



How EPA can ensure mining companies, not taxpayers, pay for mine clean-up

# Making Polluters Pay



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JULY 2016

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Report available at [www.earthworksaction.org](http://www.earthworksaction.org)

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Cover photos (top - down): tailings dam at Arizona mine; danger sign at Yerington Mine in Nevada; closure sign at Animas River in Colorado after Gold King Mine spill; mine waste storage at gold mine in Nevada.



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*For over 25 years, Earthworks has been protecting communities and the environment from the impacts of irresponsible mineral and energy development while seeking sustainable solutions.*

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# Executive Summary

Thirty years after being charged to do so by the CERCLA (Superfund) statute Section 108(b), EPA is finally drafting rules that will require hardrock mining companies to demonstrate, up front, that they have the financial resources to remedy any environmental damage caused by their operations.

These rules are distinct from, and do not preempt, federal and state permits for operations closure and reclamation. Nor do they alter or substitute Superfund enforcement and cost recovery – they supplement them.

These rules, which are required by court order, are long overdue. The backlog of cleanup costs for hardrock mines in the U.S. are estimated at \$20-54 billion, and new sites are being added to the list as unfunded liabilities every year. Without these rules, taxpayers will be responsible for the cost of that cleanup.

As EPA drafts these rules, there are many important components and criteria it should include. Among the most critical:

- **EPA must not allow “self-bonding” or corporate guarantees.** Financial assurance must be in a form that is secure, independently guaranteed, and readily accessible. Cleanup bonds are needed when the mining operator is in financial extremis. As coal companies go bankrupt, state and federal governments are finding out the hard way that “corporate guarantees” are no guarantee at all.
- **Sites that require water treatment for more than one hundred years, or “in perpetuity,” must be prioritized.** These sites present financial liabilities that will continue long after the reasonable expected life of the company.
- **The detailed calculation of the financial assurance must be accurate and complete.** It must encompass all clean-up costs, costs for government or other implementation (i.e. direct and indirect costs associated with executing the bonded cleanup), and emergency preparedness/planning.
- **Deductions for engineering controls must be clearly demonstrated to reduce the estimated costs of clean-up and financial assurance.**
- **Public review at all phases of the financial assurance process must be an integral part of the rules.** It is the public that incurs the financial liability if the bond is insufficient.

# Introduction

Hardrock mining is the leading source of hazardous materials production and release in the US.<sup>1</sup> The Environmental Protection Agency (EPA) has reported that the metal mining industry was the largest toxic polluter in 2012, releasing over 1.4 billion tons of pounds - which represents approximately 40 percent of the total released by U.S. industry.<sup>2</sup> Mining continues to contaminate the air, water, and land by releasing waste and hazardous materials,<sup>3</sup> and too often taxpayers are left to fund the cost of clean up.



Hardrock mining is the leading source of toxic pollution in the U.S. – EPA Toxic Release Inventory.

In 1980, Congress directed EPA to enact rules requiring that facilities involved with hazardous substances demonstrate that they have the funding, up front, to remedy any environmental damage caused by their operations. After 30 years, the EPA is finally drafting these rules. In July 2009, EPA designated portions of the hard rock mining industry as its priority for the development of financial responsibility requirements.<sup>4</sup> Rigorous rules are essential to protect public health, the environment, and taxpayer dollars from the impacts of CERCLA Section 108(b) activities at hard rock mining sites for which there is no financial assurance.

The purpose of this report is to identify and discuss what is necessary and appropriate in the CERCLA 42 U.S.C. § 9601, *et seq*; often referred to as “Superfund” Section 108(b) regulations. The goal is to establish comprehensive criteria necessary to collectively ensure that mining companies - and not

taxpayers/government - are responsible for impacts to human health and the environment resulting from their facilities.

