

FINANCIAL ASSURANCE PROCESS FOR
SOLID AND HAZARDOUS WASTE FACILITIES

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY



PERFORMANCE AUDIT SERVICES
ISSUED NOVEMBER 7, 2019

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LOUISIANA LEGISLATIVE AUDITOR
DARYL G. PURPERA, CPA, CFE

November 7, 2019

The Honorable John A. Alario, Jr.,
President of the Senate
The Honorable Taylor F. Barras,
Speaker of the House of Representatives

Dear Senator Alario and Representative Barras:

This report provides the results of our performance audit of the Louisiana Department of Environmental Quality's (LDEQ) financial assurance process for solid and hazardous waste facilities. Auditors found that the Department could take steps to strengthen its process.

Under Louisiana Administrative Code provisions, owners of solid and hazardous waste facilities must provide assurance that they have adequate funds to properly close the facilities and perform any post-closure activities if necessary. In addition, they must show they can cover the costs of corrective action if an incident occurs, such as if waste is released into the soil or groundwater.

Facility owners can use various mechanisms to provide this financial assurance, including insurance, letters of credit, or surety bonds. They also can certify that they are able to pass a "financial test" by demonstrating the company has sufficient assets to cover the costs for closure, post-closure, or corrective action activities.

Auditors found that LDEQ ensured that all solid and hazardous waste facilities provided financial assurance for expenses associated with closure or post-closure activities. However, it did not ensure that 28 of 204 (13.7%) permitted facilities submitted the required annual updated cost estimates and financial assurance mechanisms. That means LDEQ cannot ensure that these facilities continue to have adequate financial capacity to pay the costs of closure and post-closure activities.

In addition, auditors noted that state regulations do not require local governments that own solid waste facilities and use the financial test option for financial assurance to submit documentation to LDEQ to show they have adequate financial capacity.

The Department also has not established timeframes for when all solid and hazardous waste facilities in corrective action must submit evidence of financial assurance. As of June 30,

The Honorable John A. Alario, Jr.,
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2019, 14 hazardous waste and three solid waste facilities in corrective action had failed to submit their financial assurance mechanism. As a result, LDEQ cannot guarantee that these facilities have the financial capacity to conduct corrective action activities estimated to cost at least \$5 million.

Auditors found as well that information entered into TEMPO – the data system LDEQ uses to track cost estimates and financial assurance documentation – was incomplete and inaccurate. LDEQ also lacked dedicated staff with the financial expertise needed to effectively review financial assurance documents.

I hope this report will benefit you in your legislative decision-making process. We would like to express our appreciation to the management and staff of LDEQ for their assistance during this audit.

Sincerely,



Daryl G. Purpera, CPA, CFE
Legislative Auditor

DGP/aa

LDEQFA

Louisiana Legislative Auditor

Daryl G. Purpera, CPA, CFE



Financial Assurance Process for Solid and Hazardous Waste Facilities Louisiana Department of Environmental Quality

November 2019

Audit Control # 40180027

Introduction

We evaluated whether the Louisiana Department of Environmental Quality (LDEQ) ensured that solid and hazardous waste facilities provided financial assurance as required by state regulations.¹ Financial assurance is demonstrated by evidence, such as surety bonds or letters of credit, that indicates that owners of solid and hazardous waste facilities have the financial capacity to properly clean up any contamination related to their

Solid Waste - any garbage, refuse, sludge, or other discarded material, including solid, liquid, semisolid, or contained gaseous material, resulting from industrial, commercial, mining, or agricultural operations, and from community activities. *As of June 30, 2019, LDEQ permitted 178 of these facilities.*

Hazardous Waste - a type of solid waste which may contribute to an increase in serious illness or mortality, or pose a hazard to human health or the environment when improperly handled. *As of June 30, 2019, LDEQ permitted 44 of these facilities.*

facilities. Ensuring that owners have adequate financial capacity is important to protect human health, the environment, and taxpayers from assuming the financial burden of environmental cleanup. If owners cannot demonstrate sufficient financial assurance, the state may be responsible for part or all of the cost of completing cleanup activities.

Louisiana Administrative Code² specifically requires owners of solid and hazardous waste facilities to provide assurance to LDEQ that adequate funds will be available to properly close the facilities (or units³) and perform any necessary post-closure activities in the event that the owners are unwilling or unable to conduct these activities. LDEQ also requires facilities to provide financial assurance that they can cover costs when an incident at a facility,

Exhibit 1 Overview of LDEQ's Financial Assurance Process

LDEQ Receives Permit Application and Cost Estimates for Closure/Post-Closure Plans

LDEQ Reviews Permit Application and Cost Estimates

LDEQ Approves Permit Application and Cost Estimates

LDEQ Receives Financial Assurance Documents 60 Days Prior to Facility Becoming Active

LDEQ Receives Annual Updates to Cost Estimates/Financial Assurance

Source: Prepared by legislative auditor's staff using information provided by LDEQ.

¹ Louisiana Administrative Code (LAC) 33:V.Chpt. 37 (hazardous waste) and LAC 33:VII.Chpt. 13 (solid waste)

² LAC 33:V.Chpt. 37 (hazardous waste) and LAC 33:VII.Chpt. 13 (solid waste)

³ Each facility may have multiple waste units such as tanks, landfills, surface impoundments, waste piles, etc.

such as when waste is released into soil or groundwater, requires corrective action.⁴ Exhibit 1 on the previous page summarizes LDEQ’s financial assurance process.

Louisiana Administrative Code⁵ allows owners of solid and hazardous waste facilities to use various mechanisms to provide financial assurance including insurance, letters of credit, or surety bonds. Alternatively, owners may certify that they pass a “financial test” by demonstrating that the company has sufficient assets to cover the costs for closure, post-closure, or corrective action activities. Exhibit 2 summarizes the three activities for which LDEQ requires financial assurance from solid and hazardous waste facilities.

