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LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ENVIROSCHOOL

The World of Waste: Part 1

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What is Solid Waste

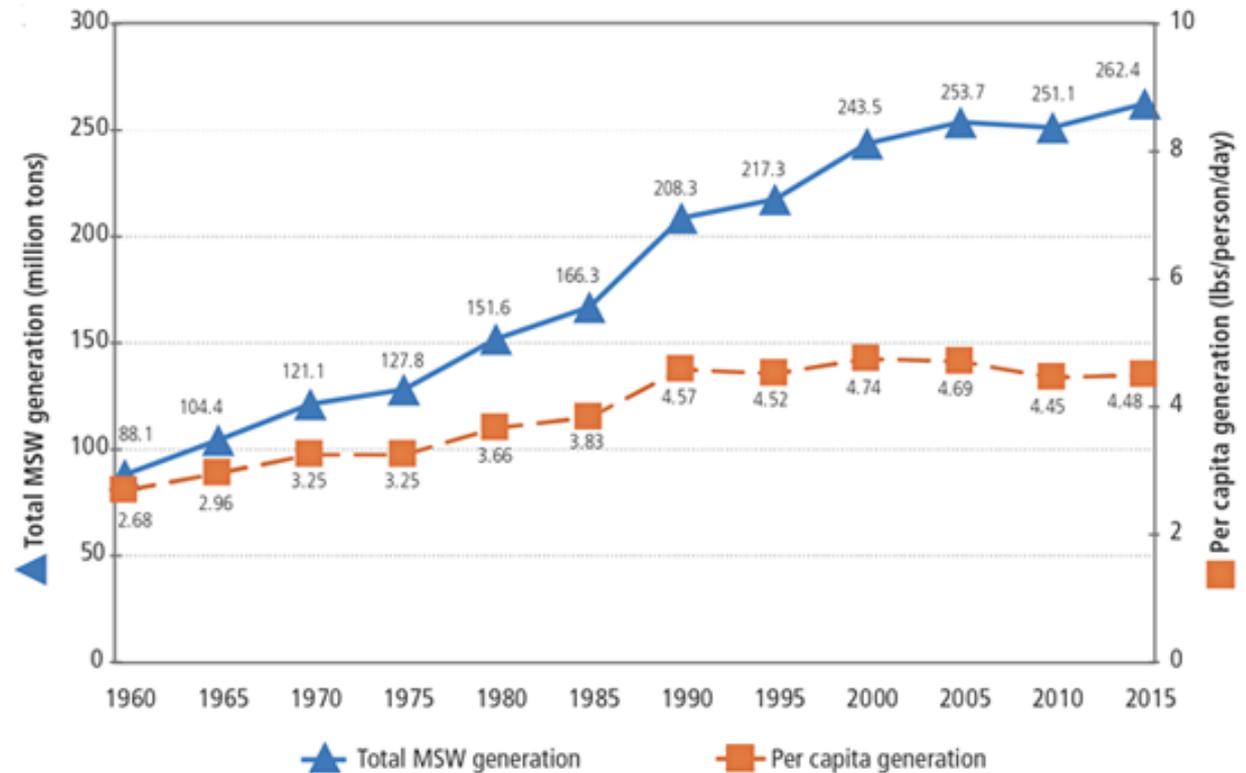
- Any garbage, refuse, or sludge from a waste treatment plant, water-supply treatment plant, or air pollution-control facility, and other **discarded material**, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, and construction/demolition debris.

Waste Generation

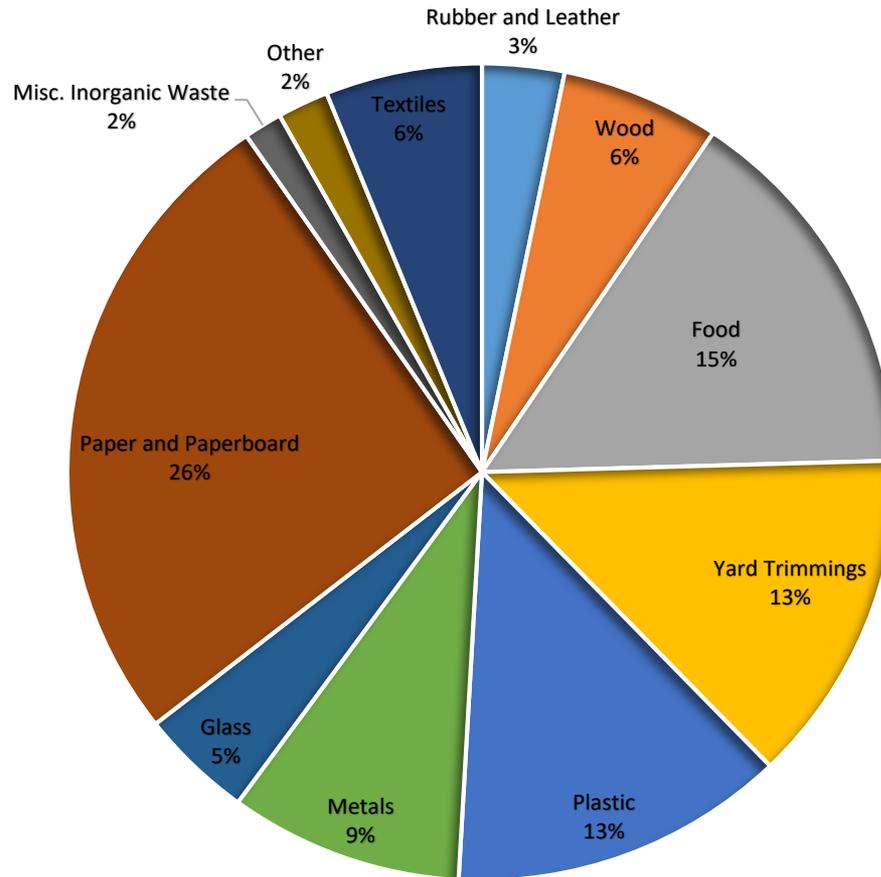
- Americans generated about 262.4 million tons of trash in 2015
- Recycled and composted about 91.2 million tons of this material
- 2015 Average 4.48-lb./person/day

— Lowest generation rate since 1980

MSW Generation Rates, 1960-2015



Municipal Solid Waste Composition

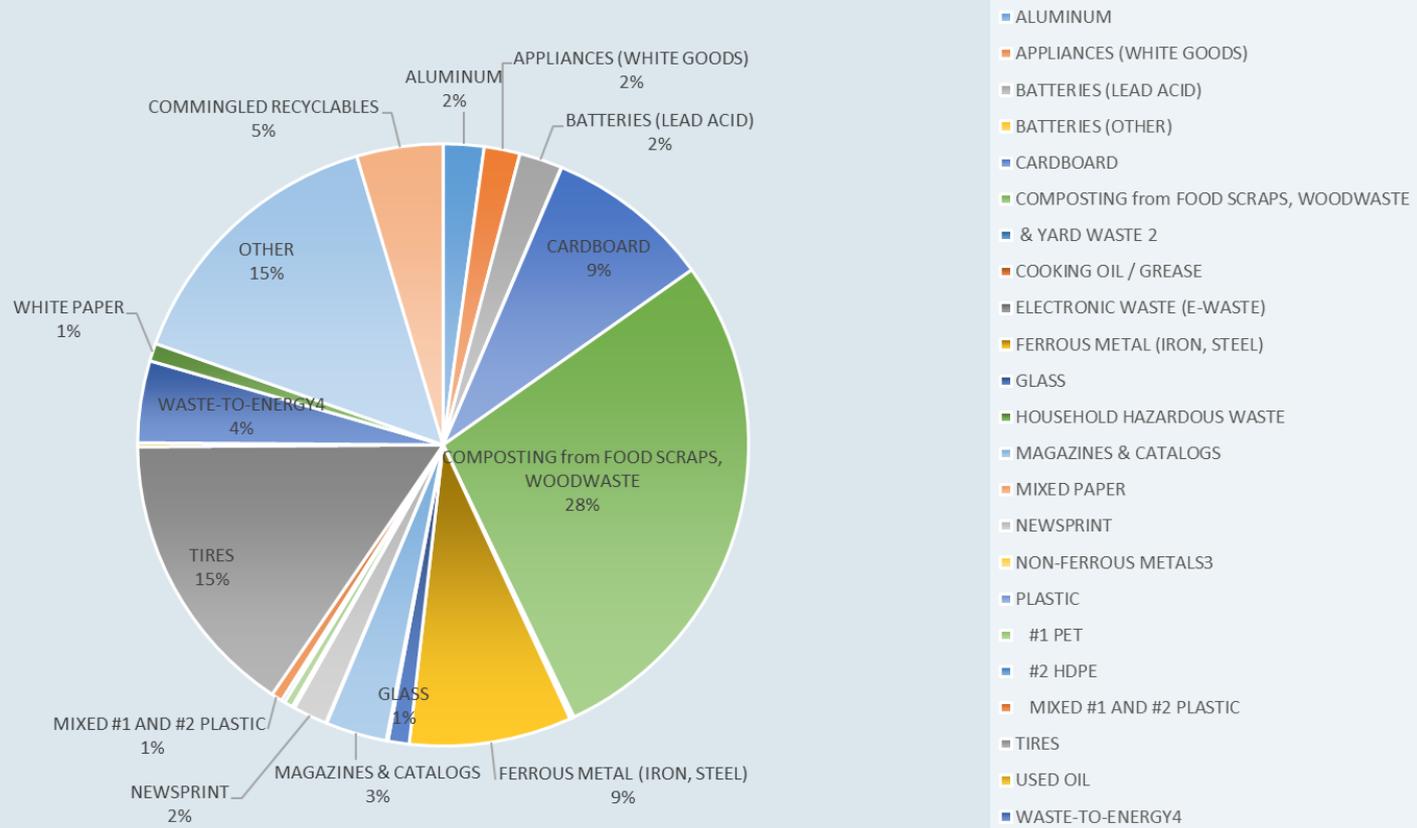


Louisiana Recycling

- 8% of Waste is Recycled in Louisiana 2017
- Waste Reduction Ranged from 0% to 50%
- Louisiana Recycled 217,001 Tons in 2017
- Louisiana Landfilled 2,775,443 Tons in 2017
- **Reuse is Better than Recycle**

