ENVIRONMENTAL/RECLAMATION FINANCIAL ASSURANCES:
BACK TO THE FUTURE

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i. Preface

A key to understanding changing financial assurance requirements in the mining industry is to look at their history. State and federal regulatory agencies have traditionally required a form of financial assurance to ensure that reclamation performance standards are met in both coal and hardrock operations, however, in dealing with the legacy of abandoned mines, bankruptcies, and mining company defaults, agencies often find themselves lacking sufficient funds to complete the necessary land reclamation, let alone to abate or provide long-term treatment of pollution discharges. Insufficient funding has caused agencies to review the forms of financial assurances and has resulted in reclamation bonds being used for purposes other than those anticipated by the surety underwriters. As a result of historical practices and underbonding, the prospect of liability allocation through other legal mechanisms, including CERCLA is being developed by EPA. Impacts on the mining industry can include additional costs related to evaluation of environmental impacts performed at the development stage, the costs of dual financial assurance programs, and oversight by an expanding mix of state and federal regulatory agencies. This paper addresses the framework of existing financial assurance programs in the mining industry, various forms of financial assurances. It then discusses regulatory ideas and concepts that have been proffered and are being developed to address financial assurances to protect and restore the environment affected by mining operations in the United States.

I. INTRODUCTION - “WHEREOF, WHAT'S PAST IS PROLOGUE”\(^1\)

Environmental and reclamation financial assurance for mine reclamation and environmental compliance is supposed to ensure that funds are available to the regulatory agency if the operator fails to perform. In a historical context, environmental oversight addressed the physical disturbance of the surface, and traditional reclamation obligations included such activities as backfilling, grading, and reshaping of excavated areas, preserving topsoil, disposal and control of excess spoil, and revegetation of the disturbed area.\(^2\) Because fulfilling these obligations could be expensive and because failure to complete them could leave highly visible and often dangerous scars on the land, regulatory agencies sought guarantees that the work could be completed.

In most cases the “guarantee” is provided by third parties. The concept of guaranteeing performance for another is an ancient concept often referred to “Suretyship” or “Guarantee.”

\(^1\) The Tempest, Act 2, Scene 1, 245-254.
Third party guarantees of performance are very common in the construction industry where due to the nature of the industry there is always a risk that a contractor, sub-contractor or vendor may default. If every contractor performed as expected, then the guarantees would not be necessary. Such as perfect record is not to be found, however, so the owner seeks assurance of performance.

In the extractive industries, with considerable technical and environmental performance requirements, the regulatory frameworks surrounding the operations have evolved to require financial guarantees of performance. Considered under the moniker of “Financial Assurances,” the regulatory agencies with permitting and enforcement jurisdiction have required mining companies, oil and gas operators and waste treatment, storage or disposal operators to provide financial guarantees to assure that the operations will be conducted according to specific performance standards and will be reclaimed and closed according to regulatory standards. Some sectors of the mining regulatory community have a long history of providing financial assurances, while to other sectors it is relatively recent.

The coal industry, in large part due to its long industrial legacy in the more populated eastern half of the country, has historically been subject to more regulatory scrutiny and related financial assurance requirements than has the hardrock industry. One only has to study the history and evolution of mining regulation in the United States, and in particular, the coal industry to see what the outcome may be, due in large part to the legacy of unabated contamination and untreated pollutional discharges that result from abandoned and unreclaimed mines. In many well known hardrock mining cases throughout the United States mine operations have been abandoned with environmental obligations, including surface and ground water issues that far exceed any financial assurances posted for the operation.

EPA states that as of 2009 about 90 hardrock mining sites are among those on the National Priorities List (“NPL”). Assuming this number, then only about 7% of the total NPL final sites are related to hardrock mining. However, this deceptively low percentage belies the cost of remediation at these sites. In 2006 the Government Accounting Office (“GAO”) relied on EPA estimates and reported that it would cost approximately $7.8 billion to clean up the hardrock sites on the NPL.

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3 The term “reclamation bond” is used commonly throughout the mining industry to cover all forms of reclamation financial guarantees.

4 Reclamation bonds were required in Pennsylvania under what has evolved to become the Surface Mine Conservation and Reclamation Act, 52 P.S. 681.6, as early as 1947 under the “Anthracite Strip Mining Law,” § 6, Act of June 27, 1947, P.L. 1095, amended. BLM regulations requiring the present form of financial assurances were promulgated in 2001, 30 C.F.R. § 3809.555, 66 Fed. Reg. 32,575 (June 15, 2001).

5 Examples often cited include The Bunker Hill Mining and Metallurgical Site in Idaho, the Summitville Consolidated Mine in Colorado, Iron Mountain Mine in California, all of which became the subject of CERCLA jurisdiction.


7 See http://www.epa.gov/superfund/sites/query/queryhtm/npltotal.htm

8 U.S. GOVERNMENT ACCOUNTABILITY OFFICE, HARDROCK MINING CLEANUP OBLIGATIONS 2, GAO-06-884T (2006). In contrast, General Electric’s dredging of PCBs from the Hudson River may cost more than $750 million. Andrew C. Revkin, Dredging of Pollutants Begins in Hudson, NEW YORK TIMES (May 16, 2009).
Due to political pressure, judicial pressure and ripening public awareness from coast to coast of natural resource extraction methodologies and associated environmental risks, it appears that regardless of the economic impacts, more stringent financial assurance requirements to guarantee environmental performance are forthcoming.

Although many regulatory programs presently require financial assurances and in most cases they are in the form of surety bonds, in many instances throughout the United States the reclamation bond has through judicial interpretation and what could be argued to be retroactive rulemaking, come to be used for dealing with issues other than traditional “reclamation.”

It should not be surprising that the Environmental Protection Agency has turned to CERCLA to find a regulatory remedy and to insure that the costs associated with pollution treatment or abatement associated with resource extraction and processing are internalized. However, allowing the regulatory tendrils of a statute like CERCLA, which was developed to deal with remedial closure of abandoned toxic sites, into the active mining industry creates another layer of federal regulation with a very expansive liability scheme that may have significant and unforeseen impacts.

II. EXISTING MINING PROGRAM FINANCIAL ASSURANCES PROGRAMS

All mining operations throughout the United States whether energy related, metals or nonmetals are subject to significant state and federal law governing environmental performance, land reclamation and water quality and have financial assurance requirements. Notwithstanding any primary mining/reclamation statutes, all mines and processing facilities are also subject to the compliance requirements of the Clean Water Act (“CWA”) related to water quality and wetlands protection, the Clean Air Act (“CAA”) related to fugitive and process emissions, the Resource Conservation and Recovery Act (“RCRA”) related to the management of non mining/beneficiating wastes and other applicable environmental laws. Many of these other

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13 See discussion infra Section V, See also BLM discussion regarding using existing bonding for water treatment in relation to clarifying (expanding?) regulations. 66 Fed. Reg. 54,847.

14 Traditional reclamation includes backfilling highwalls and pits, grading, topsoil replacement, revegetation and drainage control removal. See, e.g., 30 C.F.R. §§ 715.13-715.20.


17 42 U.S.C. § 6901-6992k

18 RCRA does not regulate mineral extraction, beneficiation and processing wastes under the “Beville” amendment which excludes them. See 42 U.S.C. § 6982(f); 40 C.F.R. § 261.4(b)(7).
environmental protection statutes also require financial assurances for some aspect of their performance standards.\(^{19}\) It should be noted that in all of the regulatory programs requiring financial assurances, the amounts required are finite based on an engineering cost analysis of specific, defined activities. The following discussions describe the primary mining statutes’ requirements for financial assurances.