Exhibit 2	
Types of Financial Assurance for Solid and Hazardous Waste Facilities	
Type	Purpose
Closure	Ensure that facilities will have financial capacity to properly close the facility or unit when its operational life is over.
Post-Closure	Ensure that facilities will have financial capacity to cover the long-term maintenance of the facility or unit, including monitoring and record keeping during the required post-closure care period.
Corrective Action	Ensure that facilities will have financial capacity available for cleanup if waste is released into soil or water and corrective action is required.
Source: Prepared by legislative auditor’s staff using information provided by LDEQ.	

As of June 30, 2019, LDEQ’s 178 permitted solid waste facilities estimated that it would cost them approximately \$907 million to conduct closure and post-closure activities, and LDEQ’s 44 permitted hazardous waste facilities estimated that it would cost them approximately \$238.8 million to conduct closure and post-closure activities.⁶

The objective of this performance audit was to:

Determine whether LDEQ ensured that solid and hazardous waste facilities provided evidence of financial assurance as required by state regulations.

Our findings are summarized on the next page and discussed in detail throughout the remainder of the report. Appendix A contains LDEQ’s response to this audit report, Appendix B details our scope and methodology, and Appendix C contains details about each financial assurance mechanism.

⁴ LAC 33:3322 (hazardous waste) and LAC 33:519 (solid waste)

⁵ LAC 33:3707, 3711 (hazardous waste) and LAC 33:1303 (solid waste)

⁶ Estimates are based on the most current cost estimates in TEMPO, as some facilities did not submit an updated estimate for fiscal year 2019.

Objective: Determine whether LDEQ ensured that solid and hazardous waste facilities provided evidence of financial assurance as required by state regulations.

Overall we found that LDEQ could strengthen its financial assurance process in the following areas:

- **While LDEQ ensured that all solid and hazardous waste facilities provided financial assurance for expenses associated with closure or post-closure activities, it did not ensure that 28 (13.7%) of 204 permitted facilities submitted updated cost estimates and financial assurance mechanisms annually as required by state regulations.** As a result, LDEQ cannot ensure that the owners of these facilities continue to have adequate financial capacity to cover the costs associated with closure and post-closure activities. In addition, LDEQ did not ensure that three (1.7%) of 178 permitted solid waste facilities provided financial assurance that was sufficient to cover closure and post-closure cost estimates totaling at least \$992,081.
- **State regulations do not require local governments that own solid waste facilities and use the financial test option as their financial assurance mechanism to submit supporting documentation to LDEQ, such as audited financial statements, to provide evidence of financial capacity.** As a result, LDEQ cannot ensure that local governments that own 18 (10.1%) of the 178 permitted solid waste facilities have the financial capacity needed to cover costs of closure and post-closure activities.
- **LDEQ has not established timeframes for when all solid and hazardous waste facilities in corrective action must submit evidence of financial assurance. As of June 30, 2019, LDEQ had not received financial assurance that 14 (58.3%) of 24 hazardous waste facilities and three (75%) of four solid waste facilities in corrective action could cover expenses associated with their corrective action activities.** The three solid waste facilities estimated that their corrective action activities will cost approximately \$5 million. As of June 30, 2019, an average of 6.4 years had passed since LDEQ approved remedies for the 14 hazardous waste facilities but these facilities have not yet submitted evidence of financial assurance to LDEQ.
- **LDEQ could strengthen its financial assurance process by requiring staff to enter complete and accurate financial assurance information into TEMPO and dedicating staff with financial expertise to review financial assurance documents.** We found that the information in TEMPO, the data system LDEQ uses to track cost estimates and financial assurance information, was often incomplete and inaccurate. In addition, LDEQ lacks dedicated staff with the financial expertise needed to effectively review financial assurance documents.

LDEQ also has not developed procedures that designate which staff are responsible for obtaining and reviewing financial assurance mechanisms for corrective action.

These areas are discussed further in the remainder of the report, along with recommendations to assist LDEQ in strengthening its current process.

While LDEQ ensured that all solid and hazardous waste facilities provided financial assurance for expenses associated with closure or post-closure activities, it did not ensure that 28 (13.7%) of 204 permitted facilities submitted updated cost estimates and financial assurance mechanisms annually as required by state regulations. In addition, LDEQ did not ensure that three (1.7%) of 178 permitted solid waste facilities provided financial assurance that was sufficient to cover closure and post-closure cost estimates totaling at least \$992,081.

As part of the process to obtain a permit from LDEQ to treat, store, process, and/or dispose of solid or hazardous waste, facility owners are required to submit written plans and cost estimates to LDEQ for how the facility will be closed and cleaned up once it is no longer operating. LDEQ staff review these closure and post-closure plans and the cost estimates, and work with the facility owners to ensure that the proposed closure and post-closure activities are adequate to protect the public and the environment.⁷ LDEQ staff also review the cost estimates to ensure they are sufficient to cover the planned closure and post-closure activities. During the active life of a solid or hazardous waste facility (i.e., when the facility is receiving waste), owners must annually provide evidence to LDEQ that they increased their financial assurance mechanisms to cover increases due to inflation.⁸ In addition, any modifications to the closure or post-closure plans require facilities to submit updated cost estimates and evidence of updated financial assurance mechanisms to LDEQ.

LDEQ did not ensure that all solid and hazardous waste facilities submitted updated cost estimates and financial assurance mechanisms as required by state regulations.⁹ Specifically, we found 28 (13.7%) of 204¹⁰ solid and hazardous waste facilities

⁷ Not all facilities are required to plan for post-closure care. For example, if the waste material will be removed from the facility prior to closing, then LDEQ would not require post-closure care. Post-closure care is common for landfills where the waste is intended to remain in place after the facility is no longer actively accepting waste.

