

Analysis & Perspective

HAZARDOUS WASTE

FINANCIAL ASSURANCE

This article discusses and compares the financial instruments commonly used to meet financial assurance requirements for hazardous waste facilities as well as the competitive and environmental policy implications of various regulatory and financial market limitations on these instruments. The authors of this article argue that changes to the existing regulatory system must be made. Financial assurance reform, they say, should be aimed at curing the financial assurance regulatory system's actual problems, such as inaccurate cost estimation, while fostering a "level playing field" for issuers of financial assurance instruments, thereby ensuring the widest possible range of secure financial instruments for compliance purposes.

Hazardous Waste Financial Assurance: A Comparison of Third Party Risk Management Mechanisms—Suggestions for Reform

BY LINDENE E. PATTON AND JAMES L. JOYCE

The 1970s saw the first widespread awareness of the scope of environmental challenges posed by facilities dealing with hazardous waste. Litigation related to environmental liability increased in volume throughout the 1980s as did widespread efforts to regulate facilities handling hazardous materials and wastes to prevent problems before they arose. Today, industry and government in the United States are working together diligently to ensure those regulations are effective and evenhanded. Today's environmental regulations also often seek to ensure adequate nontaxpayer-funded resources are available to retire facilities in an environmentally responsible manner at the end of their useful lives. Such regulations commonly are referred to

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as "financial assurance" (FA) requirements.¹ Experience has shown, however, that existing financial assurance regulations do not always work as intended, and as a result regulators and site operators alike can face difficulties in obtaining the funding needed to retire facilities, resulting in possible increased fiscal burdens for taxpayers. There are several reasons why existing regulations are flawed, but to understand the regulations' flaws one first must have a detailed understanding of the way they work in practice. A central feature of the operation of financial assurance regulations is a series of third-party financial instruments—insurance, irrevocable letters of credit, surety bonds, and trust funds—used to provide financial assurance. Under existing federal and state regulations, such FA instruments (or what is deemed comparable financial protection) must be available prior to permit issuance for certain facilities.²

¹ Although there is room for debate about whether financial assurance should be required for all types of environmental liabilities, there are cogent environmental policy and fiscal reasons why financial assurance should be available to provide adequate funds to achieve responsible closure, post-closure, and long-term care for the kind of facilities discussed in this article. No matter what types of facilities they apply to, however, financial assurance regulations effectively will meet their goals only under certain conditions described here.

² This article is limited to an analysis of financial instruments used for financial assurance compliance with federal regulations governing closure, post-closure, and foreseeable corrective action for certain treatment, storage, and disposal

This article discusses and compares the financial instruments commonly used to meet financial assurance requirements. It describes the basic characteristics of each type of FA instrument. The article then discusses major common features of these instruments as well as key differences in their regulatory treatment and in the types of environmental and financial risks they protect against. Finally, it discusses the competitive and environmental policy implications of various regulatory and financial market limitations on these FA instruments and recommends the study of possible changes in FA regulations to ensure the continued widest possible range of alternative FA mechanisms.³

Several preliminary points about the limitations of FA instruments and their use in the FA regulatory system are noteworthy. First, all financial assurance instruments are created based on a regulatory system of cost estimation for the costs of closure, post-closure, and foreseeable corrective action at regulated facilities.⁴ No financial assurance instrument, no matter how robust, can overcome the fundamental problem posed by inadequate or improper cost estimation.⁵ Further, the amount of funding regulators can require any FA instrument to provide is limited by cost estimates for the assured activities, so the amount of closure FA that can be required is limited to the current cost estimate for closure activities, for example.⁶ Each FA instrument then is responsible only up to its stated limits, not for

facilities for environment waste (40 CFR 264.140-146). The scope of the article does not include the following issues: 1) EPA customary practice regarding financial assurance under the superfund program, where the agency has not promulgated FA regulations and proceeds instead under its settlement authority where it requires financial assurance; 2) potential differences between Resource Conservation and Recovery Act Subtitle C standards governing hazardous waste management and other standards (e.g., underground injection control). Here it is important to note that differences in the economic composition of the communities (private vs. public entities, large vs. small companies, concentrated markets, etc.) regulated under different regimes may yield different effects with respect to pricing and competition; and 3) except in passing, various laws in states with authorized programs, which may impose more stringent FA standards. However, many of the policy concerns discussed in this article would apply to these other situations as well.

³ For recent EPA discussions of some of the risk issues addressed in this article, see Preamble, 66 Fed. Reg. 52,192 (10/12/01) and Preamble, 70 Fed. Reg. 53,420 (9/8/05).

⁴ Technically, 40 CFR 264.100 and 264.101 (which delineate the standards for FA for corrective action) establish a performance standard for FA. There are no presumptive, prescriptive requirements. That said, the agency issued model consent language that mirrors aspects of 40 CFR 264, but regulators reserve the right to negotiate FA terms on a site- and case-specific basis. Also, the timing by which the company must demonstrate FA for corrective action is arguable. See <http://www.epa.gov/compliance/resources/policies/cleanup/rcra/3008h-aocfa-mod-mem.pdf>.

⁵ The cost estimation methodology required by RCRA Subtitle C presumes an engineering cost approach and does not correlate with either generally accepted accounting principles for environmental obligations or basic net present value analysis. Cost estimation is the subject of a current EPA Environmental Financial Advisory Board workgroup effort.

⁶ Even in the case of interim status facilities with trust fund monies above the cost estimate for closure, 40 CFR 265.143(a)(6) and (7) allow a site operator to request a release of the excess amount, which the administrator may or may not order. 40 CFR 265.143(b)(7) allows a bond's penal sum to be

any conceivable environmental harm scenario that may arise beyond the stated activities in the company's closure, post-closure, and/or corrective action plans that may require funds beyond those listed on the face of the instrument to correct. None of the instruments constitutes an unlimited performance guarantee; rather, they all are limited financial assurance mechanisms with the potential to leave various risks unassured.⁷

All FA instrument issuers have legal relationships and duties of varying kinds to the parties that procure and benefit from those instruments. Under existing financial assurance regulations, each type of third-party-purchased financial assurance instrument (also referred to here as a "mechanism" or "method" of financial assurance) has different characteristics and thus presents a somewhat different set of challenges to regulators and regulated entities alike. Some FA instruments may present challenges to the regulators who need to access them stemming from the relationship between site operators who procured the instruments and the entities that issued them, for example, while others present risks of inadequate coverage or raise affordability or long-term risk concerns.

Insurers have a particularly strong relationship by law and contract with their insureds. In certain FA contexts, the insurer-policyholder relationship creates the possibility that insurers may face conflicting duties to policyholders on the one hand and regulators on the other. Nonetheless, the insurance relationship allows for policy affordability and for environmental risk scrutiny, which benefits regulators and taxpayers alike. A recent decision from the U.S. Court of Appeals for the Ninth Circuit affecting insurance held that for FA purposes insurers in certain circumstances may have to accept the risk of fraud by their policyholders, which may result in significant insurance cost increases.⁸ The law is unclear about whether this holding would extend to any other form of FA. That said, as will be discussed below, potential fraud in applications for other types of FA instruments may be easier to detect, a fact with implications for regulatory policy.