The Office of Inspector General, reviewing EPA's data, indicates that the tens of billions of dollars necessary to clean up hard rock mining sites are over 12 times EPA's total annual Superfund budget.<sup>5</sup> This OIG review looked at what it called mega-sites that are sites that will cost more than \$50 million to clean up.<sup>6</sup> The report also noted that: "the average cost to clean up a non-mega mining site on the National Priorities List (NPL) is about \$22 million, more than double the average for most other non-mega site types, such as chemical manufacturing and recycling sites."<sup>7</sup> EPA's own estimates indicate it will cost both the EPA Superfund and states for cleanup.<sup>8</sup> A conservative estimate of the total costs to cleanup hardrock mining sites is \$20-54 billion.<sup>9</sup>



More than \$23 million in public funds has been spent at the Zortman Landusky mine in Montana, where acid mine drainage is expected to continue in perpetuity.

The Animas River turned "red" after a spill of more than 3 million gallons of mine waste from the inactive Gold King mine in Colorado.

Another \$89 million is needed to address acid mine drainage at the Gilt Edge Mine in South Dakota of billions of dollars necessary to clean up hard rock mining sites are over 12 times.

## CERCLA & Section 108(b)

CERCLA has two primary relevant purposes to this report: “to promote the timely cleanup of hazardous waste sites and to ensure that the costs of such cleanup efforts are borne by those responsible for the contamination.”<sup>10</sup> Sites that are determined to be high priorities are listed on the National Priorities List (NPL). CERCLA primarily looks backwards – seeking payment for cleanup after contamination has occurred (release of hazardous materials) when cleanup payment options are often elusive or unavailable. During and after the cleanup process EPA seeks reimbursement from Potentially Responsible Parties (PRP; those thought to be responsible for the contamination and/or their predecessors and successors). Section 108(b) requires EPA to look forward, and to establish prospective financial assurance from responsible parties to ensure funds are available, up front, for cleanup.

CERCLA Section 108(b) directs EPA to promulgate requirements for certain classes of facilities to “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.”<sup>11</sup> The requirements seek to ensure that site owners and operators have financial sureties to address risks from the hazardous substances at their sites. These provisions are separate and distinct from - and do not preempt - federal and state permits for operations, closure, and reclamation. They address CERCLA Section 107 liabilities, including, but not limited to, response costs, health assessments, and natural resources damages. Moreover, Section 108(b) requirements do not alter or substitute Superfund enforcement and cost recovery - they supplement them.

## Critical Components that EPA Must Include in its Rules

### GENERAL PROVISIONS

1. Financial assurance should be in a form that is predictable, secure, and readily available/“liquid.” Corporate guarantees should not be accepted/utilized.
2. Financial assurance should be reviewed annually and undergo a comprehensive review and upgrade every 3 years. It should also be reviewed when conditions change (on site or off, including company and local, regional, national, and international economic conditions) or when regulatory agencies impose new/additional requirements.
3. The public should have the right to comment on the adequacy of the financial assurance; and meaningful comment and review prior to the release of any portion of the financial assurance.
4. Criteria should be established for the final, completed site conditions to ensure that there is a clear goal against which to compare the site and estimate the costs necessary to achieve the final remediation and restoration. Examples of these criteria should range from chemical/contaminant criteria, physical criteria, water and air quality - both on and off the site, etc.

5. Sites that store, generate, or transport priority pollutants, such as cyanide, mercury, and acid mine drainage, should be prioritized.
6. A comprehensive review should occur of existing sites that meet the CERCLA 108(b) criteria, and the financial assurance should be calculated and in place as soon as possible for existing sites and prior to commencement of activities (or in conjunction with a NEPA process if applicable) on new or newly listed sites.
7. The financial assurance instrument(s) must provide for forfeiture/default criteria such that it is clear under exactly what situations the government may exercise control over the financial assurance. It is recommended that financial assurance instruments include language to ensure that forfeiture occurs for the following conditions/situations and others that are appropriate to the individual situation:
  - noncompliance with applicable permits
  - failure to perform tasks in a timely manner
  - failure to achieve required benchmarks
  - the refusal or failure to perform work
  - the refusal to failure to maintain the financial assurance
  - emergency situations
  - preventing meaningful public participation in establishing the financial assurance amounts and any financial assurance release.
8. In its May 17, 2016 Power Point, titled "CERCLA Section 108(b) Financial Responsibility," EPA describes that it is possible that once a baseline amount is established then it could be reduced through demonstrating that current controls at the facility are in place.
  - This approach may conceptually promote good policy but is disconnected from - and obscures - the purposes of financial assurances and the probabilities of clean up. The theory behind reducing financial assurances where certain engineering controls are implemented is not necessarily unreasonable. However, the financial assurance should not be reduced without demonstrating that implementing these controls will actually reduce cleanup costs. In many ways, this EPA proposal conflates and confuses the difference between insurance and financial assurance/sureties. Insurance generally considers the probability of failure when determining its costs and the payout upon failure. A financial surety should simply calculate the costs of the mining company's failure to perform (period).
  - Financial assurance in the CERCLA 108(b) context is not about probabilities - it is about the cost for the agency to step into the shoes of the mining company to operate/close the site without impacts to human health, the environment, and taxpayer resources. That calculation should be based on the actual cost to clean up the facility and there may be minimal relationship between that cost and whether or not engineering controls were performed. The financial assurance amount should only be reduced where the regulatory agencies can demonstrate that the cost of cleanup is reduced by the implementation of the company's use of engineering controls. The concept of reducing the cost of insurance premium is tied