⁸ LAC 33:3705.B (hazardous waste) and LAC 33:1303 (solid waste)

⁹ Solid waste facilities are required by LAC 33:1303 to annually submit updated cost estimates to LDEQ. Hazardous waste facilities are required by LAC 33:3705 to annually adjust the cost estimates but are not specifically required to submit those updated cost estimates to LDEQ. According to LDEQ staff, it is helpful when the owners submit the updated cost estimates to ensure that the updated financial assurance mechanism is sufficient.

required to submit financial assurance documentation did not have updated cost estimates or financial assurance mechanisms for closure or post-closure.¹¹ As a result, LDEQ cannot ensure that the owners of these facilities continue to have adequate financial capacity to cover the costs associated with closure and post-closure activities. We found that LDEQ has not updated the standard operating procedures for its financial assurance process since 2014, and these procedures do not accurately designate which LDEQ staff are responsible for ensuring that solid and hazardous waste facilities submit timely and sufficient updated cost estimates and financial assurance mechanisms. According to LDEQ, it is in the process of updating the current standard operating procedures to clarify the process and designate staff.

In addition, we found that LDEQ did not ensure that three (1.7%) of 178 permitted solid waste facilities provided financial assurance that was sufficient to cover closure and post-closure cost estimates totaling at least \$992,081.¹² For example, cost estimates for two of these facilities increased because their operating acreage increased. State regulations require the financial assurance mechanism to equal the total current closure and post-closure estimates.¹³ LDEQ referred one of these facilities to its Enforcement section for not having enough financial assurance but had not referred the other two facilities as of June 30, 2019. LDEQ identified that one facility's financial assurance was not sufficient in April 2017. While LDEQ notified this facility that its financial assurance needed to be increased by \$449,195, it has not referred the facility to Enforcement for noncompliance. According to LDEQ, its informal policy is to work with the facility to obtain adequate financial assurance, and it only refers cases when the facility does not cooperate. As a result, LDEQ has allowed the facility to operate with insufficient financial assurance to cover its increased acreage for more than two years.

Recommendation 1: LDEQ should follow up and ensure that it receives updated cost estimates and financial assurance mechanisms for the 28 solid and hazardous waste facilities and sufficient financial assurance mechanisms for the three solid waste facilities we identified.

Summary of Management's Response: LDEQ agrees with this recommendation and stated that it is currently in the process of contacting all facilities identified to obtain the required information. Facilities that do not submit the information requested in a timely manner will be referred to LDEQ's Enforcement Division for additional follow up. See Appendix A for management's full response.

Recommendation 2: LDEQ should update its standard operating procedures and specify responsible staff to help ensure that all solid and hazardous waste facilities submit updated cost estimates and financial assurance mechanisms for closure and post-closure activities as required by state regulations.

¹⁰ While LDEQ regulated 222 solid and hazardous waste facilities as of June 30, 2019, 18 of the solid waste facilities are owned by local governments that use the financial test option as their financial assurance mechanism. State regulations do not require these 18 facilities to submit financial assurance documentation to LDEQ.

¹¹ LDEQ was already aware of and is currently pursuing enforcement and/or legal actions against at least three of these facilities.

¹² This amount does not include specific costs for one facility because it did not submit cost estimates to LDEQ for the additional acreage it was operating.

¹³ LAC 33:1303

Summary of Management's Response: LDEQ agrees with this information and stated that it will update the applicable standard operating procedures (SOP). See Appendix A for management's full response.

Recommendation 3: LDEQ should update its standard operating procedures to include timeframes for when it will refer facilities that are noncompliant with financial assurance requirements to its Enforcement section.

Summary of Management's Response: LDEQ agrees with this recommendation and stated that it will update the applicable SOP. See Appendix A for management's full response.

State regulations do not require local governments that own solid waste facilities and use the financial test option as their financial assurance mechanism to submit supporting documentation to LDEQ, such as audited financial statements, to provide evidence of financial capacity.

While state regulations¹⁴ require private solid waste facilities that use the financial test option as their financial assurance mechanism to submit supporting documentation to LDEQ, solid waste facilities that are owned by local governments are only required to maintain this documentation at the facility. According to state regulations, LDEQ can only request this information if there is a reasonable belief that these local governments no longer meet the criteria to use the financial test. However, without supporting documentation, LDEQ cannot ensure that these local governments meet financial test criteria such as a specified bond requirement or not operating at a deficit of 5% or more for two years in a row and have the financial capacity needed to cover the costs associated with closing the facility and conducting post-closure monitoring.¹⁵

As of June 30, 2019, 18 (10.1%) of the 178 permitted solid waste facilities are owned by local governments that use a financial test option as their financial assurance mechanism. If LDEQ were to receive and review supporting documentation for all solid waste facilities annually, it could continuously monitor the financial stability of these facilities. For example, we identified one solid waste landfill that is jointly owned by two local governments that use the financial test option, one of which the Legislative Fiscal Review Committee placed under fiscal administration¹⁶ because it was no longer capable of meeting its current financial obligations. In addition, both of these local governments were operating at deficits during fiscal years 2016 and 2017 according to their audited financial statements. It is important that LDEQ be able to

¹⁴ LAC 33:1303

¹⁵ See Appendix C for specific requirements for local government financial tests.

¹⁶ Per R.S 39:1351, if a political subdivision is reasonably certain to not have sufficient revenue to pay current expenditures, excluding civil judgments, or to fail to make a debt service payment, the attorney general shall file a rule to appoint a fiscal administrator recommended by the legislative auditor and the attorney general and approved by the court as having sufficient education, experience, and qualifications.

continuously monitor the financial health of these two local governments so that it has the assurance that they can cover the estimated \$2.6 million in closure and post-closure costs of the landfill.

According to the Environmental Protection Agency's (EPA) Office of Inspector General, given the large number of facilities using the local government financial test and the high estimated closure and post-closure costs associated with these types of facilities, effective monitoring by states of the financial conditions of local governments using the test is important. Texas, for example, requires local governments that use the financial test option as their financial assurance mechanism to annually submit proof that they meet the criteria for the financial test.

Recommendation 4: LDEQ should amend LAC 33:1303 to require local governments that own solid waste facilities to annually submit documents, such as audited financial statements, to ensure these facilities meet the criteria for the financial test.

Summary of Management's Response: LDEQ partially agrees with this recommendation and stated that it will analyze and consider changes to LAC 33:VII.1303. However, in considering whether to amend the financial assurance requirements for local governments, LDEQ must consider adverse unintended consequences of the regulatory change. LDEQ must also consider whether policy changes would be as effective as a regulatory change in addressing the finding. See Appendix A for management's full response.