Louisiana Recycling

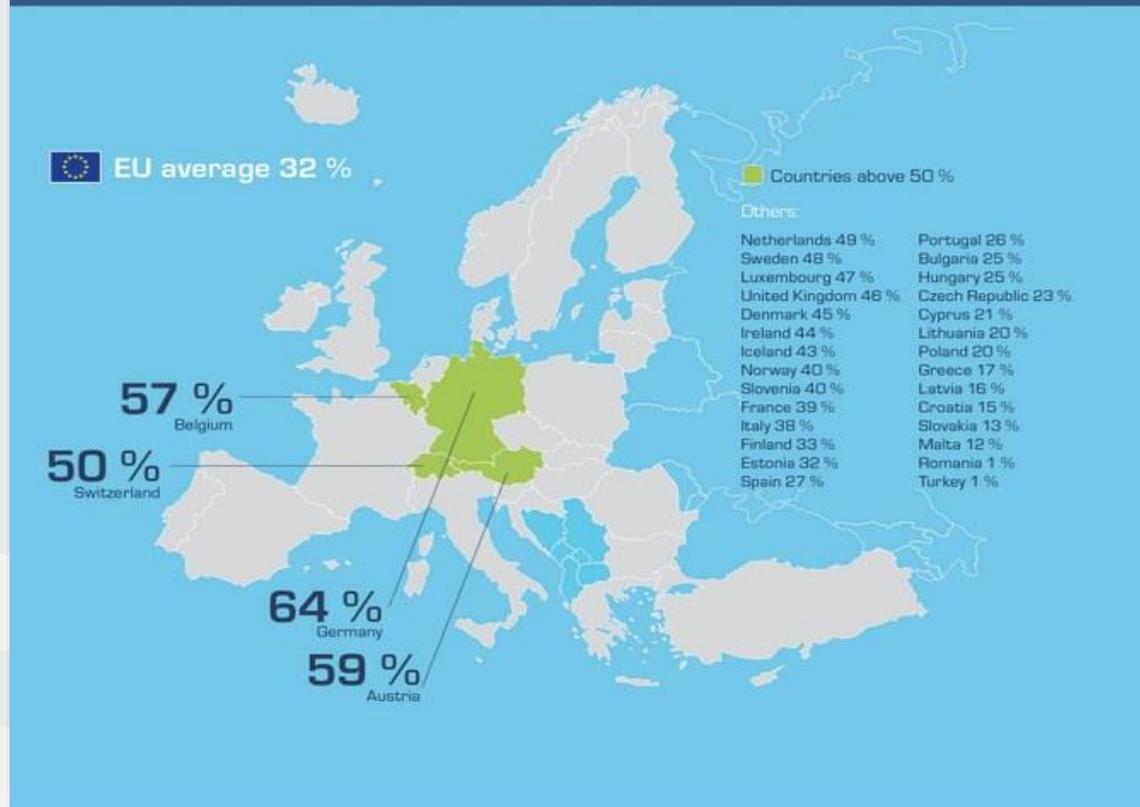
2017 Louisiana Recycling Summary



Europe Recycling

How much of our municipal waste do we recycle?

Much of the waste we throw away can be recycled. Recycling benefits the environment by diverting waste away from landfills and by providing raw materials for new products. Recycling can also encourage innovation and create jobs.



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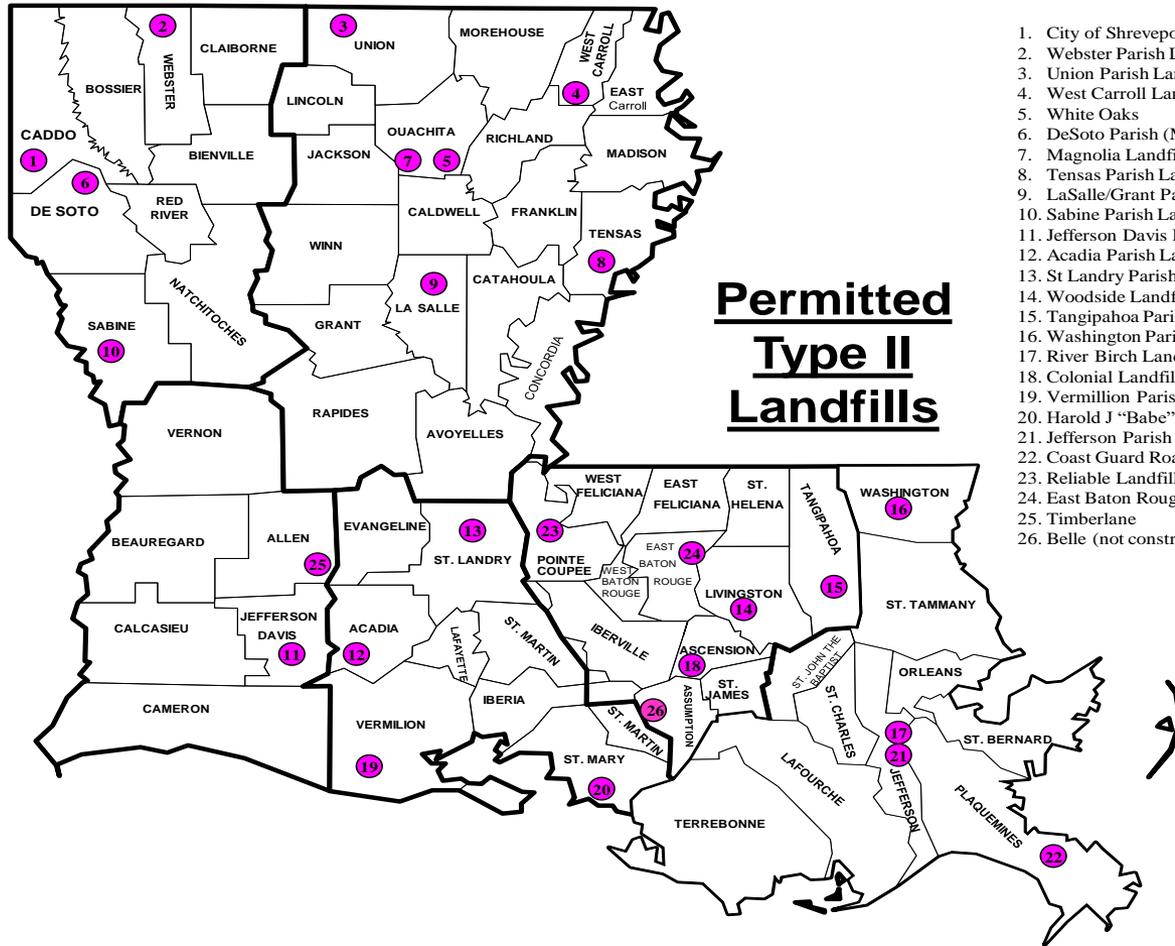
Solid Waste Facility Types

- Landfills
 - Municipal
 - Industrial
 - Construction and Demolition
- Surface Impoundments
- Landfarms
- Processors
 - Transfer Stations

Disposal Facilities

- **Type I – Industrial**
 - 21 Landfills Accepting Only Industrial Waste
- **Type II – Municipal – 25 facilities**
 - 25 Municipal Solid Waste Landfills
- **Type III – Construction and Demolition**
 - 39 C&D Debris landfills
- **236 Total Solid Waste Permits**
 - Includes landfills, surface impoundments, land-farms, and transfer stations

Permitted MSW Landfills



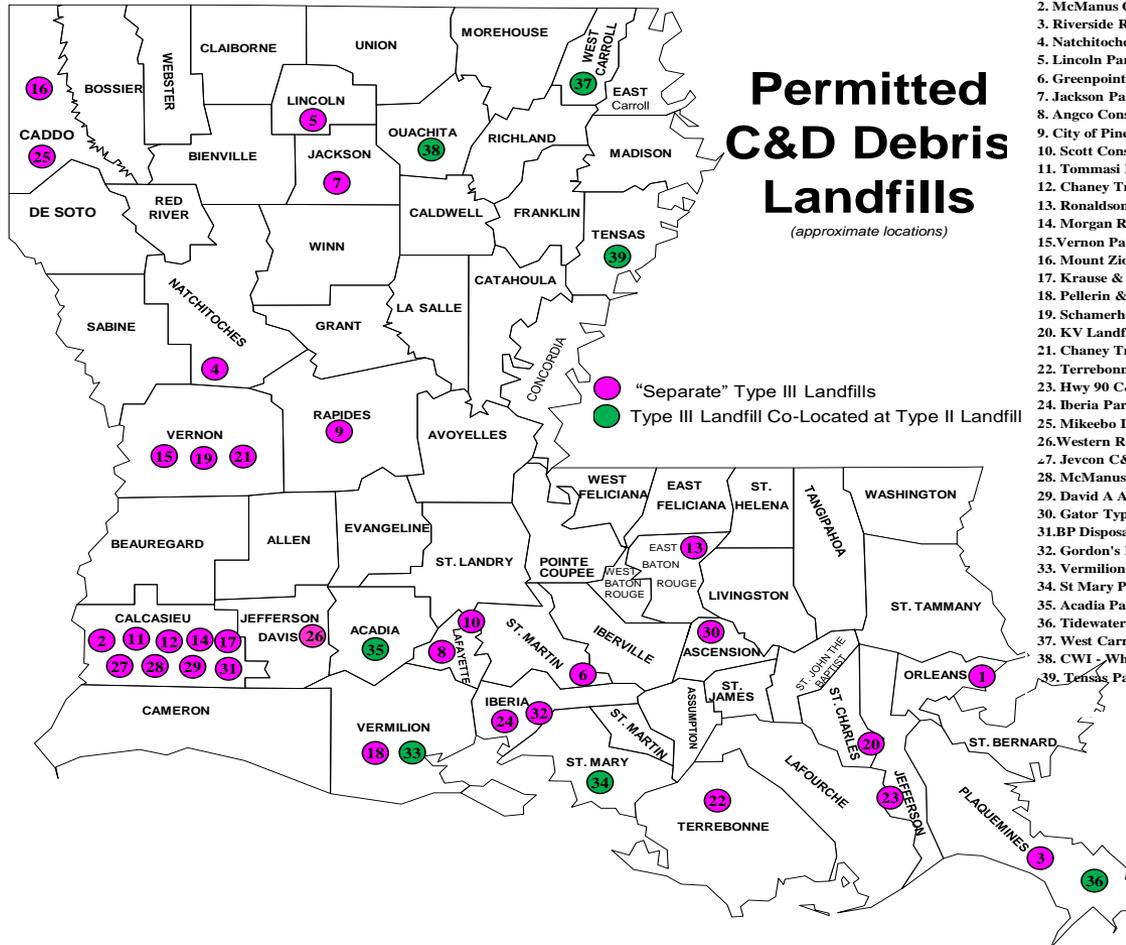
Permitted Type II Landfills

1. City of Shreveport/Woolworth Road Landfill
2. Webster Parish Landfill
3. Union Parish Landfill
4. West Carroll Landfill
5. White Oaks
6. DeSoto Parish (Mundy) Landfill
7. Magnolia Landfill
8. Tensas Parish Landfill
9. LaSalle/Grant Parish Landfill
10. Sabine Parish Landfill
11. Jefferson Davis Parish Landfill
12. Acadia Parish Landfill
13. St Landry Parish Landfill
14. Woodside Landfill
15. Tangipahoa Parish Regional Landfill
16. Washington Parish Landfill (Choctaw)
17. River Birch Landfill
18. Colonial Landfill
19. Vermillion Parish Landfill
20. Harold J "Babe" Landry Landfill
21. Jefferson Parish Landfill
22. Coast Guard Road Landfill
23. Reliable Landfill
24. East Baton Rouge Parish North Landfill
25. Timberlane
26. Belle (not constructed)