Trusts established for FA purposes have government authorities as their beneficiaries, in most cases avoiding conflicts between trustees and site operators over trust obligations. The FA trust agreement language found at 40 CFR 264.151(a) allows the owner/operator to direct trust investments. Also, trust administrative fees can be drawn from the corpus of the trust. Additionally, there is a question whether the corpus of the trust is secured in a bankruptcy proceeding.⁹ Furthermore, if strictly enforced to meet FA goals, trusts are less affordable than other financial assurance mechanisms because they

lowered. The same is true for a letter of credit (40 CFR 265.143(c)(7)) and insurance (40 CFR 265.143(d)(9)).

⁷ For example, in most cases financial assurance instruments cannot trump the operation of federal bankruptcy law. Given that the greatest need for financial assurance may emerge coincidentally with the occurrence of a permittee's possible or actual bankruptcy, understanding the performance of each instrument in the event of bankruptcy also is essential. However, detailed evaluation of the impact of bankruptcy law on particular financial assurance instruments is beyond the scope of this article.

⁸ *Zurich American Ins. Co. v. Whittier Properties*, 356 F.3d 1132, 57 ERC 2098 (9th Cir. 2004).

⁹ In bankruptcy, conflicts between regulators, site operators, and third parties over trust assets may arise.

take up a far greater amount of a site owner's current resources. Their use also may not facilitate clear analysis of FA risks because independent, third-party risk review often is absent. This situation occurs because the trustee simply agrees to accept and pay monies in accordance with the trust documents and does not review the adequacy or timing of underlying closure, post-closure, remedial action, or other plans forming the basis of the cost estimation that determines the amounts to be funded.

Bonds provide assurance as long as the issuer remains solvent. However, a bond issuer's liability is far more limited than regulators would prefer, and enforcing performance or payment by the bond issuer may require significant transaction costs. Also, bankruptcy again may present challenges to collection rights despite the fact that proceeds may be paid into a spill-over trust upon declaration of default or permit cancellation by the regulator.

Finally, letters of credit present a different set of challenges and may severely impact the principal's ability to borrow funds. Regulations applicable to letters of credit may leave gaps in coverage. Further, certain extensions of letter of credit instruments may result in collectibility challenges (see discussion below).

In sum, none of the available third-party financial assurance instruments will cure certain basic problems facing the financial assurance regulatory system, including the operation of federal bankruptcy law. Limiting the availability of affordable FA instruments, however, may drive up the costs of remediation and compliance obligations for a broad range of companies and industries. Limiting the availability of such FA instruments may lead to further consolidation within certain regulated industries, which could have adverse public policy implications. Therefore, FA reform should be aimed at curing the FA regulatory system's actual problems, such as inaccurate cost estimation, while fostering a "level playing field" for issuers of FA instruments, thereby ensuring the widest possible range of secure FA financial instruments for compliance purposes. As the discussion below will show, in many ways today's regulatory playing field for FA instruments is not a level one.

FA regulations therefore may need to be modified to improve cost estimation and minimize risks presented by particular FA instruments. The following action in particular are needed:

(1) Cost estimation requirements should be modified to make them accurate, comprehensive, efficient, and transparent to all instrument issuers.¹⁰

(2) Rules regarding required pay-in levels to trusts should be revised to reflect life-cycle costs and minimize long-term credit risks.

(3) Rules governing when FA instrument issuers bear the burden of applicant fraud should be revised to deter fraud, and these revisions should apply equally to all FA instrument issuers.

(4) Insurers should be relieved of double-payment liability risks potentially imposed on them by state law.

¹⁰ As will be discussed below, under current regulations, once a facility enters post-closure it no longer is required to provide inflationary adjustments to its cost estimate for post-closure. It is unclear from the regulations when a company is required to develop a cost estimate—and provide corresponding FA—for corrective action. Yet these may be the largest environmental costs posed by the regulated facility.

(5) Use of a financial means test or corporate guarantee for FA compliance should be reviewed to minimize long-term credit risks.

(6) The relationship between legally required expiration dates and coverage dates for letters of credit should be clarified.

(7) Consideration should be given to whether FA regulations on increased coverage limits for FA costs should be revised to create practical options other than facility closure when site operators cannot afford the cost of increased limits.

The general purpose of environmental financial assurance regulation is to provide adequate funding for closure and post-closure care and for corrective action at regulated facilities. These goals are met using two basic methods: first, by requiring site owner/operators to plan to meet such costs, and second, by requiring site owner/operators to demonstrate they have adequate financial resources to meet them.¹¹ Without financial assurance, site owners and operators might not have the resources to carry out needed remediation activities, resulting in the shifting of costs from the responsible party to taxpayers and the possibility of inadequate closure work, post-closure care, or corrective action.¹²

The regulations attempt to meet the first goal of financial assurance—showing future costs have been adequately planned for—through the requirement for written estimates of these costs.¹³ However, this goal may not be met if the cost estimates do not adequately consider potential changes in the law, changes in science, and the ongoing public policy debate surrounding the "how clean is clean" question. Some estimates also may fail to consider human factor issues, such as an improperly or inadequately trained engineer who accidentally mixes clean dirt and hazardous dirt; regulatory or management approval delays that cause critical path delays resulting in increased costs to third parties; improperly trained regulators who mandate the use of inappropriate methods or technology; or other unforeseen closure events occur. Still other estimates may contain simple computational errors, which also contribute to failure of financial assurance even if the FA mechanism performs as it should.

Some financial assurance mechanisms, particularly insurance, provide an additional opportunity for independent third-party review of the facility owner or op-

¹¹ 45 Fed. Reg. 33,260 (5/19/80).

¹² RCRA and Superfund: A Practice Guide, 3d Section Section 4:34 (2007) (citing *U.S. v. Ecko Housewares, Inc.*, 62 F.3d 806 (6th Cir. 1995) and *South Carolina Dept. of Health and Environmental Control v. Commerce and Industry Ins. Co.*, 372 F.3d 245 (4th Cir. 2004)). See also 45 Fed. Reg. 33,260 (5/19/80). It is worth noting two points here about the availability of FA resources to EPA. First, in some cases regulators are required to make a RCRA Section 3008 demonstration before FA resources will become available; in other cases, such as where a site operator faces FA cancellation and cannot provide alternative FA, this will not be required. Second, RCRA provides explicit authority for EPA to collect funds without facing the restrictions of other federal financial legislation, such as the Miscellaneous Receipts Act; query whether the Comprehensive Environmental Response, Compensation, and Liability Act provides comparable authority. EPA has chosen to proceed under its litigation authority and to negotiate FA requirements on a case-by-case basis in the superfund context rather than promulgating regulations under that program, although it has authority to do so under CERCLA Section 108(b).

