closure date and the estimated cost of closure and post-closure care in accordance with the following procedures:

a. the applicant or permit holder must have a written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in these rules. The estimate must equal the cost of closure at the point in the facility's operating life when the extent and manner of its operation would make closure the most expensive, as indicated by the closure plan, and shall be based on the cost of hiring a third party to close the facility in accordance with the closure plan;

b. the applicant or permit holder of a facility subject to post-closure monitoring or maintenance requirements must have a written estimate, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the provisions of these rules. The estimate of post-closure costs is calculated by

multiplying the annual post-closure cost estimate by the number of years of post-closure care required and shall be based on the cost of hiring a third party to conduct post-closure activities in accordance with the closure plan;

c. the cost estimates must be adjusted within 30 days after each anniversary of the date on which the first cost estimate was prepared on the basis of either the inflation factor derived from the Annual Implicit Price Deflator for Gross Domestic Product, as published by the U.S. Department of Commerce in its *Survey of Current Business*, or a reestimation of the closure and post-closure costs in accordance with Subsection A.2.a and b of this Section. The permit holder or applicant must revise the cost estimate whenever a change in the closure/post-closure plans increases or decreases the cost of the closure plan. The permit holder or applicant must submit a written notice of any such adjustment to the Office of Management and Finance, Financial Services Division within 15 days following such adjustment; and

d. for trust funds, the first payment must be at least equal to the current closure and post-closure cost estimate, divided by the number of years in the pay-in period. Subsequent payments must be made no later than 30 days after each annual anniversary of the date of the first payment. The amount of each subsequent payment must be determined by subtracting the current value of the trust fund from the current closure and post-closure cost estimates and dividing the result by the number of years remaining in the pay-in period. The initial pay-in period is based on the estimated life of the facility.

B. Financial Assurance Mechanisms. The financial assurance mechanism must be one or a combination of the following: a trust fund, a financial guarantee bond ensuring closure funding, a performance bond, a letter of credit, an insurance policy, or the financial test. The financial assurance mechanism is subject to the approval of the administrative authority and must fulfill the following criteria:

1. except when a financial test, trust fund, or certificate of insurance is used as the financial assurance mechanism, a standby trust fund naming the administrative authority as beneficiary must be established at the time of the creation of the financial assurance mechanism into which the proceeds of such mechanism could be transferred should such funds be necessary for either closure or post-closure of the facility, and a signed copy must be furnished to the administrative authority with the mechanism;

2. a permit holder or applicant may use a financial assurance mechanism specified in this Chapter for more than one facility, if all such facilities are located within Louisiana and are specifically identified in the mechanism;

3. the amount covered by the financial assurance mechanism(s) must equal the total of the current closure and post-closure estimates for each facility covered; and

4. when all closure and post-closure requirements have been satisfactorily completed, the administrative authority shall execute an approval to terminate the financial assurance mechanism(s).

C. Trust Funds. A permit holder or applicant may satisfy the requirements of this Section by establishing a closure trust fund that conforms to the following

requirements and submitting an originally signed duplicate of the trust agreement to the Office of Management and Finance, Financial Services Division:

1. the trustee must be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency;
2. trusts must be accomplished in accordance with and subject to the laws of Louisiana. The beneficiary of the trust shall be the administrative authority;
3. trust-fund earnings may be used to offset required payments into the fund, to pay the fund trustee, or to pay other expenses of the funds, or may be reclaimed by the permit holder or applicant upon approval of the administrative authority;
4. the trust agreement must be accompanied by an affidavit certifying the authority of the individual signing the trust on behalf of the permit holder or applicant;
5. the permit holder or applicant may accelerate payments into the trust fund or deposit the full amount of the current closure cost estimate at the time the fund is established. The permit holder or applicant must, however, maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in Subsection A.2.d of this Section;
6. if the permit holder or applicant establishes a trust fund after having used one or more of the alternate mechanisms specified in this Chapter, his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to the specifications of this Paragraph;
7. after the pay-in period is completed, whenever the current cost estimate changes, the permit holder must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the permit holder or applicant, within 60 days after the change in the cost estimate, must either deposit an amount into the fund that will make its value at least equal to the amount of the closure/post-closure cost estimate or it must estimate or obtain other financial assurance as specified in this Chapter to cover the difference;
8. after beginning final closure, a permit holder, or any other person authorized by the permit holder to perform closure and/or post-closure may request reimbursement for closure and/or post-closure expenditures by submitting itemized bills to the Office of Management and Finance, Financial Services Division. Within 60 days after receiving bills for such activities, the administrative authority will determine whether the closure and/or post-closure expenditures are in accordance with the closure plan or otherwise justified, and if so, he or she will instruct the trustee to make reimbursement in such amounts as the administrative authority specifies in writing. If the administrative authority has reason to believe that the cost of closure and/or post-closure will be significantly greater than the value of the trust fund, he may withhold reimbursement for such amounts as he deems prudent until he determines that the permit holder is no longer required to maintain financial assurance;
9. the wording of the trust agreement shall be identical to the wording in Appendix D of this Chapter, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted. The trust agreement shall be accompanied by a formal certification of acknowledgement; and

10. the following is an example of the certification of acknowledgement that must accompany the trust agreement:

STATE OF LOUISIANA

PARISH OF \_\_\_\_\_

BE IT KNOWN, that on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned Notary Public, duly commissioned and qualified within the State and Parish aforesaid, and in the presence of the witnesses hereinafter named and undersigned, personally came and appeared \_\_\_\_\_, to me well known, who declared and acknowledged that he had signed and executed the foregoing instrument as his act and deed, and as the act and deed of the \_\_\_\_\_, a corporation, for the consideration, uses, and purposes and on terms and conditions therein set forth.

And the said appearer, being by me first duly sworn, did depose and say that he is the \_\_\_\_\_ of said corporation and that he signed and executed said instrument in his said capacity, and under authority of the Board of Directors of said corporation.

Thus done and passed in the State and Parish aforesaid, on the day and date first hereinabove written, and in the presence of \_\_\_\_\_ and \_\_\_\_\_, competent witnesses, who have hereunto subscribed their name as such, together with said appearer and me, said authority, after due reading of the whole.

WITNESSES:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOTARY PUBLIC

D. Surety Bonds. A permit holder or applicant may satisfy the requirements of this Section by obtaining a surety bond that conforms to the following requirements and submitting the bond to the Office of Management and Finance, Financial Services Division:

1. the surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on federal bonds in Circular 570 of the U.S. Department of the Treasury and approved by the administrative authority;
2. the permit holder or applicant who uses a surety bond to satisfy the requirements of this Section must also provide to the administrative authority evidence of the establishment of a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the administrative authority. The wording of the standby trust fund shall be as specified in Subsection C.9 of this Section;
3. the bond must guarantee that the operator will:
  - a. fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility;
  - b. fund the standby trust fund in an amount equal to the penal sum within 15 days after an order to begin closure or post-closure is issued; or

c. provide alternate financial assurance as specified in this Section and obtain the administrative authority's written approval of the assurance provided, within 90 days after receipt by both the permit holder and the administrative authority of a notice of cancellation of the bond from the surety;

4. under the terms of the bond, the surety will become liable on the bond obligation when the permit holder fails to perform as guaranteed by the bond;

5. the penal sum of the bond must be at least equal to the current closure and post-closure cost estimates;

6. whenever the current cost-estimate increases to an amount greater than the penal sum, the permit holder, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current closure and post-closure estimate and submit evidence of such increase to the Office of Management and Finance, Financial Services Division, or obtain other financial assurance, as specified in this Section, to cover the increase. Whenever the current cost estimate decreases, the penal sum may be reduced to the amount of the current cost estimate following written approval by the administrative authority;

7. under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the permit holder and to the administrative authority. Cancellation may not occur, however, before 120 days have elapsed, beginning on the date that both the permit holder and the administrative authority receive the notice of cancellation, as evidenced by the return receipts; and

8. the wording of the surety bond guaranteeing payment into a standby trust fund shall be identical to the wording in Appendix E of this Chapter, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted.

E. Performance Bonds. A permit holder or applicant may satisfy the requirements of this Chapter by obtaining a surety bond that conforms to the following requirements and submitting the bond to the Office of Management and Finance, Financial Services Division:

1. the surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on federal bonds in Circular 570 of the U.S. Department of the Treasury and approved by the administrative authority;

2. the permit holder or applicant who uses a surety bond to satisfy the requirements of this Chapter must also provide to the administrative authority evidence of establishment of a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the administrative authority. The wording of the standby trust fund shall be as specified in Subsection C.9 of this Section;

3. the bond must guarantee that the permit holder or applicant will:

a. perform final closure and post-closure in accordance with the closure plan and other requirements of the permit for the facility whenever required to do so; or

b. provide alternate financial assurance as specified in this Chapter and obtain the administrative authority's written approval of the assurance provided within 90 days after the date both the permit holder and the administrative authority receive notice of cancellation of the bond from the surety;

4. under the terms of the bond, the surety will become liable on the bond obligation when the permit holder fails to perform as guaranteed by the bond. Following a determination by the administrative authority that the permit holder has failed to perform final closure and post-closure in accordance with the closure plan and other permit requirements when required to do so, under the terms of the bond the surety will perform final closure and post-closure as guaranteed by the bond or will deposit the amount of the penal sum into the standby trust fund;

5. the penal sum of the bond must be at least equal to the current closure and post-closure cost estimates;

6. whenever the current closure cost estimate increases to an amount greater than the penal sum, the permit holder, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current closure and post-closure cost estimates and submit evidence of such increase to the Office of Management and Finance, Financial Services Division, or obtain other financial assurance as specified in this Chapter. Whenever the current cost estimate decreases, the penal sum may be reduced to the amount of the current cost estimate after written approval of the administrative authority;

7. under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the permit holder and to the Office of Management and Finance, Financial Services Division. Cancellation may not occur before 120 days have elapsed beginning on the date that both the permit holder and the administrative authority receive the notice of cancellation, as evidenced by the return receipt; and

8. the wording of the performance bond shall be identical to the wording in Appendix F of this Chapter, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted.

