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Financial Assurance Interim Report to the House Committee on State Affairs

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Prepared by
Financial Administration Division

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Financial Assurance Interim Report Texas Commission on Environmental Quality

August 1, 2014

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Financial Assurance Interim Report House Committee on State Affairs

I. BACKGROUND

The purpose of this report is to provide the Texas Commission on Environmental Quality's (TCEQ) response to the following 2014 interim charge from the House Committee on State Affairs:

Study the different financial assurance options used by state agencies to ensure compliance with environmental clean-up or remediation costs. Determine whether the methods utilized by state agencies are appropriate to ensure sufficient funds will be available when called upon.

II. EXECUTIVE SUMMARY

Financial Assurance (FA) is a term used to describe financial mechanisms/instruments¹ that assure funds are available for the completion of closure, post-closure or corrective action activities should a facility permittee be unable or unwilling to perform such activities as required by their license, permit or registration.

The TCEQ oversees approximately \$12.1 billion in FA potentially available for environmental clean-up and remediation provided for approximately 14,000 facilities. FA is a requirement for 18 different regulatory programs managed by the TCEQ. Approximately 9 percent of the \$12.1 billion in total FA overseen by the TCEQ is maintained as part of federally delegated programs from either the United States Environmental Protection Agency (EPA) or the United States Nuclear Regulatory Commission (NRC). For 10 of those programs, the delegating agency sets the minimum standards for the types of FA mechanisms, which the TCEQ uses to operate its FA program. Eight smaller, state-authorized FA programs use slightly different standards which are set out either in rule or statute. Unless specific instruction is set out by state statute for these state-authorized programs or programmatic requirements direct otherwise, the TCEQ generally follows the federally established FA requirements.

¹ The term "mechanism" has the same meaning as "instrument", and due to its common usage in regulation and statute, mechanism will be the primary term used in this report.

Table 1 Financial Assurance Authorization and Delegation

EPA	NRC	Texas
Industrial Hazardous Waste (IHW)	Low-level Radioactive Waste Disposal	Recycling
Underground Injection Control (UIC)	Radioactive By-Product Material Disposal	Class B Sewage Sludge Land Application
Municipal Solid Waste (MSW)	Radioactive Alternative Methods of Disposal (Burial)	Petroleum Contaminated Soil Remediation
Underground Storage Tanks (UST)	Uranium Mining	Water Utilities
Used Oil	Radioactive Substances Processing and Storage	Scrap Tire Recycling
		Medical Waste Transporters
		Quarries in the John Graves Scenic Riverway
		Brine Pits

Permittees for most programs can choose from among six FA mechanisms. For most programs, FA is provided by the permittee prior to acceptance/management of waste at the facility. FA costs estimates for closure and post-closure are based on how the waste is managed.

The TCEQ is seldom required to collect under a FA mechanism because most permittees address their environmental obligations without the need for regulatory intervention or do not have releases of contaminants which need to be addressed. For example, not all underground storage tanks leak although financial assurance is required to address the potential for a release.

However, when an FA mechanism is required to address a permittee's environmental obligations, the FA has generally been sufficient to address the required activities. In those instances when FA has been inadequate, there are two primary reasons why FA could be insufficient for closing a facility. The first reason could be that the cost estimates associated with the facility are inadequate or non-existent. This usually occurs when a licensed entity is out of compliance, or in the event of a release or contamination. The second reason for FA insufficiency may occur in the event of a FA mechanism failure, where the agency is unable to draw upon FA funding to address issues at the site. Although most FA mechanisms pay when demanded, the TCEQ has encountered problems attempting to collect closure/post-closure insurance and pay-in trust mechanisms. The TCEQ recognizes, however, that changes in authorized mechanisms allowed or to the terms of operation would likely come at a cost to regulated entities.

Additionally, when the need for corrective action occurs, programs that do not require FA for potential corrective action are at a higher risk for insufficient financial assurance. Consistent with federal rules from delegating agencies, no FA for potential corrective action is required in advance for most programs due to the wide ranging possible cost

estimates as well as the potential cost to the facility permittee of carrying the FA mechanism. Instead, FA for corrective action is not required until a release has occurred, been investigated, characterized, a remedy method is selected, and the required FA amount is calculated. The financial viability of the responsible entity at that time determines whether adequate FA for corrective action is provided.

III. OVERVIEW

FA is comprised of two separate components that work hand-in-hand to provide financial protection cost estimates and the FA mechanisms.