09/08/2011



C&D Landfills



Permitted C&D Debris Landfills

(approximate locations)

- "Separate" Type III Landfills
- Type III Landfill Co-Located at Type II Landfill

1. City of New Orleans - Gentilly Landfill
2. McManus Construction Inc - Old Town Road Landfill
3. Riverside Recycling & Disposal LLC - Industrial Pipe
4. Natchitoches Parish Landfill
5. Lincoln Parish Police Jury Landfill
6. Greenpoint Type III Solid Waste Disposal Facility
7. Jackson Parish C&D Debris Landfill
8. Angeo Construction & Demolition Debris Landfill
9. City of Pineville-Wardville C/D-Debris Landfill
10. Scott Construction Dump Inc
11. Tommasi Disposal Inc
12. Chaney Trucking Disposal
13. Ronaldson Field Landfill
14. Morgan Roofing Co LLC - Type III C&D Landfill
15. Vernon Parish C&D Landfill
16. Mount Zion C&D LLC
17. Krause & Managan Landfill
18. Pellerin & Wallace Inc - C&D Landfill
19. Schamerhorn C&D Landfill
20. KV Landfill
21. Chaney Trucking Disposal
22. Terrebonne Parish Consolidated Govt. C&D Landfill
23. Hwy 90 C&D Landfill
24. Iberia Parish Government - Type III Landfill #2
25. Mikeebo Inc
26. Western Real Estate LLC - Jennings C&D Disposal
27. Jevcon C&D Landfill
28. McManus Construction Inc - Carlyss C&D Landfill
29. David A Abshire LLC - 108 Disposal
30. Gator Type III C&D Debris Landfill
31. BP Disposal
32. Gordon's Landfill, LLC
33. Vermilion Parish Police Jury - Municipal Landfill
34. St Mary Parish - Harold J "Babe" Landry Landfill
35. Acadia Parish Police Jury - Sanitary Landfill
36. Tidewater - Coast Guard Road Sanitary Landfill
37. West Carroll Parish Police Jury - Sanitary Landfill
38. CWI - White Oaks Landfill LLC
39. Tensas Parish - Sanitary Landfill



Type I/II Landfills

- Municipal Waste
- Industrial
- Liner System
- Daily Cover
- Compaction



Type I/II Landfills

- Waste Acceptance
 - Non-Hazardous
 - Liquids
- Operational Plan
- Geology
- Landfill Siting



Landfill Odors

- Odors vary by age and composition of waste
- Gas Collection System
- Night Odors
 - Atmospheric Conditions
- Finding Odors



Gas Collection System

- Landfill Active Gas Collection System
- Landfill Size
- Reduces Odors
- Global Warming
- Composition of Gas



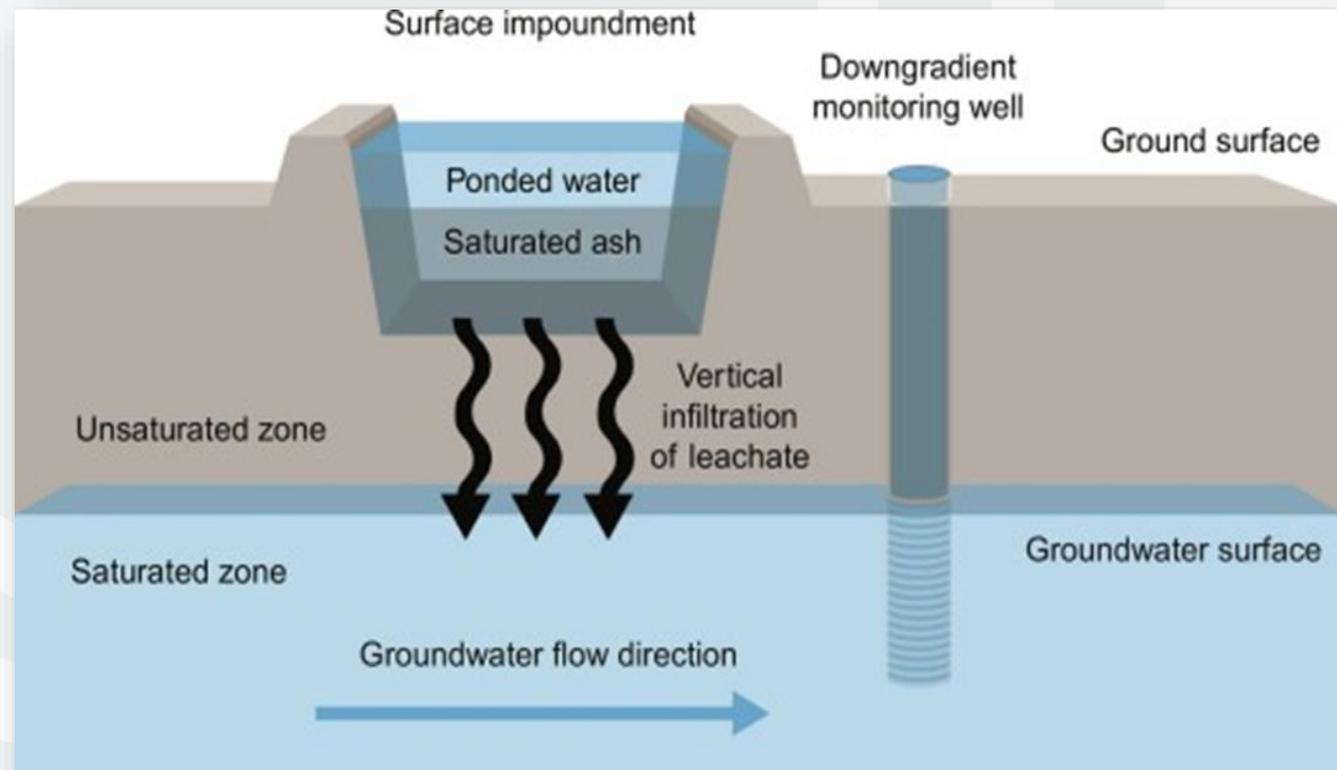
What Are Liners?

- Lining-A layer of different material covering the inside surface of something
- Liners are intended to be a low permeable barrier, which is laid down under engineered landfill. Liners retard migration of leachate, and constituents, into soil, underlying aquifers or nearby water bodies.
- Materials include
 - HDPE (High-Density Polyethylene)
 - Clay
 - Bentonite
 - Rubber
 - LLDPE (Linear Low-Density Polyethylene)



Why Are Liners Needed?

- To protect human health and the environment
- The primary purpose of a liner system is to isolate the landfill or impoundment contaminates from the soil and ground water.
- Liners are designed and constructed to create a barrier and/or collection channel between the waste and the environment and to drain the leachate to collection and treatment facilities. This is done to prevent the uncontrolled release of leachate into the environment.



C&D Landfills

- *Construction/Demolition (C&D) Debris*— nonhazardous waste generally considered not water-soluble that is produced in the process of construction, remodeling, repair, renovation, or demolition of structures, including buildings of all types (both residential and nonresidential). Solid waste that is not *C&D debris* (even if resulting from the construction, remodeling, repair, renovation, or demolition of structures) includes, but is not limited to, *regulated asbestos-containing material (RACM)* as defined in LAC 33:III.5151.B, white goods, creosote-treated lumber, and any other item not an integral part of the structure.

C&D Landfills

- Less Stringent Liner Requirements
- Landfill Gas
- Generally lower disposal cost
- Many Parish owned- may only dispose self-generated waste.



Transfer Stations

- Processing – material sorting, compacting
 - Permit Required
- Non Processing- truck to truck transfer
 - No Permit Required
- May reduce transportation cost



Transfer Station Economics

- Direct Landfill Haul Cost \$/ton
- Haul Cost With Transfer Station \$/ton



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The Basics of Financial Assurance

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- Permitted facilities must have financial assurance for closure and/or post-closure care
- The financial assurance must be equal to or more than the total of the closure and post-closure cost estimates, with one possible exception (trust funds)

See LAC 33:VII.Chapter
13 for requirements and
LAC 33:VII.1399 for
example wording of
financial instruments.

Instrument Types

- Trust Fund
 - Standby Trust Fund
- Financial Guarantee Bond
- Performance Bond
- Letter of Credit
- Insurance
- Financial Test
 - Corporate Guarantee
- Local Government Financial Test
 - Local Government Guarantee

All of these instruments
can be mixed with the
exception of the
performance bond.



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Trust and Standby Trust

What's the Difference?

- A trust holds money. A standby trust does not.
- A trust can be a stand-alone instrument. A standby trust cannot be stand-alone, but must accompany a bond of either type or a letter of credit.
- Schedule B
 - Trust – will state how much is in the fund
 - Standby Trust – will state that it is unfunded, but may be funded at a later date

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Universal Waste Management

For Commercial Offices
and
Light Industrial

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What are Universal Wastes?

- They are common everyday items that would meet the definition of hazardous waste.
- Instead of being regulated as hazardous waste under LAC 33:V.Part 1, universal wastes are managed under LAC 33:V.Chapter 38.
- As long as universal wastes are managed under Chapter 38, the material is not managed as hazardous waste and not managed as municipal solid waste.

What are Universal Wastes?

The following waste streams may be managed as universal waste:

- Batteries
- Mercury Containing Equipment (*i.e.* mercury switches)
- Mercury Containing Lamps (*i.e.* fluorescent lamps)
- Electronics
- Antifreeze
- Pesticides

LDEQ has not adopted the Federal Aerosol Can Universal Waste rule.