¹³ 45 Fed. Reg. 33,260, 33,261 (5/19/80).

erator's cost estimates by enlisting entities with extensive experience in assessing environmental risks. Other mechanisms typically do not provide this additional level of environmental risk analysis.¹⁴

The Environmental Protection Agency allows a variety of methods to be used to meet financial assurance requirements, in part because the availability of a broader range of FA options allows for cost savings by potentially responsible parties. More FA providers means greater competition, increasing the likelihood affordable financial assurance will be available. This variety also allows owner/operators greater flexibility to blend different instruments ("hybrid compliance"), which can smooth costs, diversify risk, and limit credit exposure to any one FA issuer. This should make it easier for owners and operators of regulated facilities to achieve compliance.¹⁵ Permitting the use of hybrid compliance methods may be an important consideration if regulators are to avoid a recurrence of the historical problems created when FA regulations first were promulgated and implemented because some assurance tools were difficult to obtain.¹⁶ Each of the FA instrument types has its own advantages and disadvantages in ensuring a sufficient quantity of funds at an appropriate price, reducing the amount of the purchaser's capital that must be set aside, guaranteeing the funds provided by the vehicle are available in a timely fashion, and ensuring the availability of coverage.

How the Available Instruments Work

Generally. Financial assurance regulations require all FA instruments to provide a specified amount of funding. The FA regulations require the limits of liability of the insurance policy, amount of the letter of credit, bond penal sum, or trust balance to be equal to the estimated cost of closure, post-closure, or corrective action as approved by the regulating entity.¹⁷ However, all of the FA instruments also limit the issuer's (that is, the bond guarantor's, insurer's, letter of credit issuer's, or

trustee's) FA compliance liability. Bonds, insurance, and letters of credit all are limited to the face amount of the instrument, while trusts are limited by the funds they hold at the time reimbursement is requested.

As a condition of the permit, regulators require cost estimates underlying FA requirements to be adjusted annually for inflation,¹⁸ and the owner/operator must agree to alter FA limits whenever cost estimates change, whether for inflation or any other reason.¹⁹ As a consequence, the liability limits for all types of FA instruments may be requested to increase or decrease with changes in estimates for covered costs. Site operators may face corresponding increases in the cost of the FA instruments as a result because, for example, a trust may require additional funding and fees, a bond issuer may require more collateral and fees, or an insurer may require additional premium for increased coverage as a result of increased estimated costs.²⁰

In theory, these requirements mean each FA method should be equally able to provide the necessary compliance funds, assuming the issuer of the FA instrument is itself solvent when funds are needed, which may be in the distant future. However, in the event the site owner/operator is unable to pay the increased fees or premium and/or is unable to otherwise post the additional limits or collateral required, the regulators may be presented with a difficult choice: terminate the permit and force closure or re-evaluate the requirements. Although RCRA regulations allow site operators to offer "hybrid" compliance in some cases, and EPA has enforcement discretion to permit such hybrid compliance at least in cases such as bankruptcy proceedings, the practical reality is that the agency often is forced to choose between permit termination and re-evaluation of FA requirements. To avoid this unfortunate result, regulatory changes should be considered regarding increased limit obligations or use of other settlement authorities to assure continued operation where an alternative posting is in the public interest.

To better guarantee the availability of funds, the regulations for each financial assurance instrument also provide that cancellation or termination of the instrument is possible with written notice to the regulator. Once notice is received, the owner/operator has a limited time frame to provide and receive regulator approval for an alternate financial assurance instrument. In general, the regulator will release the pre-existing FA instrument if a new assurance provider has been found or if financial assurance no longer is needed.²¹ In the event financial assurance is required and the company is unable to procure an alternate financial assurance instrument, the regulator may pursue whatever remedy is necessary to draw upon the pre-existing financial assurance instrument, including forced closure of the facility under RCRA Section 3008.

¹⁴ James William Boyd, *Financial Responsibility for Environmental Obligations: Are Bonding and Assurance Rules Fulfilling Their Promise?* (August 2001). Resources for the Future Working Paper No. 01-42 at 20; available on the Web at <http://ssrn.com/abstract=286914>. (Article available for download at end of abstract.) However, it is important to note any such review only will be performed for the benefit of the insurer and will assess risk only up to the exposed limits of the requested instrument in the context of the viability of the projected payout term. Obviously, if the cost estimate is inadequate, the underwriter may assume the payout will occur faster and earlier than the submitted plan. So if the instrument amount required by the regulator is less than the amount an underwriter believes may be required to achieve the regulatory endpoint, the underwriter will consider the speed with which such funds might be spent (as well as other insured risks), which might be faster than the 30 year payout period and will rate (i.e., to determine the policy premium) accordingly, but that rating information may not be available to the regulator.

¹⁵ 45 Fed. Reg. 33,260 (5/19/80).

¹⁶ John S. Conniff, *Financial Responsibility Assistance for Underground Storage Tanks: Can Washington State Run a Pollution Reinsurance Company?* 14 U. Puget Sound L. Rev. 1, 4 (Fall 1990).

¹⁷ See, e.g., 40 CFR 258.74 (municipal solid waste landfills) and 40 CFR 264.143 and 264.145 (hazardous waste treatment, storage, and disposal facilities). Even third-party guarantees often have coverage limits. See 40 CFR 280.96 (UST guarantors' liability limited).

¹⁸ See 40 CFR 264.142(b), 264.144(b), 265.142(b), and 265.144(b).

¹⁹ See, e.g., 40 CFR 264.143(b)(7), (c)(7), (d)(7), and (e)(7) and 265.143(b)(7), (c)(7), and (d)(9).

²⁰ Funds also may be released if the estimates are lowered. See, e.g., 40 CFR 258.74(d)(7), 264.143(b)(6), and 264.145(b)(7).

²¹ See, e.g., 40 CFR 264.143 (a)(11), (b)(9), (c)(9), (d)(10), and (e)(10).

Insurance. Facility owners and operators required to maintain assurance of financial responsibility may use insurance policies to cover costs such as closure,²² post-closure,²³ or corrective action.²⁴ When insurance is chosen as the FA instrument for closure activities or post-closure care, the facility owner/operator obtains a policy²⁵ from an insurer "licensed to transact the business of insurance . . . in one or more States."²⁶ The issued policy is a contract that will cover specific risks stated in the policy and pay or reimburse the policyholder on the occurrence of events included within such covered risks (and assuming other policy requirements such as proper notice are met). An insurer may require that part or all of the policy premium be paid "up front" or over a period of time, and premiums are based on the risks involved in the project.²⁷ As is true of other FA mechanisms, to meet FA requirements the amount of the insurance policy must be equal to the current estimated cost for the event covered.²⁸ Insurers generally take the position that they legally cannot be compelled to increase policy limits beyond amounts stated in their policies unless they receive adequate additional policy premium.