A. Cost Estimates

For most of the programs requiring FA, the amount of FA required is based upon “worst-case” cost estimates provided by the regulated entity; estimates are reviewed by TCEQ technical staff. Rules describe the methodologies and assumptions to be used. A few programs, however, are guided by designation of specific amounts in statute or rule instead of individual cost estimates as the above references.

FA for environmental clean-up or remediation costs are set out below in three separate categories to reflect the particular activities needed at a site: closure, post-closure, and corrective action.

Closure – consists of any one or combination of the following activities: permanently taking a waste unit out of service, dismantlement, plugging abandoned wells, decommissioning, disposal of waste, aquifer restoration, stabilization, and maintenance. FA for this activity is required for virtually all programs except Underground Storage Tanks (UST), Water Utilities, Medical Waste Transporters and Class B sewage sludge facilities.

Post-Closure/Institutional Control – consists of ongoing site maintenance, environmental monitoring and surveillance at a closed disposal site. Post-closure monitoring is required for at least 30 years for those facilities where a portion of the waste is left in place. FA for this activity is most commonly required for industrial hazardous waste (IHW), municipal solid waste (MSW), and radioactive materials (RM) facilities.

Corrective Action – consists of the activities required to address unplanned events, such as, a release that poses a risk to public health, safety, or the environment. For most programs, FA is not required until contaminants have been released, and it is determined that clean-up is needed. However, FA is required for UST facilities, medical waste transporters, Class B sewage sludge

land application facilities, and the Low-level Radioactive Waste Disposal facility prior to conducting operations.

Of note certain programs require regulated entities to provide liability coverage for bodily injury and property damage to third parties other than the State of Texas. This circumstance, however, appears to be outside the scope of the charge regarding environmental clean-up or remediation costs.

B. Financial Assurance Mechanisms

The TCEQ uses FA mechanisms including trusts, letters of credit, surety bonds, insurance, financial tests, and corporate guarantees. Third parties issue trusts, letters of credit, surety bonds, and insurance to provide funding even if the regulated entity becomes insolvent. With the exception of FA provided for the UST program, mechanisms can be cancelled only after notice is provided to the TCEQ.

The financial test and corporate guarantee operate as “self-insurance” of the regulated entity, or means-testing through its parent, respectively. To qualify, the regulated entity’s Chief Financial Officer must submit an annual letter attesting to the entity meeting certain financial ratios based on audited financial statements. These letters are reviewed and verified by the TCEQ.

IV. HOW ARE THE FA AMOUNTS FOR CLOSURE AND POST-CLOSURE ESTABLISHED?

For a significant majority of programs requiring FA, the amount of FA is based on site specific closure and post-closure cost estimates. The permittee provides these estimates which are included in the facility’s permit, registration, or notification application. Professional engineers prepare cost estimates for IHW, MSW and RM facilities; these facilities typically have larger individual cost estimates as compared to other programs due to higher waste volumes, and/or unique characteristics of their waste. The TCEQ’s staff independently reviews the submitted cost estimates based on published costs and by the permit writer’s past experience. The TCEQ will not issue a license/permit if the estimates are not sufficient to address the closure of the facility.

A. Worst-Case Scenario

The TCEQ’s rules require the use of certain basic “worst case” assumptions in developing closure cost estimates. The overriding assumptions are as follows:

abandonment occurs at the point at which closure would be the most expensive; all facility units would be completely full; no operable equipment remaining on site; and an independent third-party would be responsible for closure. MSW facilities may contain multiple cells for disposal, but may only require FA for cells that are open. The facility permittee is required by rule to provide FA 60 days prior to disposing of waste into a newly commissioned cell.

Program specific requirements for underground injection control associated with radioactive material also call for closure/stabilization to the degree necessary to minimize maintenance costs, allow unrestricted use upon decommissioning of the site, and aquifer restoration based on the physical characteristics of the individual aquifer.

B. Post-Closure

When the facility's closure plan involves leaving waste in place (e.g. a landfill), financial assurance for post-closure activities is also required. These activities include periodic costs covering maintenance, groundwater monitoring, and surveillance. As with closure cost estimates, post-closure care cost estimates must be based on worst-case assumptions. The length of monitoring varies from 30 years for IHW and MSW facilities to 100 years for certain RM facilities. The TCEQ has implemented 10 year extensions in those cases whereby the agency finds that such extension is necessary.