**A. SMCRA**

The coal industry is regulated by the federal Surface Mine Control and Reclamation Act ("SMCRA")\(^{20}\) under the auspices of the U. S. Department of Interior, Office of Surface Mining, and its state analogs. Among its purposes, SMCRA is to “protect society and the environment from the adverse effects of surface coal mining operations”\(^{21}\) and to “assure that adequate procedures are undertaken to protect the environment.”\(^{22}\) Under federal SMCRA each State may assume primary enforcement responsibility under the concept of “primacy.”\(^{23}\) With the exception of Tennessee,\(^{24}\) Washington\(^{25}\) and Georgia\(^{26}\) which have federal programs\(^{27}\) all other coal-producing states have primacy to enforce SMCRA\(^{28}\) and have enacted their own state statutes, which must meet and may exceed the federal regulatory requirements to control environmental impacts of coal mining activities.\(^{29}\) By comparing the history of the regulatory programs in the coal and non-coal industries it is clear that regulation of the coal industry regarding reclamation and financial guarantees and specifically dealing with long term pollution issues is significantly more mature than that found in the non-coal arena.

Under SMCRA, mining companies must apply for surface and underground mining permits or approvals which require detailed background and baseline environmental information, operations plans, environmental performance and reclamation plans. Prior to receiving its

\(^{19}\) Under the Resource Conservation and Recovery Act financial assurances for waste treatment, disposal or storage area closure and post closure must be provided. See 40 C.F.R. §§ 264-265 Subpart H; 40 C.F.R. §§ 264.143 and 264.145. Under the Outer Continental Shelf Lands Act, financial assurances to fund oil well closure and to address spills are required. See 30 C.F.R. Subpart I, §§ 256.52-256.59 regarding well closure and 30 C.F.R. § 253.14 regarding one time catastrophic events. Under the Clean Water Act, financial assurances can be required to ensure that wetlands mitigation projects are completed. See 33 C.F.R. § 332.3(n)(1)-(6). Under the Safe Drinking Water Act, financial assurances are required for underground injection wells. See 40 C.F.R. §§ 144.28(d), 144.52(a)(7), 144.60-144.70.

\(^{20}\) 30 U.S.C. § 1201 et seq.


\(^{22}\) 30 U.S.C. § 1202(d).


\(^{24}\) 30 C.F.R. § 942.700.

\(^{25}\) 30 C.F.R. § 947.700.

\(^{26}\) 30 C.F.R. § 910.700.

\(^{27}\) 30 U.S.C. § 1254.

\(^{28}\) See generally 30 C.F.R. § 900 (federal approval of individual coal producing states regulatory programs).

permit, the operator must post adequate financial guarantees to assure final reclamation in compliance with the law and as detailed in the approved permit.\textsuperscript{30}

SMCRA allows financial guarantees to be in the form of a corporate surety bond,\textsuperscript{31} cash collateral bond,\textsuperscript{32} a self bond\textsuperscript{33} or securities.\textsuperscript{34}

The obligations under the bonds assure that the reclamation plan contained in the mine permit application is completed to regulatory standards. The reclamation obligations include, but are not limited to, the backfilling of open pits, grading, topsoil replacement, revegetation reclaiming the surface effects of underground mining, underground mine sealing, demolition of mineral preparation and processing plants and related surface structures, reclamation of refuse and waste rock (spoil) disposal/storage areas, restoring the hydrologic regime and, surprisingly to many sureties underwriters, long term water treatment.\textsuperscript{35} Under SMCRA, surface mining coal activities have been interpreted to include almost all of the surface effects to land and facilities related to extraction and processing of coal resources and expressly includes the surface effects incidental to underground mines.\textsuperscript{36} Under OSM’s policies, mining permits should not be approved “if the determination of probably hydrologic consequences or other reliable hydrologic analysis predicts the formation of post mining pollutational discharges that would require continuing long term treatment without a defined end point.”\textsuperscript{37} In other words, if predictable pollution, no permit.

B. FLPMA

Unlike their coal mine counterparts, non-coal mines on private property are not regulated by federal reclamation laws.\textsuperscript{38} Under the General Mining Act of 1872 (“Mining Act”)\textsuperscript{39} an individual or business entity can establish a claim to any hardrock mineral on public land and upon recordation of the mining claim pay a deminimis location fee and annual maintenance fee. The federal government receives no royalties for extracted minerals. The Mining Act was designed to encourage the settlement and development of the West; it was not designed to regulate the associated environmental effects of mining.\textsuperscript{40} Until the passage of the Federal

\begin{itemize}
\item \textsuperscript{30} 30 C.F.R. §§ 800.4, 800.12.
\item \textsuperscript{31} 30 C.F.R. §800.20
\item \textsuperscript{32} 30 C.F.R. § 800.21
\item \textsuperscript{33} 30 C.F.R. § 800.23
\item \textsuperscript{34} 30 C.F.R. § 800.12.
\item \textsuperscript{35} 30 C.F.R. §§ 715.10-715.20.
\item \textsuperscript{36} 30 C.F.R. § 700.5.
\item \textsuperscript{38} State laws governing non-coal operations on private property have varying degrees of reclamation stringency, however they are governed by other federal environmental laws including but not limited to the Federal Clean Water Act, Clean Air Act, Endangered Species Act and other applicable federal and state standards.
\item \textsuperscript{39} 30 U.S.C. § 22.
\item \textsuperscript{40} Infra note 44 at 12.
\end{itemize}
Land Policy and Management Act of 1976 ("FLPMA"), development of hardrock minerals on public land remained largely unregulated. Non-coal mines on federal land are subject to regulation therefore by both state and federal agencies under various laws. If on federal land the U.S. Department of Interior, Bureau of Land Management ("BLM") has performance and reclamation requirements developed by BLM, known as the “3809 Regulations,” based on their location in the Code of Federal Regulations. Under FLPMA the Secretary of Interior is required to take any action required to prevent the “undue degradation of public land and its resources.” BLM issued the initial 3809 Regulations effective in 1981 that require all operators to reclaim BLM land disturbed by their hardrock operations. However it wasn’t until 2001 that BLM revised the rules requiring operators to include reclamation plans and cost estimates in their notices and plans of operations to BLM for approval. The 2001 regulations require that financial assurances be provided to cover those estimated reclamation costs for notice and plan-level hardrock operations.

The revised bonding requirements for hardrock operations on federal lands expanded the acceptable types of financial assurances to include corporate surety bonds, cash, irrevocable letters of credit, cd’s, government securities or bonds, investment grade rated securities or insurance. The majority of mining operators throughout the United States choose to post corporate surety bonds as the preferred form of reclamation financial guarantee.

For non-coal operations on federal lands, FLPMA has several requirements similar to SMCRA. The performance standards require that the plan of operations approved by the agencies be fulfilled. Reclamation standards include topsoil storage and placement, erosion and control measures, standards for “reshaping” the area disturbed (as opposed to SMCRA’s requirement for “approximate original contour”), revegetation and habitat restoration and other site specific requirements contained in the approved plan of operations. Unlike SMCRA however the concept of “concurrent reclamation” is not generally applied and may allow the entire permitted mine footprint to be disturbed at one time.