- Aerosol cans

Universal Wastes in Offices

Common Universal Wastes in Offices/Light Industrial

- Batteries
 - Rechargeable batteries found in electronics and disposable alkaline batteries.
- Lamps
 - Fluorescent Lamps
- Electronics
 - Computers, copiers, cell phones

Universal Waste Storage

- Must be stored in a proper container:
 - Batteries containers must contain the batteries in addition to any leakage, spillage or damage that can cause leakage.
 - Lamps must be stored in closed containers that are adequate to prevent breakage.
 - Electronic wastes must be stored inside or in a trailer in a manner that prevents the electronics from being exposed to the environment and ensures the material may still be reused, recycled or any component of such devices.

Universal Waste Labeling

- Universal Wastes must be properly labeled at all times. :
 - Batteries – “Universal Waste - Batteries”, “Used Batteries”, or “Waste Batteries”
 - Lamps - “Universal Waste - Lamps”, “Used Lamps”, or “Waste Lamps”
 - Electronic - “Universal Waste – Electronics”, “Used Electronics”, or “Waste Electronics”

Small Quantity Handlers of Universal Waste

- Small Quantity Handlers of Universal Waste (SQH) requirements:
 - Shall not store more than 5,000 kilograms of universal waste at any one time.
 - Shall not dispose, treat, or dilute universal waste unless responding to a release or spill
 - May send universal waste to other SQH facilities, LQH facilities and destination facilities
 - Are not required to notify LDEQ/EPA of their universal waste activities

Large Quantity Handlers of Universal Waste

Large Quantity Handlers of Universal Waste (LQH) requirements:

- Must notify LDEQ that they intend to store more than 5,000 kilograms of universal waste at any one time. (LAC 33:V.3841)
- Can store universal waste up to a year or may store universal waste for more than a year if it is solely necessary to facilitate proper recovery, treatment or disposal.
- May not dispose, treat, or dilute universal waste unless responding to a release or spill.
- May send universal waste to other SQH facilities, LQH facilities and destination facilities

Universal Waste Handler Training

- Both SQH and LQH must inform all employees who handle or have responsibility for managing universal waste. The information must describe proper handling and emergency procedures appropriate to the type of universal waste handled at the facility.

SQH Offsite Shipments

- SQH's are not required to maintain records of universal waste shipments.
- They are required to only send universal waste to other handlers, destination facilities or foreign destinations. Prior to shipping the material, they should ensure the destination agrees to receive the shipment.
- SQH's who transport their universal waste to another facility must follow the Universal Waste Transporters requirements (LAC 33:V.Chapter 38 Subchapter D)

LQH Offsite Shipments

- LQH's must keep a record of each shipment of universal waste received at the facility or sent from the facility. Records must be maintained for three years.
- They are required to only send universal waste to other handlers, destination facilities or foreign destinations. Prior to shipping the material, they should ensure the destination agrees to receive the shipment.
- LQH's who transport their universal waste to another facility must follow the Universal Waste Transporters requirements (LAC 33:V.Chapter 38 Subchapter D)

Universal Waste General Notes

- Most generators of universal wastes are small quantity handlers and are not required to notify or maintain records.
- Store universal waste in proper containers with the required labeling.
- Write down the date of the oldest universal waste stored onsite and have the material shipped offsite to a destination facility within one year.
- Universal waste personnel training will help prevent most common compliance issues (labeling and improper storage).
- Universal wastes are regulated by LAC 33:V.Chapter 38 and provides an alternative set of management standards in lieu of regulations under LAC 33:V.Subpart 1.

Waste Transport and Transfer

Transporters and Transfer Facilities

Waste Transportation Overview

- Solid Waste
 - Transporters – LAC 33:VII.505
 - Collection Facilities – LAC 33:VII.507
 - Non-processing Transfer Facilities – LAC 33:VII.508
- Hazardous Waste
 - Transporters – LAC 33:V.Chapter 13
 - Transfer Facility (less than 10-days) – LAC 33:V.1305
 - Transfer Facility (greater than 10-days) – HW Storage Permit
- Universal Waste
 - Transporters – LAC 33:V.Chapter 38, Subchapter D
 - Transfer facility (less than 10-days) – LAC 33:V.3865
 - Transfer facility (greater than 10-days) - LAC 33:V.Chapter 38, Subchapter B or C.
- Used Oil
 - Transporters – LAC 33:V.Chapter 40
 - Transfer Facilities (less than 35-days) – LAC 33:V.4035
 - Transfer Facilities (greater than 35-days) – LAC 33:V.Chapter 40, Subchapter E

Solid Waste Transporters

- Must submit a solid waste notification within 30-days of becoming subject to LAC 33:VII.
- SW Transportation vehicles must meet Department of Transportation and Development requirements and comply with applicable local ordinances for solid waste pickup.
- 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. Vehicles used to collect or transport all other solid waste shall be covered at all times except during loading and unloading.

Solid Waste Transporters

- Vehicles used for the transportation of ash shall be leak-resistant and covered so as to prevent emissions.
- Vehicles used to transport solid waste that produces leachate should contain all liquids generated by the waste.
- The interior and exterior of the body of a vehicle used to transport putrescible solid waste shall be washed down to minimize odors.
- Transports are required to transport was only to facilities permitted to manage or disposed of the waste.

Solid Waste Collection Facilities

- Must submit a solid waste notification within 30-days of becoming subject to LAC 33:VII.
- Must comply with existing local zoning and comprehensive land-use regulations and ordinances.
- All waste should be stored in containers to minimize litter, discharges, odor, and other pollution of adjoining areas and properly managed to keep out water, prevent leakage, and emptied before the stored waste becomes a nuisance, health or environmental hazard.
- Collection facilities should not adversely affect traffic or otherwise constitute a hazard or endanger public safety.

Solid Waste Collection Facilities

- Inspections of collection facilities shall be made at least weekly by the owner/operator looking for cleanliness of the site, overfill of containers, closed lids, leaking containers, and deterioration of containers. Inspections shall be documented, and the records shall be maintained for a period of two years and available for inspection within 24 hours of request.
- No processing or disposal shall occur at a collection facility.
- Removal of all remaining wastes to a permitted facility shall occur at closure of a collection facility.

Solid Waste Non-Processing Transfer Facility

- Must submit a solid waste notification within 30-days of becoming subject to LAC 33:VII.
- Must provide advanced written notice, at least 30 days prior to construction, to the parish governing authority the intent to operate a non-processing transfer station or other type of facility for the offloading and/or trans loading of solid waste destined for disposal;
- Must comply with existing local zoning and comprehensive land-use regulations and ordinances; and
- Must maintain site access roads or waterways in a manner that shall meet the demands of the facility and is designed to avoid, to the extent practicable, congestion, sharp turns, obstructions, or other hazards conducive to accidents. The surface roadways shall be adequate to withstand the weight of transportation vehicles.
- Shall meet all required buffer zone requirements and submit a site plan with the initial notification indicating adequate buffers.

Solid Waste Non-Processing Transfer Facility

- Non-processing transfer stations may not conduct processing or disposal except for facilities separating non-putrescible recyclable materials from commercial solid waste.
- Recovered commercial recyclable materials can include:
 - paper
 - wood
 - glass
 - plastics
 - metal materials
 - other acceptable commercial recyclable materials approved by the administrative authority
- Recovered recyclable materials must be stored in enclosed containers and storage no more than 30 days.
- Non-processing transfer stations that separate non-putrescible commercial recyclable materials must submit an annual recycling report to the Office of Environmental Services.
- Facilities shall also comply container and transporter requirements

Solid Waste Non-Processing Transfer Facility

- Facilities should have control measures that prevent unauthorized ingress or egress, except by willful entry (fencing). When operating each entry point shall be continuously monitored, manned, or locked. During non-operating hours, each facility entry point shall be locked.
- The tipping area should be constructed and operated to prevent litter from leaving the tipping area and prevent soil and groundwater contamination.
- The facilities should be inspected at the end of each operating day and documented. Litter or waste shall be cleaned up and placed into the last transportation vehicle.
- Odors should be minimized. The non-processing transfer stations shall be cleaned daily by an appropriate method to minimize odors and nuisance conditions.

Solid Waste Non-Processing Transfer Facility

- All facility records shall be maintained and available for inspection within 24 hours of request. These records shall be maintained for the life of the facility and shall be retained for at least three years after closure.
- The owner/operator of a non-processing transfer station may construct a drop-off area at the non-processing transfer station site such that certain activities can be conducted. No industrial waste shall be accepted. These areas are intended for the use of commercial facilities and residential solid waste. Collection and storage of the following wastes are allowed, provided it does not become a nuisance, a health hazard, or a detriment to the environment as determined by the administrative authority:
 - white goods
 - presorted yard trash
 - household recyclable materials.
- Discharges from the facility shall be controlled and shall conform to all applicable state and federal laws.
- All waste shall be removed to a permitted facility at closure. Notification of closure shall be submitted to the Office of Environmental Services.

Hazardous Waste Transporter

- Must submit a Hazardous Waste Notification Form (HW-1) and obtain an EPA ID number prior to shipping hazardous waste.
- Properly complete HW manifest sections (1307) and maintain copies of all manifest records for a period of three years
- HW transporters are required to maintain continuous coverage of \$300,000 per vehicle public liability and \$200,000 per vehicle damage.

Hazardous Waste Transporter

- Maintain a spill contingency plan
- Institute a personnel training plan for employees who may manage hazardous waste.
- A transporter must clean up any hazardous waste discharge that occurs during transportation and take such action as may be required by the administrative authority so that the hazardous waste discharge no longer presents a hazard to human health or the environment. The transporter becomes the generator of the waste for the purpose of cleanup, unless such responsibility is transferred to the owner of the material, or other responsible parties.