to best practices - (e.g. install smoke detectors and the likelihood of fire damage is reduced), but it has not been clearly demonstrated that the financial assurance (i.e. the cost of cleaning up hazardous materials) is reduced by the mining company having implemented engineering controls..

## PUBLIC PARTICIPATION

For the financial assurance system to be credible and fully informed it is important for the public to have opportunities for meaningful participation in all financial assurance actions, including calculating and issuance, renewal/review, and partial or full release of a financial assurance. This is appropriate because, among other things, it is the public that typically pays the cost of cleanup if the financial assurance is insufficient.

Agency responses and responsibilities should be both procedural and substantive for financial assurance activities such as calculation/issuance, renewal/periodic review, and partial or full release. Each should be accompanied by a formal period during which the EPA and other regulatory agencies solicit comments and provide opportunities for open fora/meetings. The EPA and other regulatory agencies should provide substantive documented responses to public comments explaining why each comment was accepted, modified, or rejected.



Clean-up of the Yerington mine in Nevada has been delayed for decades due to lack of funding. Water pollution from the mine is extensive, with about 100 residences receiving bottled water. \$30 million in public funds are needed to fund a portion of the costs left behind by the company's bankruptcy.

The public should specially be given the opportunity to review and comment on actual financial assurance agreements prior to execution and renewal. As discussed elsewhere, the actual financial assurance agreement language can make a significant difference to the amounts of money available to the government upon failure or forfeiture and the timing of the release of that money to the government.

The public should have the right to inspect the site:

1. Where members of the public demonstrate or cite to a credible concern that financial assurance provisions are or have been violated.

2. Where members of the public demonstrate or cite to a credible threat to human health or the environment.

The EPA and regulatory agencies should provide substantive written responses to public claims of violations and describe the agency investigation and response, including but not limited to describing why action was taken or not taken.

## FINANCIAL ASSURANCE CALCULATION

Generally, a financial assurance is calculated based on the costs for the government to complete the project/actions to ensure compliance with applicable statutes, regulations, rules, and permits/orders/decrees. These calculations include (or should include) all required and appropriate activities, such as labor, equipment, materials, government management and oversight, profit (for third parties), etc. For purposes of this discussion, these will collectively be considered “traditional” financial assurance calculation.

As EPA is developing CERCLA Section 108(b) rules for mining and other sectors the calculation process will likely evolve. However, at the start it is important to ensure that mining includes all costs associated with all actions required by the site plan and actions and further include sufficient funds for interim activities, indirect costs, overhead costs, and emergency actions.

No financial assurance should be calculated without review and input from regulatory and stakeholders who are familiar with the site and area.



Mines that require water treatment for more than one hundred years, or “in perpetuity,” should be prioritized because the financial liability is likely to extend far beyond the reasonably expected life of the company.