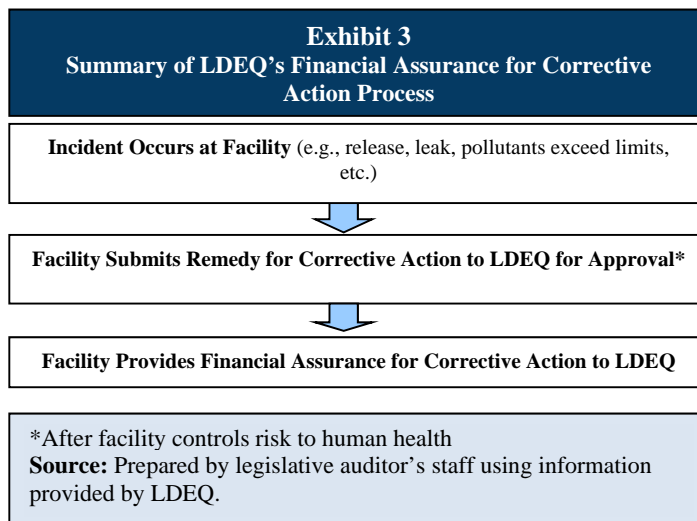
LDEQ has not established timeframes for when all solid and hazardous waste facilities in corrective action must submit evidence of financial assurance. As of June 30, 2019, LDEQ had not received financial assurance that 14 (58.3%) of 24 hazardous waste facilities and three (75%) of four solid waste facilities in corrective action could cover expenses associated with their corrective action activities. The three solid waste facilities estimated that their corrective action activities will cost approximately \$5.0 million.

When a hazardous waste facility accidentally releases waste or a solid waste facility exceeds pollutant limits set in state regulations into the environment, owners of the facility are responsible for investigating and cleaning up the release and any environmental damage caused. This kind of cleanup is called "corrective action." For example, if contaminated water leaks into the soil, the facility owner must fix the leak and also must clean up any contamination in the soil where the water leaked. When such an incident occurs at a solid or hazardous waste facility, the owner must develop a plan for corrective action (remedy), obtain approval for the remedy from LDEQ, and provide financial assurance to LDEQ that it can cover the cost of the remedy. Corrective action activities may include removing and treating contaminated soil as well as ongoing monitoring of the area to ensure the contamination is contained. The cost of corrective

action and the resulting amount of the required financial assurance depends on the specific corrective action remedy approved by LDEQ. Current cost estimates for hazardous waste facilities in corrective action range from \$205,000 to more than \$15 million.¹⁷ Exhibit 3 summarizes LDEQ's corrective action process.

LDEQ has not established timeframes for when all solid and hazardous waste facilities in corrective action must submit financial assurance for their corrective action activities.¹⁸ As of June 30, 2019, LDEQ had not received financial assurance that 14 (58.3%) of 24 hazardous waste facilities and three (75%) of four solid waste facilities in corrective action could cover costs associated with their corrective action activities. Louisiana Administrative Code¹⁹ requires facilities to provide assurance of financial responsibility for completing corrective actions, but does not always specify *when* financial assurance must be provided to LDEQ by the facility owner. In addition, LDEQ has not developed policies for when the facility owner is required to provide financial assurance for corrective action, nor how long it should take facility owners to submit corrective action remedies to LDEQ. As of June 30, 2019, the three solid waste facilities have been conducting corrective action activities for an average of 7.6 years; however, they have not submitted financial assurance for approximately \$5.0 million in estimated corrective action costs to LDEQ.

According to LDEQ, 35 hazardous waste facilities had incidents, were in corrective action as of June 30, 2019, and will be required to submit financial assurance to LDEQ for their corrective action activities. LDEQ has not required 11 of these facilities to submit financial assurance mechanisms yet since it has not received their remedies. Of the remaining 24 facilities that have submitted remedies for corrective action, LDEQ had not received the required financial assurance for 14 (58.3%). On average, 6.4 years has passed since LDEQ approved remedies for these 14 facilities. Exhibit 4 shows the status of solid and hazardous waste facilities in corrective actions as of June 30, 2019.



¹⁷ These estimates are based on the hazardous waste facilities in corrective action that have provided financial assurance to LDEQ as of June 30, 2019.

¹⁸ LAC 33:1305 states that residential and commercial solid waste landfills must provide evidence of financial assurance within 120 days after remedy selection; other solid waste facilities such as industrial waste facilities and hazardous waste facilities have no such requirement in LAC. In addition, solid waste construction and debris landfills have no corrective action requirements.

¹⁹ LAC 33:3322 (hazardous waste) and LAC 33:519 (solid waste)

Exhibit 4				
Status of Financial Assurance (FA) for Solid and Hazardous Waste Facilities in Corrective Action				
As of June 30, 2019				
Category	Solid Waste		Hazardous Waste	
	No.	%	No.	%
Financial Assurance Not Yet Required				
Remedy Not Received by LDEQ	0	0%	11	100%
Financial Assurance Required (Remedy Selected)				
FA Submitted to LDEQ	1	25.0%	10	41.7%
FA Not Submitted to LDEQ	3	75.0%	14	58.3%
Total FA Required	4	100%	24	100%
Total Facilities in Corrective Action	4		35	
Source: Prepared by legislative auditor's staff using information provided by LDEQ.				