Hazardous Waste Transporter

- A container may be used for the shipment of hazardous waste only to the extent permitted under the regulations of the Department of Public Safety. A package marked "NRC" or "STC" according to the specification requirements in the regulations of the Department of Public Safety may be reused only one time for the shipment of hazardous wastes, under the following conditions:
 - the material is packaged, marked, and labeled in accordance with the regulations of the Department of Public Safety
 - transportation is by highway only
 - the package is transported only after being sealed for at least 24 hours, is inspected for leakage immediately before being transported
 - the package is loaded by the shipper and unloaded by the consignee, unless the motor carrier is a private or contract carrier.
- When consolidating the contents of two or more containers with the same hazardous waste into a new container, or when combining and consolidating two different hazardous wastes that are compatible with each other, the transporter shall mark its containers of 119 gallons or less with the:
 - words "Hazardous Waste"
 - applicable EPA hazardous waste number hazardous waste codes

Hazardous Waste Less than 10-day Transfer Facility

- Less than 10-day transfer facilities are regulated as transporters under LAC 33:V.Chapter 13
- A transporter who stores manifested shipments of hazardous waste in containers at a transfer facility for a period of 10 days or less is not subject to regulation under LAC 33:V.Chapters 1-7, 15-29, 31-38, and 43 with respect to the storage of those wastes.
- The transporter shall notify the Office of Environmental Services using the department's Notification of Hazardous Waste Activity Form (HW-1) and obtain written approval by the administrative authority prior to storing waste under Subparagraph C of this Section.
- Note, there is not mechanism to extend storage for greater than 10-days at a less than 10-day transfer facility.
- Hazardous Waste less than 10-day transfer facilities have a \$1900.00 application fee.

Hazardous Waste Transfer Facility

- Transporters who stored hazardous waste for more than 10-days are subject to LAC 33:V.Chapters 1-7, 15-29, 31-38, and 43 with respect to the storage of those wastes and will required a Hazardous Waste Storage Permit
- Permitted hazardous waste storage facilities may store wastes for up to one year.

Universal Waste Transporter

- Universal waste transporter are prohibited from disposing of universal waste and prohibited from diluting or treating universal waste, except by responding to releases.
- Not required to be shipped on a hazardous waste manifest.
- A universal waste transporter must immediately contain all releases of universal wastes and other residues from universal wastes and must determine whether any material resulting from the release is hazardous waste, and if so, it is subject to all applicable requirements of these regulations. If the waste is determined to be a hazardous waste, the transporter is subject to LAC 33:V.Chapters 10 and 11.
- A universal waste transporter is prohibited from transporting the universal waste to a place other than a universal waste handler, a destination facility, or a foreign destination.

Universal Waste Transfer Facility

- Universal waste transporter may store the universal waste at a universal waste transfer facility for 10 days or less.
- If universal waste needs to be stored at a transfer facility for greater than 10-days, it must be storage at a Small Quantity Handler or Large Quantity Handler depending on volume of universal waste stored.

Used Oil Transporters

- The transporter must deliver all used oil received to:
 - Another transporters
 - A used oil processing facility
 - An on-specification used oil burning facility.
 - An off-specification used oil burner (furnace, boiler, or incinerator)
- Transporters must be able to demonstrate the used oil contains less than 1,000ppm halogens.
- Transporters must comply with all DOT regulations.
- If used oil is discharged or released
 - The release must be contained and cleaned to prevent a hazard or danger to human health or environment.
 - The National Response Center notified and a written report submitted.

Used Oil Transfer Facilities

- Used Oil Transfer Facilities are any transportation-related facility, including loading docks, parking areas, storage areas, and other areas where shipments of used oil are held for more than 24 hours and not longer than 35 days during the normal course of transportation or prior to an activity performed in accordance with LAC 33:V.4009.B.2 (such as filtering, dewatering, removing excessive oil from materials).
- Transfer facilities that hold used oil for more than 35-days must register as a Used Oil Processor and Re-refiner.
- Used oil may only be stored in containers, tanks or other permitted storage units. Storage units must be kept in good condition, not leak, and located in a secondary containment system with dikes or berms and a floor that is impervious to oil.

Used Oil Transfer Facilities

- Containers and aboveground tanks must be labeled “Used Oil”
- Fill pipes for underground storage tanks must also be labeled “Used Oil”.
- Respond to any spill of used oil immediately.
 - The transfer facility must:
 - Stop the release
 - Contain the released material
 - Clean up and properly manage the released material and all associated clean up materials.
 - Repair and replace any leaking or damaged equipment prior to returning the unit back to service.
- Residues generated from the storage and transfer of used oil must be managed under LAC 33:V.4003.E.

Used Oil Transporters – Manifests

- Used oil transports must keep a record of all used oil shipments accepted and delivered for the previous three years
- The manifest must include:
 - Name and address of the generator, transporter or processor who provided the oil.
 - EPA identification number of who provided the oil.
 - Quantity of oil accepted.
 - Date of acceptance
 - Signature and date of the representative of generator, transporter or processor who provided the oil.

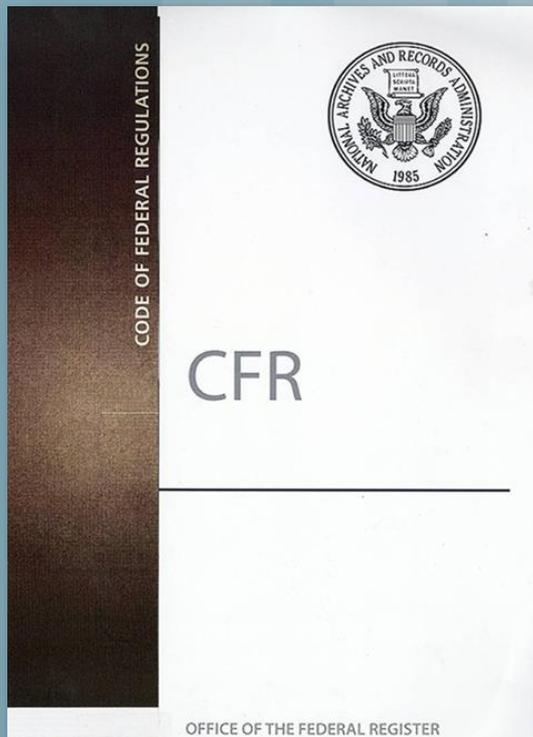
Used Oil Transporters – Manifests

- Used oil transports must keep a record of all used oil shipments delivered for the previous three years
- The manifest must include:
 - Name and address of the of the receiving facility or transporter
 - EPA identification number of who received the oil.
 - Quantity of oil delivered.
 - Date of delivery
 - Signature and date of the representative for the receiving facility.
 - Note: rail shipments do not require a signature.

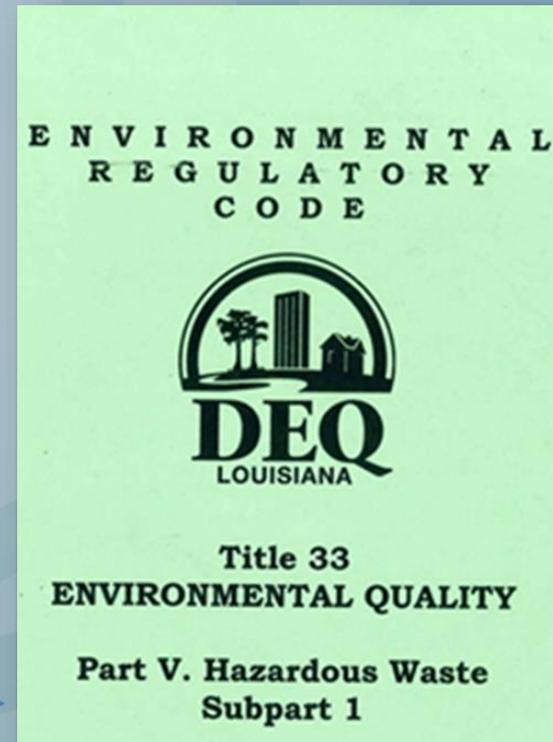
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LDEQ's Adoption of Recent Federal Hazardous Waste (HW) Regulations



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Adoption of Recent HW Regulations Outline

- Delegation of HW Program
- Effective Dates
- Recent HW Regulations Finalized by EPA
- HW Generator Improvements Rule

Delegation of HW Program

- Under RCRA Subtitle C, the HW program is designed to be administered by states in lieu of EPA
 - State HW programs must be authorized (i.e., approved) by EPA
 - EPA oversight & enforcement of authorized state HW regulations
 - EPA will not delegate certain portions of the HW program to states
 - import-export of HW
 - exemptions to allow land disposal of HW by deep well injection (“no migration petition”)
- Louisiana is an authorized state (i.e., LDEQ operates an equivalent HW program in lieu of EPA)
 - EPA administers the HW program in unauthorized states & territories (e.g., Alaska, Iowa, Puerto Rico, etc.)

Delegation of HW Program

- States with authorized HW programs must:
 - Have regulations that are “equivalent to” & “no less stringent than” federal
 - Can be “more stringent” than federal (e.g., additional technical requirements)
 - Can be “broader in scope” than federal (Can be enforced by state , but not part of a state’s authorized program and cannot be enforce by EPA) (e.g., state fees)
 - Maintain the program by adopting any new federal HW regulations
 - Have adequate enforcement authority
 - Provide for public participation & availability of info
 - Be consistent with federal program & other state programs

Delegation of HW Program

- Federal HW regulations are promulgated by EPA using a public participation process, published in Federal Register (FR) & codified in the Code of Federal Regulations (CFR)
 - Fed rules are accompanied by a preamble (intro not part of rule, which contains the context of the rule, but cannot be enforced)
- Many states adopt Fed regulations by “incorporation by reference”; in general, LDEQ does not
 - Actually rewrite the language
 - Takes longer; opportunity for clarifications
 - Allows for additional input & codifying guidance in preamble
- LA’s HW regulations are promulgated by LDEQ using a public participation process, published in LA Register & codified in LA Administrative Code & available thru LDEQ’s website

Delegation of HW Program

- Most states are now authorized but must maintain their authorization for new federal rules (states can also initiate their own rule changes)
- EPA must review LDEQ's adoption of HW regulations as part of the authorization process
- EPA regions approves their states' programs with a Federal Register Notice (EPA Region 6 is the approver for LA)
 - FRN outlines the federal rules for which a state is now authorized
 - Authorized state regulations become codified into the CFR
 - 40 CFR 272 Subpart T - Louisiana

Effective Dates of EPA Regulations in Authorized States

- Two main federal laws created the HW program
 - Resource Conservation & Recovery Act (RCRA) of 1976
 - Hazardous & Solid Waste Amendments (HSWA) of 1984
- The law (RCRA vs HSWA) under which EPA promulgates a HW regulation, determines when the regulation will go into effect
 - RCRA-derived rules take effect in an authorized state only after state adoption
 - HWSA-derived rules take effect immediately (regardless of whether the state has authority to enforce the rule)
 - Some EPA rules contain provisions promulgated under both laws
- Fed rule preamble discusses effective date