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41 43 U.S.C. § 1701 et seq.
42 Infra note 44.
43 The Bureau of Land Management is responsible for managing 261 million acres of public land in 12 western states. Approximately 90% is open to the public for hardrock mining. U.S. GOVERNMENT ACCOUNTABILITY OFFICE, HARDROCK MINING: BLM NEEDS TO BETTER MANAGE FINANCIAL ASSURANCES TO GUARANTEE COVERAGE OF RECLAMATION COSTS (2005).
44 U.S. GOVERNMENT ACCOUNTABILITY OFFICE, HARDROCK MINING: BLM NEEDS TO BETTER MANAGE FINANCIAL ASSURANCES TO GUARANTEE COVERAGE OF RECLAMATION COSTS 1 (2005).
45 Id. at p. 3.
46 43 C.F.R. § 3809.555(e).
48 Compare SMCRA’s requirements for contemporaneous reclamation, 30 C.F.R. § 816.100, and FLPMA related regulations associated with concurrent reclamation, 43 C.F.R. §§ 3809, 420(a)(5) and 3809.420(b)(3). While the concepts may be similar, due in part to the nature of hardrock mining practices, the enforcement is quite different, e.g., allowing a pit to remain open or allowing waste rock dumps to remain unreclaimed based on the potential for increases in the resources price which then may allow another cut at the pit or, arguably convert “waste rock” into a resource worth processing.
C. National Forest Lands

The U.S. Forest Service ("USFS"), within the U.S. Department of Agriculture, manages approximately 193 million acres of public forest lands, some of which are sites of various mining operations: coal, hardrock, and other non-coal mining. The Forest Service, in balancing all of public land stewardship obligations has stated “[it] recognizes that prospectors and miners have a statutory right, not a mere privilege under the Mining Law of 1872, the Surface Resources Act and the Organic Administration Act of 1897, to go upon certain National Forest System Lands for the purposes of locatable mineral exploration, development and production.” Statutes governing the use of public forest lands expressly allow use of those lands for mineral development, but the USFS is required to protect the lands from “depredations.” The USFS regulations governing environmental protection and financial assurance (bonds) relating to mineral operations have remained relatively unchanged since 1974. In 2004 the USFS adopted an augmented program to analyze the potential for environmental impact of mining operations and to impose requirements for financial assurance that would yield amounts adequate to do the necessary environmental remediation if the mine operators did not. USFS undertook this program “to capture the lessons learned by the Forest Service and other state and federal agencies, as a result of having to close a number of bankrupt and abandoned hard rock mines.” Based on these lessons, USFS has developed a procedure to estimate the tasks and costs of environmental reclamation to be covered by the financial assurance, yet recognizes that it needs to be updated. In 2008 the USFS recognized shortcomings in its regulatory framework and proposed revisions to address them. However the proposed rules were not promulgated. In its 2008 attempt to reconcile its program with that of its sister agency, BLM and recommendations by the National Research Council following its publication “Hardrock Minerals on Federal Lands,” USFS proposed rules to, among other items, “provide additional detail with respect to the process the Forest Service uses to review and adjust reclamation bonds to ensure that those bonds cover the full cost of reclaiming National Forest Service lands.”

Financial assurance is not required in all instances, but the USFS may require a bond “conditioned upon compliance with §228.8(g) [environmental protection], prior to approval of

49 See, e.g., U.S. GOVERNMENT ACCOUNTABILITY OFFICE, HARDROCK MINING: INFORMATION ON ABANDONED MINES AND VALUE AND COVERAGE OF FINANCIAL ASSURANCE ON BLM LAND 6 (2008)).
57 Id. at 13 (identifying the following tasks: “Interim Operation and Maintenance; Hazardous Materials; Water Treatment; Demolition, Removal and Disposal of Uncontaminated Structures, Equipment and Materials; Earthwork; Revegetation; Mitigation; Long-term Operation, Maintenance and Monitoring”).
59 It appears that the USFS, financial assurance program is the least mature of the federal mining agencies.
[the] plan of operations.” 60 Although §228.13 provides for only a bond or cash, the USFS allows several forms of financial assurance to meet the requirement for bond, including bonds from corporate sureties, individual sureties, negotiable government securities (Treasury bills, notes, and bonds), cash, certified checks, bank drafts, money orders, irrevocable letters of credit, and assignment of savings accounts or certificates of deposit. 61

III. FORMS OF FINANCIAL ASSURANCES

The programs allow several forms of financial assurance. Operators often may select one or more form based on their needs and resource availability. In addition to the regulatory requirements governing each form, common law, industry practice, and statutory protections govern the rights and obligations of the parties under these financial assurances. Clearly the most common form of financial assurances are corporate surety bonds 62 followed by letters of credit, and corporate guarantees. 63 Several regulatory programs are now utilizing the concept of trusts for long term water pollution treatment obligations. Other forms including self bonding, securities, certificates of deposit, and insurance are also used and each form has its own advantages and disadvantages. The following discussions address the most common forms and trends in the industry.

A. Corporate Surety Bonds

“Suretyship” is an ancient principal 64 and, as noted, is a subject of its own unique area of law. 65 General Principles of “Surety Law,” which is contractual in nature, including the specifics regarding “statutory bonds” apply in these cases. 66 It is common for mining and regulatory professionals to confuse the concept of suretyship with insurance. Suretyship and the laws surrounding surety bonds is unique and very often is not addressed or understood until there is a default or in the mining regulatory context the mining company fails to perform its reclamation obligations and the agency is forced to “forfeit” the bond. 67

60 36 C.F.R. § 228.13.


63 Surety bonds account for 45.8% of financial assurances on federal land followed by Letters of Credit 28.5%, and Corporate Guarantees 24.3% See Hardrock Mining supra note 43, at 31.

64 Genesis 43:9.

65 See 74 Am. Jur. 2d Suretyship (2001); RESTATEMENT (THIRD) OF SURETYSHIP & GUARANTEE.

66 A bond written in conformity with a statute must be read with the statute. The statute that provides for the giving of a bond becomes part of the bond. See, e.g., American Casualty Co. of Reading v. Irvin, 426 F.2d 647, 650 (5th Cir. 1970) (“A statutory bond will be reviewed in the light of the statute creating the duty to give security.”); United States v. De Visser, 10 F. 642, 648 (S.D. N.Y. 1882) (“The bond cannot in fact be understood or applied without reference to these laws.”); Reliance Universal, Inc. v. Ernest Renda Contracting Co., 308 Pa. Super. 98, 108-09, 454 A.2d 39, 44-45 (1982); American Casualty Co. v. Department of Environmental Resources, 65 Pa. Commw. 223, 230, 441 A.2d 1383, 1387 (1982) (“[S]tatutory bonds are construed in the light of the statute creating the obligation secured and the purposes for which the bond is required, as expressed in the statute.”). See also 12 Am.Jur. 2d Bonds § 21 and cases cited therein.;

67 Forfeiture of bonds or other financial assurances is an administrative action preceded by significant notice requirements and, as such, is also an appealable action. See Gorton, William T. III, Understanding the Reclamation
B. Suretyship Is a Three Party Relationship

The surety relationship involves three distinct parties, including the Principal (Permittee) who is the primary obligor, the Obligee is the party to whom the principal and surety owe a duty (Regulatory Agency), and the Surety (Bonding Company) is the secondary obligor. 68

Each party in the three part surety relationship has distinct obligations, responsibilities and rights. Surprisingly to many who encounter the topic after there has been forfeiture, a surety bond is not an insurance policy. It is blackletter law that suretyship is not insurance. 69 The surety relationship is a three-party relationship wherein the surety can seek reimbursement from the principal once it has paid due to the principal’s default. Insurance is a two-party relationship where an insurer makes an independent agreement (an insurance policy) with its insured to indemnify the insured against a particular risk. The insurer cannot seek to recover its own loss from the insured, unlike a surety. Far different from insurance, a surety bond is more like a credit transaction, and “surety bonds, issued by compensated sureties, are meant to function as credit accommodations in which the surety anticipates no loss.” 70

C. Parties to the Relationship

The parties to a reclamation surety relationship:

1. Principal/Permittee: The principal is the party who has received the mining permit from the regulatory agency. The mining company, as the “permittee,” has the principal obligation to conduct mining and reclamation activities according to the terms of its mining permit issued by the regulatory authority which incorporates applicable operational, reclamation and environmental performance standards.

2. Obligee/Regulatory Agency: The obligee in a reclamation bond generally is the regulatory agency that has enforcement authority under SMCRA or FLPMA and their regulations to assure compliance with applicable law. Where a state regulatory program is

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implemented on federal lands, both the state and the United States will be obligees.\textsuperscript{71} The Surety underwrites the risk assuming that the agency will enforce the reclamation regulations.