F. Letter of Credit. A permit holder or applicant may satisfy the requirements of this Chapter by obtaining an irrevocable standby letter of credit that conforms to the following requirements and submitting the letter to the Office of Management and Finance, Financial Services Division:

1. the issuing institution must be an entity that has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency;

2. a permit holder or applicant who uses a letter of credit to satisfy the requirements of this Chapter must also provide to the administrative authority evidence of the establishment of a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the administrative authority will be deposited by the issuing institution directly into the standby trust fund. The wording of the standby trust fund shall be as specified in Subsection C.9 of this Section;

3. the letter of credit must be accompanied by a letter from the permit holder or applicant referring to the letter of credit by number, issuing institution, and date, and providing the following information:

- a. solid waste identification number;
- b. site name;
- c. facility name;
- d. facility permit number; and
- e. the amount of funds assured for closure and/or post closure of the facility by the letter of credit;

4. the letter of credit must be irrevocable and issued for a period of at least one year, unless, at least 120 days before the current expiration date, the issuing institution notifies both the permit holder and Office of Management and Finance, Financial Services Division by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the permit holder and the administrative authority receive the notice, as evidenced by the return receipts;

5. the letter of credit must be issued in an amount at least equal to the current closure and post-closure cost estimates;

6. whenever the current cost estimates increase to an amount greater than the amount of the credit, the permit holder, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current closure and post-closure cost estimates and submit evidence of such increase to the Office of Management and Finance, Financial Services Division, or obtain other financial assurance as specified in this Chapter to cover the increase. Whenever the current cost estimate decreases, the amount of the credit may be reduced to the amount of the current closure and post-closure cost estimates upon written approval of the administrative authority;

7. following a determination by the administrative authority that the permit holder has failed to perform final closure or post-closure in accordance with the closure plan and other permit requirements when required to do so, the administrative authority may draw on the letter of credit; and

8. the wording of the letter of credit shall be identical to the wording in Appendix G of this Chapter, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted.

G. Insurance. A permit holder or applicant may satisfy the requirements of this Chapter by obtaining insurance that conforms to the following requirements and submitting a certificate of such insurance to the Office of Management and Finance, Financial Services Division:

1. at a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess-lines or surplus-lines insurer in one or more states, and authorized to transact insurance business in Louisiana;

2. the insurance policy must be issued for a face amount at least equal to the current closure and post-closure cost estimates;
3. the term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments;
4. the insurance policy must guarantee that funds will be available to close the facility and provide post-closure care once final closure occurs. The policy must also guarantee that, once final closure begins, the insurer will be responsible for paying out funds up to an amount equal to the face amount of the policy, upon the direction of the administrative authority, to such party or parties as the administrative authority specifies;
5. after beginning final closure, a permit holder or any other person authorized by the permit holder to perform closure and post-closure may request reimbursement for closure or post-closure expenditures by submitting itemized bills to the Office of Management and Finance, Financial Services Division. Within 60 days after receiving such bills, the administrative authority will determine whether the expenditures are in accordance with the closure plan or otherwise justified, and if so, he or she will instruct the insurer to make reimbursement in such amounts as the administrative authority specifies in writing;
6. the permit holder must maintain the policy in full force and effect until the administrative authority consents to termination of the policy by the permit holder;
7. each policy must contain a provision allowing assignment of the policy to a successor permit holder. Such assignment may be conditional upon consent of the insurer, provided consent is not unreasonably refused;
8. the policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the permit holder and the Office of Management and Finance, Financial Services Division. Cancellation, termination, or failure to renew may not occur, however, before 120 days have elapsed, beginning on the date that both the administrative authority and the permit holder receive notice of cancellation, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur, and the policy will remain in full force and effect in the event that, on or before the date of expiration:
  - a. the administrative authority deems the facility to be abandoned;
  - b. the permit is terminated or revoked or a new permit is denied;
  - c. closure and/or post-closure is ordered;
  - d. the permit holder is named as debtor in a voluntary or involuntary proceeding under Title 11 (bankruptcy), U.S. Code; or
  - e. the premium due is paid;

9. whenever the current cost estimate increases to an amount greater than the face amount of the policy, the permit holder, within 60 days after the increase, must either increase the face amount to at least equal to the current closure and post-closure cost estimates and submit evidence of such increase to the Office of Management and Finance, Financial Services Division, or obtain other financial assurance as specified in this Chapter to cover the increase. Whenever the current cost estimate decreases, the face amount may be reduced to the amount of the current closure and post-closure cost estimates following written approval by the administrative authority; and

10. the wording of the certificate of insurance shall be identical to the wording in Appendix H of this Chapter, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted.

H. Financial Test. A permit holder, applicant, or parent corporation of the permit holder or applicant, which will be responsible for the financial obligations, may satisfy the requirements of this Chapter by demonstrating that he or she passes a financial test as specified in this Subsection. The assets of the parent corporation of the applicant or permit holder shall not be used to determine whether the applicant or permit holder satisfies the financial test, unless the parent corporation has supplied a corporate guarantee as outlined in LAC 33:VII.1301.G.

1. To pass this test, the permit holder, applicant, or parent corporation of the permit holder or applicant, must meet the criteria of either of the following:

a. the permit holder, applicant, or parent corporation of the permit holder or applicant must have:

i. tangible net worth of at least six times the sum of the current closure and post-closure estimates, to be demonstrated by this test, and the amount of liability coverage to be demonstrated by this test;

ii. tangible net worth of at least \$10 million; and

iii. assets in the United States amounting to either at least 90 percent of his or her total assets, or at least six times the sum of the current closure and post-closure estimates, to be demonstrated by this test, and the amount of liability coverage to be demonstrated by this test; or

b. the permit holder, applicant, or parent corporation of the permit holder or applicant must have:

i. a current rating for his or her most recent bond issuance of AAA, AA, A, or BBB, as issued by *Standard and Poor's*, or Aaa, Aa, or Baa, as issued by *Moody's*;

ii. tangible net worth of at least \$10 million; and

iii. assets in the United States amounting to either 90 percent of his or her total assets or at least six times the sum of the current closure and post-closure estimates, to be demonstrated by this test, and the amount of liability coverage to be demonstrated by this test.

2. To demonstrate that he or she meets this test, the permit holder, applicant, or parent corporation of the permit holder or applicant must submit the following three items to the Office of Management and Finance, Financial Services Division:

a. a letter signed by the chief financial officer of the permit holder, applicant, or parent corporation demonstrating and certifying the criteria in Subsection H.1 of this Section and including the information required by Subsection H.4 of this Section. If the financial test is provided to demonstrate both assurance for closure and/or post-closure care and liability coverage, a single letter to cover both forms of financial responsibility is required.

b. a copy of the independent certified public accountant (CPA)'s report on the financial statements of the permit holder, applicant, or parent corporation of the permit holder or applicant for the latest completed fiscal year.

c. a special report from the independent CPA to the permit holder, applicant, or parent corporation of the permit holder or applicant stating that:

i. he or she has computed the data specified by the chief financial officer as having been derived from the independently audited, year-end financial statements with the amounts for the latest fiscal year in such financial statements; and

ii. in connection with that procedure, no matters came to his attention that caused him to believe that the specified data should be adjusted.

3. The administrative authority may disallow use of this test on the basis of the opinion expressed by the independent CPA in his report on qualifications based on the financial statements. An adverse opinion or a disclaimer of opinion will be cause for disallowance. The administrative authority will evaluate other qualifications on an individual basis. The administrative authority may disallow the use of this test on the basis of the accessibility of the assets of the parent corporation (corporate guarantor), permit holder, or applicant. The permit holder, applicant, or parent corporation must provide evidence of insurance for the entire amount of required liability coverage, as specified in this Chapter, within 30 days after notification of disallowance.

4. The permit holder, applicant, or parent corporation (if a corporate guarantor) of the permit holder or applicant shall provide to the Office of Management and Finance, Financial Services Division a letter from the chief financial officer, the wording of which shall be identical to the wording in Appendix I of this Chapter, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted. The letter shall certify the following information:

a. a list of solid waste facilities, whether in Louisiana or not, owned or operated by the permit holder or applicant of the facility, for which financial assurance for liability coverage is demonstrated through the use of financial tests, including the amount of liability coverage;

b. a list of solid waste facilities, whether in Louisiana or not, owned or operated by the permit holder or applicant, for which financial assurance for the closure or post-closure care is demonstrated through the use of a financial test or self-insurance by the permit holder or applicant, including the cost estimates for the closure and post-closure care of each facility;

c. a list of the solid waste facilities, whether in Louisiana or not, owned or operated by any subsidiaries of the parent corporation for which financial assurance for closure and/or post-closure is demonstrated through the financial test or through use of self-insurance, including the current cost estimate for the closure or post-closure care for each facility and the amount of annual aggregate liability coverage for each facility; and

d. a list of solid waste facilities, whether in Louisiana or not, for which financial assurance for closure or post-closure care is not demonstrated through the financial test, self-insurance, or other substantially equivalent state mechanisms, including the estimated cost of closure and post-closure of such facilities.

5. For the purposes of Subsection A of this Section, the phrase "tangible net worth" shall mean the tangible assets that remain after liabilities have been deducted; such assets would not include intangibles such as good will and rights to patents or royalties.

6. The phrase "current closure and post-closure cost estimates," as used in Subsection H.1 of this Section, includes the cost estimates required to be shown in Subsection H.1.a.i of this Section.

7. After initial submission of the items specified in Subsection H.2 of this Section, the permit holder, applicant, or parent corporation of the permit holder or applicant must send updated information to the Office of Management and Finance, Financial Services Division within 90 days after the close of each succeeding fiscal year. This information must include all three items specified in Subsection H.2 of this Section.

8. The administrative authority may, on the basis of a reasonable belief that the permit holder, applicant, or parent corporation of the permit holder or applicant may no longer meet the requirements of Subsection H of this Section, require reports of financial condition at any time in addition to those specified in Subsection H.2 of this Section. If the administrative authority finds, on the basis of such reports or other information, that the permit holder, applicant, or parent corporation of the permit holder or applicant no longer meets the requirements of Subsection H.2 of this Section, the permit holder or applicant, or parent corporation of the permit holder or applicant, must provide alternate financial assurance as specified in Subsection A of this Section within 30 days after notification of such a finding.