Unlike the contractual relationship governing most insurance policies, federal regulations for operators of hazardous waste facilities require the insurer to agree to pay out funds upon the direction of and to the party specified by the EPA regional administrator or the administrator's delegate rather than to the insured.²⁹ Insurers who regard themselves as having an obligation under state law to pay their insured upon the occurrence of certain risks, or not pay out policy funds or proceeds when the insured objects to such payment on valid legal grounds, believe they face the risk of double payment liability when their insured claims entitlement to policy amounts and regulators concurrently direct them to pay those policy amounts to third parties.³⁰ Because trusts name the regulatory authority as beneficiary, and bonds make the issuer liable when the government declares an event of default, they can avoid similar issues.³¹ Insurers' double payment problem

²² See, e.g., 40 CFR 264.143(e).

²³ *Id.*

²⁴ See, Memorandum from EPA, Susan E. Bromm, Director, to Regional Counsels, RCRA Program Managers, and RCRA Branch Chiefs for Regions I-X (2/8/06), on the Web at <http://www.epa.gov/compliance/resources/policies/cleanup/rcra/3008h-aocfa-mod-mem.pdf>.

²⁵ The wording of the policy is specified by 40 CFR 264.151(e).

²⁶ See, e.g., 40 CFR 264.143(e)(1).

²⁷ See James William Boyd, *Financial Responsibility for Environmental Obligations: Are Bonding and Assurance Rules Fulfilling Their Promise?* (August 2001). Resources for the Future Working Paper No. 01-42 at 20. Available on the Web at <http://ssrn.com/abstract=286914>. (Article available for download at end of abstract.)

²⁸ 40 CFR 264.143(e)(3).

²⁹ 40 CFR 264.143(e)(4).

³⁰ Federal regulations also require reimbursement requests to go through the regional administrator for approval before reimbursements are paid. There is an apparent exception for municipal solid waste landfills under RCRA. See 40 CFR 264.143(e)(5); for a similar regulation, Cal. Code Regs. Title 27, Section 22248(h).

³¹ California regulatory authorities have proposed regulations that take the further step of requiring the insurer to pay the California Integrated Waste Management Board (CIWMB)

might be mitigated by (1) clear advance regulatory designation of sole beneficiary status for regulatory authorities under FA policies, (2) federal preemption of state law, and (3) express waivers in the policy and policy application by policyholders of their policyholder rights.

FA regulations recognize that policies can be cancelled, terminated, or not renewed for nonpayment of premiums.³² However, federal regulations also provide that the occurrence of certain defined events, such as permit revocation, closure, or bankruptcy prior to cancellation, termination, or non-renewal may prevent insurers from canceling, terminating, or failing to renew policies for operators of hazardous waste facilities prior to the expiration date, even if premiums owed are not paid.³³ These regulatory limits on cancellation mean insurers will be unwilling to issue FA policies in some cases or that the policies will be unaffordable because insurers will require full "up front" payment of policy premiums for the entire possible policy term to avoid site operator insolvency risks, and those "up front" premiums will be based on conservative estimates of those risks over an exceptionally long period. Another effect of certain newly proposed FA insurance regulations requiring payment directly to a regulatory authority is that insurers no longer can exercise cost control over closure, post-closure, or corrective action activities, precluding independent third-party cost scrutiny of those costs that would lead to more efficient use of funds in such activities. Because the FA regulations require the policy limit to increase as the closure plan cost estimate increases, even an up-front premium payment "in full" may not be sufficient to induce an insurer to issue such policies except on a basis so conservative it would render them unaffordable. Thus, unanticipated losses through nonpayment of premium are not the only problem imperiling the continued availability of insurance as an FA alternative.

The unfortunate net effect of the tension between regulators' efforts to ensure the availability of funds to meet costs in "all risk" scenarios and an insurers' need to manage its exposure could be the decline of insurance as a viable FA mechanism, either through market withdrawal or because premium costs become prohibitive to site operators. The hallmark of insurance is quantifiable risk; insurers are in the business of accepting such risk of loss. Closure and post-closure insurance policies originally contemplated the risk that a given site would be placed into closure or would require post-closure care during a given policy year, with a given premium paid. However, as the universe of possible risks increases—i.e., as the regulators insist on continued performance by the insurer notwithstanding the occurrence of greater and greater variables, such as bankruptcy of the insured, permit transfer, "abandonment" of the site, and the like—insurers are less inclined to participate in the FA system. This is particu-

directly rather than the insured party if the operator or other person authorized to perform covered activities fails to perform. CIWMB also is considering the possibility of instituting standards to penalize delays in payment on FA policies, which effectively would deny insurers' traditional ability to adjust claims. Proposed Cal. Code Regs. Title 27, Section 22248(h).

³² Cal. Code Regs. Title 27, Section 22248(j) (2002); see also 40 CFR 264.143(e)(8), 40 CFR 258.74(d)(6).

³³ 40 CFR 264.143(e)(8).

larly true because of the long-term nature of site post-closure maintenance, which often requires insurer funding for decades into the future.³⁴

Trust Funds. A trust is a legal mechanism under which a designated person or entity, the trustee, holds funds it is obligated to conserve and expend on behalf of a third party, known as the beneficiary, as directed by the instrument that creates the trust. EPA regulations allow trust funds to be used for financial assurance with the regulatory body as the beneficiary of the trust.³⁵ If a facility owner or operator chooses to create a trust fund for FA purposes, it must use the trust agreement specified in 40 CFR 264.151(a)(1) and make specified annual payments into the trust until it is funded up to the amount of current cost estimates. Payments made in to the FA trust, as with other trusts, give legal possession of the funds to the trustee, who in this case "must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency."³⁶ The trustee holds these funds for the benefit of, and owes a fiduciary duty to, the trust's designated beneficiary, which in the case of FA trusts is EPA or the designated state authority.³⁷ The trustee then makes payments from the trust fund at the direction of the regulator to cover the costs of closure or post-closure care.

A unique feature of trusts under federal FA regulations is the "pay-in period" when minimum payments must be made into the trust but the trust may or may not be fully funded.³⁸ The length of such a pay-in period will vary depending on the governing FA regulation, however, and may be very short or even nonexistent.³⁹ Under current federal regulatory requirements, pay-in periods for trust funds can range from no allowable pay-in period for existing facilities to a period equal to the length of time of an initial operating permit for newly constructed facilities (i.e., generally between five and 10 years).

In cases where a pay-in period is allowed, the owner/operator is required to make annual payments equal to the amount of the current estimate of costs to be covered by the FA, minus the current valuation of the trust, divided by the number of years remaining in the allowed pay-in period, with adjustments for inflation and

³⁴ As noted, cost estimates (and thus FA requirements) are required to be updated only during the life of the facility and no inflationary adjustments are required during the potentially decades-long post-closure period. See 40 CFR 264.144(b) and 265.144(b).

³⁵ 40 CFR 264.151(a), Form CIWMB 100 (12/01).