For the 11 hazardous waste facilities in corrective action previously mentioned for which LDEQ did not receive remedies as of June 30, 2019, an average of 11.3 years has passed since the incident occurred. According to LDEQ, while these facilities have controlled the risk of human exposure caused by the incident, they have not yet submitted their proposed corrective action remedies to LDEQ and thus are not yet required to provide financial assurance because they do not know the total costs associated with the corrective action activities. While the EPA gives states flexibility to tailor financial responsibility requirements to facility-specific circumstances, it provides guidance for when the financial assurance should be obtained by suggesting the following two approaches for regulators to consider:

1. ***Require financial assurance mechanism to be submitted at the time of final remedy selection when the associated cost estimates are known.*** While LDEQ has not established regulations for when all facilities must submit financial assurance mechanisms for corrective action, in practice, this is the approach that LDEQ currently uses. A disadvantage to this approach is that funds are set aside relatively late in the corrective action process. According to the EPA, since it frequently takes several years from the time a facility becomes subject to corrective action for the facility to reach the final corrective measures selection stage of the process, there is a risk that a facility owner's financial situation could deteriorate during that time. If the owner's financial health declines and the regulator has not yet received evidence that the owner has sufficient financial capacity, the responsibility to fund the cleanup may shift to the regulatory agency and/or taxpayers.
2. ***Require financial assurance mechanism to be submitted as soon as it is determined that corrective action is needed.*** This approach would require the owner to make an early estimate of the cost of corrective action and provide the financial assurance mechanism for that cost. After the remedy is selected and better cost estimates are known, the financial assurance amount could be adjusted up or down as needed. The benefit of this option is that the facility is forced to set aside funds for corrective

action at an earlier stage; however, the EPA admits that it may be difficult for regulators to determine a reasonable amount for some facilities.

Recommendation 5: LDEQ should obtain cost estimates and financial assurance for corrective action measures from the 14 hazardous waste facilities and three solid waste facilities that have not provided financial assurance for corrective action activities.

Summary of Management's Response: LDEQ agrees with this recommendation and stated that it has contacted each of the facilities identified to request corrective action cost estimates. LDEQ is in the process of reviewing the cost estimates that it has received thus far along with the related financial assurance information. See Appendix A for management's full response.

Recommendation 6: LDEQ should evaluate the facility-specific circumstances of each of the 11 hazardous waste facilities that require corrective action, but have not submitted corrective remedies, to determine if it should require these facilities to provide financial assurance while it is waiting for them to submit their remedies.

Summary of Management's Response: LDEQ agrees with this recommendation and stated that it has initiated a review of the facility-specific risks related to the 11 hazardous waste facilities identified. Based on the results of the review, LDEQ may or may not require financial assurance from the facilities prior to corrective remedy selection. See Appendix A for management's full response.

Recommendation 7: LDEQ should amend applicable sections of the Louisiana Administrative Code to include timing requirements for when facilities in corrective action must provide financial assurance mechanisms and consider requiring solid and hazardous waste facilities to submit financial assurance mechanisms as soon as it is determined that correction action is needed.

Summary of Management's Response: LDEQ partially agrees with this recommendation and stated that it will consider the regulatory changes recommended. In considering the proposed regulations, LDEQ would consider other changes to address the findings, such as policy changes and changes to the SOP. See Appendix A for management's full response.

LDEQ could strengthen its financial assurance process by requiring staff to enter complete and accurate financial assurance information into TEMPO and dedicating staff with financial expertise to review financial assurance documents.

Not using TEMPO consistently and accurately, combined with a lack of dedicated staff, contributes to weaknesses in LDEQ's financial assurance process. Complete and accurate data

in TEMPO would help management ensure that processes are being followed and dedicated staff would help ensure accountability for following standard operating procedures.

We found that the information in TEMPO, the data system LDEQ uses to track cost estimates and financial assurance information, was often incomplete and inaccurate. For example, according to TEMPO data, 88 solid waste facilities did not submit updated financial assurance mechanisms as of June 30, 2019. However, after we reviewed additional documentation located in LDEQ's Electronic Document Management System and provided by staff, we found that 63 of these facilities did submit updated financial assurance mechanisms that had not yet been entered into TEMPO. We also found that TEMPO data is not always accurate. For example, we identified data entry errors such as financial assurance assigned to the wrong facility, inaccurate financial assurance types, and inaccurate expiration dates for financial assurance mechanisms. In addition, LDEQ does not maintain all corrective action information in a centralized location, such as TEMPO, which limits management's ability to monitor all facilities in corrective action. If LDEQ implemented a review process to ensure staff consistently entered complete and accurate data in TEMPO, management would be better able to use this data to ensure solid and hazardous waste facilities maintain and update their cost estimates and financial assurance.

LDEQ lacks dedicated staff with the financial expertise needed to effectively review financial assurance documents. Currently LDEQ has one staff person responsible for reviewing all financial assurance documents for solid and hazardous waste facilities in addition to other work responsibilities. Other states, such as Texas and Arkansas, have teams of staff with financial and banking backgrounds dedicated to reviewing financial assurance mechanisms. Additional financial assurance staff may allow LDEQ to better ensure compliance with state regulations as well as incorporate financial assurance tips recommended by the EPA. These tips include contacting issuing financial institutions on an annual basis to confirm that financial assurance mechanisms are still in place and reading the business press to be aware of companies operating in Louisiana that may be having financial difficulties.

LDEQ has not developed procedures that designate which staff are responsible for obtaining and reviewing financial assurance mechanisms for corrective action. As a result, LDEQ staff are not clear what division and what staff within LDEQ are responsible for requesting the cost estimates and financial assurance mechanisms for corrective action.

Recommendation 8: LDEQ should implement a review process to ensure that staff are consistently entering complete and accurate data into TEMPO regarding cost estimates and financial assurance so that management can use the data system to efficiently monitor the financial assurance process for solid and hazardous waste facilities.

Summary of Management's Response: LDEQ agrees with this recommendation and stated that it will update the applicable SOP to include a management review process that helps to ensure that staff are consistently entering complete and accurate data into TEMPO regarding cost estimates and financial assurance. The SOP will outline

procedures to periodically test and reconcile the TEMPO database to ensure data dependability. See Appendix A for management's full response.

Recommendation 9: LDEQ should maintain all corrective action information in a centralized location, such as TEMPO, so that management can more effectively monitor facilities in corrective action.

Summary of Management's Response: LDEQ agrees with this recommendation. See Appendix A for management's full response.

Recommendation 10: LDEQ should dedicate staff with financial expertise to review financial assurance documents so that it can better manage the financial assurance process.

