

I. Background. A Primer on Financial Assurance ¹

Financial assurance is a mechanism designed to ensure that sufficient resources are available to remediate or restore property, decommission a site, or meet specified performance standards in the event the responsible party proves unable or unwilling to do so.²

In general, financial assurance should map to the lifecycle of the activity or site. Financial assurance can be used for project phases of defined duration, as well as for the long-term (perpetual) stewardship of a remediated site. Practitioners consider these two forms of financial assurance as separate and distinct. Specifically, in the event the site owner/operator proves unable or unwilling to do so, “short-term” financial assurance serves to ensure that sufficient funds exist to complete an owner’s/operator’s obligations to remediate or decommission a site according to specific performance standards over a defined time period. This form of financial assurance is separate from the financial resources set aside for predictable long-term site stewardship, as well as the potential for corrective action which can be less predictable.³

Short-term financial assurance often is procured from third-party providers, including surety companies, insurers, and financial institutions (banks). Under certain established conditions, the financial assurance provider agrees to be financially responsible for the failure of a site owner/operator to perform the stated activity. Site owners/operators may be unable to successfully remediate or decommission a site because of financial distress, which in the extreme may cause the site owner/operator to enter bankruptcy and dissolve. Requiring financial assurance can help to counter this risk.

Once a site owner/operator completes site remediation, attains the required performance standards and the period of monitoring and maintenance is successfully completed, then any remaining “short term” financial assurances posted to ensure site remediation can be released. However, if corrective action and/or long-term site stewardship is warranted, then additional “long-term” financial assurance may be appropriate.

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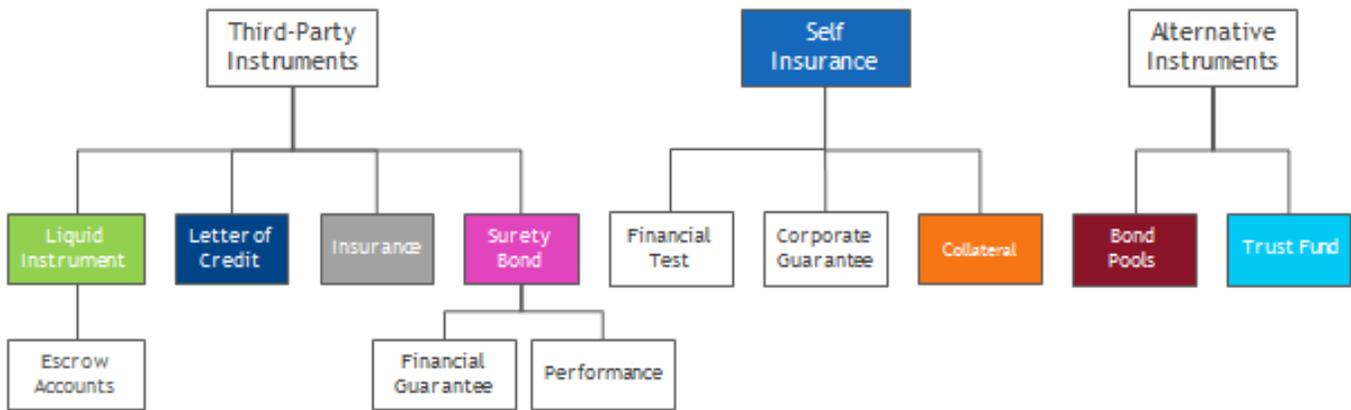
² Financial assurance is commonly required of regulated entities under myriad federal and state regulatory programs, including but not limited to provisions at the federal level associated with municipal solid waste management (40 CFR 258), hazardous waste management (40 CFR 264), surface mining and reclamation (43 CFR 3809), underground storage tanks (40 CFR 280), underground injection (40 CFR 144), and offshore oil and gas facilities (30 CFR 556). The nature and configuration of financial assurance typically varies by industry, by project, and by state.

³ Financial assurance tends not to be used to prospectively hedge the risk of a black swan (e.g., oil spill) or catastrophic natural disaster (e.g., Hurricane Katrina) resulting in natural resource damages. Federal liability regimes exist to address injuries arising from such events retrospectively.