3. **Surety a/k/a “Bonding Company”**: The surety is a secondary guarantor of performance of the bonded operational and reclamation obligations incorporated into the surface mining permits. The surety relationship between the permittee and the surety is a credit relationship under which the corporate surety a/k/a the “bonding company” will ordinarily require collateral and along with its common law indemnification rights against the principal will also require a written indemnity agreement. Although most bonding companies are divisions within insurance companies, suretyship is not to be confused with insurance. Under principles of surety law the principal is an “indemnitor” to the surety. Ordinarily the permittee must also execute a general agreement of indemnity\textsuperscript{72} and the bonding company usually requires collateral that will be returned to the permittee when the bonds are released.

Another concept in suretyship is that of “subrogation.” Generally the surety on the principal’s performance bond is entitled to all the rights and equities of the principal, the obligee and others benefitting from the surety’s performance.\textsuperscript{73} This right of subrogation includes the claims of the principal and obligees against third parties. In simple terms, the bonding company can step into the shoes of either the permittee or the agency to pursue claims of either of them in

\textsuperscript{71} 30 C.F.R. §740.15(b). For example, a bond written for a gold mine on federal land in Nevada includes both the Nevada Department of Environmental Protection and the U.S. Bureau of Land Management as obligees.

\textsuperscript{72} There are very important and inherent rights that a surety has in its relationship with the principal that are not addressed in this paper such as indemnity and subrogation that a practitioner in this field must be aware.

\textsuperscript{73} Muncy Trust Co. v. United States, 332 U.S. 234 (1947).
the right circumstances. One fundamental aspect of surety law is that in the event of a default by the principal, the surety can choose to either, pay the bond amount to the oblige or perform the bonded obligations.  

The advantages of corporate surety bonds are that they are widely accepted and are easy for the agencies to monitor. The surety company will develop its own business relationship with the mining company reviewing its credit worthiness, business plans, contracts and other factors in order to assess the amount and type of collateral that it may require. The permittee will also pay premiums to the bonding company on an annual basis. Using corporate surety bonds general allows the mining company to preserve its capital for operations. Like other forms of credit, obtaining reclamation surety bonds may be constrained by the credit worthiness of the applicants. Further, some bonding companies may have very high underwriting standards before providing corporate surety bonds.

D. Letters of Credit

A letter of credit also involves a three-party relationship, with three independent agreements. A letter of credit is a written (or electronic) agreement, issued by a bank (the “Issuer”), at the request of the bank’s customer (the “Applicant”), to a third party (the “Beneficiary”), promising to pay the stated dollar amount to the Beneficiary upon the Beneficiary’s proper request for payment (a “draw”) accompanied by any certifications or documents required by the terms of the letter of credit.  

Generally, an underlying agreement or relationship between the Applicant and the Beneficiary requires the Applicant to obtain a letter of credit to assure the Beneficiary of payment of the Applicant’s obligation to the Beneficiary. The circumstances allowing the Beneficiary to make a draw on the letter of credit are established in this underlying agreement. The Issuer’s promise to pay is irrevocable as long as the letter of credit has not expired, and the Issuer must honor the Beneficiary’s draw, and pay the requested amount, if the draw complies with the stated requirements. The Applicant pays the Issuer an annual fee and agrees to reimburse the Issuer for any amounts paid by the Issuer to the Beneficiary. The Issuer’s obligation to pay the Beneficiary is independent of both the underlying agreement or relationship between the Beneficiary and the Applicant and the right of the Issuer to collect reimbursement from the Applicant. In most cases, through some form of credit agreement the Issuer will require

74 30 C.F.R. § 800.50a2)(ii) regarding surety reclamation under SMCRA and 43 C.F.R. § 3809.596 regarding the same under FLPMA; See also: William T. Gorton III, Understanding the Reclamation Surety Relationship Before and After Operator Default, MINE CLOSURE, FINANCIAL ASSURANCE AND FINAL RECLAMATION, Paper No. 11, ROCKY MT. MIN.L. FDN. (2009).

75 Letters of credit are generally governed by both Article 5 of the Uniform Commercial Code (“UCC”), and the Uniform Customs and Practice for Documentary Credits (“UCP”) issued by the International Chamber of Commerce (“ICC”). A “documentary” letter of credit is a payment mechanism, and the parties anticipate that payment on the underlying agreement will be made in the ordinary course of business by a draw on the letter of credit. As applied for reclamation financial assurances, a “standby” letter of credit is more of a security mechanism, and the parties anticipate that a draw will be made on the letter of credit only if there is a default or other problem with the underlying agreement.
the Applicant to provide collateral or other security for both the fee and the reimbursement obligation.

Standby letters of credit are used in the mining context to assure the regulatory agency that cash funds will be available to satisfy the mining company’s obligations. In this context, the mining company (or permittee) is the Applicant, the regulatory agency is the Beneficiary and the underlying agreement reflects the mining company’s statutory and regulatory obligations under its mining permit.

Each regulatory program or agency will have its own required form of a letter of credit, which will describe the particular circumstances allowing the agency to draw down funds by presenting a claim to the Issuer. These mining company letters of credit are generally “evergreen,” meaning that the letter of credit renews automatically on an annul basis unless the Issuer decides not to renew. The Issuer will make this decision each year following a financial review of the mining company. The letter of credit form will usually require that the Issuer notify the Beneficiary of non-renewal at least 60 days before the stated expiration date, and will allow the Beneficiary to draw down the entire amount of the letter of credit if such notice is given, even if there is no other default. In that event, the regulatory agency will usually draw the full value of the letter of credit and hold the funds as security for the mining company’s obligations. Unlike the case with surety bonds, the Issuer does not have the opportunity to “pay or perform” since the LOC simply requires payment.

As with corporate surety bonds, a mining company’s ability to obtain letters of credit from financial institutions is largely governed by its own credit-worthiness and existing credit facilities. The mining company (as Applicant) will have to pay the Issuer an annual fee (generally around 1% of the letter of credit face value), and will generally have to provide the
issuing bank with an indemnity, guaranty and/or a security interest in the company assets to secure its obligations.

E. Trust Funds

Trust funds in the mining industry context are gaining acceptance for dealing with long-term obligations. They are not widely used for general reclamation financial assurances where bonds and letters of credit are more widely used. They are in use in the coal industry, some hardrock mining cases, but mostly to address treatment of long-term pollution. Trust funds also may be used to ensure that funds are available to meet the obligations of an agreed order or consent decree to accomplish specific environmental cleanup. EPA allows their use in providing financial assurances in hazardous waste and superfund remediation projects. The U.S. Forest Service does not expressly allow the use of trust funds for long term obligations. Acknowledging that “trust funds may be the best way to fund long term O&M, at the present time there are legal and technical questions about whether and how the Forest Service could use them.”

In cases where a trust is established, the “Settlor” establishes a trust to hold cash or other assets for the benefit of a “Beneficiary.” A third party “Trustee” is selected to hold and manage the assets according to a defined investment policy established in the Trust Agreement. In the mining context, the mining company would establish a relationship with a third party trustee to receive, hold and invest funds for the purposes of reclamation and/or water pollution abatement or treatment under the instructions of the beneficiary regulatory agency. Depending on the nature of the matter, the Trustee may also hold other assets including real or personal property, (including mineral rights), access rights and incorporeal interests such as royalties.

In establishing the trusts where there is an active mining company (as opposed to a default or bankruptcy situation), deposits can be negotiated on a schedule and perhaps based on production (e.g., $/ton) or the sale of dedicated property interests. One advantage, once the corpus/principal amount is established is that if the reclamation/treatment costs are reduced, the trust surplus should be returned to the mining company. On the other hand, if the problems for which the trust was established increase, additional contributions will be required. There are many factors to review when developing a trust program, including but not limited to, the basis and methodology for estimating costs, investment policies to protect the fund, but also optimize returns, investments manager, tax status and extent of agency control. The concept of trusts

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76 In the hardrock mining sites, they have been used by EPA in the context by CERCLA financial assurance requirements and are intended to ensure that adequate funds are available to cover costs pursuant to superfund settlements. See www.epa.gov/compliance/resources/policies/cleanup/superfund/fa-trust-mod.pdf.