Summary of Management's Response: LDEQ agrees with this recommendation and stated that it has previously recognized the need for, and requested, a dedicated position for the review and management of financial assurance. LDEQ will continue to work towards this goal. See Appendix A for management's full response.

Recommendation 11: LDEQ should establish standard operating procedures that specify which staff responsible for requesting and reviewing cost estimates and financial assurance mechanisms for corrective action.

Summary of Management's Response: LDEQ agrees with this recommendation and stated that it will develop a new SOP that specifies the responsible staff for requesting cost estimates, reviewing cost estimates, and reviewing financial assurance mechanisms for corrective action. See Appendix A for management's full response.

APPENDIX A: MANAGEMENT'S RESPONSE



State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF THE SECRETARY

October 28, 2019

Mr. Daryl G. Purpera, CPA, CFE
Office of the Legislative Auditor
Post Office Box 94397
Baton Rouge, LA 70804-9397

Dear Mr. Purpera,

This is the Louisiana Department of Environmental Quality's (LDEQ) response to the reportable findings presented in the Legislative Auditor (LLA) Performance Audit Services report titled "**Financial Assurance Process for Solid and Hazardous Waste Facilities**".

LDEQ takes its regulatory and fiduciary responsibility related to financial assurance very seriously and appreciates the opportunity to respond to the findings of your report. After reviewing the recommendations, LDEQ offers the following responses:

Recommendation 1: LDEQ should follow up and ensure that it receives updated cost estimates and financial assurance mechanisms for the 28 solid and hazardous waste facilities and sufficient financial assurance mechanisms for the three solid waste facilities we identified.

Response: LDEQ agrees with this recommendation and is currently in the process of contacting all 28 of the solid and hazardous waste facilities identified to obtain updated cost estimates and financial assurance mechanisms. LDEQ is also in the process of obtaining sufficient financial assurance that adequately reflects the closure and post-closure cost estimates for the three permitted solid waste facilities identified by LLA. Facilities that do not submit the information requested by the department in a timely manner will be referred to LDEQ's Enforcement Division for additional follow up.

Recommendation 2: LDEQ should update its standard operating procedures and specify responsible staff to help ensure that all solid and hazardous waste facilities submit updated cost estimates and financial assurance mechanisms for closure and post-closure activities as required by state regulations.

Response: LDEQ agrees with this recommendation. LDEQ will update the applicable standard operating procedures (SOP) to specify the staff responsible for identifying and tracking all facilities required to submit financial assurance mechanisms and updated cost estimates, including facilities in closure and post closure.

Recommendation 3: LDEQ should update its standard operating procedures to include timeframes for when it will refer facilities that are noncompliant with financial assurance requirements to its Enforcement section.

Response: LDEQ agrees with this recommendation. LDEQ will update the applicable SOP to include detailed timeframes indicating when to refer noncompliant facilities to LDEQ's Enforcement Division.

Recommendation 4: LDEQ should amend LAC 33:VII 1303 to require local governments that own solid waste facilities to annually submit documents, such as audited financial statements, to ensure these facilities meet the criteria for the financial test.

Response: LDEQ partially agrees with this recommendation. LDEQ will analyze and consider changes to LAC 33:VII.1303. However, in considering whether to amend the financial assurance requirements for local governments, LDEQ must consider adverse unintended consequences of the regulatory change. LDEQ must also consider that any proposed regulatory change is not a predetermined process as public input is part of the process. At the end of the process, the decision may be not to make any changes to the rule. The process could result in changes to the regulation not initially considered. Lastly, LDEQ must consider whether policy changes would be as effective as a regulatory change in addressing the finding.

Recommendation 5: LDEQ should obtain cost estimates and financial assurance for corrective action measures from the 14 hazardous waste facilities and three solid waste facilities

Response: LDEQ agrees with this recommendation. LDEQ has contacted each of the 14 hazardous waste facilities and each of the three solid waste facilities identified to request corrective action cost estimates. LDEQ is in the process of reviewing the cost estimates that we have received thus far along with the related financial assurance information.

Recommendation 6: LDEQ should evaluate the facility-specific circumstances of each of the 11 hazardous waste facilities that require corrective action, but have not submitted corrective remedies, to determine if it should require these facilities to provide financial assurance while it is waiting for them to submit their remedies.

Response: LDEQ agrees with this recommendation. LDEQ has initiated a review of the facility-specific risks related to the 11 hazardous waste facilities that have not yet submitted final corrective action remedies. Based on the results of our review, LDEQ may or may not require financial assurance from the facilities prior to corrective remedy selection.

Recommendation 7: LDEQ should amend applicable sections of the Louisiana Administrative Code to include timing requirements for when facilities in corrective action must provide financial assurance mechanisms, and consider requiring solid and hazardous waste facilities to submit financial assurance mechanisms once it is determined that correction action is needed.

Response: LDEQ partially agrees with this recommendation. LDEQ will consider the regulatory changes recommended. However, the proposed changes would be more stringent than the federal regulations and would likely generated considerable comment, in addition to being subject to the same uncertainties described in Recommendation 4. In considering the proposed

regulations, LDEQ would consider other changes to address the findings, such as policy changes and changes to the standard operating procedures.

Recommendation 8: LDEQ should implement a review process to ensure that staff are consistently entering complete and accurate data into TEMPO regarding cost estimates and financial assurance so that management can use the data system to efficiently monitor solid and hazardous waste facilities.

Response: LDEQ agrees with this recommendation. LDEQ will update the applicable SOP to include a management review process that helps to ensure that staff are consistently entering complete and accurate data into TEMPO regarding cost estimates and financial assurance. The SOP will also outline procedures to periodically test and reconcile the TEMPO database to ensure data dependability.

Recommendation 9: LDEQ should maintain all corrective action information in a centralized location, such as TEMPO, so that management can more effectively monitor facilities in corrective action.

Response: LDEQ agrees with the recommendation.

Recommendation 10: LDEQ should dedicate staff with financial expertise to review financial assurance documents so that it can better manage the financial assurance process.

Response: LDEQ agrees with this recommendation. LDEQ has previously recognized the need for, and requested, a dedicated position for the review and management of financial assurance. LDEQ will continue to work towards this goal.