C. Components of Cost Estimates

Typically, closure and post-closure cost estimates are provided to the TCEQ in a table, work sheet, or spreadsheet in the facility's permit, registration, or notification application. The information included consists of a description of items on which cost estimates will focus, the number of units for each cost item, unit of measurement (e.g. lump sum, gallon, feet, cubic yards, etc.), unit cost, details of costs for equipment rental, third-party labor, transportation, and analytical costs. The cost estimates must be based on detailed analyses using professional references, such as, RS Means Construction Costs Data, which are published and updated annually. The TCEQ's staff review the submitted cost estimates and will not issue a license/permit if the estimates are not sufficient to address the closure of the facility. To ensure that they remain current, after FA is established by the facility permittee, annual inflation adjustments to the FA mechanism are required for larger FA facilities such as, IHW, RM and MSW.

D. Non-Standard State Requirements

Water systems under construction or in the process of assuming new ownership may be required to provide FA for the purpose of ensuring adequacy of drinking water. The amount of FA is based on the cost to complete construction of the water system, or to ensure continued operations of the facility during an ownership transfer.

Certain rock quarries located on a portion of the Brazos River designated as the John Graves Scenic Riverway are required to provide FA to assure adequate restoration of the impacted water body and reclamation of the permitted quarry site.² FA amounts are based on cost estimates prepared by the applicant's licensed Texas professional engineer or geoscientist, and are approved by the TCEQ. Cost estimates assume the maximum probable cost to complete the restoration and reclamation plans, each of which would be unique due to the size, location, description of the quarry, and nature of the receiving waters.

V. HOW ARE THE FA AMOUNTS FOR CORRECTIVE ACTION COSTS ESTABLISHED?

A. Post-Operation

There are a large number of possible corrective action scenarios at a given facility, resulting in a wide array of potential corrective action cost estimates. FA for corrective action for most programs is not required prior to operation of the facility. A facility will provide corrective action FA after a release has been confirmed, characterized, a remedy is selected, and a cost can be calculated based on the remedy selected. When required, FA amounts for corrective action are based upon site specific conditions for most programs. The facility owner is required to estimate costs from the point in time that the need for corrective action FA is established. These cost estimates are based on the extent of contaminants released, the type of remediation selected, and the physical control and interim measures needed. Review by the TCEQ of the cost estimates is very complex, requiring analysis of site specific factors including: chemical aspects, hydrological and other geological conditions, and other physical consideration to remediate the site. To ensure cost estimates remain current, FA mechanisms are annually adjusted for inflation as necessary.

² Texas Water Code §26.554 and 30 TAC 311.81

B. Pre-Operation

Certain programs have statutory or rule requirements that prescribe FA prior to operation of the facility. For instance:

- Class B sewage sludge land application units are required by statute³ to maintain commercial liability insurance and environmental impairment insurance in the amounts of \$3 million per occurrence and an annual aggregate of \$3 million for each type of coverage.
- TCEQ rules⁴ set out specific insurance amounts for medical waste transporters.
- TCEQ rules⁵ also set the amount of FA for UST facilities, although there is some variation based on the overall number of tanks owned as well as usage of the tanks by marketers versus non-marketers. The typical convenience store or gas station is required to provide \$1 million per occurrence and \$1 million annual aggregate coverage. If a tank owner has multiple facilities, FA amounts are shared among all the locations even if some facilities are located in states other than Texas. FA requirements and amounts for UST facilities mirror federal requirements⁶.
- Statute⁷ requires the Low-level Radioactive Waste Disposal facility licensee to provide a minimum of \$20 million in FA for corrective action prior to decommissioning.

Liability insurance is the primary FA mechanism used for most of the programs for which corrective action is required for FA prior to operation. Since it is uncertain if corrective action will actually be needed, liability insurance in these situations is a much more affordable FA mechanism than when an event such as a release occurs and it is certain remedial action is needed.

³ Health and Safety Code §361.121(h)

⁴ 30 TAC §37.9070

⁵ 30 TAC 37.815

⁶ 40 CFR, Part §280.93

⁷ Health and Safety Code §401.241(b)

VI. ARE THE FA AMOUNTS SUFFICIENT TO COVER THE ACTUAL COST OF CLOSING SITES?

A. Generally Sufficient

The TCEQ believes that the closure, post closure, and corrective action cost estimates are generally representative of costs associated with actual site closures, post-closure maintenance and, if needed, corrective actions. Costs are reassessed at permit/license renewals, and when there is a change in authorization that would impact cost estimates (e.g. modification or amendment to a license to add capacity). In addition, regional field investigators validate license/permit information, notify permit writers of any unapproved disposal units or unauthorized waste, and help identify any waste or contamination releases. Upon notification of the investigator's findings and possible subsequent enforcement action, the permitting staff can re-evaluate any needed changes to the FA amounts.