## EPA RISK MODEL

EPA is currently developing a risk-based model to identify response costs that reflects the primary site conditions and their relationship to future costs. The model could assign costs to a facility based on unit characteristics, such as open pits, underground workings, waste rock piles, tailings impoundments, etc., and facility characteristics such as location and weather, and operational characteristics, such as water management and treatment, maintenance, monitoring, etc.<sup>12</sup> The costs would correspond to calculated cost-levels for similar items and be totaled to form a basis for the necessary financial assurance.<sup>13</sup> EPA intends the model to reflect the risks at the facility based on operational practices, managing substances, site requirements, regulatory requirements, etc.<sup>14</sup> In this manner the financial assurance would be not be tied to any individual features and would be available for any site features (see discussion elsewhere).

EPA should require that site owners and operators provide financial assurance instruments to cover all Section 107 liabilities at their facilities. Independent from the model, the EPA is also considering a fixed financial amount at all facilities to cover liabilities for each of (1) natural resources damages and (2) health assessment costs.<sup>15</sup>

It is important to recognize that all mines are unique and include important distinctions and features, including but not limited to, geology and mineral types and associations, ground and surface hydrology, weather extremes and patterns, proximity to special and/or high quality resources (ecological, recreational, cultural, social, agricultural, economic, etc.), proximity to human and wildlife uses, site accessibility and access to materials, equipment, and labor, etc. Individually and collectively, these underscore the importance of testing the model and employing traditional financial assurance calculation methods until the model has been demonstrated to be sufficiently accurate to stand alone. Any model should be tested by applying the model and comparing the results to traditional financial assurance calculations for the same project. The comparison of the two and analysis will allow the model, and possibly traditional methods, to be modified accordingly to be as precise and accurate as possible thereby ensuring that financial assurance amounts are adequate to cover all activities at a site.



A growing number of mines require water treatment in perpetuity due to acid mine drainage. Sufficient funds must be in place to pay for costly water treatment for hundreds to thousands of years – long beyond the typical lifetime of a

## DETAILED CALCULATION

Independent of the calculation mechanism, the EPA's regulations/methods must incorporate critical fundamental features - whether considered by a model, by manual cost estimate or some combination of the two. It is important that each of the following items is included - and that the method of calculating each component is reasonable and supportable, accurate, and verifiable.

Financial assurance should cover the full costs necessary to comply with CERCLA orders and decrees including all related reclamation and restoration. It should also include financial assurance sufficient to cover:

1. Source controls to divert uncontaminated water from contamination (e.g. stormwater diversion), capture contaminated water, reduce sedimentation, etc.
2. Special facility management and controls for each of the following, when present:
  - a. pits and pit lakes
  - b. underground workings
  - c. tailings facilities
  - d. waste rock facilities
  - e. transport routes (such as roads, conveyors, pipelines, and other “linear” facilities)
  - f. tailings impoundments
  - g. mill and process facilities
  - h. other mine facilities, structures, and features
  - i. Priority contaminants, including, but not limited to:
    - i. Cyanide
    - ii. Mercury
    - iii. Selenium
    - iv. Arsenic
    - v. Thallium
    - vi. Antimony
    - vii. Acid mine drainage (AMD) contaminants
3. The extent of use and reliability of liners (e.g., clay, geomembrane, hybrid, other)
  - a. Under and/or above tailings ponds or other liquid or semi-liquid disposal sites.
  - b. Under and/or above waste rock (overburden) disposal piles
  - c. Under and/or above heap leach piles
  - d. Under and/or above other facilities and features
4. Water treatment into perpetuity
5. Long-term operations and maintenance of facilities necessary for ongoing processes (beyond water treatment into perpetuity)
6. Existing or anticipated failure to control seepage (e.g., *copper porphyry report*)
7. Monitoring ground and surface water
8. Pumpback and containment/capture of contaminated water

9. Treatment of surface and ground water and water held in or pumped to mining or treatment facilities, such as tailings impoundments and process and other facilities
10. Disposal of toxic and hazardous materials
11. Surface and underground reclamation
12. Added costs for government/agency oversight and agency management (operations and maintenance).<sup>16</sup>
13. Added costs for agency management
14. Added costs to anticipate inflation, depreciation, and other financial changes that may reasonably occur between financial assurance reviews

## DIRECT AND INDIRECT COSTS

Financial assurance calculation must include both direct and indirect costs:

1. Direct costs include, but are not limited to, capital costs for reclamation and cleanup associated with ground and surface disturbances, facilities and capital items necessary for site maintenance, such as water treatment, groundwater pumping, etc.
2. Indirect costs include, but are not limited to, engineering redesign, mobilization, contractor overhead/profit, regulatory/administrative agency contract administration, agency indirect costs, demobilization, and contingency.

