Large Quantity Generator (LQG) Closures

Louisiana Air and Waste Management Conference 2023



Generator Closure – Past and Present

- Prior to LDEQ adopting the Hazardous Waste Generator Improvement Rule (HWGIR), hazardous waste generators only needed to notify LDEQ of closure or relocation by submitting a Certification of No Hazardous Waste Activity.
- On July 20, 2020, LDEQ adopted the HWGIR and incorporated and expanded upon the LQG closure requirements.
 - LQG Closure requirements can by found at LAC 33:V.1015.B.8.
 - Small Quantity Generators (SQGs) and Very Small Quantity Generators (VSQGs) still only have to submit a Certification of No Hazardous Waste Activity.



VSQG and SQG Closure

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 Closure for VSQG and SQG is conducted the same as prior to the adoption of the HWGIR.

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LQG Closure - Regulations

- LQG Closure Regulations are located at LAC 33:V.1015.B.8.
 This paragraph is broken down into the following sections:
 - Closure of a Central Accumulation Area without closure of the facility (a.ii)
 - Closure of a facility or optional notification of closure of a Central Accumulation Area (b)
 - Closure Performance Standards (c)
 - Special Closure Provisions(d)
 - Demonstration of Sufficiency for Closure (e)
 - RECAP Standards (f)
 - Contamination from Other Sources (g)

- Notification of New Releases (h)
- Closure Inspections (i)
- Closure Guidance (j)
- Notification of Closure Initiated Prior to July 2020. (k)



Closure of a Central Accumulation Area (CAA)

- An LQG closing a CAA but not closing the facility can close in one of two ways:
 - 1) Submit a Hazardous Waste Notification Form (HW-1) to LDEQ in accordance with closure of an entire LQG facility.

- OR -

2) Document the closure of the CAA in the operational record in accordance with LAC 33:V.1015.B.8.a.ii.



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- Closure of a CAA in the operating record has some benefits:
 - You do not have to send information to LDEQ at the time of the closure of the CAA.
 - Solely managed by the facility.
 - Can be reopened without going through closure at any time.



Closure of a CAA in the operating record also has a couple of downsides:

- 1) The information placed in the operating record will need to be provided at the time of closure of the facility.
 - Operational records can be lost due to disaster or change or ownership complicating closure at a later date.
- 2) The facility has not officially documented to the LDEQ that closure of the CAA has occurred, and may not have met technical closure performance standards, but the CAA will need to meet these standards at final closure.



Information required to be placed in the operating record:

- Reason for closure of the CAA(s)
- Name and/or other unit designation
- Description of the type of waste accumulation (containers, tank, containment building)
- Design and construction information for secondary containment (if required)



Information required to be placed in the operating record (continued):

- Location within the facility (location on a site map)
- Period of use and a description of the hazardous waste and waste codes managed
- Documentation showing how the last stored hazardous waste was managed



Information required to be placed in the operating record (continued):

- For container storage, the generator must provide information to support a presumptive demonstration of closure (LAC 33:V.1015.B.8.d.i) including:
 - weekly inspection logs and other information supporting there were no releases or release were properly remediated.
 - If the there was long-term secondary containment, records about the condition of the secondary containment as well as repairs and spill remediation's. Also, details of a final inspection once all waste have been removed.



Information required to be placed in the operating record (continued):

- any information that might be needed to support a sufficiency demonstration
- any other information that might be deemed relevant by the large quantity generator to document operations

LQG facility closure, or optional closure of a CAA is more time consuming and involves LDEQ – Office of Environmental Services.

- LAC 33:V.1015.B.8.b outline the procedure for final closure of a facility or a CAA.
- LQG facility closure is a multistep process.
 - 1) Initial Notification to LDEQ 30-days prior to closure
 - 2) Sufficiency Demonstration before Closure Certification
 - 2) Final Closure Notification to LDEQ 90-days after the completion of closure of the facility
- CAA units closed this way, and reopened will be required to be closed again by either placing the unit closure information into the operating record or going through LQG Closure again.



LQG Facility Initial Closure Notification

The initial notification must be submitted to LDEQ 30-days prior to closing the LQG. The notification must include the following information:

- contact information for person responsible for closure
- reason for closure for each CAA
- list of units and location CAAs/units being closed



The notification must include the following information (continued):

- period of time of use and description and waste codes for the hazardous waste stored in each CAA/unit
- basic design information for any unit that is a tank system, containment building, or drip pad
- basic design and construction information for secondary containment for each CAA



The notification must include the following information (continued):

- For CAAs that are container storage areas explain how it will be closed by either:
 - 1) State the CAA will be closed under the Special Provision for closing a Container Storage Area (LAC 33:V.1015.B.8.d.i).

- Or -

- 2) Close in the same manner as a tank, containment building or drip pad (LAC 33:V.1015.B.8.b.i.k).
 - This is the option to use when releases outside of containment or soil/groundwater contamination is expected.