9. A permit holder or applicant may meet the requirements of Subsection H of this Section for closure and/or post-closure by obtaining a written guarantee, hereafter referred to as a "corporate guarantee." The guarantor must be the parent corporation of the permit holder or applicant. The guarantor must meet the requirements and submit all information required for permit holders or applicants in Paragraphs 1-8 of this Subsection and must comply with the terms of the corporate guarantee. The corporate guarantee must accompany the items sent to the administrative authority specified in Paragraphs 2 and 4 of this Subsection. The wording of the corporate guarantee must be identical to the wording in Appendix J of this Chapter, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted. The terms of the corporate guarantee must be in an authentic act signed and sworn by an authorized officer of the corporation before a notary public and must provide that:

- a. the guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in Subsection H of this Section;
- b. the guarantor is the parent corporation of the permit holder or applicant of the solid waste management facility or facilities to be covered by the guarantee, and the guarantee extends to certain facilities;
- c. "closure plans," as used in the guarantee, refers to the plans maintained as required by the Louisiana solid waste rules and regulations for the closure and post-closure care of facilities, as identified in the guarantee;
- d. for value received from the permit holder or applicant, the guarantor guarantees to the Louisiana Department of Environmental Quality that the permit holder or applicant will perform closure, post-closure care, or closure and post-closure care of the facility or facilities listed in the guarantee, in accordance with the closure plan and other permit or regulatory requirements whenever required to do so. In the event that the permit holder or applicant fails to perform as specified in the closure plan, the guarantor shall do so or establish a trust fund as specified in Subsection A.2.d of this Section, in the name of the permit holder or applicant, in the amount of the current closure or post-closure cost estimates or as specified in Subsection A.2 of this Section;
- e. guarantor agrees that if, at the end of any fiscal year before termination of the guarantee, the guarantor fails to meet the financial test criteria, the guarantor shall send within 90 days after the end of the fiscal year, by certified mail, notice to the Office of Management and Finance, Financial Services Division and to the permit holder or applicant that he intends to provide alternative financial assurance as specified in Subsection A of this Section, in the name of the permit holder or applicant, and that within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless the permit holder or applicant has done so;
- f. the guarantor agrees to notify the Office of Management and Finance, Financial Services Division by certified mail of a voluntary or involuntary proceeding under Title 11 (bankruptcy), U.S. Code, naming the guarantor as debtor, within 10 days after commencement of the proceeding;
- g. the guarantor agrees that within 30 days after being notified by the administrative authority of a determination that the guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor of closure or post-closure care, he shall establish alternate financial assurance as specified in Subsection A of this Section in the name of the permit holder or applicant, unless the permit holder or applicant has done so;
- h. the guarantor agrees to remain bound under the guarantee, notwithstanding any or all of the following: amendment or modification of the closure plan, amendment or modification of the permit, extension or reduction of the time of performance of closure or post closure, or any other modification or alteration of an obligation of the permit holder or applicant in accordance with these regulations;
- i. the guarantor agrees to remain bound under the guarantee for as long as the permit holder must comply with the applicable financial assurance

requirements of Subsection A of this Section for the above-listed facilities, except that the guarantor may cancel this guarantee by sending notice by certified mail to the Office of Management and Finance, Financial Services Division and the permit holder or applicant. The cancellation will become effective no earlier than 90 days after receipt of such notice by both the administrative authority and the permit holder or applicant, as evidenced by the return receipts;

j. the guarantor agrees that if the permit holder or applicant fails to provide alternative financial assurance as specified in Subsection A of this Section, and to obtain written approval of such assurance from the administrative authority within 60 days after the administrative authority receives the guarantor's notice of cancellation, the guarantor shall provide such alternate financial assurance in the name of the owner or operator; and

k. the guarantor expressly waives notice of acceptance of the guarantee by the administrative authority or by the permit holder. Guarantor also expressly waives notice of amendments or modifications of the closure plan and of amendments or modifications of the facility permit(s).

I. Local Government Financial Test. An owner or operator that satisfies the requirements of Subsection I.1-3 of this Section may demonstrate financial assurance up to the amount specified in Subsection I.4 of this Section.

1. Financial Component

a. The owner or operator must satisfy the following conditions, as applicable:

i. if the owner or operator has outstanding, rated, general obligation bonds that are not secured by insurance, a letter of credit, or other collateral or guarantee, he or she must have a current rating of Aaa, Aa, A, or Baa, as issued by *Moody's*, or AAA, AA, A, or BBB, as issued by *Standard and Poor's*, on all such general obligation bonds; or

ii. the owner or operator must satisfy the ratio of cash plus marketable securities to total expenditures being greater than or equal to 0.05 and the ratio of annual debt service to total expenditures less than or equal to 0.20 based on the owner or operator's most recent audited annual financial statement.

b. The owner or operator must prepare his or her financial statements in conformity with *Generally Accepted Accounting Principles* for governments and have his or her financial statements audited by an independent certified public accountant (or appropriate state agency).

c. A local government is not eligible to assure its obligations under Subsection I of this Section if it:

i. is currently in default on any outstanding general obligation bonds;

ii. has any outstanding general obligation bonds rated lower than Baa as issued by *Moody's* or BBB as issued by *Standard and Poor's*;

iii. operated at a deficit equal to 5 percent or more of total annual revenue in each of the past two fiscal years; or

iv. receives an adverse opinion, disclaimer of opinion, or other qualified opinion from the independent certified public accountant (or appropriate state agency) auditing its financial statement as required under Subsection I.1.b of this Section. The administrative authority may evaluate qualified opinions on a case-by-case basis and allow use of the financial test in cases where the administrative authority deems the qualification insufficient to warrant disallowance of use of the test.

d. The following terms used in this Subsection are defined as follows:

i. *Deficit*—total annual revenues minus total annual expenditures.

ii. *Total Revenues*—revenues from all taxes and fees, but does not include the proceeds from borrowing or asset sales, excluding revenue from funds managed by local government on behalf of a specific third party.

iii. *Total Expenditures*—all expenditures, excluding capital outlays and debt repayment.

iv. *Cash Plus Marketable Securities*—all the cash plus marketable securities held by the local government on the last day of a fiscal year, excluding cash and marketable securities designated to satisfy past obligations such as pensions.

v. *Debt Service*—the amount of principal and interest due on a loan in a given time period, typically the current year.

2. Public Notice Component. The local government owner or operator must place a reference to the closure and post-closure care costs assured through the financial test into its next comprehensive annual financial report (CAFR) after the effective date of this Chapter or prior to the initial receipt of waste at the facility, whichever is later. Disclosure must include the nature and source of closure and post-closure care requirements, the reported liability at the balance sheet date, the estimated total closure and post-closure care cost remaining to be recognized, the percentage of landfill capacity used to date, and the estimated landfill life in years. A reference to corrective action costs must be placed in the CAFR not later than 120 days after the corrective action remedy has been selected in accordance with the requirements of LAC 33:VII.805.F. For the first year the financial test is used to assure costs at a particular facility, the reference may be placed in the operating record until issuance of the next available CAFR if timing does not permit the reference to be incorporated into the most recently issued CAFR or budget. For closure and post-closure costs, conformance with *Government Accounting Standards Board Statement 18* assures compliance with this public notice component.

### 3. Recordkeeping and Reporting Requirements

a. The local government owner or operator must place the following items in the facility's operating record:

i. a letter signed by the local government's chief financial officer that lists all the current cost estimates covered by a financial test, as described in Subsection A.2.j.iv of this Section. It must provide evidence that the local government meets the conditions of Subsection I.1.a, b, and c of this Section, and certify that the local government meets the conditions of Subsection I.1.a, b, c, I.2, and I.4 of this Section;

ii. the local government's independently audited year-end financial statements for the latest fiscal year (except for local governments where audits are required every two years and unaudited statements may be used in years when audits are not required), including the unqualified opinion of the auditor who must be an independent certified public accountant or an appropriate state agency that conducts equivalent comprehensive audits;

iii. a report to the local government from the local government's independent certified public accountant or the appropriate state agency based on performing an agreed upon procedures engagement relative to the financial ratios required by Subsection I.1.a.ii of this Section, if applicable, and the requirements of Subsection I.1.b and c.iii and iv of this Section. The certified public accountant or state agency's report shall state the procedures performed and the certified public accountant or state agency's findings; and

iv. a copy of the CAFR used to comply with Subsection I.2 of this Section (certification that the requirements of *General Accounting Standards Board Statement 18* have been met).

b. The items required in Subsection I.3.a of this Section must be placed in the facility operating record as follows:

i. in the case of closure and post-closure care, either before the effective date of this Chapter, which is April 9, 1997, or prior to the initial receipt of waste at the facility, whichever is later; or

ii. in the case of corrective action, not later than 120 days after the corrective action remedy is selected in accordance with the requirements of LAC 33:VII.805.F.

c. After the initial placement of the items in the facility's operating record, the local government owner or operator must update the information and place the updated information in the operating record within 180 days following the close of the owner or operator's fiscal year.

d. The local government owner or operator is no longer required to meet the requirements of Subsection I.3 of this Section when:

i. the owner or operator substitutes alternate financial assurance, as specified in this Chapter; or

ii. the owner or operator is released from the requirements of this Chapter in accordance with LAC 33:VII.1301.A or Subsection A of this Section.

e. A local government must satisfy the requirements of the financial test at the close of each fiscal year. If the local government owner or operator no longer meets the requirements of the local government financial test, it must, within 210 days following the close of the owner or operator's fiscal year, obtain alternative financial assurance that meets the requirements of this Chapter, place the required submissions for that assurance in the operating record, and notify the Office of Management and Finance, Financial Services Division that the owner or operator no longer meets the criteria of the financial test and that alternate assurance has been obtained.

f. The administrative authority, based on a reasonable belief that the local government owner or operator may no longer meet the requirements of the local government financial test, may require additional reports of financial condition from

the local government at any time. If the administrative authority finds, on the basis of such reports or other information, that the owner or operator no longer meets the local government financial test, the local government must provide alternate financial assurance in accordance with this Chapter.

4. Calculation of Costs to be Assured. The portion of the closure, post-closure, and corrective action costs for which an owner or operator can assure under Subsection I of this Section is determined as follows:

a. if the local government owner or operator does not assure other environmental obligations through a financial test, it may assure closure, post-closure, and corrective action costs that equal up to 43 percent of the local government's total annual revenue;

b. if the local government assures other environmental obligations through a financial test, including those associated with UIC facilities under 40 CFR 144.62, petroleum underground storage tank facilities under 40 CFR part 280, PCB storage facilities under 40 CFR part 761, and hazardous waste treatment, storage, and disposal facilities under 40 CFR parts 264 and 265, or corresponding state programs, it must add those costs to the closure, post-closure, and corrective action costs it seeks to assure under Subsection I of this Section. The total that may be assured must not exceed 43 percent of the local government's total annual revenue; and

c. the owner or operator must obtain an alternate financial assurance instrument for those costs that exceed the limits set in Subsection I.4.a and b of this Section.

J. Local Government Guarantee. An owner or operator may demonstrate financial assurance for closure, post-closure, and corrective action, as required by LAC 33:VII.1301 and this Section, by obtaining a written guarantee provided by a local government. The guarantor must meet the requirements of the local government financial test in Subsection I of this Section, and must comply with the terms of a written guarantee.