B. Factors When Insufficient

Occasionally, however, the cost estimates do not reflect the actual cost of closing sites. The deficiencies in cost estimates may be attributed to:

- Unforeseen issues at the site (e.g., unexpected contamination)
- Unauthorized waste or an unauthorized volume of waste accepted
- Unanticipated technical/engineering issues (e.g., changes required to address closure, such as, landfill cover, cap, secondary tank containment, etc.)
- Sudden change in prices due to market fluctuations (e.g., affecting labor, materials, etc.)
- Delay in implementing closure which may affect the closure costs (e.g., due to abandonment or other situations requiring hiring third-party contractors through bidding).
- Natural disasters, such as, hurricanes and flooding, may change closure costs.

For example, a battery reclamation facility permitted to temporarily store batteries until the source material could be extracted and shipped offsite. The company was unable to find a willing receiver of the by-product material for recycling as planned. Instead this material had to be disposed to a landfill, which

was not included as a cost in the company's original cost estimate. The company ultimately filed bankruptcy and the Commission was only able to recover a portion of the cost to close and remediate the facility.

C. Low-level Radioactive Waste Disposal

Review of cost estimates associated with the Low-level Radioactive Waste Disposal facility presents unique challenges given the type of waste being disposed, the life span of the waste, and the lack of similar disposal sites across the country handling this type of waste. Based on its analysis, the TCEQ believes these cost estimates are currently sufficient. The adequacy of financial assurance for this site is reviewed annually and presented publicly before the Commission.

D. Radioactive Waste Sites

In addition, if the Environmental Radiation and Perpetual Care Account is certified by the legislature, the TCEQ will have access to dedicated fee revenue that can be used in the event of a release or unplanned event requiring corrective action at an abandoned or active radioactive site. The TCEQ also has a budget rider that appropriates these funds for this purpose.

E. Uniqueness of Underground Storage Tanks

FA for petroleum underground storage tanks (USTs) is unique in that FA is established for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases. It does not address closure of USTs, which is referred to in UST rules as "permanent removal from service."⁸ The cost of tank removal is paid by the permittee; if a release is discovered, FA covers corrective action. The cost of tank removal varies, but it can be roughly estimated at \$10,000-\$20,000 per tank. Remediation or corrective action of a release can range widely depending on the severity and location of a release. The TCEQ has encountered sites where costs exceeded \$1 million.

F. Quarries in the John Graves Scenic Riverway

There are four general permittees and two individual permittees that maintain financial assurance for quarries operating within the water quality protection area of the John Graves Scenic Riverway. As of the date of drafting of this report,

⁸ See 30 TAC §334.55.

the TCEQ has not used FA to address any problem associated with a permitted entity in this program.

VII. WHAT FA MECHANISMS ARE USED?

A. Background

For most TCEQ programs, a facility permittee can choose from among 6 FA mechanisms allowed by rule: trust, letter of credit, surety bond, insurance, financial test and corporate guarantee. The selection of these mechanisms along with the wording and framework for mechanism operation was originally set out by the EPA for use in delegated programs. NRC uses the same mechanisms for its delegated programs with some slight variation. Unless statute, program-specific requirements, or TCEQ experience dictates otherwise, these mechanisms also provide the basis for non-delegated, state-authorized FA programs.

B. Effect of Bankruptcy

Mechanisms, such as letters of credit, trusts, surety bonds, and insurance policies are not usually considered property of the permittee's bankruptcy estate. Self-insurance mechanisms, such as, the financial test and corporate guarantee do not provide separate protections in the event of bankruptcy.