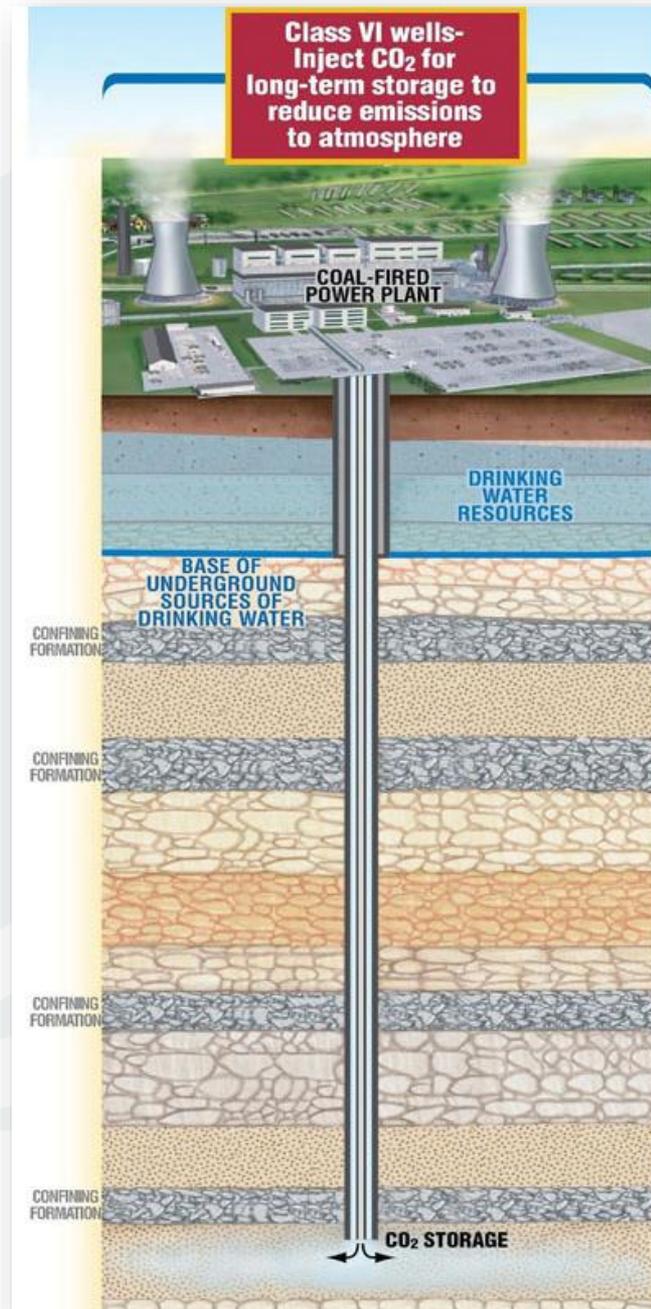
Recent HW Regulations Finalized by EPA

- Conditional Exclusion for Carbon Dioxide (CO₂) Streams in Geologic Sequestration Activities (final rule published in FR on 1/3/14)
- *Importing and Exporting HW*
 - Hazardous Waste Export-Import Revisions (11/28/16)
 - Confidentiality Determinations for HW Export & Import Documents (12/26/17)
 - Conforming Changes to Canada-Specific HW Import-Export Recovery & Disposal Operation Codes (10/1/21)
- User Fees for the Electronic HW Manifest System & Amendments to Manifest Regulations (1/3/18)
- Safe Management of Recalled Airbags (11/30/18)
- Management Standards for HW Pharmaceuticals & Amendment to the P075 Listing for Nicotine (2/22/19)
- Increasing Recycling: Adding Aerosol Cans to the Universal Waste Regulations (12/9/19)
- Modernizing Ignitable Liquids Determinations (7/7/20)
- Generator Improvements Rule (11/28/16)



Conditional Exclusion for Carbon Dioxide (CO₂) Streams in Geologic Sequestration Activities

- Background
 - Geologic sequestration is the injection of CO₂ into deep subsurface rock formations for permanent isolation
 - GS is a key component of carbon capture & storage, which is a climate change mitigation technology
 - This rule needed to remove uncertainty of CO₂ streams under RCRA subtitle C
- 40 CFR Parts 9, 260, 261
- Conditional exclusion from HW definition for CO₂
 - Captured CO₂ streams from emission sources
 - Injection into an Underground Injection Control ("UIC") Class VI well for geologic sequestration



Conditional Exclusion for Carbon Dioxide (CO₂) Streams in Geologic Sequestration Activities

- No mixture of HW allowed
- Requires compliance with US DOT requirements, including US DOT & LDNR pipeline safety regulations
- Requires compliance with Class VI UIC requirements under the SDWA (new UIC class for which LDNR is in process of requesting authorization)
- Requires certification statements for generator & UIC well owner/operator
- Optional rule; not effective until LDEQ adopts
- LDEQ is in process of promulgating this rule
 - Rule Log # HW128ft
 - Identical to federal rule
 - Published 9/7/21; no comments - should go final in 2021

Hazardous Waste Export-Import Revisions

- Background
 - 90% of imports/exports of HW are with Canada or Mexico
 - Prior regulations had less-stringent controls for HW imported/exported to/from Canada & Mexico compared to Organization for Economic Cooperation and Development (OECD) countries
 - Controls for OECD countries are widely accepted as the international standard for control of transboundary waste shipments
- 40 CFR Parts 260 – 267, 271, 273
- Amends existing regulations for import/export of HW to/from U.S. to consistently apply OECD controls
- Allows electronic validation of exports & electronic submittal of import/export related documents (e.g., notices, annual reports)

Hazardous Waste Export-Import Revisions

- Already effective 12/31/16 in all states and territories, since import/export is function of federal government as a foreign policy matter
- State programs are required to adopt this rule to maintain their equivalency with the federal program
- LDEQ anticipates adopting the 3 import/export rules by “incorporation by reference” in 2022
 - Existing language regarding import/export will be replaced with a simple reference to federal regulations

Confidentiality Determinations for HW Export & Import Documents

- 40 CFR Parts 260-262
- Prohibits assertion of confidential business information (CBI) claims for documents related to the export, import, and transit of HW and export of excluded cathode ray tubes (CRTs)
- Already effective 6/26/18 in all states and territories, since import/export is function of federal government as a foreign policy matter
- State programs are required to adopt this rule to maintain their equivalency with the federal program
- LDEQ anticipates adopting the 3 import/export rules by “incorporation by reference” in 2022

Conforming Changes to Canada-Specific HW Import-Export Recovery & Disposal Operation Codes

- 40 CFR Parts 262, 264, 265
- To match changes made by Canada related to operation codes used in import/export notices
- Already effective 10/31/21 in all states and territories, since import/export is function of federal government as a foreign policy matter
- State programs are required to adopt this rule to maintain their equivalency with the federal program
- LDEQ anticipates adopting the 3 import/export rules by “incorporation by reference” in 2022

Conforming Changes to Canada-Specific HW Import-Export Recovery & Disposal Operation Codes - continued

- Changes promulgated by Canada related to operation codes

Current regulatory definition	Revised regulatory definition
(13) D13 Blending or mixing, prior to any of operations D1 through D12	(13) D13 Interim blending or mixing, before an operation that bears any of the disposal operations D1 to D12.
(14) D14 Repackaging, prior to any of operations D1 through D13	(14) D14 Interim repackaging, before an operation that bears any of the disposal operations D1 to D12.
(15) D15 (or DC17 for transboundary movements with Canada only) Interim Storage, prior to any of operations D1 through D12.	(15) D15 Interim storage, before an operation that bears any of the disposal operations D1 to D12.
(16) DC15 Release, including the venting of compressed or liquified gases, or treatment, other than by any of operations D1 to D12 (for transboundary movements with Canada only).	(16) DC1 Release, including the venting of compressed or liquified gases, or treatment, other than by any of disposal operation codes D1 to D12. (for transboundary movements with Canada only).
(17) DC16 Testing of a new technology to dispose of a hazardous waste (for transboundary movements with Canada only).	(17) DC2 Testing of a new technology to dispose of a hazardous waste (for transboundary movements with Canada only).
(11) R11 Uses of residual materials obtained from any of the operations numbered R1 through R10 or RC14 (for transboundary shipments with Canada only).	(11) R11 Use of residual materials obtained from any of the recovery operation codes numbered R1 through R10 or RC1.
(12) R12 Exchange of wastes for submission to any of the operations numbered R1 through R11 or RC14 (for transboundary shipments with Canada only).	(12) R12 Interim exchange of wastes before recycling using any of the recovery operation codes numbered R1 through R11 or RC1.
(13) R13 Accumulation of material intended for any operation numbered R1 through R12 or RC14 (for transboundary shipments with Canada only).	(13) R13 Interim accumulation of wastes before recycling using any of the recovery operation codes numbered R1 through R11 or RC1.
(14) RC14 Recovery or regeneration of a substance or use or re-use of a recyclable material, other than by any of operations R1 to R10 (for transboundary shipments with Canada only).	(14) RC1 Recovery or regeneration of a substance or use or re-use of a recyclable material, other than by any of operations R1 to R10 (for transboundary shipments with Canada only).
(15) RC15 Testing of a new technology to recycle a hazardous recyclable material (for transboundary shipments with Canada only).	(15) RC2 Testing of a new technology to recycle a hazardous recyclable material (for transboundary shipments with Canada only).
(16) RC16 Interim storage prior to any of operations R1 to R11 or RC14 (for transboundary shipments with Canada only).	(16) RC3 Interim storage prior to any of operations R1 to R11 or RC1 (for transboundary shipments with Canada only).

User Fees for the Electronic HW Manifest System & Amendments to Manifest Regulations

- Background
 - Hazardous Waste Electronic Manifest Establishment Act of 2016 required EPA to establish a national electronic manifest system
 - HW E-Manifest Rule published by EPA 2/7/14 (and adopted by LDEQ 4/20/16)
- 40 CFR Part 260, 262-265, 271
- Establishes methodology for user fees submitted to EPA for e-Manifest system (i.e., users; transactions; formula; payment, etc.)