II. Common Financial Assurance Mechanisms

In general, financial assurance will take one of six forms or a combination thereof. We offer abridged summaries of each form of financial assurance below. For now, the intent of the discussion that follows is to facilitate a general understanding of the various types of financial assurance that are possible. The forms of financial assurance can be broadly divided into two categories – Third-Party Instruments and Self-Insurance.

Figure 1. Common Financial Assurance Instruments



II.A. Third Party Instruments

Third Party Instruments are best suited for activities or projects with defined performance standards and of limited or defined duration.

- **Letter of Credit (“LOC”):** A document issued by a financial institution that guarantees the payment of a sponsor’s obligation up to a stated amount for a specified period of time. Financing is contingent on the financial health of the sponsor – the more financially healthy the sponsor, the lower the financing costs of the LOC. Issuing financial institutions typically charge an annual fee equal to a percentage of the face value of the LOC. Further, the issuing institution may require cash collateral from the sponsor and/or impose financial covenants or secure liens against existing assets. If the LOC is drawn down by the beneficiary, the sponsor is legally obligated to repay the face amount plus interest. By design an LOC substitutes the financial institution’s credit for the sponsor’s credit. Funds are immediately available to the regulator.
 - **Line of Credit:** Often confused for a letter of credit, a line of credit is not the same as a letter of credit, and does not offer the same degree of security as a letter of credit. Lines of credit provide the site owner/operator with direct access to bank resources. However, such funds are not secured for the benefit of the regulator as are letters of credit.

- **Surety Bond:** A surety bond can take one of two forms, i.e., Payment (or Financial Guarantee) Bond or Performance Bond. Regardless of form, the Surety provides its financial backing to the sponsor and guarantees the sponsor’s obligations. While the sponsor remains primarily responsible, if the sponsor defaults on its obligations, the Surety will assume financial responsibility for payment or performance as described in the bond. The Surety can pursue reimbursement from the sponsor for all funds paid on its behalf. The cost to the sponsor is a function of its credit-worthiness and financial solvency. The Surety may require cash collateral and/or accelerated premium payments to ensure the bond is fully funded. With a surety bond, the regulator is guaranteed access to the full value of the bond. However, if the sponsor and the Surety face financial distress at the same time, access to funds for payment of an obligation may be compromised.
 - **Financial Guarantee vs Performance Bonds:** A Financial Guarantee Bond, also referred to as a Payment or Penal Bond, has a limit of liability typically equal to the anticipated cost estimate of the operator’s environmental obligation. With a financial guarantee bond, the surety provides the monetary face value (or penal sum) to the regulator under certain, pre-established conditions. If called upon, the surety “pours” the funds into a standby trust fund for access by the regulator. Risk to the regulator arises if the face value of the bond is inconsistent with the funds necessary to finance a given environmental obligation. Conversely, a Performance Bond assures that a pre-established array of activities will be completed in the event of operator default. Risk to the regulator arises in so far as direct access to funds may be limited; rather, the regulator may need to engage with the surety to ensure activities completed by the surety are done so to pre-set standards. The regulator should take care when approving a performance bond for purposes of financial assurance that the stated activities covered by the performance bond meet regulatory expectations. The surety is not obligated to undertake activities that fall outside the purview of what is prescribed in the endorsements to the bond.
- **Insurance:** A contract between two parties, whereby the Insurer agrees to pay, on behalf of the Policyholder (in this case, the sponsor), for claims made against the policy up to a stated limit of liability and consistent with agreed upon terms and conditions. In general, insurance is best suited for activities with defined time periods and where cost certainty exists. The cost of an insurance policy is a function of: (1) the probability of a loss occurring, and (2) the probability that the insurer will have to pay out claims up to the limit of liability of the policy. The sponsor pays an annual, risk-adjusted premium. Further, the insurer may require a percentage of the policy limit up front in the form of cash collateral. The regulator receives third-party assurance, but should be aware of any exclusion included in the policy language that may preclude coverage for certain activities or projects. There are numerous forms of insurance that may be appropriate for use in the context of a restoration bank program.
 - **Risk Retention Groups:** A risk retention group is an alternative risk transfer instrument whereby a group of companies (or other entities) collectively insure the obligations of the group by forming a liability insurance company. Risk retention groups are increasingly popular among high-risk, commodity driving industries; members of the pool or risk retention group must be engaged in

similar business activities. The group agrees to pay on behalf of its member-owners claims made against the financial instrument (generally, an insurance policy or surety bond).⁴