1. Terms of the Written Guarantee. The guarantee must be effective before the initial receipt of waste or before the effective date of this Chapter, whichever is later, in the case of closure and post-closure care, or no later than 120 days after the corrective action remedy has been selected in accordance with the requirements of LAC 33:VII.805.F. The guarantee must provide that:

a. if the owner or operator fails to perform closure, post-closure care, and/or corrective action of a facility covered by the guarantee, the guarantor will:

i. perform, or pay a third party to perform closure, post-closure care, and/or corrective action as required; or

ii. establish a fully funded trust fund, as specified in Subsection C of this Section, in the name of the owner or operator;

b. the guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Office of Management and Finance, Financial Services Division. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation

by both the owner or operator and the administrative authority, as evidenced by the return receipts; and

c. if a guarantee is canceled, the owner or operator must, within 90 days following receipt of the cancellation notice by the owner or operator and the administrative authority, obtain alternate financial assurance, place evidence of that alternate financial assurance in the facility operating record, and notify the Office of Management and Finance, Financial Services Division. If the owner or operator fails to provide alternate financial assurance within the 90-day period, then the guarantor must provide that alternate assurance within 120 days following the guarantor's notice of cancellation, place evidence of the alternate assurance in the facility operating record, and notify the Office of Management and Finance, Financial Services Division.

## 2. Recordkeeping and Reporting

a. The owner or operator must place a certified copy of the guarantee, along with the items required under Subsection I.3 of this Section, into the facility's operating record before the initial receipt of waste or before the effective date of this Chapter, whichever is later, in the case of closure or post-closure care, or no later than 120 days after the corrective action remedy has been selected in accordance with the requirements of LAC 33:VII.805.F.

b. The owner or operator is no longer required to maintain the items specified in this Paragraph when:

i. the owner or operator substitutes alternate financial assurance as specified in this Section; or

ii. the owner or operator is released from the requirements of this Section in accordance with LAC 33:VII.1301 and this Section.

c. If a local government guarantor no longer meets the requirements of Subsection I of this Section, the owner or operator must, within 90 days, obtain alternate assurance, place evidence of the alternate assurance in the facility operating record, and notify the Office of Management and Finance, Financial Services Division. If the owner or operator fails to obtain alternate financial assurance within that 90-day period, the guarantor must provide that alternate assurance within the next 30 days.

K. Use of Multiple Mechanisms. An owner or operator may demonstrate financial assurance for closure, post-closure, and corrective action, as required by LAC 33:VII.1301 and this Section, by establishing more than one financial mechanism per facility, except that mechanisms guaranteeing performance rather than payment may not be combined with other instruments. The mechanisms must be as specified in Subsections C – H of this Section, except that financial assurance for an amount at least equal to the current cost estimate for closure, post-closure care, and/or corrective action may be provided by a combination of mechanisms, rather than a single mechanism.

L. Discounting. The administrative authority may allow discounting of closure and post-closure cost estimates in Subsection A of this Section and/or corrective action costs in LAC 33:1301.A up to the rate of return for essentially risk-free investments, net of inflation, under the following conditions:

1. the administrative authority determines that cost estimates are complete and accurate and the owner or operator has submitted a statement from a registered professional engineer to the Office of Management and Finance, Financial Services Division so stating;
2. the state finds the facility in compliance with applicable and appropriate permit conditions;
3. the administrative authority determines that the closure date is certain, and the owner or operator certifies that there are no foreseeable factors that will change the estimate of site life; and
4. discounted cost estimates are adjusted annually to reflect inflation and years of remaining life.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§1305. Financial Responsibility for Corrective Action for Type II Landfills**

A. A permit holder of a Type II landfill required to undertake a corrective action program under LAC 33:VII.805 must provide to the Office of Management and Finance, Financial Services Division a detailed written estimate, in current dollars, of the cost of hiring a third party to perform the corrective action in accordance with the program required under LAC 33:VII.805. The corrective action cost estimate must account for the total costs of corrective action activities as described in the corrective action plan for the entire corrective action period.

1. The permit holder must provide an annual adjustment of the estimate for inflation to the Office of Management and Finance, Financial Services Division until the corrective action program is completed in accordance with LAC 33:VII.805.

2. The permit holder must provide an increased corrective action cost estimate to the Office of Management and Finance, Financial Services Division and the amount of financial assurance provided under Subsection B of this Section if changes in the corrective action program or landfill conditions increase the maximum costs of corrective action.

3. Subject to approval of the administrative authority, the permit holder may provide a reduced corrective action cost estimate to the Office of Management and Finance, Financial Services Division and the amount of financial assurance provided under Subsection B of this Section if the cost estimate exceeds the maximum remaining costs of corrective action. The permit holder must provide the Office of Management and Finance, Financial Services Division justification for the reduction of the corrective action cost estimate and the revised amount of financial assurance.

B. The permit holder of each Type II landfill required to undertake a corrective action program under LAC 33:VII.805 must establish, in a manner in accordance with Subsection A of this Section, financial assurance for the most recent corrective action

program. The financial assurance must be provided within 120 days after the selection of the corrective action remedy in LAC 33:VII.805.F. The permit holder must provide continuous coverage for corrective action until released from financial assurance requirements for corrective action by demonstrating compliance with LAC 33:VII.805.G.8.c.i and ii. For the purpose of corrective action financial assurance only the words "corrective action" shall be substituted for the words "closure" or "post-closure" throughout Subsection A of this Section.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**Appendices**  
**Appendix A**

SOLID WASTE FACILITY LIABILITY ENDORSEMENT

Secretary  
Louisiana Department of Environmental Quality  
Post Office Box 82231  
Baton Rouge, Louisiana 70884-2231

Attention: Office of Management and Finance, Financial Services Division

Dear Sir:

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering bodily injury and property damage in connection with [name of the insured, which must be either the permit holder, the applicant, or the operator. (Note: The operator will provide the liability-insurance documentation only when the permit holder/applicant is a public governing body and the public governing body is not the operator.)] The insured's obligation to demonstrate financial responsibility is required in accordance with LAC 33:VII.1301.A. The coverage applies at [list the site identification number, site name, facility name, facility permit number, and facility address] for sudden and accidental occurrences. The limits of liability are per occurrence and annual aggregate, per site, exclusive of legal-defense costs.

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions of the policy inconsistent with Subclauses (a) through (e) below are hereby amended to conform with Subclauses (a) through (e) below:

(a). Bankruptcy or insolvency of the insured shall not relieve the insurer of its obligations under the policy to which this endorsement is attached.

(b). The insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated, as specified in LAC 33:VII 1301.E, F, or G.

(c). Whenever requested by the administrative authority, the insurer agrees to furnish to the administrative authority a signed duplicate original of the policy and all endorsements.

(d). Cancellation of this endorsement, whether by the insurer or the insured, will be effective only upon written notice and upon lapse of 60 days after a copy of such written notice is received by the administrative authority.

(e). Any other termination of this endorsement will be effective only upon written notice and upon lapse of 30 days after a copy of such written notice is received by the administrative authority.

3. Attached is the endorsement, which forms part of the policy [policy number] issued by [name of insurer], herein called the insurer, of [address of the insurer] to [name

of the insured] of [address of the insured], this [date]. The effective date of said policy is [date].

4. I hereby certify that the wording of this endorsement is identical to the wording specified in LAC 33:VII. 1301.C, effective on the date first written above and that insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states, and is admitted, authorized, or eligible to conduct insurance business in the state of Louisiana.

[Signature of authorized representative of insurer]

[Typed name of authorized representative of insurer]

[Title of authorized representative of insurer]

[Address of authorized representative of insurer]

**Appendix B**

## SOLID WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE

Secretary

Louisiana Department of Environmental Quality

Post Office Box 82231

Baton Rouge, Louisiana 70884-2231

Attention: Office of Management and Finance, Financial Services Division

Dear Sir:

1. [Name of insurer], the "insurer," of [address of insurer] hereby certifies that it has issued liability insurance covering bodily injury and property damage to [name of insured, which must be either the permit holder or applicant of the facility], the "insured," of [address of insured] in connection with the insured's obligation to demonstrate financial responsibility under LAC 33:VII.1301.A. The coverage applies at [list solid waste identification number, site name, facility name, facility permit number, and site address] for sudden and accidental occurrences. The limits of liability are each occurrence and annual aggregate, per site, exclusive of legal-defense costs. The coverage is provided under policy number [policy number], issued on [date]. The effective date of said policy is [date].

2. The insurer further certifies the following with respect to the insurance described in Paragraph 1:

(a). Bankruptcy or insolvency of the insured shall not relieve the insurer of its obligations under the policy.

(b). The insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated, as specified in LAC 33:VII.1301.E, F, or G.

(c). Whenever requested by the administrative authority, the insurer agrees to furnish to him a signed duplicate original of the policy and all endorsements.

(d). Cancellation of the insurance, whether by the insurer or the insured, will be effective only upon written notice and upon lapse of 60 days after a copy of such written notice is received by the administrative authority.

(e). Any other termination of the insurance will be effective only upon written notice and upon lapse of 30 days after a copy of such written notice is received by the administrative authority.

3. I hereby certify that the wording of this certificate is identical to the wording specified in LAC 33:VII.1301.D as such regulations were constituted on the date first written above, and that the insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states, and is admitted, authorized, or eligible to conduct insurance business in the state of Louisiana.

[Signature of authorized representative of insurer]

[Typed name of authorized representative of insurer]

[Title of authorized representative of insurer]

[Address of authorized representative of insurer]

## Appendix C

### SOLID WASTE FACILITY IRREVOCABLE LETTER OF CREDIT

Secretary

Louisiana Department of Environmental Quality

Post Office Box 82231

Baton Rouge, Louisiana 70884-2231

Attention: Office of Management and Finance, Financial Services Division

Dear Sir:

We hereby establish our Irrevocable Standby Letter of Credit No. [ ] at the request and for the account of [permit holder's or applicant's name and address] for its [list site identification number, site name, facility name, and facility permit number] at [location], Louisiana, in favor of any governmental body, person, or other entity for any sum or sums up to the aggregate amount of U.S. dollars [ ] upon presentation of:

1. A final judgment issued by a competent court of law in favor of a governmental body, person, or other entity and against [permit holder's or applicant's name] for sudden and accidental occurrences for claims arising out of injury to persons or property due to the operation of the solid waste site at the [name of permit holder or applicant] at [ site location] as set forth in the LAC 33:VII.1301.A.

2. A sight draft bearing reference to the Letter of Credit No. [ ] drawn by the governmental body, person, or other entity, in whose favor the judgment has been rendered as evidenced by documentary requirement in Paragraph 1.

The Letter of Credit is effective as of [date] and will expire on [date], but such expiration date will be automatically extended for a period of at least one year on the above expiration date [date] and on each successive expiration date thereafter, unless, at least 120 days before the then-current expiration date, we notify both the administrative authority and [name of permit holder or applicant] by certified mail that we have decided not to extend this Letter of Credit beyond the then-current expiration date. In the event we give such notification, any unused portion of this Letter of Credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both the Department of Environmental Quality and [name of permit holder/applicant] as shown on the signed return receipts.

Whenever this Letter of Credit is drawn under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [name of permit holder or applicant] in accordance with the administrative authority's instructions.