C. Table of Mechanism Usage

FA mechanism funding as of 7/16/14 by mechanism and program is reflected below:

Program	Trust	Letter of Credit	Surety Bond	Insurance	Financial Test	Corporate Guarantee	Total Amount
Hazardous Waste	\$34,505	\$165,292	\$209,017	\$99,626	\$224,369	\$298,538	\$1,031,347
Low-level Rad. Disposal	\$66,430	\$0	\$85,310	\$0	N/A	N/A	\$151,740
By-Product (Rad)	\$7,556	\$12,662	\$23,106	\$0	N/A	N/A	\$43,324
Storage and Processing (RAD)	\$0	\$806	\$0	\$0	\$0	\$35,700	\$36,506
Underground Injection Control	\$4,677	\$11,768	\$7,131	\$685	\$1,288	\$2,890	\$28,439
Municipal Solid Waste	\$1,901	\$21,864	\$584,451	\$92,796	\$643,070	\$899	\$1,344,981
Recycling	\$125	\$7,773	\$6,022	\$2,710	\$0	\$0	\$16,630
Used Oil	\$488	\$812	\$1,499	\$13,565	\$54	\$0	\$16,418
Sludge	N/A	N/A	N/A	\$60,000	N/A	N/A	\$60,000
Quarries in JGSR	\$0	\$232	\$31	\$0	\$0	\$0	\$263
Underground Storage Tanks (Petroleum)	\$0	\$5,000	\$8,000	\$7,869,113	\$1,416,052	\$7,000	\$9,305,165
Medical Waste Transporters	N/A	\$0	N/A	\$41,000	N/A	N/A	\$41,000
Water Utilities	\$0	\$640	\$0	\$0	\$0	\$0	\$640
UST Soil Remediation	\$0	\$155	\$0	\$0	\$0	\$0	\$155
Total	\$115,682	\$227,004	\$924,567	\$8,179,495	\$2,284,833	\$345,027	\$12,076,608

Chart Notes:

- All amounts are in thousands.
- N/A indicates that the mechanism is not allowed for that specific program. The number zero indicates no permittee has chosen to use that mechanism although it is allowed.
- FA amounts provided by the facility permittee and indicated above could exceed cost estimates approved and required by TCEQ.
- Low-level Disposal, by-product, storage and processing, recycling, and rock quarries in the John Graves Scenic Riverway programs only allow payment surety bonds. Performance surety bonds are not allowed. A subsequent section on surety bonds provides more details.

D. Mechanism Descriptions

Each FA mechanism is described below and the mechanisms are presented in the order of least to highest risk in assuring funding:

1. Trust⁹

A trust is an account set up with a bank or trust company holding funds provided by the facility permittee for closure, post-closure, and/or corrective action with the TCEQ as the beneficiary. The trustee, whose operations are regulated and examined by a federal or state agency, is charged with acting for the sole benefit and interest of the TCEQ.

Investments in the trust are primarily conservative, liquid, and diversified, and structured for the benefit of the regulatory agency. Through approval of reimbursement requests and itemized bills, the TCEQ controls payments from the trust to the facility permittee, or any other person authorized by TCEQ's executive director to perform the required actions under the license, permit, or registration. Usually, the trust's initial funding is required to match the approved cost estimates for the facility. This type of trust is called a fully funded trust. For some federally delegated/authorized programs, permittees of new facilities are allowed to pay in the FA amounts over a period less than 10 years. The TCEQ has experienced losses with pay-in trusts when permittees fail to make all required payments. For this reason, the TCEQ does not allow pay-in trusts for state authorized programs.

Fully funded trusts are considered a very secure form of financial assurance. Pay-in trusts carry significant additional risk. Funding for financial assurance activities from a trust can usually be obtained within 5-7 business days.

2. Irrevocable Standby Letters of Credit¹⁰

An irrevocable standby letter of credit (LC) is a mechanism issued by a financial institution assuring payment of a facility permittee's obligations should they be unable or unwilling to perform the required actions. Bank soundness is reviewed by the TCEQ before acceptance and then annually upon review.

Required wording for the LC provides the TCEQ with broad authority for draws, requiring only a sight draft and a signed statement that the draw is

⁹ See 30 TAC 37.201

¹⁰ See 30 TAC 37.231

being made in accordance with rules. Terms require that the LC automatically be renewed annually; however, the bank is allowed to cancel as long as the TCEQ is provided a 90-120 day prior notice. If the mechanism is not replaced by the facility permittee after a cancellation notice is received, the TCEQ can draw funds for most programs. If funds are drawn, they are usually placed in a standby trust account that must be established by the facility permittee when the LC is issued.

LCs have proven to be a very secure form of financial assurance as no banks have refused to fund. Funding of the LCs usually occurs within 4-5 business days.

3. **Surety Bonds**¹¹

A surety bond is a contract between a surety company and the facility permittee guaranteeing to the TCEQ that closure, post-closure, and/or corrective action will be accomplished in accordance with TCEQ rules. Surety companies are often owned by insurance companies. Financial soundness of the surety company is reviewed annually by the U.S. Department of the Treasury and published in Circular 570. The TCEQ assures both the surety and the size of the bond risk are within Circular 570 limits. Should the bond amount exceed the amount authorized, the originating surety must arrange for acceptable reinsurance for the overage amount.