- **Liquid Instruments:** Not all liquid instruments are effective financial assurance instruments. Notably, Certificates of Deposit, Escrow Accounts, Checks/Cash, and Treasury/Municipal Bonds carry varying degrees of risk to the regulator and cost implications for the site owner/operator. Of primary concern to the regulator is ensuring that the instrument/account is structured so as to avoid the site owner/operator being able to summarily “cash out” or “cancel” the instrument prior to forfeiture. Unless the regulator is the stated (and sole) beneficiary of the instrument, the site owner/operator can access and/or liquidate the account(s).
 - **Escrow Account:** A contract between two parties for the benefit of a third-party. The escrow account collects and holds funds to pay for costs until such time as a specific activity or date arises. Escrow accounts are insured through the FDIC as a fiduciary account up to a stated value, on a per-bank basis. The Escrow Agent serves as a fiduciary both to the company and to the beneficiary. Either the company or the Escrow Agent may direct how the funds are invested and when the funds are withdrawn. Because the company has access to the funds in an Escrow Account, there is the possibility that they withdraw funds in a timing and amount that is not consistent with the regulator’s intent. In such cases, the Escrow Account may be left underfunded, and the financial assurance no longer adequate. Escrow accounts are different in form and implementation than Trust Funds (see discussion below on Trust Funds). Escrow accounts are best suited for short-term projects or activities with well-defined obligations and clearly documented costs. To our knowledge, states can not act as escrow agents; rather, a third-party acts as escrow agent pursuant to the regulations of the state in which they are licensed. However, states can enact regulations binding the actions of an escrow agent with respect to their fiduciary responsibility to protect funds placed in escrow for purposes of financial assurance.

II.B. Self-Insurance

Self-Insurance is best suited for activities or projects occurring prior to long-term site stewardship, while the site owner/operator is a going concern. Self-Insurance mechanisms generally map to one of the following forms:

- **Corporate Financial Test:** Relies on a suite of prescribed financial thresholds. Often, the intent of a financial test is to screen out companies with insufficient means to pay for a current or future expected obligation. Typically, the underlying financial thresholds of a financial test are designed to ensure that only companies with a large base of assets or positive cash flow relative to the cost of the obligation will pass.

⁴ For recent discussion on Risk Retention Groups as a means of financial assurance, see *CERCLA 108(b) Hardrock Mining and Mineral Processing Evaluation of Markets for Financial Responsibility Instruments, and the Relation of CERCLA 108(b) to Financial Responsibility Programs of Other Federal Agencies* (2016) available at https://www.epa.gov/sites/production/files/2016-09/documents/cercla_financial_assurance_market_study.pdf. See also <https://www.epa.gov/sites/production/files/2016-12/documents/prepublication-version-cercla-108b-additional-classes-notice.pdf>.

- **Corporate Guarantee:** Allows a parent company or related party to guarantee the obligations of a project sponsor. In this context, it is the guarantor who must pass an established financial test on behalf of the project sponsor. If the sponsor defaults on its obligations, the corporate guarantor steps in to pay the outstanding obligations.
 - **Self Bonds:** Some states allow site owners/operators to “self bond” for some reclamation obligations. A self bond is backed only by the financial health of the owner/operator. A third-party surety does not pledge collateral or assurance for the obligation. In most cases, states require that self bonds represent only a proportion of the owner’s/operator’s total financial assurance obligation. The remaining proportion must be secured with third-party assurances in the form of surety bonds, insurance or letters of credit.
 - **Collateral:** In some instances, states have accepted liens against real property or assets of the site owner/operator. Collateral as a form of financial assurance can pose risks to the regulator in the event the market value of the collateral falls below the present value of the site owner’s/operator’s reclamation/remediation obligations. In general, as the lifecycle of the site matures, the viable use of collateral as a form of financial assurance diminishes. Further, the use of collateral may pose concerns with respect to state liability in the event title of a contaminated asset shifts to a state authority.