Except to the extent otherwise expressly agreed to, the Uniform Customs and Practice for Documentary Letters of Credit (1983), International Chamber of Commerce Publication No. 400, shall apply to this Letter of Credit.

We certify that the wording of this Letter of Credit is identical to the wording specified in LAC 33:VII.1301.E.5, effective on the date shown immediately below.

[Signature(s) and title(s) of official(s)  
of issuing institution(s)]

[date]

## Appendix D

### SOLID WASTE FACILITY TRUST AGREEMENT/STANDBY TRUST AGREEMENT

This Trust Agreement, the "Agreement," is entered into as of [date] by and between [name of permit holder or applicant], a [name of state] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert "incorporated in the state of" or "a national bank" or "a state bank"], the "Trustee."

WHEREAS, the Department of Environmental Quality of the State of Louisiana, an agency of the state of Louisiana, has established certain regulations applicable to the Grantor, requiring that a permit holder or applicant for a permit of a solid waste processing or disposal facility shall provide assurance that funds will be available when needed for [closure and/or post-closure] care of the facility;

WHEREAS, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facility identified herein;

WHEREAS, the Grantor, acting through its duly authorized officers, has selected [the Trustee] to be the trustee under this Agreement, and [the Trustee] is willing to act as trustee.

NOW, THEREFORE, the Grantor and the Trustee agree as follows:

#### SECTION 1. DEFINITIONS

As used in this Agreement:

(a). The term "Grantor" means the permit holder or applicant who enters into this Agreement and any successors or assigns of the Grantor.

(b). The term "Trustee" means the Trustee who enters into this Agreement and any successor trustee.

(c). The term "Secretary" means the Secretary of the Louisiana Department of Environmental Quality.

(d). The term "Administrative Authority" means the secretary or his designee or the appropriate assistant secretary or his designee.

#### SECTION 2. IDENTIFICATION OF FACILITIES AND COST ESTIMATES

This Agreement pertains to the facilities and cost estimates identified on attached Schedule A. [On Schedule A, list the site identification number, site name, facility name, facility permit number, and the annual aggregate amount of liability coverage or current closure and/or post-closure cost estimates, or portions thereof, for which financial assurance is demonstrated by this Agreement.]

#### SECTION 3. ESTABLISHMENT OF FUND

The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of the Louisiana Department of Environmental Quality. The Grantor and the Trustee intend that no third party shall have access to the Fund, except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. [Note: Standby Trust Agreements need not be funded at the time of execution. In the case of Standby Trust Agreements, Schedule B should be blank except for a statement that the Agreement is not presently funded, but shall be funded by the financial assurance document used by the Grantor in accordance

with the terms of that document.] Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, in trust, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the administrative authority.

#### SECTION 4. PAYMENT FOR CLOSURE AND/OR POST-CLOSURE CARE OR LIABILITY COVERAGE

The Trustee shall make payments from the Fund as the administrative authority shall direct, in writing, to provide for the payment of the costs of [liability claims, closure and/or post-closure] care of the facility covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the administrative authority from the Fund for [liability claims, closure and/or post-closure] expenditures in such amounts as the administrative authority shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the administrative authority specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

#### SECTION 5. PAYMENTS COMPRISED BY THE FUND

Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

#### SECTION 6. TRUSTEE MANAGEMENT

The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines, which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing that persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of like character and with like aims, except that:

(a). Securities or other obligations of the Grantor, or any owner of the [facility or facilities] or any of their affiliates, as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the federal or a state government.

(b). The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the federal or state government; and

(c). The Trustee is authorized to hold cash awaiting investment or distribution, uninvested for a reasonable time and without liability for the payment of interest thereon.

#### SECTION 7. COMMINGLING AND INVESTMENT

The Trustee is expressly authorized, at its discretion:

(a). To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b). To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1, et seq., including one which may be created, managed, or underwritten, or one to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares at its discretion.

#### SECTION 8. EXPRESS POWERS OF TRUSTEE

Without in any way limiting the powers and discretion conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a). To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b). To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c). To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all securities are part of the Fund;

(d). To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the federal or state government; and

(e). To compromise or otherwise adjust all claims in favor of, or against, the Fund.

#### SECTION 9. TAXES AND EXPENSES

All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and other proper charges and disbursements of the Trustee, shall be paid from the Fund.

#### SECTION 10. ANNUAL VALUATION

The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the administrative authority a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee, within 90 days after the statement has been furnished to the Grantor and the administrative authority, shall

constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

#### SECTION 11. ADVICE OF COUNSEL

The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any questions arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

#### SECTION 12. TRUSTEE COMPENSATION

The Trustee shall be entitled to reasonable compensation for its services, as agreed upon in writing from time to time with the Grantor.

#### SECTION 13. SUCCESSOR TRUSTEE

The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall, in writing, specify to the Grantor, the administrative authority, and the present Trustee, by certified mail 10 days before such change becomes effective, the date on which it assumes administration of the trust. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

#### SECTION 14. INSTRUCTIONS TO THE TRUSTEE

All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by the persons designated in the attached Exhibit A or such other persons as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the administrative authority to the Trustee shall be in writing and signed by the administrative authority. The Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or termination of the authority of any person to act on behalf of the Grantor or administrative authority hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or administrative authority, except as provided for herein.

#### SECTION 15. NOTICE OF NONPAYMENT

The Trustee shall notify the Grantor and the administrative authority, by certified mail, within 10 days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

#### SECTION 16. AMENDMENT OF AGREEMENT

This Agreement may be amended by an instrument, in writing, executed by the Grantor, the Trustee, and the administrative authority, or by the Trustee and the administrative authority, if the Grantor ceases to exist.

SECTION 17. IRREVOCABILITY AND TERMINATION

Subject to the right of the parties to amend this Agreement, as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the administrative authority, or by the Trustee and the administrative authority, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

SECTION 18. IMMUNITY AND INDEMNIFICATION

The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any direction by the Grantor or the administrative authority issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all reasonable expenses incurred in its defense in the event that the Grantor fails to provide such defense.

SECTION 19. CHOICE OF LAW

This Agreement shall be administered, construed, and enforced according to the laws of the state of Louisiana.

SECTION 20. INTERPRETATION

As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their respective officers duly authorized [and their corporate seals to be hereunto affixed] and attested to as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in LAC 33:VII.1303.C.9, on the date first written above.

WITNESSES:

GRANTOR:

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
By: \_\_\_\_\_

Its: \_\_\_\_\_

[Seal]

TRUSTEE:

\_\_\_\_\_

By: \_\_\_\_\_

Its: \_\_\_\_\_

[Seal]

THUS DONE AND PASSED in my office in \_\_\_\_\_, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_, in the presence of \_\_\_\_\_ and \_\_\_\_\_, competent witnesses, who hereunto sign their names with the said appearers and me, Notary, after reading the whole.

\_\_\_\_\_  
Notary Public

## Appendix E

### SOLID WASTE FACILITY FINANCIAL GUARANTEE BOND

Date bond was executed: \_\_\_\_\_

Effective date: \_\_\_\_\_

Principal: [legal name and business address of permit holder or applicant]

Type of organization: [insert "individual," "joint venture," "partnership," or "corporation"]

State of incorporation: \_\_\_\_\_

Surety: [name and business address]

[site identification number, site name, facility name, facility permit number and current closure and/or post-closure amount(s) for each facility guaranteed by this bond]

Total penal sum of bond: \$ \_\_\_\_\_

Surety's bond number: \_\_\_\_\_

Know All Persons By These Presents, That we, the Principal and Surety hereto, are firmly bound to the Louisiana Department of Environmental Quality in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where Sureties are corporations acting as cosureties, we the sureties bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit or liability is indicated, the limit of liability shall be the full amount of the penal sum.

WHEREAS, said Principal is required, under the Resource Conservation and Recovery Act as amended (RCRA) and the Louisiana Environmental Quality Act, R.S. 30:2001, et seq., to have a permit in order to own or operate the solid waste facility identified above; and

WHEREAS, the Principal is required by law to provide financial assurance for closure and/or post-closure care, as a condition of the permit; and

WHEREAS, said Principal shall establish a standby trust fund as is required by the *Louisiana Administrative Code*, Title 33, Part VII, when a surety bond is used to provide such financial assurance;

NOW THEREFORE, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of final closure of the facility identified above, fund the standby trust fund in the amount(s) identified above for the facility,

OR, if the Principal shall fund the standby trust fund in such amount(s) within 15 days after an order to close is issued by the administrative authority or a court of competent jurisdiction,

OR, if the Principal shall provide alternate financial assurance as specified in LAC 33:VII.1303.A and obtain written approval from the administrative authority of such assurance, within 90 days after the date of notice of cancellation is received by both the Principal and the administrative authority from the Surety, then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by the administrative authority that the Principal has failed to perform as guaranteed by this bond, the Surety shall place funds in the amount guaranteed for the facility into the standby trust fund as directed by the administrative authority.

The Surety hereby waives notification or amendments to closure plans, permits, applicable laws, statutes, rules, and regulations, and agrees that no such amendment shall in any way alleviate its obligation on this bond.

The liability of the Surety shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety hereunder exceed the amount of the penal sum.

The Surety may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the administrative authority. Cancellation shall not occur before 120 days have elapsed beginning on the date that both the Principal and the administrative authority received the notice of cancellation, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety and to the administrative authority, provided, however, that no such notice shall become effective until the Surety receives written authorization for termination of the bond by the administrative authority.

Principal and Surety hereby agree to adjust the penal sum of the bond yearly in accordance with LAC 33:VII.1303.A, and the conditions of the solid waste facility permit so that it guarantees a new closure and/or post-closure amount, provided that the penal sum does not increase or decrease without the written permission of the administrative authority.

The Principal and Surety hereby agree that no portion of the penal sum may be expended without prior written approval of the administrative authority.

IN WITNESS WHEREOF, the Principal and the Surety have executed this FINANCIAL GUARANTEE BOND and have affixed their seals on the date set forth above.

Those persons whose signatures appear below hereby certify that they are authorized to execute this FINANCIAL GUARANTEE BOND on behalf of the Principal and Surety, that each Surety hereto is authorized to do business in the state of Louisiana and that the wording of this surety bond is identical to the wording specified in LAC 33:VII. 1303.D.8, effective on the date this bond was executed.