Examples include agency mobilization to the site and investigation and oversight of all site activities, mobilization and demobilization of all subcontractors; engineering and related planning costs and construction management, insurance, contingency multiplier, and inflation adjustment (based on the Consumer Price Index).

## ESSENTIALS FOR A SOLID FOUNDATION

All data employed in financial assurance estimates must be based on and employ only verifiable data/inputs. These may include, but are not limited to:

1. Governmental guidelines and manuals
2. Commercial estimating guides and guidelines
3. Documented bid quotations
4. Catalog and bid quotations for materials and supplies
5. Comparable costs from similar activities/projects that were conducted by governmental/regulatory agencies<sup>17</sup>
6. Equipment manuals and handbooks (such as operations guides, servicing handbooks, and manufacturer operational cost estimates)
7. Prevailing wage rates (Davis Bacon) to determine labor costs, etc.

8. Logistical information may come from permitting and regulatory papers, or where no other source exists from written documents or written estimates from the mining company or its contractors, for quantities, distances, times, material take-offs, etc.

## EMERGENCY PLANNING AND PREPAREDNESS

Financial assurance calculations should consider reasonable worst-case scenarios and emergency preparedness and response. These may be employed as special features, such as technical requirements for facilities or as multipliers to existing planning requirements.

Other state and federal regulations do not address financial assurance costs for sudden releases of hazardous materials from mine facilities. Regulations are needed to ensure cleanup occurs. Courts have determined that the EPA cannot go after companies for natural resource damages until the agency has completed remediation. Therefore, CERCLA 108(b) should ensure that EPA has in place the necessary financial assurance to cover these costs.



Tailings storage facilities are a significant risk due to the vast quantities of hazardous materials stored behind the dam, and the increasing rate of tailings dam failures worldwide.

Essential emergency planning and preparedness include, but should not be limited to:

1. Probable maximum precipitation (PMP) event
2. Probable maximum flood (PMF) event
3. Other 500 or 1,000-year events such as hurricanes, twisters, etc.
4. Maximum Credible Earthquake for seismic-sensitive structures
5. Emergency situations from chemical or physical emergencies
6. Specific Failure Liability Risks
  - Tailings Impoundments pose a particular risk upon failure that should be evaluated. Where there is a particular risk of failure or where the consequences of failure are particularly significant then the financial assurance should ensure to capture these risks/consequences.

- Where underground mine features such as underground bulkheads, subsidence or failure of workings, etc., pose a particularly high risk of failure or where their failure would cause particularly high consequences then these underground features should be captured by the financial assurance.

## FINANCIAL ASSURANCE REVIEW

1. If the site will have continued development or ongoing activities, then the financial assurance amount must be sufficient to include all relevant costs to implement final restoration and remediation for the period until the next financial assurance review is completed.
2. The mine financial assurance must undergo comprehensive evaluation at least every three years. The evaluation should be completed by an independent analyst using acceptable accounting methods and employing the most recent inputs available. Additional evaluations should occur whenever there is a material change to the site plan or new conditions created or discovered that could reasonably impact the site, its operations, or its short term and long-term cleanup.
3. Financial assurance evaluations should be publicly available and allow for public comment prior to approval/implementation.
4. Where requested by the public or stakeholders EPA should provide independent expert assistance, training, or other educational assistance to help the public understand and review the financial assurance information. This may be through or similar to the Technical Assistance Grant process. The goal is to develop the public's capacity to understand and engage in the review process.
5. The public should have the right to trigger a preliminary review of the financial assurance amount when it presents credible evidence that the financial assurance calculation is not adequate (such as for changed site conditions, operations, or other factors indicating a defect in the latest financial assurance calculation or site operations). Based on the preliminary review the EPA and other agencies should identify in writing why further review is not warranted or begin an appropriately detailed financial assurance review.