³⁶ See, e.g., 40 CFR 264.143(a)(1).

³⁷ See 40 CFR 264.151(a)(1) at Section 3.

³⁸ See, e.g., 40 CFR 264.143(a)(3) and 264.145(a)(3).

³⁹ In the case of interim status facilities, which had to be in existence either before Nov. 19, 1980, or the effective date of statutory or regulatory changes that rendered the facility subject to RCRA (42 USC 6925 (2004)), the pay-in period lasts for 20 years from the promulgation of the regulations (so all trusts for interim facilities should be fully funded) or the remaining operating life of the facility, whichever is shorter (40 CFR 265.143(a)(3) and 265.145(a)(3)). In the case of permitted facilities, the pay-in period lasts for the term of the initial RCRA permit (typically five years) or the remaining operating life of the facility, whichever is shorter (40 CFR 264.143(a)(3), 264.145(a)(3)). For standardized permits, the pay-in period is three years or the remaining operating life of the facility, whichever is shorter (40 CFR 267.143(a)(1)).

for changes in cost estimates.⁴⁰ In those cases where owners/operators are allowed the flexibility of paying in to a trust fund over time, companies that can afford the initial costs of the setup and deposit of a trust mechanism hold a significant competitive advantage over those who must use other mechanisms because they must post much less financial assurance than the face amount required for other instruments. This approach also leaves the regulator with risk exposure that is not posed by other third-party FA mechanisms. This same risk exposure—long-term credit risk of the entity providing the financial assurance—also unquestionably is posed by the use of corporate financial tests or guarantees for FA compliance.⁴¹

Although regulators require a final payment at the end of the pay-in period to "true up" the trust fund so it is equal to the current estimated cost of covered activities, the use of pay-in periods may result in only a portion of the total estimated costs being covered during part of the life of the facility. As a result, in instances where a pay-in period exists, the trust fund is the only third-party (i.e., excluding financial test or guarantee) financial assurance mechanism that does not make the fully funded amount (i.e., an amount of money equal to the current cost estimate for covered activities) available immediately upon acquisition of the assurance instrument. This creates some risk to regulators and to the general public if problems arise during the pay-in period because the trust fund may not have the funds to provide the necessary assurance.

On the other hand, at any given time the trust may have funds in excess of the current costs of covered activities⁴² and, if such costs increase in a linear fashion, funding a trust over time should provide adequate assurance that costs can be met, assuming the internal rate of return of the investment portfolio of the trust is sufficient to cover inflationary adjustments and administrative/trustee fees. Yet again, trusts, unlike letters of credit, are exposed to investment and inflation risk. Additionally, administrative fees can (and do) erode the corpus of trust funds.

Accordingly, it may be useful to re-examine the issue of the appropriate levels of financial assurance that should be required at different points in a facility's life-cycle and how this affects different types of FA instruments. This re-examination (which would require very careful attention to detail with respect to cost estimation) should assure equitable treatment for the use of all FA instruments and appropriate linkage to actual costs for covered activities.

Bonds. Bonds, which bind signatories to pay a sum certain upon occurrence of a particular event,⁴³ may be used either to guarantee the owner/operator will perform closure or post-closure duties in accordance with

⁴⁰ See 40 CFR 265.143(a), 264.145(a), 265.143(a), 265.145(a), and 267.143(a).

⁴¹ Note that California does not make any specific pay-in requirements, thus creating an interesting risk profile for sites where the trust is used as the FA instrument. See Cal. Code Regs. Title 27, Section 22240 and Form CIWMB 100 (12.01).

⁴² Nevertheless, if the trust contains funds in excess of current closure cost estimates, the owner or operator can request the release of those funds above the current cost estimate. 40 CFR 264.145(a)(7).

⁴³ 12 Am. Jur. Bonds § 1 (2007). This "sum certain" is referred to as the "penal sum."

its RCRA permit⁴⁴ or guarantee a facility owner/operator will establish and pay in to a standby trust fund.⁴⁵ A surety company⁴⁶ guarantees either payment to a standby trust fund or performance of closure/post-closure activities. If the owner/operator fails to perform its obligations, the regulator notifies the surety, who then becomes liable.⁴⁷ In the case of a bond guaranteeing payment to a trust, the surety must fund the trust;⁴⁸ if the bond is a performance guarantee, the surety either may fund a standby trust or perform the closure/post-closure duties itself.⁴⁹

When a bond is used as financial assurance, the agreement simply makes the guarantor liable up to the full penal sum of the bond if the principal fails to perform the assured duties.⁵⁰ The guarantor's liability is limited to the penal sum of the bond even if the bond guarantees performance.⁵¹ Of course, bond sureties will not be willing to take on such long-term liability for free; in fact, EPA has recognized that collateral requirements or costs of surety bonds may be prohibitively high for smaller companies.⁵² Moreover, the current FA requirements under RCRA Subtitle C, governing hazardous waste management, and Subtitle D, governing nonhazardous solid waste disposal, make no provisions to measure the credit worthiness of the issuing surety, resulting in potential risk exposure to the public if the FA issuer and the owner/operator face financial distress at the same time.

To ensure bond proceeds will be readily available when the surety becomes liable on the bond, EPA requires the use of a standby trust fund.⁵³ This prevents the proceeds from the bond from going into the U.S. Treasury, where by law additional legislation would be needed to use the funds.⁵⁴ A standby trust fund is required even if the bond is used to guarantee performance because the funds used by the facility owner/operator still would come from the surety.⁵⁵

⁴⁴ See, e.g., 40 CFR 264.143(b); Cal. Code Regs. Title 27, Section 22244(c)(4)-(6).

⁴⁵ See, e.g., 40 CFR 264.143(c); Cal. Code Regs. Title 27, Section 22244(c)(1)-(3) (2006).

⁴⁶ Sureties have to be among those listed as acceptable securities for federal bonds in Circular 570 of the Treasury Department (40 CFR 264.143(b)(1) and 264.145(b)(1)).

⁴⁷ See 40 CFR 264.143(b)(5) and (c)(5), 264.145(b)(5) and (c)(5).

⁴⁸ 40 CFR 264.151(b).

⁴⁹ 40 CFR 264.151(c).

⁵⁰ See, e.g., 40 CFR 264.143(b)(5).

⁵¹ 40 CFR 264.151(c) (2006). The 13th paragraph of the required bond language reads in pertinent part, "in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum."

⁵² 53 Fed. Reg. 43,322, 43,353 (10/26/88).

⁵³ 40 CFR 264.143(b)(3), 264.145(b)(3), and 258.74(b)(4).

⁵⁴ 53 Fed. Reg. 43,322, 43,355 (10/26/88). In the case of CERCLA FA proceeds, this requirement is avoided by the use of provisions in negotiated administrative orders on consent.

⁵⁵ California regulations allow but do not require CIWMB to order the establishment of a standby trust from which CIWMB directly may withdraw funds in the event the principal defaults. Cal. Code Regs. Title 27, Sections 22237 and 22244(e) (2007).