PRINCIPAL

[Signature(s)]

[Name(s)]

[Title(s)]

[Corporate Seal]

CORPORATE SURETIES

[Name and Address]

State of incorporation: \_\_\_\_\_

Liability limit: \_\_\_\_\_

[Signature(s)]

[Name(s) and title(s)]

[Corporate seal]

[This information must be provided for each cosurety]

Bond Premium: \$ \_\_\_\_\_

## Appendix F

### SOLID WASTE FACILITY PERFORMANCE BOND

Date bond was executed: \_\_\_\_\_

Effective date: \_\_\_\_\_

Principal: [legal name and business address of permit holder or applicant]

Type of organization: [insert "individual," "joint venture," "partnership," or "corporation"]

State of incorporation: \_\_\_\_\_

Surety: [name(s) and business address(es)]

[Site identification number, site name, facility name, facility permit number, facility address, and closure and/or post-closure amount(s) for each facility guaranteed by this bond (indicate closure and/or post-closure costs separately)]

Total penal sum of bond: \$ \_\_\_\_\_

Surety's bond number: \_\_\_\_\_

Know All Persons By These Presents, That we, the Principal and Surety hereto are firmly bound to the Louisiana Department of Environmental Quality in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where Sureties are corporations acting as cosureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

WHEREAS, said Principal is required, under the Resource Conservation and Recovery Act as amended (RCRA) and the Louisiana Environmental Quality Act, R.S. 30:2001, et seq., to have a permit in order to own or operate the solid waste facility identified above; and

WHEREAS, the Principal is required by law to provide financial assurance for closure and/or post-closure care, as a condition of the permit; and

WHEREAS, said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

THEREFORE, the conditions of this obligation are such that if the Principal shall faithfully perform closure, whenever required to do so, of the facility for which this bond guarantees closure, in accordance with the closure plan and other requirements of the permit as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended;

AND, if the Principal shall faithfully perform post-closure care of each facility for which this bond guarantees post-closure care, in accordance with the closure plan and other requirements of the permit, as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended;

OR, if the Principal shall provide financial assurance as specified in the Louisiana Administrative Code (LAC) Title 33, Part VII, Section 1303.A and obtain written approval of the administrative authority of such assurance, within 90 days after the date of notice of

cancellation is received by both the Principal and the administrative authority, then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The surety shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described hereinabove.

Upon notification by the administrative authority that the Principal has been found in violation of the closure requirements of LAC 33:VII, or of its permit, for the facility for which this bond guarantees performances of closure, the Surety shall either perform closure, in accordance with the closure plan and other permit requirements, or place the closure amount guaranteed for the facility into the standby trust fund as directed by the administrative authority.

Upon notification by the administrative authority that the Principal has been found in violation of the post-closure requirements of LAC 33:VII, or of its permit for the facility for which this bond guarantees performance of post-closure, the Surety shall either perform post-closure in accordance with the closure plan and other permit requirements or place the post-closure amount guaranteed for the facility into the standby trust fund as directed by the administrative authority.

Upon notification by the administrative authority that the Principal has failed to provide alternate financial assurance as specified in LAC 33:VII.1303.A and obtain written approval of such assurance from the administrative authority during the 90 days following receipt by both the Principal and the administrative authority of a notice of cancellation of the bond, the Surety shall place funds in the amount guaranteed for the facility into the standby trust fund as directed by the administrative authority.

The Surety hereby waives notification of amendments to closure plans, permit, applicable laws, statutes, rules, and regulations, and agrees that no such amendment shall in any way alleviate its obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety hereunder exceed the amount of the penal sum.

The Surety may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the administrative authority. Cancellation shall not occur before 120 days have lapsed beginning on the date that both the Principal and the administrative authority received the notice of cancellation, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety and to the administrative authority, provided, however, that no such notice shall become effective until the Surety receives written authorization for termination of the bond by the administrative authority.

Principal and Surety hereby agree to adjust the penal sum of the bond yearly in accordance with LAC 33:VII.1303.A and the conditions of the solid waste facility permit so that it guarantees a new closure and/or post-closure amount, provided that the penal sum does not increase or decrease without the written permission of the administrative authority.

The Principal and Surety hereby agree that no portion of the penal sum may be expended without prior written approval of the administrative authority.

IN WITNESS WHEREOF, the Principal and the Surety have executed this PERFORMANCE BOND and have affixed their seals on the date set forth above.

Those persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety, that each Surety hereto is authorized to do business in the state of Louisiana and that the wording of this surety bond is identical to the wording specified in LAC 33:VII.1303.E.8, effective on the date this bond was executed.

PRINCIPAL

[Signature(s)]

[Name(s)]

[Title(s)]

[Corporate seal]

CORPORATE SURETY

[Name and address]

State of incorporation: \_\_\_\_\_

Liability limit: \$ \_\_\_\_\_

[Signature(s)]

[Name(s) and title(s)]

[Corporate seal]

[For every cosurety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: \$ \_\_\_\_\_

## Appendix G

### SOLID WASTE FACILITY IRREVOCABLE LETTER OF CREDIT

Secretary

Louisiana Department of Environmental Quality

Post Office Box 82231

Baton Rouge, Louisiana 70804-2231

Attention: Office of Management and Finance, Financial Services Division

Dear Sir:

We hereby establish our Irrevocable Standby Letter of Credit No. \_\_\_\_\_ in favor of the Department of Environmental Quality of the state of Louisiana at the request and for the account of [permit holder's or applicant's name and address] for the [closure and/or post-closure] fund for its [list site identification number, site name, facility name, facility permit number] at [location], Louisiana, for any sum or sums up to the aggregate amount of U.S. dollars \$ \_\_\_\_\_ upon presentation of:

1. A sight draft, bearing reference to the Letter of Credit No. \_\_\_\_\_ drawn by the administrative authority, together with;
2. A statement, signed by the administrative authority, declaring that the amount of the draft is payable into the standby trust fund pursuant to the Louisiana Environmental Quality Act, R.S. 30:2001, et seq.

The Letter of Credit is effective as of [date] and will expire on [date], but such expiration date will be automatically extended for a period of at least one year on the above expiration date [date] and on each successive expiration date thereafter, unless, at least 120 days before the then-current expiration date, we notify both the administrative authority and [name of permit holder or applicant] by certified mail that we have decided not to extend this Letter of Credit beyond the then-current expiration date. In the event that we give such notification, any unused portion of this Letter of Credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both the Department of Environmental Quality and [name of permit holder or applicant] as shown on the signed return receipts.

Whenever this Letter of Credit is drawn under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [name of permit holder or applicant] in accordance with the administrative authority's instructions.

Except to the extent otherwise expressly agreed to, the Uniform Customs and Practice for Documentary Letters of Credit (1983), International Chamber of Commerce Publication No. 400, shall apply to this Letter of Credit.

We certify that the wording of this Letter of Credit is identical to the wording specified in LAC 33:VII.1303.F.8, effective on the date shown immediately below.

[Signature(s) and title(s) of  
official(s) of issuing  
institution(s)]

[date]

**Appendix H**

**SOLID WASTE FACILITY CERTIFICATE OF INSURANCE FOR CLOSURE AND/OR POST-CLOSURE CARE**

Name and Address of Insurer: \_\_\_\_\_ (hereinafter called the "Insurer")

Name and Address of Insured: \_\_\_\_\_ (hereinafter called the "Insured") (Note: Insured must be the permit holder or applicant)

Facilities covered: [list the site identification number, site name, facility name, facility permit number, address, and amount of insurance for closure and/or post-closure care] (These amounts for all facilities must total the face amount shown below.)

Face Amount: \_\_\_\_\_

Policy Number: \_\_\_\_\_

Effective Date: \_\_\_\_\_

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for [insert "closure and/or post-closure care"] for the facilities identified above. The Insurer further warrants that such policy conforms in all respects to the requirements of LAC 33:VII.1303.A, as applicable, and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the administrative authority, the Insurer agrees to furnish to the administrative authority a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the Insurer is admitted, authorized, or eligible to conduct insurance business in the state of Louisiana and that the wording of this certificate is identical to the wording specified in LAC 33:VII.1303.G.10, effective on the date shown immediately below.

[Authorized signature of Insurer]

[Name of person signing]

[Title of person signing]

Signature of witness or notary: \_\_\_\_\_

[Date]

## Appendix I

### SOLID WASTE FACILITY LETTER FROM THE CHIEF FINANCIAL OFFICER (Liability Coverage, Closure, and/or Post-Closure)

Secretary

Louisiana Department of Environmental Quality

Post Office Box 82231

Baton Rouge, Louisiana 70884-2231

Attention: Office of Management and Finance, Financial Services Division

Dear Sir:

I am the chief financial officer of [name and address of firm, which may be either the permit holder, applicant, or parent corporation of the permit holder or applicant]. This letter is in support of this firm's use of the financial test to demonstrate financial responsibility for [insert "liability coverage," "closure," and/or "post-closure," as applicable] as specified in [insert "LAC 33:VII.1301.A," "LAC 33:VII.1303.A," or LAC 33:VII.1301.A and 1303.A"].

[Fill out the following four paragraphs regarding facilities and associated liability coverage, and closure and post-closure cost estimates. If your firm does not have facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, list the site identification number, site name, facility name, and facility permit number.]

1. The firm identified above is the [insert "permit holder," "applicant for a standard permit," or "parent corporation of the permit holder or applicant for a standard permit"] of the following solid waste facilities, whether in Louisiana or not, for which liability coverage is being demonstrated through the financial test specified in LAC 33:VII.1301.A. The amount of annual aggregate liability coverage covered by the test is shown for each facility:

2. The firm identified above is the [insert "permit holder," "applicant for a standard permit," or "parent corporation of the permit holder or applicant for a standard permit"] of the following solid waste facilities, whether in Louisiana or not, for which financial assurance for [insert "closure," "post-closure," or "closure and post-closure"] is demonstrated through a financial test similar to that specified in LAC 33:VII.1303.A or other forms of self-insurance. The current [insert "closure," "post-closure," or "closure and post-closure"] cost estimates covered by the test are shown for each facility:

3. This firm guarantees through a corporate guarantee similar to that specified in [insert "LAC 33:VII.1303.A," or "LAC 33:VII.1301.A and 1303.A"], [insert "liability coverage," "closure," "post-closure," or "closure and post-closure"] care of the following solid waste facilities, whether in Louisiana or not, of which [insert the name of the permit holder or applicant] are/is a subsidiary of this firm. The amount of annual aggregate liability coverage covered by the guarantee for each facility and/or the current cost estimates for the closure and/or post-closure care so guaranteed is shown for each facility:

4. This firm is the owner or operator of the following solid waste facilities, whether in Louisiana or not, for which financial assurance for liability coverage, closure and/or post-closure care is not demonstrated either to the U.S. Environmental Protection Agency or to a

state through a financial test or any other financial assurance mechanism similar to those specified in LAC 33:VII.1301.A and/or 1303.A. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility:

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed year, ended [date].

[Fill in Part A if you are using the financial test to demonstrate coverage only for the liability requirements.]