Recommendation 11: LDEQ should establish standard operating procedures that specify which staff responsible for requesting and reviewing cost estimates and financial assurance mechanisms for corrective action.

Response: LDEQ agrees with this recommendation. LDEQ will develop a new SOP that specifies the responsible staff for requesting cost estimates, reviewing cost estimates and reviewing financial assurance mechanisms for corrective action.

As evidenced by our responses to your recommendations, LDEQ has been working diligently to strengthen our financial assurance process. In addition to working on the specific concerns and recommendations outlined in your report, LDEQ's Office of Management and Finance has taken the initiative to audit and centrally organize all paper and electronic files related to financial assurance.

As you explained in your report, currently LDEQ only has one staff person responsible for reviewing all financial assurance documents for solid and hazardous waste facilities in addition to other work responsibilities. LDEQ's ultimate goal is to have a financial assurance process comparable to the other states cited in your report, such as Texas and Arkansas, which have teams of staff with financial and banking backgrounds dedicated to continuously reviewing

financial assurance mechanisms. Accordingly, for the third consecutive year, LDEQ plans to communicate our desire for one new full time position dedicated exclusively to financial assurance in our upcoming FY budget request.

As always, we appreciate the assistance of the LLA and will continue to look for ways to optimize our processes to provide for a better environment for current and future citizens of Louisiana. We look forward to your continued assistance in this endeavor.

Sincerely,

A handwritten signature in black ink, appearing to read 'Chuck Carr Brown', written in a cursive style.

Chuck Carr Brown, Ph.D.
Secretary

APPENDIX B: SCOPE AND METHODOLOGY

We conducted this performance audit under the provisions of Title 24 of the Louisiana Revised Statutes of 1950, as amended. Our audit evaluated the Louisiana Department of Environmental Quality's (LDEQ) oversight of financial assurance for solid and hazardous waste facilities. This audit covered fiscal year 2019. Our audit objective was to:

Determine whether LDEQ ensured that solid and hazardous waste facilities provided evidence of financial assurance as required by state regulations.

We conducted this performance audit in accordance with generally accepted government auditing standards issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide reasonable basis for our findings and conclusions based on our audit objective. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. To answer our objective, we reviewed internal controls relevant to the audit objective and performed the following audit steps:

- Interviewed LDEQ staff and obtained documentation to understand the policies and practices related to cost estimates and financial assurance for closure, post-closure, and corrective action for solid and hazardous waste facilities.
- Obtained LDEQ policies, procedures and other documents to understand processes for obtaining, reviewing, inputting, and tracking cost estimates and financial assurance information in TEMPO.
- Researched Louisiana laws and administrative regulations to determine cost estimate and financial assurance requirements for owners of solid and hazardous waste facilities.
- Obtained TEMPO data from LDEQ that includes permit history, cost estimate history, and financial assurance history for solid and hazardous waste facilities. We conducted data reliability testing and determined that some fields were not reliable for our purposes. We noted the data limitations in the report and used alternative sources of evidence from LDEQ's Electronic Data Management System (EDMS) or documents provided by LDEQ as needed.
- Obtained and analyzed internal documents (Excel spreadsheets) that LDEQ uses to track hazardous waste facilities permitted under the federal Resource Conservation and Recovery Act (RCRA).
- Analyzed TEMPO data using Excel to identify the population of solid and hazardous waste facilities that are required to have cost estimates and financial

assurance for closure and post-closure costs. Because of data issues identified previously, we also obtained additional documentation from EDMS and LDEQ staff to ensure that the population was accurate.

- Analyzed TEMPO data using Excel to identify solid waste facilities that did not have updated cost estimates and/or financial assurance. We also tested to ensure that facilities' financial assurance adequately covers their cost estimates. Because of data issues identified previously, we also obtained additional documentation from EDMS and LDEQ staff to ensure our results were accurate.
- Analyzed EDMS and documents provided by LDEQ staff to identify hazardous waste facilities that did not have updated cost estimates and/or financial assurance.
- Researched best practices related to financial assurance, including other states' financial assurance practices, Environmental Protection Agency (EPA) guidance, and reports released by the EPA's Office of Inspector General.
- Met with LDEQ staff and obtained documents to understand the EPA's oversight of activities related to hazardous waste financial assurance. Annually, the EPA "audits" LDEQ's cost estimate and financial assurance data for hazardous waste facilities that fall under the RCRA program and submits an error report to which LDEQ must respond. Initially we planned to use LDEQ's response to the EPA's error report to identify noncompliant hazardous waste facilities. However, after additional discussion we discovered that the EPA primarily identifies errors in the data that LDEQ submits to the EPA. In addition, the EPA does not require LDEQ to provide documentation to support corrections to the data. Therefore, we determined that we could not rely on LDEQ's response to the EPA's error report.
- Obtained and analyzed internal tracking documents (Excel spreadsheets) that LDEQ uses to monitor/track hazardous waste facilities that are in corrective action. Obtained a list of solid waste facilities in corrective action from LDEQ staff. LDEQ does not use TEMPO to input or track corrective action. We then reviewed EDMS documents and other information provided by LDEQ to determine if facilities have financial assurance to cover corrective action activities. If not, we determined the length of time since facilities initiated corrective action activities.
- Researched EPA guidance related to financial assurance and timing of financial assurance for hazardous waste facilities needing corrective action.
- Communicated frequently with LDEQ staff to keep them informed of our observations, verify our results, and allowed them to provide feedback regarding the cause of identified issues.

APPENDIX C: TYPES OF FINANCIAL ASSURANCE MECHANISMS

State regulations (LAC 33:3707, 3711 for hazardous waste and LAC 33:1303 for solid waste) allows owners of solid and hazardous waste facilities to use the following mechanisms to demonstrate assurance that funds will be available to properly close the facility and perform any necessary post-closure activities in the event that the owner is unwilling or unable to conduct these activities.