User Fees for the Electronic HW Manifest System & Amendments to Manifest Regulations

- Includes non-fee related issues including:
 - Allows certain changes to routing of manifested waste in transit
 - Allows generators, transporters, and receiving facilities to make electronic corrections to previously submitted manifest data
 - Allows for a “hybrid” (paper-electronic) manifest
- Most parts of rule not delegable to states (HW manifesting is a national program)
- All provisions except 1 effective 6/30/18 in all states & territories for consistency
 - Exception: in transit changes for transporters (effective when adopted by LDEQ)
- State programs are required to adopt this rule to maintain their equivalency with the federal program
- LDEQ may adopt this rule when adopting the 3 import/export rules by “incorporation by reference” in 2022
 - Chapter 11 of HW regulations

Safe Management of Recalled Airbags

- 40 CFR Parts 260, 261
- Result of 2015 recall of Takata airbag inflators
- Conditional exemption from HW requirements for dealerships, shops, etc. removing airbag modules & inflators (similar to universal waste)
 - Entities are considered “airbag waste handlers”, not “HW generators”
 - Max accumulation of 250 parts & for 180 days
 - Parts being shipped offsite must comply with hazmat shipping rules & marked "Airbag Waste: Do Not Reuse"
 - Must be shipped to a facility under a vehicle manufacturer’s control or otherwise arranged pursuant to a recall, or to a permitted HW TSD facility
- Optional rule that is less stringent - LDEQ currently has decided not to move forward with its adoption; not effective in LA unless adopted

Management Standards for HW Pharmaceuticals & Amendment to the P075 Listing for Nicotine

- 40 CFR Parts 260-266, 268, 270, 279
- New regulation under 40 CFR 266 Subpart P for the management of HW pharmaceuticals by healthcare facilities & reverse distributors
- Cost-saving, streamlined standards for managing HW pharmaceuticals to better fit the operations of the healthcare sector
- Prohibition on sewerage (pouring down the drain) of HW pharmaceuticals for all generators (effective in all states on August 21, 2019; other parts are effective after authorized states adopt)
- Optional for Very Small Quantity Generators (VSQGs) except sewerage prohibition and empty container standards

Management Standards for HW Pharmaceuticals & Amendment to the P075 Listing for Nicotine

New Definitions

- Healthcare Facility (includes hospitals, surgical centers, medical offices, pharmacies)
 - Provide preventative, diagnostic, therapeutic, rehabilitative, maintenance or palliative care, and counseling, service, assessment or procedure with respect to the physical or mental condition, or functional status, of a human or animal or that affects the structure or function of the human or animal body; or
 - Distribute, sell, or dispense pharmaceuticals, including OTC pharmaceuticals, dietary supplements, homeopathic drugs, or prescription pharmaceuticals
- Long-Term Care Facility (includes hospice and nursing facilities, but not group homes or living facilities)
 - Licensed entity providing assistance w/ activities of daily living, including managing & administering pharmaceuticals at the facility

Management Standards for HW Pharmaceuticals & Amendment to the P075 Listing for Nicotine

New Definitions - continued

- **Pharmaceutical**
 - drug or dietary supplement (prescription or OTC) for use by humans or animals
 - Any electronic nicotine delivery system
 - Electronic cigarette or vaping pen
 - Any liquid nicotine (e-liquid) packaged for retail sale for use in electronic nicotine delivery systems
 - Pre-filled cartridges or vials
- **Hazardous Waste Pharmaceutical:** a pharmaceutical that is a solid waste as defined in HW regulations exhibiting one or more characteristic or is listed

Management Standards for HW Pharmaceuticals & Amendment to the P075 Listing for Nicotine

New Definitions - continued

- Potentially Creditable HW Pharmaceutical
 - Prescription HW pharmaceutical having a reasonable expectation to receive manufacturer credit & is in original manufacturer packaging (except pharmaceuticals subject to recall); undispensed; & < 1 year past expiration
- Non-Creditable HW Pharmaceutical
 - Prescription HW pharmaceutical not having a reasonable expectation to be eligible for manufacturer credit
 - Non-prescription HW pharmaceutical not having a reasonable expectation to be legitimately used / reused or reclaimed
 - Examples: free samples, items 1 year past expiration date, floor sweepings, items removed from packaging, etc.

Management Standards for HW Pharmaceuticals & Amendment to the P075 Listing for Nicotine

New Definitions - continued

- Evaluated HW Pharmaceutical
 - A prescription HW pharmaceutical that has been evaluated by a reverse distributor and will not be sent to another reverse distributor for further evaluation or verification of manufacturer credit
- Household pharmaceutical waste: a pharmaceutical that is a SW as defined by the HW regulations, but is excluded from being HW (includes residences, hotels, crew quarters)

Management Standards for HW Pharmaceuticals & Amendment to the P075 Listing for Nicotine

New Definitions - continued

- Reverse Distributor
 - Receives & accumulates prescription pharmaceuticals that are potentially creditable HW pharmaceuticals for the purpose of facilitating or verifying manufacturer credit
- Reverse Logistic Center
 - Evaluates unsold retail items including nonprescription pharmaceuticals (OTCs)
 - Analyze secondary markets, and
 - Assess the suitability of the unsold retail items for reuse in those secondary markets
 - Nonprescription pharmaceuticals sent through reverse logistics are not wastes at the healthcare or retail facility IF reasonable expectation of being lawfully used or reused for their intended purpose or reclaimed

Management Standards for HW Pharmaceuticals & Amendment to the P075 Listing for Nicotine

Healthcare Facilities Requirements

- notify LDEQ using the HW-1 notification form
- Training: personnel managing non-creditable HW pharmaceuticals must be thoroughly familiar with proper waste handling & emergency procedures
- HW Determinations: healthcare facilities must determine whether a waste pharmaceutical is a HW pharmaceutical
 - Exception: If a healthcare facility manages all of its waste pharmaceuticals as hazardous, individual HW determinations are not necessary
- Accumulation standards for non-credible
 - Container, labeling & accumulation time requirements
- Other requirements
 - Land disposal restrictions, recordkeeping, reporting

Management Standards for HW Pharmaceuticals & Amendment to the P075 Listing for Nicotine

Potentially Creditable vs Non-Creditable HW Pharmaceuticals

- Potentially creditable HW pharmaceuticals
 - Can be sent back to the reverse distributors
 - Must be less than 1 year expired and in original packaging
 - No shipping manifest required
 - DOT shipping and training requirements apply
- Non-Creditable HW pharmaceuticals
 - Cannot be sent back to the RD
 - Labeling, storage and shipping requirements apply
 - OK to ship to a TSDF (Treatment Storage Disposal Facility)
 - RD required to notify EPA of any non-creditable HW pharmaceuticals received
 - Shipping manifest applies

Management Standards for HW Pharmaceuticals & Amendment to the P075 Listing for Nicotine

Amendment to P075 Listing for Nicotine

- Removes over-the-counter FDA-approved Nicotine Replacement Therapies (patches, lozenges, and gums) from P075 acute listing for Nicotine & Salts (do not contain sufficient amounts of nicotine to be acute)
- Continue to be regulated as P075: E-Liquids & e-juices in e-cigarettes, cartridges, or vials; prescription nicotine (e.g., nasal spray or inhaler); “Legacy” pesticides containing nicotine; nicotine used in research & manufacturing
- Less stringent & optional amendment

Management Standards for HW Pharmaceuticals & Amendment to the P075 Listing for Nicotine

Conditional Exemption for DEA Controlled Substances

Name of Drug	Other Name(s)	Medical Uses	RCRA HW Code	DEA CS Schedule	Comment
Chloral; chloral hydrate	Acetaldehyde, trichloro-; Aquachloral, Notec, Somnote, Supprettes	Sedative	D034 Toxic	IV	Used in hospital pediatric units; common ingredient in vet anesthetics
Fentanyl sublingual spray	Subsys	Analgesic	D001 Ignitable	II	Ignitable due to alcohol content
Phenobarbital	Bellergal-S, Donnatal, Luminal	Anticonvulsant	D001 Ignitable	IV	Ignitable due to alcohol content
Testosterone gels / solutions	Androgel, Axiron, Fortesta, Testim	Hormone	D001 Ignitable	III	Ignitable due to alcohol content
Valium injectable gel	Diazepam, Diastat	Anti-anxiety	D001 Ignitable	IV	Ignitable due to alcohol content

Management Standards for HW Pharmaceuticals & Amendment to the P075 Listing for Nicotine

Defines “RCRA EMPTY” for Containers

- Containers: stock & dispensing bottles, vials or ampules & unit dose containers
 - Unit dose containers: packet, cup, wrapper, blister pack, etc.
- Empty if all contents are removed by normal means
- Applies to drug containers up to 10,000 tabs or 1 liter if a liquid
- Syringe (including residue) is considered RCRA empty when contents have been removed by fully depressing the plunger
- Intravenous bag (including residue) is considered RCRA empty when contents fully administered
- Does not apply to: aerosols, tubes, gels, creams, ointments & nebulizers



Management Standards for HW Pharmaceuticals & Amendment to the P075 Listing for Nicotine

LDEQ Adoption of Rule & Effective Dates

- Prohibition on sewerage effective in all states on 8/21/19
- Removal of nicotine patches, gums & lozenges from P075 listing is considered less stringent & optional for LDEQ to adopt (effective only if LDEQ adopts)
- Other parts are considered more stringent & must be adopted by LDEQ (effective once LDEQ adopts)
- LDEQ anticipates adopting this rule in its entirety in 4Q 22/1Q 23

Increasing Recycling: Adding Aerosol Cans to the Universal Waste Regulations

- 40 CFR Parts 260, 261, 264, 265, 268, 270, 273
- Adds HW aerosol cans to the universal waste program
- Defines “aerosol can” as “non-refillable receptacle containing a gas compressed, liquefied, or dissolved under pressure, the sole purpose of which is to expel a liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas”
- Universal waste management standards apply
 - includes labeling, time limits, training, etc.

Increasing Recycling: Adding Aerosol Cans to the Universal Waste Regulations - continued

- Specific standards for puncturing & draining of aerosol cans
 - Commercial device designed to safely puncture aerosol cans & effectively contain residual contents & emissions from the puncturing & draining activities
 - Written procedures for puncturing & draining and for spill & releases
 - Proper training
 - Any residuals from puncturing transferred to a tank or container
 - HW determination made on residuals
 - Standby spill cleanup kit; any spills/leaks promptly cleaned up
- Requires recycling of emptied can
- Less stringent (optional) rule that LDEQ intends to adopt
 - not in effect until adopted
- LDEQ anticipates adopting this rule in 4Q 22/1Q 23

Modernizing Ignitable Liquids Determinations

- 40 CFR Parts 63, 260, 261, 278
- Modernizes how ignitability characteristic (EPA HW Number D001) is determined for HW
 - Allows for modern equipment & techniques
 - Allows for non-mercury thermometers
- No change to the ignitability characteristic
 - potential for a direct or indirect fire hazard
 - liquids with flash points less than 60 °C (140 °F), etc.
- No change to analytical results
- Codifies guidance to define “aqueous” as “50% water by weight”
- Does not codify other guidance regarding aqueous alcohol exclusion & sampling of multiple phase wastes (further explains in preamble)
- Rule is neither more nor less stringent, and thus optional; not effective until LDEQ adopts
- LDEQ anticipates adopting this rule in 4Q 22/1Q 23

Generator Improvements Rule

- Has been adopted by LDEQ
 - Final HWGIR published by Louisiana Register and LDEQ on July 20, 2020 (effective date in Louisiana)
- LDEQ adopted all parts of rule
- Minor comments (corrections & clarification) submitted during comment period will be addressed in separate clean-up rule

Generator Improvements

Rule- *Goals*

- Reorganize regulations to make them more user-friendly
- Offer more flexibility to manage HW
- Address certain gaps in regulations
- Define terms (satellite accumulation area, central accumulation area, etc.)
- Other clarifications & revisions

Generator Improvements Rule- *Reorganization of Generator Regulations*

- Consolidates generator regulations in new chapter
 - LAC 33:V. Chapter 10
- Better organization with separate sections for VSQGs, SQGs & LQGs
- Most requirements “self-contained” & less reference to other parts of regulations
- Easier to read & understand

NOTE: Ch. 11 still contains manifesting, importing & exporting.