Letters of Credit. Irrevocable standby letters of credit issued by federally-regulated or state-examined banks⁵⁶ provide another financial assurance tool.⁵⁷ Letters of credit are payment-ensuring contracts wherein a bank promises to pay a specified sum on presentation of specified documents.⁵⁸ Most standby letters of credit are one supporting part of a series of contracts among the buyer of the letter, the beneficiary, and the issuer of the letter. Typically, the buyer and beneficiary have agreed to an underlying transaction, and the letter of credit is a promise on the part of the issuing bank to pay the beneficiary when specified documents are presented indicating the buyer has failed to perform on the underlying transaction.⁵⁹ In the FA context, the document presented by the beneficiary (in this case, the regulator) must be a sight draft or a signed statement from the regional administrator that simply states "the account is payable" pursuant to RCRA-authorized regulations.⁶⁰ The regulations allow the regional administrator to provide such notice when there has been an administrative determination of a failure to perform pursuant to RCRA Section 3008⁶¹ or the regulator has received notice of cancellation from the owner/operator or bank and the owner/operator is unable to provide timely evidence of alternate financial assurance for covered costs.⁶²

EPA regulations require letters of credit used as FA to be irrevocable and have a period of at least a year, renewed automatically unless the issuer notifies the EPA in writing that it has decided not to extend the letter of credit within 120 days of the anniversary date of the letter of credit. If the letter of credit is not renewed by the issuer, EPA has the authority to draw on the existing letter of credit if the site operator cannot obtain alternate financial assurance.⁶³

As with the other financial assurance methods discussed here, the EPA regional administrator or authorized state plays a direct role in the letter of credit relationship because the controlling authority may draw on the letter of credit if the owner/operator has failed to perform final closure in accordance with the permit or, in the event of notice of cancellation, fails to obtain alternate financial assurance acceptable to the regulator.⁶⁴ California requires the issuing institution to become liable upon operator default, essentially as with a bond, but as is true of bonds, issuer liability is capped by the face amount of the instrument.⁶⁵ Another parallel between bonds and letters of credit is the significant

⁵⁶ See 40 CFR 264.143(d)(1). See also 2 L. of Chemical Reg. and Hazardous Waste Section 5:72 (2007).

⁵⁷ See 40 CFR 258.74(c), 40 CFR 264.143(d), Cal. Code Regs. Title 27, Section 22243.

⁵⁸ 1 Corp. Counsel's Guide to Letters of Credit Section 1:2.

⁵⁹ *Id.* at Section 1:90.

⁶⁰ 40 CFR 264.151(d). This section provides mandatory language for the letter of credit.

⁶¹ 40 CFR 264.143(d)(8) and 40 CFR 264.145(d)(9).

⁶² See 40 CFR 264.143(d)(5) and (9) and 40 CFR 264.145(d)(5) and (10).

⁶³ 40 CFR 264.143(d)(5), 264.145(d)(9). As is the case with bonds, hazardous waste facility owner/operators using letters of credit to satisfy FA requirements under RCRA must maintain a standby trust fund that will receive payments under the letter of credit to avoid diversion of the funds to the Treasury. See 40 CFR 264.143(d)(3) and 40 CFR 264.145(d)(3).

⁶⁴ See, e.g., 40 CFR 264.143(d)(8).

⁶⁵ Cal. Code Regs. Title 27, Section 22243(e).

cost many owners or operators may have to incur to acquire them, costs that at least historically were (and probably still are) typically much higher than FA insurance under standard business practices.⁶⁶

Key Differences Between Financial Assurance Mechanisms

In general, when insurance serves as an FA mechanism, the insurer is required to pay when presented with covered claims regardless of the insured's solvency and thus has to estimate the likelihood and magnitude of covered risks.⁶⁷ This makes insurers' calculations more sensitive to differences in regulation and site conditions,⁶⁸ which likely will result in greater price sensitivity to changes in regulations or variations in site-specific characteristics, which in turn can provide desirable feedback to regulators regarding environmental risks.

Trust funds are financial instruments of a different sort than bonds, insurance, and letters of credit. They provide ready access to funds and likely will have fewer disputes over who can order the payment of funds because the government is the named beneficiary of the trust, but they encounter an important issue some of the other mechanisms described do not. That is, the funds set aside in trust are not available for the owner/operator to use for other purposes. Similarly, issuers of bonds or letters of credit often will require the customer to put up some form of substantial security or deposit, reducing the customer's available credit and tying up capital.

In general, trusts are similar to insurance to the extent the trustee must pay for costs incurred regardless of the solvency of the owner/operator.⁶⁹ However, if the trust is funded insufficiently, the trustee only is liable for the funded amount, not the shortfall. Most FA insurance regulations, on the other hand, provide that the regulatory entity may be able to compel insurer payment up to policy limits regardless of whether the installment premium has been paid in full. However, this ability to compel payments may be limited to the ability to demand reimbursement and not to demand immediate liquidation into a trust. As such, there would be an ongoing series of reimbursements during the closure, post-closure, or corrective action process from insurance proceeds, not a single lump sum payment. Further, the regulator must declare and represent that costs for which reimbursement is demanded are consistent with the insured plan.

With bonds and letters of credit, the issuer acts as a backstop to the facility owner or operator and takes on liability up to the stated financial limits in the event of a failure to perform rather than when environmental events occur.⁷⁰ Therefore, pricing is based on the magnitude of risk and the likelihood of insolvency on the part of the principal.⁷¹

In short, while insurers cover environmental risk, bonds and LOCs are based on credit risk and do not provide additional review of the owner or operator's en-

vironmental risk assessment. In the case of bonds and letters of credit, the person seeking the bond or letter of credit often must provide a substantial credit or other form of financial security by pledging assets to the bank or surety company in addition to the surety's or bank's significant fee.⁷² Such collateral requirements sharply limit or eliminate the owner or operator's ability to use the assets pledged as security to obtain credit for other purposes, such as capital reinvestments, facility improvements, or monitoring and maintenance expenses.

If regulators alter FA regulations in ways that limit the availability of insurance and other affordable FA mechanisms, they effectively will be making FA instruments available only to large entities with high net worth that can meet financial means tests, obtain parent corporate guarantees, or obtain financial assurance based on tying up significant capital. A decline in the availability of financial assurance instruments likely will drive up compliance costs and may lead to consolidation in the regulated industry, while at the same time ignoring the relationship between site operator activities and the environmental risks they create.