The notification must include the following information (continued):

- CAAs that are tanks, containment buildings, drip pads, or container storage require additional efforts of closure and need to provide plans outlining:
 - decontamination methods of aboveground components
 - methods and list of constituents for confirmatory sampling and analysis of rinsate
 - confirmatory sampling and analysis of soil (and groundwater, if deemed necessary) immediately surrounding and beneath the unit.



The notification must include the following information (continued):

- Sampling plan information should include:
 - soil sampling locations under the containment and areas where there may have been visible signs of significant staining, cracks, gaps or other deterioration
 - if there is confirmed soil contamination resulting from a release of hazardous waste or constituents, or if there is reason to believe that the groundwater may have been impacted, the large quantity generator must conduct confirmatory groundwater sampling and analysis.

- Or -

 the large quantity generator may state its intent to demonstrate that the closure performance standards for soil and groundwater have been met through the Risk Evaluation/Corrective Action Program (RECAP).



Closure Performance Standards

The closure performance standards are required to be met prior to closure. These standards, in addition to the Sufficiency Demonstration, must be met for a facility to be closed. These standards are required for all CAAs:

- At closure, the LQG shall:
 - close all CAAs or facility in a manner that minimizes the need for further maintenance
 - removes or decontaminates all contaminated equipment, structures and soil and any remaining hazardous waste residues, unless it no longer meets the definition of Hazardous Waste.
 - Any hazardous waste generated in the process of closing the generator's facility or unit(s) must be managed appropriately and properly disposed.



Closure Performance Standard

- Closure Performance Standards for Container Storage, Tank Systems, or Containment Buildings:
 - If a facility cannot meet the closure performance standards or RECAP standards, the CAA must be closed as an interim status landfill.
 - Drip pads must meet Closure Performance Standards and LAC 33:V.2809.A&B.



Special Closure Standards - Containers

- Container Storage areas that close under LAC 33:V.1015.B.8.d.i are presumed to have met the Closure Performance Standards and no additional efforts or verification is needed if:
 - All required information has been placed in the operating record.
 - All containers were removed from the CAA and were either sent off-site for treatment or disposal or were transferred elsewhere on-site for treatment, storage, or disposal.



Special Closure Standards - Containers

- Weekly inspection logs, summary, or other information in the operating record demonstrate during the entirety of the accumulation period that:
 - there were no spills, leaks, or releases of hazardous waste or they were properly cleaned up and managed in order to meet the closure performance standards and secondary containment (if applicable) was maintained in good condition and repaired in a timely manner.
 - Long term secondary containment, provide final inspection log/report that details:
 - All waste was removed
 - No significant staining or other signs of contamination from hazardous waste on the secondary containment, and
 - No visible signs of significant cracks, gaps or deterioration for sumps or drainage collection areas
- If the above are met, additional demonstration efforts of closure are not necessary
- A signed statement from the responsible official is submitted with the subsequent notification stating the closure performance standards have been met through the presumptive demonstration of closure requirements.



Additional Closure Provisions

- Additional Demonstration Efforts of Closure are required for tanks, containment buildings, drip pad and container storage areas with known releases and/or cannot meet the special provisions for closure.
 - It is the responsibility of the large quantity generator to be aware of the closure performance standards and to make a good faith effort to demonstrate that the closure performance standards have been met. Additional decontamination procedures and confirmatory sampling of the final rinsate and/or soil (and groundwater, if deemed necessary) shall be required if either:
 - The facility cannot meet the special provision for closure of a container storage area.
 - The potential future use of the area requires additional efforts to demonstrate that sufficient decontamination has been achieved (*i.e.* food storage)
- Container storage that cannot meet the special requirements must meet the additional closure requirements and provide a closure report for subsequent notification, unless a sufficiency demonstration is approved by the Office of Environmental Services.
 - These are the same requirements for central accumulation areas that are tanks, containment buildings and drip pads.



Additional Closure Provisions

 Container storage requiring additional closure efforts shall meet the notification requirements of prior notification and provide a closure report for subsequent notification, unless a sufficiency demonstration is approved by the Office of Environmental Services. The Office of Environmental Services shall review and approve the closure report and notification to ensure that the closure performance standards have been met



Sufficiency Demonstration of Closure

- Before or during closure, the large quantity generator may petition the Office of Environmental Services to meet the closure performance standards through alternate, reduced, or eliminated requirements for closure notifications.
- The sufficiency demonstration does not alleviate the large quantity generator's requirement to meet the closure performance standards, but explains how they were met.



Sufficiency Demonstration of Closure

- A sufficiency demonstration will only be approved by the Office of Environmental Services based on supporting information and site-specific conditions.
 - Things that may be considered: accumulation time period; quantity and nature of the hazardous waste; containment design and condition; proper operations and maintenance; any additional protections; soil and groundwater classification; overall compliance history; existing or future corrective action measures include the central accumulation area and/or the facility; and any other relevant information provided.
 - For example:
 - decontamination might not be necessary for a tank system that accumulated diluted wastewater;
 - confirmatory rinsate sampling might not be necessary for a tank system that will receive a hazardous waste permit to manage the same waste; and
 - confirmatory soil (and groundwater, if deemed necessary) sampling might not be required for a tank system that was used for a one-time event.