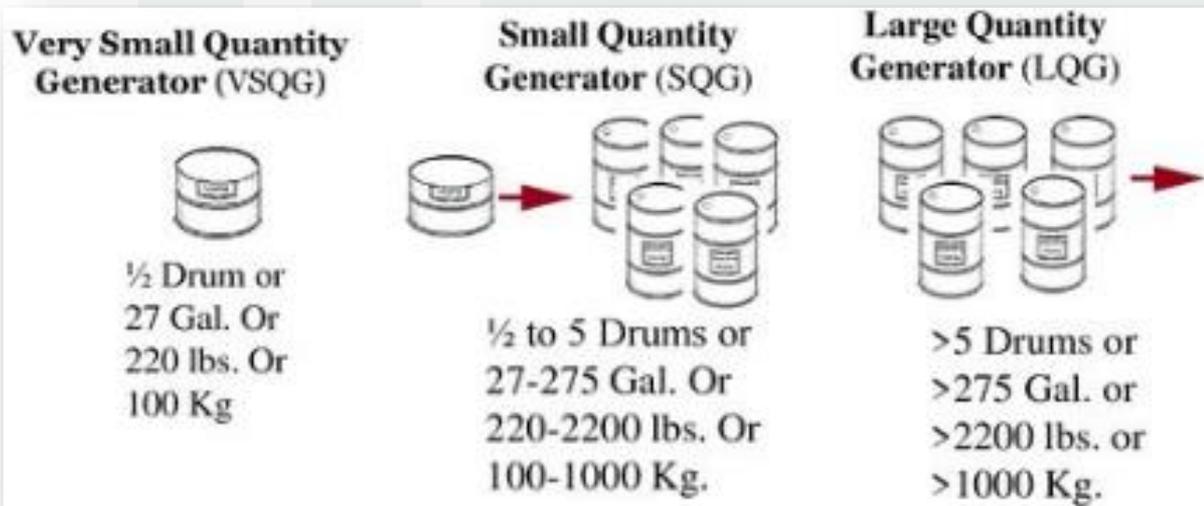
Generator Improvements Rule- Hazardous Waste Determination

Determining if a SW is listed or characteristic HW

- How
- Must be accurate
- At point of origin
- Before dilution, mixing or other alteration
- Whenever properties & classification may change
- SQGs & LQGs must put RCRA waste codes on containers prior to shipment
- Recordkeeping

Generator Improvements *Rule-Generator Category Determination*

- Clarifies process for determining category for calendar month
- Clarifies for acute and non-acute HW
- Clarifies impact of mixing HW with non-HW



Generator Improvements Rule- *Satellite Accumulation Area*

*(i.e., storage of 55 g [or 1 qt acute]
HW at or near point of generation &
under control of operator)*

Revisions & Clarifications

- Prohibits mixing incompatible HWs
- Limits opening of containers
- Clarifies amount for acute HW
- Must move within 3 consecutive calendar days once container is full
- Reactive HW cannot be accumulated
- Marking & labeling consistent with central accumulation areas
- Must be included in emergency preparedness

Generator Improvements Rule- *Very Small Quantity Generator (VSQG)*

- Very Small Quantity Generator (VSQG)– replaces the term “conditionally-exempt small quantity generator (CESQG)”
- Same limited requirements
- More flexibility to manage HW
 - Can send HW to sister LQG for consolidation (“under the control of same person”)
 - Episodic generation

Generator Improvements Rule- *VSQG HW Consolidation*

- VSQG can send HW to LQG “under the control of the same person”
- VSQG requirements
 - Label containers (“Hazardous Waste” & hazards)
 - DOT requirements (not HW manifest & not HW transporter)
- LQG requirements
 - Notify LDEQ
 - Manage HW appropriately
 - Recordkeeping
 - Include VSQG waste in annual report

Generator Improvements Rule- *Episodic Generation*

- Allows VSQG & SQG to maintain existing category with streamlined requirements
- 1 planned event (e.g., tank cleanout) & 1 unplanned event (e.g., upset, spill) per year
- Must petition Administrative Authority for approval of the 2nd event
- Notification requirements with 60 day time limit
- SQGs comply with SQG regulations & maintain records
- VSQGs have streamlined requirements
 - EPA ID#; use HW manifest & HW transporter to ship HW; minimize accidents & releases; label containers; emergency coordinator; recordkeeping

Generator Improvements Rule- *Marking & Labeling*

- Labeling at point of generation & includes satellite accumulation, central accumulation & transfer facilities
- Labels must indicate hazards (e.g., toxicity, flammability, etc.)
- Flexibility in methods (e.g., DOT, OSHA, NFPA, or RCRA)
- Containers must be marked (bar-coded) with RCRA waste codes prior to shipment

Generator Improvements Rule- *Emergency Preparedness & Planning*

- Arrangements with Local Emergency Responders
 - Must document attempts to make arrangements with local responders
 - Flexibility in recordkeeping
 - Facilities with internal capabilities may seek waiver
 - Local Emergency Planning Committees (LEPCs) OK
- LQG Contingency Plan Quick Reference Guide
 - Required for new or updated contingency plans
 - Part of contingency plan to help local emergency responders
 - Incorporates Executive Order 13650 on Improving Chemical Facility Safety & Security
 - 8 elements (e.g., listing HW & hazards, amounts, map, contact info for emergency coordinator(s), etc.)



Generator Improvements Rule- *Emergency Preparedness & Planning*

Other Clarifications & Areas of Flexibility

- Applies only to HW
- Includes points of generation, satellite accumulation areas, and central accumulation areas
- Can eliminate unnecessary personal info in plan
- Clarifies “immediate access” as “direct or unimpeded access”
- SQG & LQG may determine the most appropriate locations for emergency equipment
- SQG may use contractor to address releases
- Relevant emergency response info should be posted “next to the telephone” for SQG

Generator Improvements Rule- *Waiver to 50-foot Zone* *Requirement*

- Containers holding ignitable or reactive waste has to be located 15 m (50 feet) from property line
- Sometimes hard to meet, especially in urban areas
- LQGs can apply for waiver from fire marshal

Generator Improvements Rule- *LQG Closure Notification*

There have always been closure performance standards (have NOT changed)

- protect human health & environment
- Remove or decontaminate any remaining HW residues from waste accumulation units
- Proper management of any HW generated from closure
- Close as a landfill if HW or contaminated soils is not removed

Generator Improvements

Rule-*LQG Closure Notification*

- Options for closing central accumulation area
 - Place notice in op record 30 days of closure; **OR**
 - Notify LDEQ in accordance with facility closure notification
- Requirements for closing a facility
 - Notify LDEQ no later than 30 days prior to closing facility
 - Notify LDEQ within 90 days after closing facility **if closure performance standard met or not**
 - Extension allowed, but must notify LDEQ within 75 days after closing facility
- Does NOT apply to satellite accumulation areas

Generator Improvements Rule- *LQG Closure Notification*

Clarifications Unique to LDEQ

- Broader in scope than fed rule (clarifies and expounds upon rule language and preamble)
- Consistent with fed rule (language & preamble) & EPA/LDEQ's historical HW policies
- Based upon discussions with various LDEQ personnel & stakeholders

Generator Improvements Rule- *LQG Closure Notification*

Clarifications Unique to LDEQ - continued

- Require basics info for operating record & closure notifications
 - (e.g., reason, unit name, description, location, HW, etc.)
- Allows for the use of risk-evaluation (i.e., RECAP)
- Allow for closures with contamination from other sources
- Allows LQG to request “sufficiency demonstration” for changes in closure (e.g., documents, submittals, deconning & sampling), BUT MUST MEET CLOSURE PERFORMANCE STANDARDS
- Allows for use of guidance (e.g., closure info, confirmatory protocol, closure report, etc.)
- Grandfathers in closures initiated prior to final regulation date

Generator Improvements Rule- *LQG Closure Notification*

Clarifications Unique to LDEQ - continued

- Closure of container storage (i.e., drum, roll-off box, etc.)
 - Includes container(s) AND long-term/fixed secondary containment
 - Allows for presumptive demonstration of closure (i.e., by removing containers, unit would be closed & presumed to meet closure performance standards)
 - Does NOT require deconning or confirmatory sampling under “normal” circumstances where waste was “properly” managed demonstrated by op record (i.e., inspections, spill response, etc.)
 - LDEQ receive notification; supporting documents kept on site & reviewed by LDEQ at compliance or closure inspection for facility

Generator Improvements Rule- *LQG Closure Notification*

Clarifications Unique to LDEQ - continued

- Closures of tank systems, containment buildings & drip pads*
 - Requires additional closure info to be submitted with prior notification (deconning, confirmatory sampling)
 - Specifies RECAP screening standards as numerical closure performance standards
 - Requires a report to be submitted to LDEQ for review and approval

*Also applicable to container storage requiring additional closure efforts

HW Regulation Development Resources

- EPA's Webpage on State Authorization under RCRA
 - [epa.gov/rcra/state-authorization-under-resource-conservation-and-recovery-act-rcra](https://www.epa.gov/rcra/state-authorization-under-resource-conservation-and-recovery-act-rcra)
- LDEQ's Rules & Regulations Webpage
 - [deq.louisiana.gov/page/rules-regulations](https://www.deq.louisiana.gov/page/rules-regulations)
- Louisiana Register at the Division of Administration
 - doa.la.gov/Pages/osr/reg/register.aspx

Contact Information

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LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

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