Self-insurance mechanisms tend to be flexible, low cost options, because the site owner/operator or guarantor is not required to arrange with an independent third-party to guarantee payment for activities, nor is the owner/operator or guarantor required to set aside funds now to pay for activities at some future date. The challenge is that there is relatively little (or no) hedge if the owner/operator or guarantor faces financial distress. It further presumes that the past is a reasonable predictor of future financial performance; the financial thresholds underpinning a financial test are only as sound as the data used to compute them.

II.C. Alternative Financial Assurance Instruments

- **Trust Funds** are neither a third-party instrument, nor a form of self-insurance. As such, they tend to be the most flexible and adaptive in terms of utility for purposes of financial assurance. Trust funds can be used for activities or sites of limited, defined duration, for projects with ill-defined obligations, or for projects of uncertain duration. For purposes of financial assurance, the owner/operator transfers funds equal to the present value of the obligation(s) into trust for the benefit of a beneficiary. The funds are independently administered, and are immediately available to the regulator. The grantor (or operator) no longer has ownership of the funds transferred into Trust, and cannot direct withdrawals. This restriction on the grantor/operator contributes to Trust Funds being considerably less risky than Escrow Accounts for the regulator. Often viewed as one of the most preferable forms of financial assurance for a regulator, trust funds can be costly for site owners/operators by virtue of constraining their ability to finance alternative investments. In addition, if the funds placed in trust do not earn a return on investment at least equal to the rate of inflation, the purchasing power of the trust may erode over time.

- **Bond Pools** also tend to be neither a third-party instrument, nor a form of self-insurance. Similar in nature to Risk Retention Groups, Bond Pools generally are administered by a state or municipal authority. Intended to reduce the burden on small operators to procure financial assurance, operators deposit a percentage of their total obligation into a state-administered pool of funds that is used to hedge the eligible obligations of operators participating in the pool. In addition to a deposit, operators also are required to pay a fee in the form of an annual premium. In general, interest earned remains in the Pool's account, and deposits are returned to operators upon release of their obligation. Premiums are not returned. Because the state administers the pool, funds are available to regulators as soon as fees are collected. Bond pools can pose risk to the regulator if insufficient deposits and/or fees are collected to finance the obligations pledged against the pool. For this reason, eligibility requirements for operators participating in the pool, and the amount of deposits/fees collected from operators, should be carefully structured so that the pool of funds is able to cover future obligations of all participants, in the timing and amounts necessary.

The above array of financial assurance mechanisms represents the basic suite of financial instruments generally used for purposes of demonstrating financial responsibility. Other, more sophisticated and complex forms of financial assurance mechanisms, e.g., long-term indemnity models, captive insurance exist, but generally are tailored to site-specific and case-specific circumstances.⁵

III. The ABCs of Selecting a Financial Assurance Mechanism

As discussed above, the selection of an appropriate financial assurance instrument varies depending on myriad criteria. Not all instruments are well suited for all phases of a site. The distinction as to which financial instrument is best suited to a particular site phase is based on the specifics of the site phase and its duration – the more specific the activity and the more defined the time period, the greater the ability of the financial assurance provider to price the potential risk exposure associated with owner/operator default.

For example, an activity of short-term duration (e.g., one to five years), with specific technical requirements (e.g., clearly established construction or performance standards), and a robust engineering cost basis yields a greater likelihood that a surety or insurer will be willing to offer a finite risk or risk transfer financial assurance instrument (e.g., a performance bond or insurance policy) to backstop the default risk of the site owner/operator. To the degree a defined revenue stream offsets the expenditures associated with the activity, there is a greater likelihood that the insurer or surety will underwrite the financial assurance instrument for an amount less than the full cost necessary to complete the activity. Further, the more certain the revenue stream, the greater the likelihood the third-party provider will offer a financial assurance instrument that is competitively priced, and a market for financial assurance exists.

In general, the financial assurance mechanisms discussed above are based on conventional financial instruments. Decision points for a regulator as to which financial assurance instrument to accept often center around access to funds, the time period of activities necessitating financial assurance, and the level of regulatory oversight.

⁵ The characteristics of captive insurance for purposes of demonstrating environmental financial assurance is explored further in Attachment 1.

Decision points for the site owner/operator generally focus on the opportunity cost of capital, i.e., the forfeiture of funds that might otherwise be used for investments in capital, infrastructure or other projects.