Insurance. Among other risks, insurers who issue FA policies also face the problem of policyholder fraud. Under well-established insurance law principles, if an insured party knowingly makes false statements or material misrepresentations to its insurer, the insurer is allowed to rescind the policy.⁷³ An insurer's ability to rescind for fraud is an essential part of its risk evaluation. Insurers often must rely on the representations of the potential insured because it is the potential insured who has the greatest knowledge of the facts surrounding the risk.⁷⁴ However, in *Zurich v. Whittier*, a case involving FA coverage, the insured represented to its insurer that a site covered by the policy was not contaminated when in fact the insured had known of substantial contamination for some years. Had this information been disclosed, Zurich, the insurer, would not have issued the policy.⁷⁵ The Ninth Circuit nevertheless denied rescission despite Zurich's claims, *inter alia*, that denying rescission would create an extreme potential for loss.⁷⁶ The result of this interpretation of the FA regulations is that insurers must accept the uncompensated risk of fraud by their insureds with respect to FA instruments.

When issuers of other FA instruments, such as bonds or letters of credit, are faced with fraud by the parties who procured such instruments, it is unclear whether FA regulations will modify or eliminate their existing legal rights, if any, to decline payment under those instruments. Regulators and taxpayers will be required to bear the burden of fraud in issuance of FA instruments other than insurance if the issuers of those instruments are not legally required to do so (and recovery against

⁶⁶ 53 Fed. Reg. 43,322, 43,353 (10/26/88).

⁶⁷ Boyd at 20.

⁶⁸ *Id.*

⁶⁹ 40 CFR 258.74(a)(7), 264.143(a)(10), and 264.145(a)(11).

⁷⁰ See 40 CFR 258.74(b)(3), 264.143(b)(5), 264.143(c)(5), and 264.143(d)(8).

⁷¹ Boyd at 20.

⁷² 1 Corp. Counsel Guide to Letters of Credit Section 1:3 (2007).

⁷³ *Zurich American Ins. Co. v. Whittier Properties*, 356 F.3d 1132, 57 ERC 2098 (9th Cir. 2004). See also Brief of Appellee at 8, *Zurich American Ins. Co. v. Whittier Properties*, No. 02-36101 (9th Cir. July 2003).

⁷⁴ An insurer cannot reasonably verify site conditions without exposing itself to excessive environmental liability during physical investigation activities and/or excessive costs associated with extraordinary due diligence.

⁷⁵ Brief of Appellee at 6, *Zurich American Ins. Co. v. Whittier Properties*, No. 02-36101 (9th Cir. July 2003).

⁷⁶ *Id.* at 45.

the party committing the fraud is not possible, which seems likely). However, FA instrument issuers other than insurers should be able to detect fraud more easily because they are assessing credit risk, not the risk of environmental harms. This suggests that to enhance and promote competition by maintaining a level regulatory playing field, FA regulations should be amended to reinstitute strong disincentives to the procurement of FA instruments through fraud. FA regulations should not require issuers of FA instruments of any type to bear the risk of fraud by their customers (e.g., accounting fraud for bank-issued instruments).

Trust Funds. Trust funds are financial instruments of a different sort than bonds, insurance, and letters of credit. While bond, insurance, and letter of credit clients may pay for their financial assurance, the payments required to obtain such FA instruments typically do not have a dollar-for-dollar relationship to liability, as is the case with a trust.⁷⁷ In instances where the FA rules allow for the use of pay-in periods, the full amount of financial assurance coverage required may not be available for use until the end of the prescribed pay-in period, if at all. By contrast, the full value of bonds, insurance policies, and letters of credit is available from the date these measures go into effect.⁷⁸ The fact that owner/operators who use trusts for FA sometimes only are required to pay in over time gives the permittees in such cases who can afford the initial costs of the set up and deposit of a trust mechanism a significant competitive advantage over those who must use other mechanisms because they must post much less financial assurance at the outset than the face amount required for other instruments. However, this approach also exposes the regulator to the long-term credit risk of the owner/operator paying into the trust, a risk not posed by other third-party mechanisms but which certainly also is posed starkly by the use of a corporate financial test or guarantee for FA compliance.

Bonds. As previously mentioned, bonds are priced based on the credit risk presented by the facility owner or operator rather than the environmental risks presented. Thus, they are much better at providing assurance for known costs than unpredictable ones.⁷⁹ For example, corrective action cost estimates are among the most unpredictable of costs confronted at the time of a facility closure.⁸⁰ These costs vary depending on the type and length of facility operations and third-party impacts to the facility property. As a result, bond prices covering long time windows that seek to anticipate such costs may be prohibitively expensive for smaller facility

⁷⁷ John H. Turner, *The U.S. EPA 40 CFR 258 Financial Test/Corporate Guarantee—New Environmentally Protective, Cost-Effective Mechanisms for the Demonstration of Financial Responsibility*, 9 Fordham Env'tl. L. J. 567, 574 (1998).

⁷⁸ *Id.*

⁷⁹ Boyd at 20.

⁸⁰ Pursuant to guidance issued by EPA, financial assurance for corrective action only is required as part of an adjudicated consent order or at the time of remedy selection. Prior to that period, although a company may be booking an environmental reserve on their financial statements for corrective action costs/activities, financial assurance technically is not required. This means some of the largest potential costs theoretically addressed by the FA system may not actually be anticipated in practice.

owners and operators (i.e., those not able to meet the financial test).⁸¹

Because bond issuers become liable when they are notified of a facility owner or operator's default on their obligation, one problem that has arisen is the degree to which the bond issuer (i.e., the guarantor) may be liable. For instance, in *People ex rel. Ryan v. Env'tl. Waste Res. Inc.*,⁸² an Illinois trial court found site operator Environmental Waste Resources (EWR) had violated the closure and post-closure requirements of its operating permit and that its bond guarantor, United Pacific, either could pay the penal sum of the bond or perform the closure and post-closure itself. However, an appeals court reversed the trial court, finding that if United Pacific chose to perform, it would be liable for the full cost of performance regardless of the penal sum of the bond.⁸³ The court ruled the wording of the agreement (which is identical to what EPA requires for FA bonds at 40 CFR Section 264.151(b)) limited United Pacific's liability to the penal sum of the bond even in the event of performance.⁸⁴

One of the state's concerns in *People ex rel. Ryan* was that bond guarantors are permitted to abandon a project before all of the costs of performance are incurred,⁸⁵ a result permitted by the court's ruling. A similar problem could arise with any of these FA mechanisms because they all employ liability limits, but establishment of such limits is necessary for the instruments to exist in the first place because all FA issuers must be able to calculate their financial risks with some degree of certainty if they are going to be willing to issue the FA instrument in the first instance.

Letters of Credit. One advantage of letters of credit in commercial practice is that, as long as the letter is valid, the "independence principle" ensures the presentation of the proper documents by the letter of credit beneficiary—typically, a third party not related to the party that originally obtained the letter of credit—will entitle it to payment.⁸⁶ Although letters of credit are similar to bonds to the extent their pricing is based on the owner/operator's credit risk, and they are similar to bonds and insurance to the extent the full amount of assurance generally is available from the beginning, they also present a unique liability issue if expiration dates and effective coverage dates do not match one another. For example, in *Fina Supply Inc. v. Abilene Nat. Bank*,⁸⁷ a bank extending the expiration date of a letter of credit was sued for allegedly misrepresenting the effect of that expiration. While the change in expiration date meant Fina had more time to present requests to draw on the letter, this did not change the effective period for occurrences for which Fina could draw on the letter and made Fina's attempted draft invalid.⁸⁸ In the FA context, this liability issue likely only arises in cases where the issuing financial institution has provided notice of cancellation and opts to extend the expiration date at either the owner/operator or regulator request.