77 See, e.g., Superfund Program; Model CERCLA RD/RA Consent Decree, 56 Fed. Reg. 30,996; 31,004 (July 8, 1991) (listing the forms of financial security accepted by EPA provide assurance that work under the consent decree will be completed).

78 See USFS Bond Guidance, supra note 56, at 24.

79 One example of a successful Trust established in 2001 specifically for addressing mining and natural resources reclamation obligations and coordinating water treatment and reclamation obligations in numerous states is the Clean Streams Foundation, Inc., a nonprofit 501(c)(3) organization. See www.cleanstreams.net.

80 See INTERNATIONAL COUNCIL ON MINING & METALS, FINANCIAL ASSURANCE FOR MINE CLOSURE AND RECLAMATION, Appendix (2005).
being used in the mining industry is garnering attention and is discussed, as applied, in more detail in Section V, below.

F. Self Bonding/Corporate Guarantees

The concept of “self bonding” allows a company to rely on its own financial strength to provide assurance that it can and will meet its reclamation obligations. SMCRA expressly allows the concept whereas under FLPMA, the BLM is more wary of a company losing its financial capability to guarantee performance and does not allow self bonding. The EPA has noted that agencies generally do not have the necessary expertise to monitor and evaluate a company’s corporate structure, assets, liabilities, and net worth that would be necessary to oversee such guarantees.\(^8\) Unlike surety bonds or letters of credit, corporate guarantees do not allow the regulator to lay claim to a specific financial asset in the event that the operator cannot meet its reclamation obligations. Further, corporate guarantees also require considerable administrative oversight. Interpreting, verifying and monitoring companies finances over time requires significant expertise or reliance by third party auditors.\(^8\)

1. SMCRA

Under SMCRA a regulatory agency may accept a self-bond when an applicant demonstrates “the existence of a suitable agent to receive service of process, and a history of financial solvency and continuous operation.”\(^8\) Specifically, a regulatory authority may accept

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8\(^1\) See EPA, ENVIRONMENTAL LIABILITIES supra note 9, at 43.
8\(^2\) BONDING FOR FEDERAL LANDS, supra note 61, at 14.
8\(^3\) 30 U.S.C. § 1259(c).
self-bonds from an applicant for a mining permit if four conditions are met, 1) the applicant must designate a suitable agent to receive service of process in the state where the surface mining operation is to be conducted; 2) the applicant must have been in continuous operation as a business entity for not less than five years;\(^{84}\) 3) acceptable financial solvency which may be demonstrated in one of the three following ways:

a. Current minimum rating of “A” for the applicants most recent bond issuance as rated by Moody’s or Standard & Poor’s,

b. Applicant’s tangible net worth of $10 million, a ratio of total liabilities to net worth of at most 2.5, and a ratio of current assets to current liabilities of at least 1.2, or

c. Fixed assets in the U.S. of at least $20 million, a ratio of total liabilities to net worth of at most 2.5, and a ratio of current assets to current liabilities of at least 1.2.\(^{85}\)

and 4) disclosure of certain financial documents including:

1. Financial statements for the most recently complete fiscal year prepared by an independent certified public accountant and accountants’ audit opinion,

2. Unaudited financial statements for completed quarters of the current fiscal year, and

3. Additional unaudited information as requested by the regulatory authority.\(^{86}\)

A limitation on self-bonding does exist. The total amount of outstanding and proposed self-bonds may not exceed 25% of the applicants tangible net worth.\(^{87}\) A parent corporation may serve as guarantor by complying with the aforementioned financial requirements along with executing an indemnity agreement.\(^{88}\)

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\(^{84}\) “Continuous” refers to a five year period immediately preceding the permit application. Periods of interruption in operations may be excluded if the events causing the business interruption were beyond the applicants control and do not affect the likelihood of remaining in business. Joint ventures or syndicates are allowed if all members of the joint venture or syndicate have been in continuous operation for the five year period. 30 C.F.R. § 800.23(b).

\(^{85}\) 30 C.F.R. § 800.23(b). Tangible net worth is defined as the difference between total assets and total liabilities less intangibles such as goodwill and the rights to patents or royalties. 30 C.F.R. §800-23(a). Fixed assets are defined as plant and equipment and do not include land or coal in place. Id.

\(^{86}\) 30 C.F.R. at § 800.23(b).

\(^{87}\) Id.

\(^{88}\) Id. at § 800.23(e)
2. **FLPMA**

Under FLPMA, self-bonding is not permitted by the BLM and is not listed in the forms of acceptable financial assurance. BLM stopped accepting new corporate guarantees as of January 20, 2001 to fulfill financial assurance requirements for reclamation in the wake of some bankruptcies of mining companies and abandoned obligations for reclaiming sites such as Colorado’s Summitville mine. The Bureau of Land Management interprets the list from 43 C.F.R. §3809.555 as an exclusive list of acceptable financial guarantee instruments.

3. **Advantages/Disadvantages of Self-Bonding**

The concept of self-bonding a company’s reclamation liability has several disadvantages. A surface mine operator may self-bond upon meeting the specified financial requirements. These solvency requirements are difficult to achieve and are limited to companies on firm financial footing. If a company that is self-bonding its reclamation liabilities experiences financial difficulties it could place the company in default of the solvency requirements. Such a situation would place government regulators with a Hobson’s choice. If the government chose to insist on alternative financial assurances or collateral as a result of a diminished financial situation, the threat to a company’s financial solvency would only increase.

The benefits to the permittee of allowing self-bonding include preventing a financially stable company from tying up capital in the form of collateral and premium payments required under traditional surety or letter of credit relationships. Allowing a company to self-bond reduces the aggregate cost of bonding and reduces administrative difficulties involved with using a third party bonding company.

4. **CERCLA Jurisdiction: RCRA Financial Assurances Through the CERCLA Back Door?**

As noted, under RCRA Bevill Amendment which excludes solid waste from the extraction, beneficiation and processing of ores and minerals from regulation as hazardous wastes, the financial assurance requirements for closure and post closing do not apply to the hardrock mining industry. However, under the pending EPA rulemaking regarding the Identification of Priority Classes of Facilities for Development of CERCLA 108(b) Financial Responsibility Requirements, in defining the types of financial assurances to apply to the mining industry, EPA is guided by the provisions under RCRA. The provision calls for the use of essentially the same financial assurance mechanisms allowed under the RCRA regulations for a financial assurance for the costs of closure and post closure care of hazardous waste facilities. In analyzing the types of financial assurances allowed and implemented under RCRA, EPA has acknowledged the complications related to the “financial test” which is the basis for allowing corporate guarantees or “self bonding.” As noted in the discussions above related to the complications associated with monitoring corporate financial health, EPA has acknowledged difficulties in predicting company’s long term financial viability. Both CERCLA and RCRA

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89 Supra note 82.
91 See Environmental Liabilities supra note 9, at 34.
authorize “self insurance” as a form of financial assurance. Nevertheless the regulatory framework for evaluating a company’s financial status on a continued basis is scant. EPA continues to evaluate the viability of self bonding, corporate guarantees and self insurance, all of which are in the same vein.

IV. TRADITIONAL FINANCIAL ASSURANCES DID NOT CONTEMPLATE LONG TERM POLLUTION

Most existing financial assurance requirements are intended to address traditional reclamation such as earthwork and revegetation; they were not meant to provide for long-term treatment of water pollution or pollution remediation. Regulatory agencies did not set the amount of required financial assurance to account for the increased costs of pollution abatement. Moreover, risk assessment and other underwriting tasks did not consider these costs. Some regulatory programs are retroactively applying bonds and other financial assurance in these new, and unanticipated, ways.

One aspect of the mining operation that often eludes critical review by bonding company underwriters is the prospect of unanticipated adverse surface or ground water pollution problems, including acid mine or acid rock drainage or other forms of leachate seeps which were not predicted during the pre-mine planning and permitting process. Nevertheless, hydrologic quality concerns and in particular, long term treatment obligations often arise in the context of defaulted or bankrupt operators and have become considered as bonded obligations.