**PART A. LIABILITY COVERAGE FOR ACCIDENTAL OCCURRENCES**

[Fill in Alternative I if the criteria of LAC 33:VII.1303.H.1 are used.]

**ALTERNATIVE I**

- 1. Amount of annual aggregate liability coverage to be demonstrated \$ \_\_\_\_\_
  - \*2. Current assets \$ \_\_\_\_\_
  - \*3. Current liabilities \$ \_\_\_\_\_
  - \*4. Tangible net worth \$ \_\_\_\_\_
  - \*5. If less than 90 percent of assets are located in the U.S., give total U.S. assets \$ \_\_\_\_\_
- |                                                                                     | YES   | NO    |
|-------------------------------------------------------------------------------------|-------|-------|
| 6. Is line 4 at least \$10 million?                                                 | _____ | _____ |
| 7. Is line 4 at least 6 times line 1?                                               | _____ | _____ |
| *8. Are at least 90 percent of assets located in the U.S.? If not, complete line 9. | _____ | _____ |
| 9. Is line 4 at least 6 times line 1?                                               | _____ | _____ |

[Fill in Alternative II if the criteria of LAC 33:VII. 1403.H.1.b are used.]

**ALTERNATIVE II**

- 1. Amount of annual aggregate liability coverage to be demonstrated \$ \_\_\_\_\_
- 2. Current bond rating of most recent issuance of this firm and name of rating service \$ \_\_\_\_\_
- 3. Date of issuance of bond \$ \_\_\_\_\_
- 4. Date of maturity of bond \$ \_\_\_\_\_
- \*5. Tangible net worth \$ \_\_\_\_\_
- \*6. Total assets in U.S. (required only

if less than 90 percent of assets are located in the U.S.)

\$ \_\_\_\_\_

YES NO

7. Is line 5 at least \$10 million? \_\_\_\_\_

8. Is line 5 at least 6 times line 1? \_\_\_\_\_

\*9. Are at least 90 percent of assets located in the U.S.? If not, complete line 10. \_\_\_\_\_

10. Is line 6 at least 6 times line 1? \_\_\_\_\_

[Fill in Part B if you are using the financial test to demonstrate assurance only for closure and/or post-closure care.]

**PART B. CLOSURE AND/OR POST CLOSURE**

[Fill in Alternative I if the criteria of LAC 33:VII.1303.H.1.a are used.]

**ALTERNATIVE I**

1. Sum of current closure and/or post-closure estimate (total all cost estimates shown above) \$ \_\_\_\_\_

\*2. Tangible net worth \$ \_\_\_\_\_

\*3. Net worth \$ \_\_\_\_\_

\*4. Current Assets \$ \_\_\_\_\_

\*5. Current liabilities \$ \_\_\_\_\_

\*6. The sum of net income plus depreciation, depletion, and amortization \$ \_\_\_\_\_

\*7. Total assets in U.S. (required only if less than 90 percent of firm's assets are located in the U.S.) \$ \_\_\_\_\_

YES NO

8. Is line 2 at least \$10 million? \_\_\_\_\_

9. Is line 2 at least 6 times line 1? \_\_\_\_\_

\*10. Are at least 90 percent of the firm's assets located in the U.S.? If not, complete line 11. \_\_\_\_\_

11. Is line 7 at least 6 times line 1? \_\_\_\_\_

[Fill in Alternative II if the criteria of LAC 33:VII.1303.H.1.b are used.]

**ALTERNATIVE II**

1. Sum of current closure and post-closure cost estimates (total of all cost estimates shown above) \$ \_\_\_\_\_

- 2. Current bond rating of most recent issuance of this firm and name of rating service \_\_\_\_\_
  - 3. Date of issuance of bond \_\_\_\_\_
  - 4. Date of maturity of bond \_\_\_\_\_
  - \*5. Tangible net worth (if any portion of the closure and/or post-closure cost estimate is included in "total liabilities" on your firm's financial statement, you may add the amount of that portion to this line) \$ \_\_\_\_\_
  - \*6. Total assets in U.S. (required only if less than 90 percent of the firm's assets are located in the U.S.) \$ \_\_\_\_\_
- |                                                                                                | YES   | NO    |
|------------------------------------------------------------------------------------------------|-------|-------|
| 7. Is line 5 at least \$10 million?                                                            | _____ | _____ |
| 8. Is line 5 at least 6 times line 1?                                                          | _____ | _____ |
| 9. Are at least 90 percent of the firm's assets located in the U.S.? If not, complete line 10. | _____ | _____ |
| 10. Is line 6 at least 6 times line 1?                                                         | _____ | _____ |

[Fill in Part C if you are using the financial test to demonstrate assurance for liability coverage, closure, and/or post-closure care.]

**PART C. LIABILITY COVERAGE, CLOSURE, AND/OR POST-CLOSURE**

[Fill in Alternative I if the criteria of LAC 33:VII.1303.H.1.a are used.]

ALTERNATIVE I

- 1. Sum of current closure and/or post-closure cost estimates (total of all cost estimates listed above) \$ \_\_\_\_\_
- 2. Amount of annual aggregate liability coverage to be demonstrated \$ \_\_\_\_\_
- 3. Sum of lines 1 and 2 \$ \_\_\_\_\_
- \*4. Total liabilities (If any portion of your closure and/or post-closure cost estimates is included in your "total liabilities" in your firm's financial statements, you may deduct that portion from this line and add that amount to lines 5 and 6.) \$ \_\_\_\_\_
- \*5. Tangible net worth \$ \_\_\_\_\_
- \*6. Net worth \$ \_\_\_\_\_

- \*7. Current assets \$ \_\_\_\_\_
  - \*8. Current liabilities \$ \_\_\_\_\_
  - \*9. The sum of net income plus depreciation, depletion, and amortization \$ \_\_\_\_\_
  - \*10. Total assets in the U.S. (required only if less than 90 percent of assets are located in the U.S.) \$ \_\_\_\_\_
- |                                                                                       | YES   | NO    |
|---------------------------------------------------------------------------------------|-------|-------|
| 11. Is line 5 at least \$10 million?                                                  | _____ | _____ |
| 12. Is line 5 at least 6 times line 3?                                                | _____ | _____ |
| *13. Are at least 90 percent of assets located in the U.S.? If not, complete line 14. | _____ | _____ |
| 14. Is line 10 at least 6 times line 3?                                               | _____ | _____ |

[Fill in Alternative II if the criteria of LAC 33:VII.1303.H.1.b are used.]

ALTERNATIVE II

- 1. Sum of current closure and/or post-closure cost estimates (total of all cost estimates listed above) \$ \_\_\_\_\_
  - 2. Amount of annual aggregate liability coverage to be demonstrated \$ \_\_\_\_\_
  - 3. Sum of lines 1 and 2 \$ \_\_\_\_\_
  - 4. Current bond rating of most recent issuance of this firm and name of rating service \$ \_\_\_\_\_
  - 5. Date of issuance of bond \$ \_\_\_\_\_
  - 6. Date of maturity of bond \$ \_\_\_\_\_
  - \*7. Tangible net worth (If any portion of the closure and/or post-closure cost estimates is included in the "total liabilities" in your firm's financial statements, you may add that portion to this line.) \$ \_\_\_\_\_
  - \*8. Total assets in U.S. (required only if less than 90 percent of assets are located in the U.S.) \$ \_\_\_\_\_
- |                                     | YES   | NO    |
|-------------------------------------|-------|-------|
| 9. Is line 7 at least \$10 million? | _____ | _____ |

10. Is line 7 at least 6 times line 3?      \_\_\_\_\_

\*11. Are at least 90 percent of  
assets located in the U.S.?  
If not, complete line 12.      \_\_\_\_\_

12. Is line 8 at least 6 times line 3?      \_\_\_\_\_

(The following is to be completed by all firms providing the financial test)

I hereby certify that the wording of this letter is identical to the wording specified in LAC 33:VII.1303.H.4.e.

[Signature of chief financial officer for the firm]

[Typed name of chief financial officer]

[Title]

[Date]

## Appendix J

### SOLID WASTE FACILITY CORPORATE GUARANTEE FOR LIABILITY COVERAGE, CLOSURE, AND/OR POST-CLOSURE CARE

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of the state of [insert name of state], hereinafter referred to as guarantor, to the Louisiana Department of Environmental Quality, obligee, on behalf of our subsidiary [insert the name of the permit holder or applicant] of [business address].

#### Recitals

1. The guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in the Louisiana Administrative Code (LAC), Title 33, Part VII, Section 1303.H.9.

2. [Subsidiary] is the [insert "permit holder," or "applicant for a permit"] hereinafter referred to as [insert "permit holder" or "applicant"] for the following solid waste facility covered by this guarantee: [List the site identification number, site name, facility name, and facility permit number. Indicate for each facility whether guarantee is for liability coverage, closure, and/or post-closure and the amount of annual aggregate liability coverage, closure, and/or post-closure costs covered by the guarantee]

[Fill in Paragraphs 3 and 4 below if the guarantee is for closure and/or post-closure.]

3. "Closure plans" as used below refers to the plans maintained as required by LAC 33:VII, for the closure and/or post-closure care of the facility identified in Paragraph 2 above.

4. For value received from [insert "permit holder" or "applicant"], guarantor guarantees to the Louisiana Department of Environmental Quality that in the event that [insert "permit holder" or "applicant"] fails to perform [insert "closure," "post-closure care," or "closure and post-closure care"] of the above facility in accordance with the closure plan and other permit requirements whenever required to do so, the guarantor shall do so or shall establish a trust fund as specified in LAC 33:VII.1303.C, as applicable, in the name of [insert "permit holder" or "applicant"] in the amount of the current closure and/or post-closure estimates, as specified in LAC 33:VII.1303.A.

[Fill in Paragraph 5 below if the guarantee is for liability coverage.]

5. For value received from [insert "permit holder" or "applicant"], guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by sudden and accidental occurrences arising from operations of the facility covered by this guarantee that in the event that [insert "permit holder" or "applicant"] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by sudden and accidental occurrences arising from the operation of the above-named facilities, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor will satisfy such judgment(s), award(s), or settlement agreement(s) up to the coverage limits identified above.

6. The guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within

90 days, by certified mail, notice to the administrative authority and to [insert "permit holder" or "applicant"] that he intends to provide alternative financial assurance as specified in [insert "LAC 33:VII.1301.A" and/or "LAC 33:VII.1303.A"], as applicable, in the name of the [insert "permit holder" or "applicant"], within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless [insert "permit holder" or "applicant"] has done so.

7. The guarantor agrees to notify the administrative authority, by certified mail, of a voluntary or involuntary proceeding under Title 11 (bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

8. The guarantor agrees that within 30 days after being notified by the administrative authority of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor of [insert "liability coverage" or "closure and/or post-closure care"] he shall establish alternate financial assurance as specified in [insert "LAC 33:VII.1301.A" and/or "LAC 33:VII.1303.A"], as applicable, in the name of [insert "permit holder" or "applicant"], unless [insert "permit holder" or "applicant"] has done so.