Mechanism	Description
Trust Fund	An owner may establish a trust fund into which he or she deposits money specifically earmarked for closure and/or post-closure care. The owner pays into the trust fund for a specified period of time (pay-in period) such that at the time of closure, there are sufficient funds to cover closure and/or post-closure care costs.
Surety Bond	<p>An owner may secure a guarantee from a surety company (in the form of a bond) that all closure and post-closure care requirements will be fulfilled. If the owner fails to meet the requirements specified in the bond, the surety company is liable for the costs. If using a surety bond, the owner must also establish a standby trust fund into which the surety company will make payments if the owner fails to comply with its financial responsibilities. This money deposited into the standby trust fund can then be used to pay a third party to perform closure/post-closure activities.</p> <p>An owner may use two types of bonds to meet the financial assurance requirements:</p> <p>(1) Payment or financial guarantee bond - guarantees that if the owner fails to pay for closure and post-closure expenses, the surety company will pay the costs into the standby trust fund.</p> <p>(2) Performance bond - guarantees that if the owner fails to perform all the required closure and post-closure care activities, the surety company will either perform the required activities or pay sufficient funds into the standby trust fund.</p>
Letter of credit	An owner may obtain an irrevocable standby letter of credit from an institution that has the authority to issue such letters. The letter of credit must be equal to the amount of the cost estimate and must be increased whenever the closure cost estimate increases (i.e., either annually or when the facility is expanded). The owner must also establish a standby trust fund into which the issuing institution will pay if the owner fails to meet its closure/post-closure care obligations.

Mechanism	Description
Insurance	<p>An owner may obtain an insurance policy for a face value amount, at least equal to the cost estimate for closure and post-closure expenses. The face amount, which is the total amount the insurer is obligated to pay under the policy, must be increased annually and any other time the cost estimate increases. The insurer must be licensed by a state (use of offshore insurers is not allowed) and may not cancel, terminate, or fail to renew the policy unless the owner fails to pay the premiums.</p>
Local Government Financial Test	<p>An owner that is a local government may use the local government financial test to demonstrate closure, post-closure care, and/or corrective action financial assurance. To make this demonstration, a local government must satisfy either the bond rating requirement or the financial ratio alternative.</p> <ul style="list-style-type: none"> • The bond requirement requires the government to have an investment grade bond rating (i.e., AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's) on all outstanding general obligation bonds. • The financial ratio alternative requires the government not have any outstanding general obligation bonds or only have unrated general obligation bonds, has a ratio of cash plus marketable securities to total expenditures greater than or equal to 0.05, and has a ratio of annual debt service to total expenditures less than or equal to 0.20. In determining these ratios, the government must use Generally Accepted Accounting Principles for governments, and have its financial statements audited by an independent certified public accountant. <p>A government is not eligible to use this mechanism if it is currently in default on any outstanding general obligation bond; has any outstanding general obligation bonds rated lower than BBB as issued by Standard and Poor's or Baa as issued by Moody's; operated at a deficit equal to 5% or more of total annual revenue in each of the previous two fiscal years; or received an adverse opinion, disclaimer of opinion, or other qualified opinion from the independent certified public accountant auditing its financial statements.</p>

Mechanism	Description	
<p>Financial Test</p>	<p>An owner may meet the financial assurance requirements by passing certain “financial tests” to demonstrate and document that the owner has sufficient assets located within the United States to cover closure and post-closure care costs. These “financial tests” differ for owners of solid and hazardous waste facilities.</p>	
	<p style="text-align: center;">Hazardous Waste</p> <p>Alternative 1 - The owner must meet each of the following criteria:</p> <ul style="list-style-type: none"> • Net working capital equals six times current closure and post-closure cost estimates • Tangible net worth is greater than \$10 million • 90% of total assets are located in the United States, or at least six times the current closure and post-closure cost estimates • Owners must satisfy two of the following three ratios: <ul style="list-style-type: none"> - Liabilities to net worth ratio less than 2 - Current assets to current liabilities ratio greater than 1.5 - Net income (plus depreciation, depletion and amortization) to liabilities ratio greater than 0.1 <p>Alternative 2 - The owner must meet each of the following criteria:</p> <ul style="list-style-type: none"> • Tangible net worth at least six times current closure and post-closure cost estimates • Tangible net worth is greater than \$10 million • 90% of total assets are located in the United States, or at least six times the current closure and post-closure cost estimates • The current bond rating for the most recent bond issuance is AAA, AA, A, or BBB as issued by Standard & Poor's, or Aaa, Aa, A, or Baa as issued by Moody's 	<p style="text-align: center;">Solid Waste</p> <p>An owner/operator can meet the financial assurance requirements by passing a financial test to demonstrate and document that they have sufficient assets to cover closure, post-closure care, and/or corrective action costs. Specifically, the owner/operator's tangible net worth must be greater than the sum of the current closure, post-closure care, and/or corrective action cost estimates test plus \$10 million; they must have assets located in the United States amounting to at least the sum of current closure, post-closure care, and/or corrective action cost estimates; and they must satisfy one of the following three conditions:</p> <ul style="list-style-type: none"> • A current rating for its senior unsubordinated debt of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's. • A ratio of less than 1.5 comparing total liabilities to net worth. • A ratio of greater than 0.10 comparing the sum of net income plus depreciation, depletion, and amortization, minus \$10 million, to total liabilities.
<p>Corporate Guarantee</p>	<p>An owner may obtain a written guarantee from another company (the guarantor) to ensure coverage for closure/post-closure care costs. If the owner fails to perform or pay for closure and post-closure care, the guarantor must either perform the required activities or establish a trust fund to pay a third-party to perform closure and post-closure care. The guarantor must pass the financial tests noted above and be one of the following:</p> <ul style="list-style-type: none"> • Direct corporate parent company - a corporation that directly owns at least 50% of the voting stock of another corporation or subsidiary. • Corporate grandparent - a corporation that indirectly owns over 50% of a company through a subsidiary. • Sibling corporation - a corporation that shares the same parent corporation. • Firm must have a “substantial business relationship” with the owner. 	
<p>Source: Prepared by legislative auditor's staff using EPA guidance and the Code of Federal Regulations</p>		