In neither program can bonds be fully released if there is a long term pollutional discharge unless financial accommodations for perpetual treatment has been established. Clearly, the existing regulatory framework, while perhaps unfair to the corporate surety underwriter who did not envision pollutional problems, does allow an alternative mechanism for the regulatory agency to seek additional and appropriate financial assurances to address long term pollution treatment or abatement.

Water pollution associated with mining operations including acid mine drainage, heavy metal contamination, dissolved and suspended solids has been a cause of concern throughout the country for many years. The primary concern in the eastern United States and through the Illinois Basin is acid mine drainage from coal mines although the industry is receiving significant attention related to heavy metals. Heavy metals from non-coal mines have also presented a problem. Hardrock, mineral and coal mining in the western United States has contaminated streams in the head waters of more than 40% of the watersheds in the west. Although the federal Clean Water Act is the primary federal statute for dealing with point source discharges from mine sites, SMCRA and FLPMA both addressed hydrologic quality as one of many criteria required to be addressed in a mine reclamation plan.

93 For a comprehensive discussion of the relevant financial risk to the government and costs to companies regarding various forms of financial assurance including an in depth discussion of the “financial test.” See ENVIRONMENTAL LIABILITIES supra note 9, at 42.
Under SMCRA the mine plan must include “a detailed description of the measures to be taken during the mining and reclamation process” to assure the protections of: “quality of service, both on and off site, from adverse affects of the mining and reclamation process: …” The coal mine permit application must include a hydrologic reclamation plan which includes providing water plan treatment facilities if necessary.

The operations plan requirements under FLMPA, as noted previously describe how the permittee will address surface and ground water hydrologic conditions associated with or impacted by the mining operations. Other than dealing with processing facilities and heap leach operations, surface and ground water pollution associated with the mining operations are not anticipated and are not permitted. Very often pollutional discharges from abandoned heap leach operations, process ponds and unreclaimed waste rock facilities are the source of surface and ground water pollution from non-coal hardrock or metal mines.

Bonding underwriters will not provide a surety bond if it is determined that a site will have long term pollutional discharges since it is clear that the bond will not be released. Therefore, most water quality issues (including long term pollutional treatment) relate to unanticipated pollutional discharges that were not part of any reclamation bond calculation. Questions that must be addressed is should financial assurances specifically for water pollution issues be provided and, if so, when?

V. LONG TERM WATER POLLUTION TREATMENT TRUSTS

Under SMCRA the development of long term treatment trusts to provide financial assurances for acid mine drainage treatment developed first in Pennsylvania, a state with a long history of mining and acid mine drainage from abandoned and active mines. The federal Office of Surface Mining in Tennessee then developed a model based in large part on the Pennsylvania protocol. In order to address long term pollutional discharges specifically, the Pennsylvania analog to SMCRA was amended to state:

The department may establish alternative financial assurance mechanisms which shall achieve the objectives in purposes of the bonding program. These mechanisms may include, but are not limited to, the establishment of a site specific trust fund, funded by the operator for the treatment of post mining discharges of mine drainage.

The main purpose of the trust fund is to generate sufficient income to cover the cost of treatment into the future. The regulatory authority, Department of Environmental Protection is the trust beneficiary. The Trust is implemented through a negotiated Consent Order and Agreement defining the applicable trust contribution amounts, timeframe for deposits and a companion trust agreement with a third party Trustee. Once the Trust is established and fully funded, the Permittee may also be reimbursed from the trust for the yearly cost of treatment.

96 30 C.F.R. § 780.21.
97 52 P.S. §1396.4(d.2).
In Tennessee the federal Office of Surface Mining recognized this situation in developing a system to address long term pollutional discharge problems in its federal coal regulatory program. If the Permittee no longer exists, the Trustee fulfills the obligations to the extent the Trust is fully funded.

A system that provides an income stream may be better suited to insuring the treatment of long term pollutional discharges, such as AMD, than conventional bonds. Surety bonds, the most common form of conventional bond, are especially ill suited for this purpose because surety companies normally do not write a bond when there is no expectation of release of liability.\(^98\)

Finding that it had authority under SMCRA as an alternative bonding program, OSM specified the details of its trust fund program in 2007.\(^99\) In the preamble to the Tennessee federal rule making, OSM determined that since the Pennsylvania program was successful and unchallenged as was the Tennessee program that adequate authority for the use of trust funds and annuities is available under SMCRA under the provision allowing for alternative bonding programs\(^100\) and therefore a national rule was not needed.\(^101\) Therefore, for coal mining states with primacy, the Office of Surface Mining has essentially developed the framework for long term pollutional treatment at the state level.

Under FLPMA, until the 2001 rule making, the cost of long term water treatment were overlooked as part of the bonding requirements for mining operations and BLM noted that “the existing regulations are silent on the need to provide bonding for any necessary water treatment or site maintenance. BLM believes that it is necessary to specify this requirement to eliminate any argument about requiring such resource protection measures.”\(^102\) In the 2001 final rule calling for a trust, the BLM imposed an additional yet distinct requirement for water treatment guarantees separated from reclamation financial guarantees:

When BLM identifies a need for it you must establish a trust fund or other funding mechanism available to BLM to ensure the continuation of long term treatment to achieve water quality standards and for other long term post mining maintenance requirements.\(^103\)

Financial guarantees therefore are required for long term water pollution treatment in both the coal and non-coal programs and the trust fund concept is gaining nationwide acceptance. It is clear then, that the regulatory agencies have the authority to require trusts for long term obligations. In all instances the trust corpus must be sufficient for pollution treatment

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\(^{99}\) 30 C.F.R. § 942.800(c).

\(^{100}\) 30 U.S.C. § 1259(c).

\(^{101}\) 72 Fed. Reg. 9619.

\(^{102}\) 66 Fed. Reg. 54,847.

\(^{103}\) 43 C.F.R. §3809.552(c) (emphasis added).
and site maintenance in perpetuity. In determining the amount needed to fully fund a trust the agencies generally consider and model the quality and quantity of the discharge, treatment, capital costs, support facilities needed, treatment facility maintenance, chemicals required, renovation, maintenance and replacement, and factors necessary to ensure perpetual treatment and reduce those values to net present value to determine the trust corpus.

VI. EPA’S RATIONALE FOR CONSIDERING CERCLA FINANCIAL ASSURANCE

Many areas affected by mining have been identified as hazardous waste sites subject to the cleanup provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”).104 Alternatively referred to as Superfund, CERCLA has two primary purposes: “to promote the timely cleanup of hazardous waste sites and to ensure that the costs of such cleanup efforts were borne by those responsible for the contamination.”105 CERCLA allows the government to conduct removal or remedial actions to address the actual or threatened release of hazardous substances.106

Sites that are determined to be high priorities are listed on the National Priorities List (“NPL”), which EPA revises at least annually.107 A site may be placed on the NPL for any of three reasons: if it scores highly on the Hazard Ranking System (“HRS”), if it is designated as the top priority by the state in which it is located, or if it presents a significant threat to human health and EPA determines that a remedial action will be more cost-effective than an emergency removal action.108 CERCLA’s traditional role is remedial and is focused on inactive or abandoned sites contaminated by hazardous materials.109 Superfund pays for cleanup after hazardous materials are released and when other sources of funds are not readily available; it is a backward-looking remedy. A governmental agency or other person may seek reimbursement from a variety of potentially responsible parties (“PRPs”) for costs related to response to the hazardous substances.110

A. Financial Assurance Under CERCLA

EPA has required forms of financial assurance to secure the performance of PRPs in cleanup operations.111 In this context, the release of a hazardous substance has already occurred,

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104 42 U.S.C. § 9601, et seq.
108 Id. at 15,572-73.
110 See, e.g., Memorandum from Elin D. Miller, Regional Administrator, Region 10 Mining Financial Assurance Strategy 6 (Jan. 16, 2009) (“Under CERCLA, EPA has authority to require financial assurance in settlement agreements and when it issues orders . . . . Region 10 now generally issues CERCLA remedial design/remedial action orders and consent decrees requiring secure forms of financial assurance . . . .”). See also Superfund
the extent of environmental harm has been determined, and the scope of work necessary to accomplish the cleanup has been decided. Therefore, the role of financial assurance is traditional, that is, to secure the performance of a specific set of tasks with a specified cost. This model may not be easily applied to mining on a prospective basis.