Sufficiency Demonstration of Closure

- Once the sufficiency demonstration of closure is approved, OES may require additional or alternate closure efforts or verification from the large quantity generator depending on site-specific conditions.
- The generator will need to incorporate the relevant information of the sufficiency demonstration into the final closure notification and must maintain all documentation in support of the sufficiency demonstration of closure.



RECAP

- Risk Evaluation/Corrective Action Program (RECAP) may be used to meet closure and remedial activities for container storage, tank systems, and containment buildings if:
 - there is suspected or confirmed contamination in the environmental media immediately surrounding and beneath the unit as demonstrated by the confirmatory sampling and analytical results or by other evidence, risk evaluation and/or remedial activities may be conducted by the large quantity generator in order to demonstrate that the closure performance standards have been met.
 - The risk evaluation and/or remedial activities may be conducted, either in addition to, or instead of, the confirmatory sampling and analysis.



RECAP

- The risk evaluation and/or remedial activities must be:
 - in accordance with RECAP as referenced in LAC 33:I.Chapter 13 (Risk Evaluation/Corrective Action Program);
 - under the direction of the Office of Environmental Assessment; and
 - subject to all cost recovery provisions of the department.
- A site investigation work plan shall be submitted to the Office of Environmental Assessment in accordance with Appendix B of RECAP.
- The risk evaluation must demonstrate that the closure is protective of human health and the environment. If not, then closure and post-closure care of the unit will be required under the same requirements as an interim status hazardous waste landfill..



Contamination from Other Sources

- During closure activities, generators may come across contamination from third parties.
 - In these cases, closure of the LQG can continue and/or be conditionally closed, while the generator works with the OEA-Remediation Division to address the newly discovered area of concern or solid waste management unit. The large quantity generator must successfully demonstrate that either:
 - the contamination is from a source other than hazardous waste managed in the unit;
 or -
 - the contamination caused by the hazardous waste managed in the unit is comingled with contamination caused by another source.



Notification of Contamination from New Sources

- Notification of Newly-Identified Release.
 - Any newly identified release of hazardous waste to the environment must be reported either to the Louisiana State Police, Department of Public Safety in accordance with LAC 33:V.105.J.1 (Emergency Conditions) or SPOC in accordance with LAC 33:V.105.J.2 (Nonemergency Conditions)
 - These notifications are required for any newly identified release, not just during LQG closure.
 - Notification under LAC 33:V.105.J will require additional reporting under LAC 33:I.Chapter 39.



- Within 90-days of completing closure, the facility must notify LDEQ that it has met the closure performance standards aka Final Closure Notification.
- If the facility cannot meet the closure performance standards, the facility will have to notify LDEQ that they will be closing and conducting post-closure care using the same standards as that of an interim status hazardous waste landfill with waste in place.



The closure report must include the following information:

- All the information from the initial notification, except closure plans (LAC 33:V.1015.B.8.b.i.j&k)
- For container storage CAA being closed in accordance with Clause B.8.d.i (presumptive demonstration of closure) must provide:
 - a signed statement from the responsible official stating that the closure performance standards have been met, and
 - An approved sufficiency demonstration(s).



- For CAAs that are tanks, containment buildings, drip pads, or container storage requiring additional closure efforts, the facility must submit a closure report for approval including:
 - brief overview of closure activities at each CAA
 - details of the closure activities including:
 - removal of final waste, contaminated debris, and contaminated soil
 - decontamination procedures
 - analytical results of the rinsate
 - analytical results of the soil (and groundwater, if deemed necessary) compared to closure performance standards



- The facility will be required to provide supporting documentation including:
 - sampling and analysis protocol/methods, locations and depths, and borehole logs, as applicable;
 - analytical lab data reports; and
 - supporting documentation deemed relevant by the large quantity generator (e.g., photographs, manifests, description of any other actions relevant to the closure not otherwise mentioned, etc.);
- An approved sufficiency demonstration of closure.
- The facility shall provide a written statement signed by the responsible official stating that the closure performance standards have been met.



LQG Final Closure Extension

- If the large quantity generator needs additional time past the original closure date, the generator may request additional time to close and meet the closure performance standards.
- The generator shall notify the Office of Environmental Services using the department's Notification of Hazardous Waste Activity Form (HW-1) at least 75-days prior the date provided in the initial notification to request an extension and provide an explanation as to why the additional time is required.



Closure Inspection and Guidance

Closures Inspections:

- The department may inspect the central accumulation area before, during, or after the closure activities have been completed.
 - Typically, OES will reach out to the facility and schedule a closure inspection
- Closure Guidance.
 - LDEQ published LQG closure guidance on the public website on August 31, 2023.
 - Webpage: <u>http://deq.la.gov/page/hazardous-waste</u>
 - Direct Link: <u>http://deq.la.gov/assets/docs/HazardousWaste/HWGIRLQGClosureGuidance083</u> <u>12023.docx</u>



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