9. The guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: [if the guarantee is for closure and post-closure insert "amendment or modification of the closure and/or post-closure care, the extension or reduction of the time of performance of closure and/or post-closure"] or any other modification or alteration of an obligation of the [insert "permit holder" or "applicant"] pursuant to LAC 33:VII.

10. The guarantor agrees to remain bound under this guarantee for as long as the [insert "permit holder" or "applicant"] must comply with the applicable financial assurance requirements of [insert "LAC 33:VII.1301.A" and/or "LAC 33:VII.1303.A"] for the above-listed facility, except that guarantor may cancel this guarantee by sending notice by certified mail, to the administrative authority and to the [insert "permit holder" or "applicant"], such cancellation to become effective no earlier than 90 days after receipt of such notice by both the administrative authority and the [insert "permit holder" or "applicant"], as evidenced by the return receipts.

11. The guarantor agrees that if the [insert "permit holder" or "applicant"] fails to provide alternative financial assurance as specified in [insert "LAC 33:VII.1301.A" and/or "LAC 33:VII.1303.A"], as applicable, and obtain written approval of such assurance from the administrative authority within 60 days after a notice of cancellation by the guarantor is received by the administrative authority from guarantor, guarantor shall provide such alternate financial assurance in the name of the [insert "permit holder" or "applicant"].

12. The guarantor expressly waives notice of acceptance of this guarantee by the administrative authority or by the [insert "permit holder" or "applicant"]. Guarantor expressly waives notice of amendments or modifications of the closure and/or post-closure plan and of amendments or modifications of the facility permit(s).

I hereby certify that the wording of this guarantee is identical to the wording specified in LAC 33:VII.1303.H.9.I, effective on the date first above written.

Effective date: \_\_\_\_\_

[Name of Guarantor]

[Authorized signature for guarantor]

[Typed name and title of person signing]

Thus sworn and signed before me this [date].

## Chapter 14. Statewide Beautification

### §1401. Purpose

- A. It is declared to be the purpose of these rules and regulations to:
1. control and reduce litter; and
  2. create a statewide beautification program to enhance the tourist, recreational, and economic development of the state.

AUTHORITY NOTE: Promulgated in accordance with R. S. 30:2521 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### §1403. Definitions

- A. The following words, terms, and phrases, when used in conjunction with LAC 33:VII. Subpart 1, shall have the meanings ascribed to them in this Chapter, except where the context clearly indicates a different meaning:

*Commission*—the Louisiana Litter Reduction and Public Action Commission.

*Dump*—to throw, discard, place, deposit, discharge, burn, dump, drop, eject, or allow the escape of a substance.

*Litter*—all waste material, except as provided and defined in R.S. 30:2173(2), including but not limited to, disposable packages, containers, sand, gravel, rubbish, cans, bottles, refuse, garbage, trash, debris, dead animals, furniture or appliances, automotive parts including, but not limited to, tires and engines, trailers, boats and boating accessories, tools and equipment, and building materials, or other discarded materials of any kind and description. Litter shall not include agricultural products that are being transported from the harvest or collection site to a processing or market site if reasonable measures are taken to prevent the agricultural product from leaving the transporting vehicle. Litter shall also not include recyclable cardboard being transported in compressed bundles to processing facilities. *Agricultural product*, as used in this definition, means all crops, livestock, poultry, and forestry; and all aquacultural, floracultural, horticultural, silvicultural, and viticultural products.

*Local Governing Authority*—the governing authority of the parish or the governing authority of the municipality in which the littering offense was committed.

*Public or Private Property*—the right-of-way of any road or highway, levee, any body of water or watercourse or the shores or beaches thereof, any park, playground, building, refuge, or conservation or recreation area, and residential or farm properties, timberland, or forests.

*Section*—the Litter Reduction and Public Action Section located within and acting through the Office of Environmental Services of the Department of Environmental Quality.

AUTHORITY NOTE: Promulgated in accordance with R. S. 30:2522 et seq.  
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§1405. Louisiana Litter Abatement Program**

A. The purpose of the Louisiana Litter Abatement Program shall be to support the community-based litter abatement programs.

B. Program Award

1. Program awards shall be made available to local governments and nonprofit organizations.

2. Funding through the program shall be subject to the availability of funds.

3. All requests for awards shall be made in writing on a form provided by the department to the Litter Reduction and Public Action Section of the Office of Environmental Services.

4. The monies awarded through the award shall be used to further the administration and execution of the Keep Louisiana Beautiful Program. Allowable uses of award funding shall include, but not be limited to:

- a. Keep America Beautiful fees;
- b. Keep America Beautiful precertification training, education curriculums, and workshops;
- c. law enforcement seminars;
- d. litter surveys;
- e. projects, services, activities, and operational costs of litter abatement programs;
- f. materials and services for program development and training;
- g. direct expenditures for materials that can facilitate litter reduction, recycling, waste reduction, reuse, and general solid waste management programs;
- h. minimal advertising, public relations, and promotional materials necessary for publicity and promotion of program activities; and
- i. salary of the program coordinator.

5. Each successful applicant shall supplement award funds with a 25 percent match from other sources. All matching funds must be available to the program after the date of the program award, and funds spent prior to the program award shall not be considered eligible in fulfilling the match requirement.

6. Awards shall be awarded based on a comparative basis as determined by the Litter Reduction and Public Action Section of the Office of Environmental Services.

AUTHORITY NOTE: Promulgated in accordance with R. S. 30:2524 et seq.  
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

## **Chapter 15. Solid Waste Fees**

### **§1501. Standard Permit Application Review Fee**

A. Applicants for Type I, I-A, II, and II-A standard permits shall pay a \$2,500 permit application review fee for each facility, and the fee shall accompany each permit application submitted.

B. Applicants for Type III standard permits or beneficial-use permits shall pay a permit application review fee of \$500 for each facility, and the fee shall accompany each permit application submitted.

C. Permit holders providing permit modifications for Type I, I-A, II, and II-A facilities shall pay a \$1,000 permit-modification review fee, and the fee shall accompany each modification submitted. Permit holders providing mandatory modifications in response to these regulations shall pay a \$500 permit-modification fee, and the fee shall accompany each mandatory modification submitted. Permit modifications required by LAC 33:VII.805.A. will not be subject to a permit modification fee.

D. Permit holders providing permit modifications for Type III facilities or beneficial-use facilities shall pay a \$250 permit-modification review fee, and the fee shall accompany each modification submitted.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§1503. Closure Plan Review Fee**

A. Applicants for Type I, I-A, II, and II-A closures shall pay a \$1,000 closure-plan review fee, and the fee shall accompany each closure plan submitted.

B. Applicants for Type III or beneficial-use facilities closures shall pay a \$250 closure-plan review fee, and the fee shall accompany each closure plan submitted.

C. Permit holders providing closure-plan modifications for Type I, I-A, II, and II-A facilities shall pay a \$500 closure-plan modification review fee, and the fee shall accompany each modification submitted.

D. Permit holders providing closure-plan modifications for Type III or beneficial-use facilities shall pay a \$125 closure-plan modification review fee, and the fee shall accompany each modification submitted.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

### **§1505. Annual Monitoring and Maintenance Fee**

A. An initial fee is charged for the processing of transporter notifications. The fee shall be calculated by the following formula:

Initial Fee per Notification + Fee Based on Each Vehicle Owned by the Transporter = Notification Fee.

No fee is assessed for modifying an existing notification form. The fee shall accompany the notification form at the time of its filing. Fees are as follows:

1. Initial fee: \$100; and
2. Fee Per Vehicle: \$ 25.

B. All holders of permits for solid waste processing and/or disposal facilities that have not completed closure, including post-closure activities, in accordance with an approved plan, shall be charged an annual monitoring and maintenance fee for each permit. This annual monitoring and maintenance fee shall be calculated by the following formula:

Base Fee per Permit + Fee Based on Tonnage = Annual Monitoring and Maintenance Fee.

1. Base fees are as follows:
  - a. \$6,000 for Type I facilities (including facilities that handle both industrial and nonindustrial waste);
  - b. \$1,500 for Type II facilities; and
  - c. \$500 for Type I-A, II-A, III, and beneficial-use facilities.
2. Tonnage fees will be based on the wet-weight tonnage, as reported in the previous year's disposer annual report, and are calculated as follows:
  - a. for industrial wastes (Type I facilities, except surface impoundments), \$0.60/ton;
  - b. for nonindustrial wastes (Type II facilities, except surface impoundments), \$0.15/ton for amounts exceeding 75,000 tons;
  - c. for surface impoundments, no tonnage fee;
  - d. for publicly operated facilities that treat domestic sewage sludge, no tonnage fee; and
  - e. for Type I-A, II-A, III, and beneficial-use facilities, no tonnage fee.
3. The maximum annual monitoring and maintenance fee per facility for Type I facilities (including facilities that handle both industrial and nonindustrial solid

wastes) is \$80,000; the maximum fee per facility for Type II facilities is \$20,000 (surface impoundments, as noted above, are assessed only the base fee).

C. The annual monitoring and maintenance period shall be from July 1 through June 30, commencing upon promulgation of these regulations and terminating upon completion of closure or post-closure activities for the facility in accordance with the permit of the administrative authority. The annual monitoring and maintenance fee for facilities during post closure shall be 25 percent of the applicable base fee in Subsection B.1 of this Section.

D. Fee payment shall be made by check, draft, or money order payable to the Department of Environmental Quality and mailed to the department at the address provided on the invoice.

E. Late Payment Fee. Payments not received within 15 days of the due date will be charged a late payment fee. Any late payment fee shall be calculated from the due date indicated on the invoice.

1. Payments not received by the department by the fifteenth day from the due date will be assessed a 5 percent late payment fee on the original assessed fee.

2. Payments not received by the department by the thirtieth day from the due date will be assessed an additional 5 percent late payment fee on the original assessed fee.

3. Payments not received by the department by the sixtieth day from the due date will be assessed an additional 5 percent late payment fee on the original assessed fee.

F. Failure to pay the prescribed application fee or annual fee as provided herein, within 90 days after the due date, will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance.

G. The annual fees prescribed herein shall be effective, retroactively, for the state fiscal year in which these fee regulations are published in the *Louisiana Register* as adopted and each state fiscal year thereafter.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:\*\*.

**Subpart 2. Recycling**

**(Editor's Note: This Subpart shall remain unchanged.)**

**Subpart 3. Louisiana Resource Recovery and Development Authority**

**(Editor's Note: This Subpart is repealed in its entirety.)**