Most programs allow use of either a performance surety bond or a payment surety bond. While payment surety bonds require the surety to provide cash payment upon demand by the TCEQ, performance surety bonds allow the surety the choice of either paying cash or performing the required activities. Most permittees choose to provide a performance surety bond to allow the choice of performing or paying since they are less expensive than payment bonds.

Surety bonds do not expire, but allow cancellation with a 90-120 day prior notice to the TCEQ. Like LCs, use of surety bonds requires the facility permittee to set up a standby trust account to serve as a depository for any funding.

Demands for payment under a surety bond can be slightly more involved than with LCs, requiring a more formal description of the reasons for the draw. In addition, especially where risk is more significant, sureties providing performance surety bonds often take more time deciding whether

¹¹ See 30 TAC 37.211-221.

to pay or perform. Accordingly, collection of performance surety bonds can range from two weeks to one year. Lengthy collection times usually relate to performance bonds and could result in higher remediation costs.

4. **Financial Test**^{1 2}

A financial test is a self-insurance mechanism in which the facility permittee assumes the responsibility to fund the necessary financial assurance amounts. Only the largest facility permittees are able to meet the requirements of the financial test. For the most part, these companies' business lines are in areas other than waste disposal.

To qualify to use the financial test as FA, the owner must pass a series of financial ratios relating to debt/worth, income/liabilities, liquidity, minimum tangible net worth, or alternatively pass a smaller subset of ratios and demonstrate investment grade bond ratings. Generally, the permittee must have audited financial statements reflecting a tangible net worth of at least \$10 million and a certain minimum U.S. asset requirement. Exact ratios and combination of various ratios are set out for the specific EPA/NRC delegated/authorized federal programs rules. These qualifying ratios are designed to assure the financial capacity to address environmental obligations.

Companies choosing this method are required to demonstrate annually that they meet financial ratios and/or bond rating requirements. The TCEQ executive director has the authority to require the facility permittee to provide alternate financial assurance, if the TCEQ finds that the facility permittee no longer meets the requirements of the financial test based on interim reports or other information.

Local Governments may use a variation of the financial test as a FA mechanism, using comparable ratios based upon governmental rather than private accounting standards. This circumstance arises primarily for MSW landfills.¹³

Facility permittees using the financial test usually have undertaken their environmental obligations without the TCEQ making demands. Except for the case noted below in part VIII, the financial test has been successful in predicting the likelihood of financial failure. The following described failure is the first such instance in Texas since implementation of the financial test as a FA mechanism.

¹² See 30 TAC 37.251 or 30 TAC 37.8061 (MSW facilities).

¹³ See 30 TAC 37.8061

While there has only been a single noted failure thus far, the financial test represents risk in that it provides no diversification or segregation of assets to meet FA obligations, increasing the likelihood that collection against an unwilling facility permittee could require litigation and is further complicated in the event of bankruptcy. In addition, the financial test may not be an accurate predictor of financial failure in cases involving fraud or massive accounting failures as with Enron.

5. Corporate Guarantee¹⁴

A corporate guarantee is a written, legal guarantee certifying that a higher tiered corporate parent of the facility permittee will assume the environmental responsibilities of the facility permittee if the latter does not do so. It is usually used when the facility permittee is unable to meet the requirements of the financial test on its own or does not have a separate audited financial statement. The guarantor must demonstrate it meets the financial ratio or bond rating requirements of the financial test as indicated above.

Local Governments may use a variation of the corporate guarantee using comparable ratios based upon governmental rather than private accounting standards. This circumstance arises primarily for MSW landfills.¹⁵

The TCEQ has not sought collection under a corporate guarantee. Nonetheless, the corporate guarantee contains all the risks of the financial test, in addition to the risk that a corporate parent faced with environmental problems and a failing subsidiary may seek to limit their liability for the subsidiary's obligations.

6. Insurance¹⁶

Insurance is a contract between the facility permittee and an insurance company to make payment under certain circumstances described in the insuring agreement. It is the FA mechanism with the most dollar volume risk to the TCEQ. This is due largely to its predominant use by UST owners/operators; it is used by 88 percent of the approximately 20,000 active UST facilities in Texas. The TCEQ reviews the financial soundness of insurers by using rating agencies such as A.M. Best.