Simply stated, key considerations in the selection of a financial assurance instrument are: (1) the applicability of a particular financial instrument to a specific project phase or activity; (2) the ‘trigger’ for the financial assurance, i.e., under what circumstances is the financial instrument callable; (3) the amount and duration of the limit of liability afforded by the financial assurance instrument; and (4) the pricing of the financial assurance instrument, which is greatly informed by the expected default risk of the individual site owner/operator.

ATTACHMENT 1. Captive Insurance as a Means of Demonstrating Environmental Financial Assurance

Overview

A captive insurer is a related party to the insured. Generally licensed as a captive insurance company, the related party underwrites the obligations of the insured in return for premium payments. However, the nature of the relationship between insured and insurer tends not to be arms-length, and therefore the captive insurer and the company that it insures are not independent. This lack of independence can place the insurer at risk if a member of the corporate family (e.g., the insured) faces financial distress. Captive insurance provides medium and large companies an array of benefits, such as coverage tailored for a company's specific risks and cost savings from not contracting with a third-party insurer. Further, where the risk profile of the insured can be managed through operator due diligence (as is the case with worker's compensation), captive insurance has proven to be a flexible financing arrangement that provides embedded incentives to the operator to reduce costs. Similar to other insurance mechanisms, captive insurance is regulated at the state level, so licensing requirements vary due to the captive insurer's location. There are no universally recognized minimum standards for captive insurance. Some independent ratings institutions, most notably AM Best, review captive insurers for metrics like diversification of assets and overall risk, and therefore can provide a limited degree of independent information on a captive insurer.

Use of Captive Insurance for Purposes of Environmental Financial Assurance

The use of captive insurance for purposes of demonstrating financial assurance for environmental obligations generally is not accepted most federal and state agencies. Specifically, the financial health of the captive insurer tends to be interdependent on the financial health of its corporate family. Without established financial firewalls with dedicated financial reserves, material adverse financial distress on the part of a corporate affiliate may adversely impact the financial wherewithal of the captive insurer, including its ability to make due on its financial assurance obligations. As noted in the report *Continued EPA Leadership Will Support State Needs for Information and Guidance on RCRA Financial Assurance*, "The financial health of the captive insurance company is closely tied with the parent company, so if the company encounters financial difficulties there is no guarantee that the captive insurance company would retain the necessary resources to fund [their environmental obligations]."⁶

For this reason, state and federal environmental regulators have expressed concern about the risks associated with allowing captive insurance for environmental regulations. A few states, most notably Vermont, have robust licensing programs for captive insurers that provide oversight and standards that help reduce the risk profile of licensed captive insurers. In 2006, the U.S. EPA's Environmental Financial Advisory Board (EFAB) emphasized the following guidelines for states considering the use of captive insurance for purposes of demonstrating financial assurance for environmental obligations:

⁶ *Continued EPA Leadership Will Support State Needs for Information and Guidance on RCRA Financial Assurance* (2005), available through EPA's National Service Center for Environmental Publications using the search query "EFAB Report Captive Insurance" at: <https://www.epa.gov/nscep>.

- Minimum capitalization requirements for the captive insurer are necessary;
- A Nationally Recognized Statistical Rating Organization (NRSRO), for example AM Best, rates the captive insurer as “secure” or better;
- The parent company passes a financial test (e.g., akin to that proffered under RCRA) or possesses an investment grade rating from an NRSRO, and guarantees the captive’s insurer’s obligations; and
- The State or federal regulator obtains a rating report of the captive insurer annually and is notified of any changes to the captive’s rating or outlook.⁷

To mitigate the risks presented by the use of captive insurance, state and federal regulators should consider active research into: (1) the corporate structure of the captive insurer, (2) the strength of the state requirements from where the captive obtained its license, (3) the captive insurer’s rating from an NRSRO, and (4) the financial health of the company family. Careful consideration of these factors is warranted before allowing the use of captive insurance as a means of demonstrating financial assurance for environmental obligations.

⁷ *EFAB Report: The Use of Captive Insurance as a Financial Assurance Tool in Office of Solid Waste and Emergency Response Programs* (2007), available through EPA’s National Service Center for Environmental Publications using the search query “EFAB Report Captive Insurance” at: <https://www.epa.gov/nscep>.