B. Hardrock Mining and CERCLA

At least 90 hardrock mining sites are listed on the NPL. Two such sites serve as examples of how legacy sites, either by history or bankruptcy or both, may come under the CERCLA umbrella: the Coeur d’Alene or Bunker Hill site in Idaho and the Summitville Mine in Colorado. Mining at the Coeur d’Alene Mine began in the 1880s during the gold rush, but mining for gold soon gave way to extraction of silver and lead. Waste rock from the operations leached cadmium, zinc, lead, and other heavy metals into the ground and surface water, and processing mills dumped mill tailings containing heavy metals directly into streams. An estimated over sixty-two million tons of hazardous substances, including lead and zinc, were dumped into the local waterways. As a result, Coeur d’Alene became one of the first sites listed on the NPL as Bunker Hill Mining and Metallurgical Site. A more recent operation, the Summitville Mine, began gold mining about 1986. Summitville employed cyanide heap leaching methods to extract gold from surrounding minerals. Soon after mining efforts began, the plastic lining in the leach pad leaked and thus allowed cyanide to seep into the nearby creek and groundwater. Although the mining company started reclamation and cleanup, the high costs sent it into bankruptcy in 1992.

Application of CERCLA to these situations was merely a default approach when other statutory programs proved ineffective in dealing with the problems. Because much of the release of hazardous substances at mining sites such as Coeur d’Alene and Summitville is released from nonpoint sources, cleanup or enforcement under the CWA was is not a viable option. RCRA, which governs hazardous waste disposal, also is not applicable because of the exemption carved

Program; Model CERCLA RD/RA Consent Decree, 56 Fed. Reg. 30,996; 31,004 (July 8, 1991) (listing the forms of financial security accepted by EPA provide assurance that work under the consent decree will be completed).


Id. at 259-60.

Id. at 60.

Id.


Id.

Id.

Id.

out for mining waste by the Bevill Amendment.\textsuperscript{122} Under this amendment, passed in 1980, solid waste produced by the extraction, beneficiation, and processing of ores and minerals is excluded from RCRA regulation.\textsuperscript{123} Other laws directed at mining on public lands also proved ineffective.\textsuperscript{124} CERCLA is the only act left standing, and some may argue that application of CERCLA to mining is a classic case of bad facts making bad law.

Nonetheless, the magnitude of these cleanup projects and the resulting likelihood that operating companies will be driven into insolvency by the cleanup costs has stimulated a search for ways to provide the necessary funds. EPA’s Region 10 Administrator has described the situation:

\textbf{CERCLA is generally applied after a release has occurred and after a facility has closed.} However, since the enactment of CERCLA, this region has learned first-hand that waiting until after an inadequately funded mine is closed or shut down can mean that the mining companies do not have money for cleanup. At this point a mining company may have gone bankrupt or is without assets.\textsuperscript{125}

One way to safeguard against this result is to obtain financial assurance \textit{before} the release of hazardous substances. Just such an approach is expressly authorized by statute but has been long-ignored, until now.

\textbf{C. CERLCA Section 108(b)}

CERCLA Section 108(b) is rapidly gaining notoriety as a mechanism to demand financial assurance.\textsuperscript{126} This section is touted as a new weapon in EPA’s arsenal to address the cost of cleanup hazardous materials released to the environment.\textsuperscript{127} It provides for prospective financial assurance and requires the EPA to identify specific segments of the regulated community as follows:

\textit{Beginning not earlier than five years after December 11, 1980, the President shall promulgate requirements (for facilities in addition to those under Subtitle C of the Solid Waste Disposal Act [citation omitted] and other Federal law) that classes of facilities establish and maintain evidence of financial responsibility consistent with the degree and duration of risk associated with the production, transportation, treatment, storage or disposal of hazardous substances.}

\textsuperscript{122}See Villa, supra note 95, at 268.
\textsuperscript{125}Memorandum from Elin D. Miller, Regional Administrator, Region 10 Mining Financial Assurance Strategy 5 (Jan. 16, 2009).
\textsuperscript{126}42 U.S.C. § 9608(b).
In 2008, in *Sierra Club v. Johnson*, the Sierra Club and others sued to force EPA to complete its non-discretionary duty to carry out the first step in Section 108(b) by identifying the classes of facilities that would be required to provide financial assurance. The U. S. District Court held that EPA had a duty to identify the classes and ordered EPA to do so by May 4, 2009. The court later decided that although EPA had a non-discretionary duty to identify certain classes that may be subject to requirements for financial assurance, CERCLA allowed the EPA discretion on developing regulations for the financial assurance and did not impose any certain date for completing the regulations.

EPA published the 108(b) Priority Notice on July 28, 2009, in which it identified classes of facilities within the hardrock mining industry for priority in developing financial assurance in connection with Section 108(b). For purposes of this first step EPA defined hardrock mining facilities as those “facilities which extract, beneficiate or process metals (e.g. copper, gold, iron, lead, magnesium, molybdenum, silver, uranium, and zinc) and non-metallic, non-fuel minerals (e.g. asbestos, gypsum, phosphate rock, and sulfur).” EPA explained that its selection of these first priority classes was guided by the language of Section 108(b) with regard to “degree and duration of risk” associated with hazardous substances and the industry and with priority given to the classes that “present the highest level of risk of injury.” EPA selected eight specific factors to evaluate these aspects of risk as they relate to the highest priority classes for action on financial assurance:

1. annual amounts of hazardous substances released to the environment;
2. the number of facilities in active operation and production;
3. the physical size of the operation;
4. the extent of environmental contamination;
5. the number of sites on the CERCLA site inventory (including both the National Priority List (NPL) sites and non-NPL sites)
6. government expenditures;
7. projected clean-up expenditures; and
8. corporate structure and bankruptcy potential.

By singling out the hardrock mining industry for priority action for financial assurance under Section 108(b), EPA is joining a chorus of entities calling for increased accountability by the industry for remediation costs associated with hazardous substances released by mining

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128 *Sierra Club v. Johnson*, Case No. 08-01409, U. S. District Court for the Northern District of California.
133 108(b) Priority Notice, 74 Fed. Reg. 37,214 (quoting 42 U.S.C. § 9608(b)(1)).
134 108(b) Priority Notice, 74 Fed. Reg. 37,214. More then twenty-six years earlier, EPA had given notice and requested comment on how classes should be identified and how risk should be evaluated. 48 Fed. Reg. 21,598 (May 13, 1983).
activities. These governmental and private parties would agree that this is precisely the purpose of the section.

Congress adopted Section 108(b) to prevent persons from escaping the financial obligations caused by the release of hazardous substances. In the report of the Environment and Public Works Committee Report, the Senate stated the purpose of the financial assurance as follows:

Too often the individuals engaged in the manufacture, transportation, use, or disposal of hazardous substances are financially irresponsible. This has been especially true of persons engaged in hazardous waste disposal, whether they are real persons or corporations. In some cases, the assets consist only of a truck that may be rented. When a corporation has been created, the directors and officers are often shielded from personal liability.

To help prevent this, section 7 of S. 1480 requires those engaged in businesses involving hazardous substances to maintain evidence of financial responsibility commensurate with the risk which they present. This requirement is modeled on similar provisions in the Clean Water Act and the Solid Waste Disposal Act. . . .