¹⁴ See 30 TAC 37.261

¹⁵ See 30 TAC 37.281

¹⁶ See 30 TAC 37.241

a. Potential Risk

For programs such as Class B sewage sludge disposal facilities, where insurance is the only mechanism of choice allowed by statute, and UST, where it is the predominant mechanism of choice, insurance is designed to protect against accidental releases. Insurance for these potential liability situations is a very cost-effective, and therefore popular, mechanism for these facilities.

b. Defined Risk

Closure and post-closure activities for IHW and MSW facilities are by nature planned and not accidental events. Rule requirements and underwriting of these risks are complex. The insurance agreement for closure/post-closure policies can be 50 or more pages as opposed to the 1-5 page standardized FA language for other FA mechanisms. Additionally, The TCEQ is not a party to the contract or negotiation of the terms. Often issued by excess and surplus lines insurance carriers with less regulatory oversight, the policies are unique depending on site conditions. While it is possible to negotiate favorable policy terms and conditions, insurance negotiation requires considerable expertise and resources. In addition, modification of policy terms could occur without the State's knowledge or consent, potentially compromising any future collection efforts.

c. Difference as a Reimbursement Mechanism

Insurance differs from all other FA instruments in that it is a cost reimbursement instrument. Rather than presenting a demand or draft to the issuer for payment as is with other mechanisms, the State must first incur expenses and seek reimbursement under the policy. In most cases, this may require the State to provide the initial corrective action funding, hire an outside contractor, and present an invoice of services to be reimbursed. Pre-reimbursement corrective action expenditures by the State may be impractical given the State's budgetary constraints and lack of appropriations to initiate such activities.

d. Complexity Creates Misunderstanding

A 2010 report by the Environmental Financial Advisory Board, comprised of financial industry and regulatory representatives, acknowledged that insurers and regulators had significantly different understandings of the way insurance policies should function. Insurers intend a product that pays only if a number of conditions are met, while regulators expect insurance to serve as a financial guarantee similar to other FA

mechanisms. In the TCEQ's experience, insurance companies have used terms and conditions to deny the TCEQ's demand for payment, forcing the TCEQ to seek assistance from the Attorney General's Financial and Tax Litigation Section. For many of these reasons, some States no longer allow insurance as a FA mechanism for closure, post-closure or corrective action. The TCEQ is in the process of moving to an endorsement rather than a certificate to demonstrate proof of insurance. The endorsement should help reduce misunderstandings between insurers and the TCEQ.

e. Cancellation Issues

Cancellation of the policy requires prior notice; however, timing of the notice as well as who receives the notice varies somewhat from program to program. UST cancellation notices go to the facility owner rather than the TCEQ. Other programs require notice to the TCEQ 60-120 days prior to cancellation. As mentioned previously, because insurance is a reimbursement mechanism, the TCEQ is not able to draw on the mechanism to protect its position as it would for all other mechanisms. Instead, the TCEQ may be forced to demand closure of the facility to prevent the insurer from cancelling the policy to ensure available funding. This poses significant potential risk to the facility permittee should the insurer decide it no longer wants to continue providing coverage and the facility permittee is unable to obtain a replacement FA mechanism quickly.

f. Collectability

As indicated below, the TCEQ has encountered problems attempting to collect under closure/post-closure insurance policies. Two of the three insurance-related collection attempts required referral to the Attorney General before insurers agreed to pay initially or to continue paying. These collection efforts took many months to complete. The TCEQ has not attempted to collect under the environmental impairment policies required of Class B sewage sludge facility operators. Experience concerning collections under UST liability insurance policies is difficult to ascertain as the TCEQ is only aware whether contamination is being addressed by the facility permittee and not whether the cleanup is being funded through collection under an insurance policy or through the facility permittee's funds.

Due to the complexity of the insurance agreement, collection problems previously noted, and reimbursement nature of the mechanism, insurance for closure and post-closure activities is considered a high-risk FA

mechanism. The TCEQ is evaluating ways to reduce some uncertainty through clarification provided by using endorsements to the policy.

VIII. DO THE FA MECHANISMS PAY AS AGREED?

The great majority of facility permittees voluntarily close and clean-up in accordance with rule requirements. After meeting these requirements, the TCEQ then releases the FA mechanism back to the facility permittee. When TCEQ collects upon the FA mechanism, it is usually due to the threatened cancellation of the FA mechanism by the provider rather than the TCEQ initiating clean-up.