⁸¹ 47 Fed. Reg. 15,032, 15,041 (4/7/82).

⁸² 782 N.E.2d 291 (Ill. App. 2003).

⁸³ *Id.* at 296.

⁸⁴ *Id.*

⁸⁵ *Id.* at 297.

⁸⁶ Richard A. Lord, 1 Williston on Contracts Section 2:23 (4th ed., updated 2007).

⁸⁷ 726 S.W.2d 537 (Tex. 1987).

⁸⁸ *Id.* at 540-541.

This issue is unlikely to result from normal renewal of the letter of credit on its anniversary date, as prescribed by regulation.

If an extension of the expiration date without concomitant extension of the effective period were granted in the FA context, it could result in a loss of assurance. While EPA and certain states' regulations require extensions of the expiration date, they do not explicitly require extensions of the coverage period.⁸⁹ This issue is most likely to arise when regulators receiving notice of cancellation of the letter of credit negotiate an extension of the expiration date without negotiating an extension of the effective period. Such an oversight, particularly at a time when other FA is not available and cancellation involves a troubled facility operator, could leave the public exposed. Depending on how the FA regulations are interpreted, this potentially could result in significant coverage gaps not addressed by the current regulations.

Furthermore, letters of credit raise a financial problem somewhat similar to that of trusts because they reduce the site operator's credit available for other purposes. Just as putting money into a trust reduces the funds available to keep an operator solvent, the fact that letters of credit are issued by the same financial institutions that would supply other credit products (like loans) means fewer funds may be available from lenders.⁹⁰ Issuing banks also can require a site operator to provide secured collateral or deposits before agreeing to issue a letter of credit,⁹¹ a possibility made all the more likely by the extended time window of liability in the environmental context (and in fact referred to by EPA in promulgating some of its FA regulations).⁹² This not only would make loans and other credit financing less available but would tie up capital that otherwise could be used for the costs of covered activities. Although the amount of funds effectively frozen by the bank as part of its agreement to issue the letter of credit would not necessarily be equal to the payments into a trust, it could be very substantial.

Conclusions

Both regulators and site owner/operators will benefit from the broadest possible competition between types of FA instruments because increased competition will reduce the cost of obtaining FA as much as market conditions will permit. In order to maximize competition, FA regulations must provide a "level playing field" for different FA mechanisms. It follows that financial assurance regulations must recognize the distinctions between assurance methods if they are to provide this level playing field. As shown above, there are significant differences between the risk analysis conducted by the issuers of various FA instruments; some issuers focus primarily on environmental risk, while others focus almost exclusively on credit risk. These differences in risk analysis have important consequences for the FA regulatory system. There also are different types of risks to the FA system itself embedded in FA instruments or current policy on their use, such as the long-term credit risk posed by current policy regarding trust funding and the use of corporate financial tests and

guarantees, each of which needs to be carefully considered in reshaping FA regulations. At present, FA regulations impose important burdens on certain types of FA instruments, such as the requirement that insurers bear the costs of policyholder fraud, which are not imposed, at least explicitly, on other FA instruments.

It also is essential to recognize that none of the instruments used for financial assurance has the capacity to prevent inadequate funding of financial assurance requirements if regulators do not (1) require site operators to provide accurate, comprehensive, and current information regarding costs for closure, post-closure, and corrective action activities; and (2) ensure all stakeholders have a means to verify the precision and accuracy of such estimates that take into account fortuitous and nonfortuitous events likely to affect such estimates. Certain FA instruments may exacerbate this problem while others may improve the situation somewhat; at the end of the day, however, a regulatory system for financial assurance must be based on accurate information on closure/post-closure and corrective action requirements and their costs. Beyond this, however, FA instruments do differ in their effectiveness depending on the risks posed by a given site, the fiscal ability of the purchaser/permittee, and other site-specific factors.

Insurance, for instance, may be an appropriate tool for providing funds for third-party liability and corrective action because specialty underwriters generally are well trained to focus on the environmental risks involved with each facility covered and insurance provides full coverage for the FA risk from policy inception forward. Although the FA regulations potentially alter the fundamental relationship of insurer to insured because regulators contend they can decide how and when funds should be allocated, under current regulations insurance may be one of the more affordable FA mechanisms. Insurance may be a less expensive FA mechanism if regulations are revised to provide, for instance, that an insurer would be relieved of liability if installment premiums due from the policyholder are not in fact paid in cases where its policy so provides. If, however, regulators do not resolve some of the substantial existing regulatory difficulties faced by insurers, such as the potential for conflicting obligations and fraud exposure, insurance will become more expensive and less available as an FA mechanism over time.

Trusts generally take up a greater portion of the principal's capital, raising affordability concerns. In the absence of bankruptcy, FA trusts do not confront the problem of to whom duties are owed because the regulator is the trust beneficiary. However, the effect of bankruptcy on the performance of the trust instrument can be similar to that of other instruments depending upon the structure of the trust, who has the right to the residual (actual or theoretical) "excess" deposits, and/or the timing of events of bankruptcy and regulatory determinations that attempt to trigger the trust instrument. Permitting a pay-in period also means the full assurance amount may not be available while the trust is being funded.

Full funding also is available from bonds and letters of credit only after a declaration of default or upon cancellation of the instrument, and then only through a standby trustee. Furthermore, bonds are priced based on credit risk rather than environmental risk and often require large collateral or a deposit, as do letters of credit, again raising affordability concerns. Moreover,

⁸⁹ See, e.g., 40 CFR 264.151(d).

⁹⁰ Turner at 575.

⁹¹ Boyd at 24.

⁹² 53 Fed. Reg. 43,322, 43,353 (10/26/88).

special risks associated with extensions of letters of credit as noted above may pose notable concerns to FA regulators.

In sum, the intent of financial assurance is to ensure funds are readily available when and in the amount necessary to cover costs associated with environmental obligations if owner/operators are unable to meet their financial responsibilities. Proper regulation of financial assurance must take into account differences between FA instruments and ensure equitable treatment across instruments to avoid adverse effects on site owners and operators, their customers, and ultimately taxpayers.

Poorly conceived and implemented regulations inevitably will lead to the ballooning of FA prices, unavailability of some instruments (including inadequate availability of financial assurance funds), and the potential consolidation of ownership and control of impaired site due to the inability of site owners and operators to obtain affordable FA coverage. Finally, no type of financial instrument discussed in this article can meet regulatory demands for unrealistically long coverage time periods that extend beyond the willingness of capital markets to accept covered risks for such periods.