Congress described the scope of the financial assurance to be “consistent with the degree and duration of risks associated with the production, transportation, treatment, storage, and disposal of hazardous substances.” Congress was clear, however, that it did not intend to require a double-coverage for obligations related to both CERCLA and the laws governing solid waste.

D. Amount of Financial Assurance

The case of Sierra Club v. Johnson and the 108(b) Priority Notice have left open the key question of how much financial assurance should be required. Section 108(b)(2) states that the “level of financial responsibility shall be initially established, and, when necessary, adjusted to protect against the level of risk which the President in his discretion believe is appropriate based

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137 Id.


These requirements are in addition to the financial responsibility requirements promulgated under the authority of section 3004(6) of the Solid Waste Disposal Act. It is not the intention of the Committee that operators of facilities covered by section 3004(6) of that Act be subject to two financial responsibility requirements for the same dangers. The purpose of this provision is twofold: first, to extend financial responsibility requirements to facilities and transporters who are not now covered by any requirements under section 3004(6), and second, to create authority for phasing in financial responsibility requirements for facilities and transporters.
on the payment experience of the Fund, commercial insurers, courts settlements and judgments, and voluntary claims satisfaction.” 139 This statutory language is backward-looking and amounts to a claims history that may not reflect the actual costs associated with modern hardrock mining operations. 140

Existing financial assurance requirements, discussed above, generally focus on the cost of reclamation, that is, earth work and revegetation, and do not address the costs of water treatment or other pollution abatement. 141 In fact, the true cost of preventing the release, or remediation of a release, of hazardous substances will be extremely difficult to estimate in light of the dearth of detailed science and engineering research on important questions of water quality and hydrology as they relate to the potential for release of hazardous substances from mining operations. 142

Existing regulations only partly account for such costs. For example, in the past the costs of long-term water treatment were overlooked as part of the financial guarantees required for mining operations. In revising the regulations associated with mining on federal lands, BLM noted that “the existing regulations are silent on the need to provide bonding for any necessary water treatment or site maintenance.” 143 In 2001 BLM imposed an additional yet distinct requirement for a trust fund to guarantee water treatment separate from the financial guarantee for reclamation. 144 However, this trust fund is imposed after-the-fact “when BLM identifies a need for it,” and does not contemplate the kind of prospective, forward-looking requirements that appear to be contemplated by EPA in its implementation of Section 108(b) financial assurance.

Effective implementation of Section 108(b) will require extensive, site-specific field work and modeling on chemical constituents, water quality, and hydrology. Such studies will be needed to provide reliable predictions of environmental impact and related cost estimates. This specificity will be necessary so that third parties such as sureties and banks can have certainty regarding the financial commitment of bonds, letters of credit, or other forms of financial assurance.

139 42 U.S.C. § 9608(b)(2).
143 66 Fed Reg. 54,847; see also NATIONAL RESEARCH COUNCIL, HARDROCK MINING ON FEDERAL LANDS Appendix E (“Several states – but not the Forest Service or BLM – have adopted regulatory programs that require or authorize the agencies to require financial assurance for long-term protection of water quality.”).
144 43 C.F.R. § 3809.552(c).
VII. INDUSTRY ARGUMENTS AGAINST FURTHER FINANCIAL ASSURANCES

Reducing risk, both of environmental injury and of financial ruin, may result in more certainty and may actually result in an advantage to segments of the mining industry. Congress recognized the value of uniformity and certainty when it passed amendments to CERCLA that allowed direct actions against insurers and other providers of financial assurance and allowed those guarantors to take advantage of all of the principals’ rights and defenses. An optimistic Congress opined as follows:

By authorizing a guarantor to invoke these rights and defenses, this amendment should foster the development of a competitive marketplace for insurance certified as evidence of financial responsibility. A competitive marketplace should lead to the greater availability of reasonably priced insurance certified as evidence of financial responsibility. This, in turn should encourage increased compliance with CERCLA’s financial responsibility provisions (and the availability of direct action) which will ultimately benefit the claimants by providing them with greater financial protection.

There is no evidence that such certainty is on the horizon, however, and insurance, which Congress envisioned as the primary vehicle for financial assurance, appears to play a minor role in this environmental gamble.

The mining industry presents several arguments against increasing requirements for financial assurance. In its comments to the 108(b) Priority Notice, the National Mining Association (“NMA”) raised several arguments on behalf of the industry in object to EPA’s identifying hardrock mining as a priority class for Section 108(b) financial assurance. Chief among those objections were the industry’s assertions that hardrock mining operations are already the subject of comprehensive environmental regulations and, therefore, the characterization of hardrock mining as a high risk industry was improper. NMA cited to the regulations promulgated under the FLPMA (43 C.F.R. § 3809 et seq.) and the United States Forest Service Regulations at 36 C.F.R. Part 228 as the type of extensive environmental regulation intended to prevent environmental harm. As discussed above however, most existing regulations focus on reclamation and correcting the physical disruptions to the environmental caused by the mining activities but have been implemented in ways that ignore the impact on pollution and environmental contamination with hazardous materials.

The industry also objected to EPA’s reliance on the Toxic Release Inventory (“TRI”) because it gives an unrealistic estimate of the potential for environmental contamination posed by hardrock mining. Finally, NMA contended that EPA had improperly relied on the NPL data and other information related to older, legacy sites of mining that were conducted before the current comprehensive environmental regulations were implemented. NMA argued that these old, abandoned mines as examples of environmental damage are not indicative of conditions at current mining operations.

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145 42 U.S.C. § 9608(c).
One compelling argument concerns the availability, or lack thereof, of financial assurance. When Congress adopted the requirement for financial responsibility it anticipated this need would be met by the insurance industry. In fact, it appears that insurance provides only a small percentage of the financial assurance needed in the extractive industries. Moreover, there is clear evidence that the demand for financial assurance, which is primarily in the form of commercial surety bonds, often outstrips the available supply. Scarce sources of financial assurance will inevitably raise the cost of acquiring that financial assurance and will most certainly impose on the operations the additional cost of providing the collateral or other security interest required by those that would provide the financial assurance. The result will be increased costs for the mining industry and for the ultimate consumers of the products of mining.

Although not raised by NMA, another consideration related to the increased cost of obtaining the financial assurance will be the risk that mining operations, already under intense scrutiny of complex environmental regulation, will seek areas of the world where there is less regulatory oversight with the result that production will move to other countries taking with them the production of the rare resources as well as productive jobs.

VIII. CONCLUSION

Financial assurance requirements in the mining industry, regardless of the maturity of the various regulatory programs, have been the subject of many federal studies as noted in this paper. In balancing the nation’s need for critical resources, international competition, economic development and environmental protection, we need to structure the framework that can be accommodated in our economic system and provides consistency. Clearly, looking in the rear view mirror of mining and mineral development in the nation provides a view against which our progress can be measured. The goal of financial assurance requirements is to mitigate the risk of creating the next generation of abandoned mine lands and associated features. In reviewing how these issues have been addressed in the evolution of mining regulation, it may become clear that precluding operations with predictable adverse hydrologic and geologic conditions, or requiring financial assurance upon an early demonstration of long term pollutional problems or requiring forms of financial assurances directed solely to long term pollution may be the outcome of the most recent efforts in developing consistent financial assurance requirements in the hardrock industry. Expanding federal jurisdiction under a statute developed to address abandoned toxic sites undoubtedly will create more administrative complexity for both the mining companies and the government. Addressing mining specific issues should be done in the context and framework of organic mining statutes and related regulatory programs. It has been done in some sectors. Both regulators and industry mining professionals need to look to the past, to see the future.

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147 See, e.g., Laura Skaer, The Reclamation Bonding Crisis and Hardrock Mining, presentation before Montana Mining Association (Sept. 18, 2002); Subcommittee on Energy and Mineral Resources of the Committee on Resources U.S. House of Representatives, Availability of Bonds to Meet Federal Requirements for Mining, Oil and Gas Projects, Serial Number 107-144 (July 23, 2002).