While the majority of FA mechanism providers pay when requested, there have been instances of non-payments. Those instances are described below by mechanism type along with corrective measures undertaken by the TCEQ.

Insurance

Example 1 was a used oil handler that accepted unauthorized hazardous waste. As a result of an enforcement action, the TCEQ received a \$310,000 insurance certificate. The company failed to close the facility as demanded by the TCEQ. The TCEQ began clean-up and received some minimal reimbursements from the insurer as requested. Subsequent reimbursement requests were denied as the insurer claimed the policy had been commuted.¹⁷ After Attorney General intervention, the insurer agreed to pay; however, the TCEQ has not pursued further work due to the uncertainty of insurance reimbursement for TCEQ expenditures, highlighting the potential problems of a reimbursement instrument.

Example 2 was a manufacturer of steel tubing, pipe and tubular parts that had an IHW permit; the manufacturer declared bankruptcy and sold its operations. The TCEQ subsequently transferred the permit to another entity that neither established its own financial assurance nor continued post-closure and corrective action at the facility. After the insurer provided the required advance notice of its intention to cancel the policy, the TCEQ expended funds to evaluate the site and sought reimbursement under the insurance policy in 2005. The insurer denied payment, arguing that its insurable interest vanished upon permit transfer. The insurer further argued that it should have no obligation to pay claims without receiving premium payment. Attorney General intervention in 2007 resulted in the insurer agreeing to pay.

¹⁷ A commutation clause in an insurance agreement allows the insurer to be released from future liability in exchange for return of funds to the policyholder.

The TCEQ took corrective measures to address the issues illustrated in example 2 by amending its rules¹⁸ to require that FA be provided by the new owner or operator prior to transfer of an IHW permit; this amendment makes these rules consistent with FA rules for other TCEQ programs.

Pay-in Trust

Example 3 was a battery reclamation facility with an IHW permit that was liquidated through bankruptcy. The company made several payments into its pay-in trust, but never completed the payment schedule. This site was subsequently cleaned up by the EPA through its superfund program with the TCEQ paying 10 percent of the corrective action costs.

Financial Test

Example 4 was a global chemical company spun-off from a larger corporation that held an IHW permit in 2005 and provided a financial test to the TCEQ, as well as a number of other states. The company's financial condition deteriorated into bankruptcy in 2009 before it could obtain an alternate FA mechanism. The TCEQ ultimately received partial funding through an Attorney General and United States Department of Justice settlement.

As a corrective measure, the TCEQ now performs financial capability reviews on all IHW permit transfers to assure that new permittees have sufficient capability to operate and close a facility.¹⁹

IX. WHAT ADDITIONAL CHANGES COULD STRENGTHEN THE SUFFICIENCY OF FA?

The most significant financial risks to the State are concentrated in the federally delegated/authorized programs. While the TCEQ's FA program assures that the large majority of facility closures and clean-ups are conducted as required, additional safeguards beyond federal standards could further reduce the State's exposure to risk. These changes would result in increased FA mechanism costs that would be borne by the facility permittee.

Each of the improvements provided below could be done through changes to either statutory cites or the TCEQ's rules and federal delegation/authorization would be preserved because these changes would be more stringent requirements, which is allowed.

- Eliminate the option of using a pay-in trust.

¹⁸ See 30 TAC 305.64(g).

¹⁹ See 30 TAC 305.50

- Amend closure/post-closure insurance requirements to ensure a financial guarantee of upfront payment rather than reimbursement of costs.
- Amend the financial test requirements by:
 1. Increasing tangible net worth requirements to account for inflation since EPA rules were developed in approximately 1982.
 2. Allowing the use of S&P or Moody's bond ratings only for unsecured bonds. Ratings for collateralized bonds or bonds guaranteed by another entity may be more reflective of the collateral than the financial condition of the bond obligor.
 3. Disallowing the use of the financial test based on financial ratios if a company has non-investment grade senior unsecured bond ratings.

Require UST minimum FA amounts be exclusively available for Texas sites rather than sharing limits with other States. To highlight the need for this change the following case is described. The TCEQ enforces against an entity owning leaking UST facilities in both Texas and New Mexico. The entity had one FA mechanism for all the facilities. There was the potential that both states would have to perform corrective actions on the sites while utilizing the single FA mechanism. The funding would be split amongst the different sites in both states and have to be rank based on severity, potentially leaving Texas sites without funding. Some smaller states have established UST FA minimum amounts for their states for this reason.