EPA held a public webinar on May 17, 2016 during which it described, among other things, five foundational components necessary for Section 108 financial assurance.<sup>18</sup> These included many fundamental CERCLA issues but among the most important of the fundamental considerations was missing and essential: The bond form. This includes the type of financial assurance mechanism and the instrument's actual logistics and language. Both should be open to public review and meaningful participation. As discussed elsewhere, self-bonding (or company guarantees) should not be permitted. Other, related factors come into play and are discussed elsewhere.

# Financial Assurance Instruments

EPA has identified that it will consider the following forms of financial assurance instruments:

- Cash or cash-equivalent security note<sup>19</sup>
- Letters of credit
- Surety bond
- Trust fund
- Insurance (including qualification as a self-insurer)
- Credit rating-based financial test/ corporate guarantee<sup>20</sup>

Each of these has its own strengths and weaknesses - and the costs and benefits of each are highly dependent on the perspective from which it is viewed. Examples of factors include the cost of procurement and maintenance, degree of reliability, ease of evaluation and adjustment, complexity, utility (such as comprehensibility, ease of implementation of the instrument and securing funds upon breach or default, etc.). As part of its rule making process EPA will, and already has started to, consider the many available forms of financial assurance instruments to establish a Section 108(b) list of acceptable financial assurance instruments.

No matter the type of instrument, the instruments actual worth will depend on its specific terms and legal enforceability. Loopholes and errors may render worthless a seemingly solid instrument. This is one more reason why public participation and review is important - to ensure that the public can vet and evaluate the proposed financial assurance.

For purposes of this report, threshold requirements for financial assurance are that they be:

1. Predictable. This means that the assurance instrument is written to ensure clarity and achieve all the assurance goals. The public should have the ability to review and comment on these instruments.
2. Secure. Guaranteed and not subject to the vagaries of the mine's or a mining company's finances/liabilities
3. Readily available/"liquid." Be as available to the EPA upon default as cash. A financial assurance must actually assure - meaning that it is not acceptable for the EPA or other agency to have to fight for sufficient funds as the funds are needed. The full amount of a financial assurance should be fully, readily available upon default.

These criteria are necessary for the EPA or another trustee to quickly access the appropriate amount of funds from a reliable source. All financial instruments should be required to meet specified criteria and reporting requirements that verifiably demonstrate the ability of the guarantor of the financial assurance instrument to pay for the cleanup work (financial test). This should apply regardless of whether it is a bonding company, financial institution, an escrow or insurance company, or a parent company or the mining company itself.<sup>21</sup> An argument may be made that in the CERCLA context ready liquidity is not as important because the EPA could arguably draw from the Superfund as an interim bridge (loan) to obtaining/employing Section 108(b) funds. This is rejected because a

notable purpose of the financial assurance requirement is to ensure that Superfund funds are not triggered.

**CASH** Cash is the most obvious form of financial instrument - it has clearly measurable face value, is readily liquid and transferrable, and is readily comprehensible. The definition of "cash equivalent" varies by the topical discussion but generally include U.S. government Treasury bills and bank certificates of deposit. In financial markets cash equivalent often includes bankers' acceptances, corporate commercial paper and other money market instruments - but for long-term financial assurance these are not really applicable because they are based on short-term market value and/or include significant risk of change in value over time. Such changes render moot their merit as financial assurance mechanisms because financial assurance surety requires a predictable, safe value. Corporate commercial paper may be related to corporate guarantees, which are discussed in more detail below. For the government and public it is an ideal guarantee because it is instantly liquid, available, and certain to maintain its value (assuming it is adjusted for inflation, as discussed elsewhere).

**LETTERS OF CREDIT** A letter of credit is a document issued by an institution that guarantees the payment of the PRP's (applicant) obligations if the PRP fails to perform. The letter of credit will describe the conditions of payment and the maximum payment available. Letters of credit are often considered similar to cash but for discussion purposes in this report are separated from cash because there is usually a process or procedures necessary to be followed to secure funds under the letter of credit. As a result, they are not as liquid as cash.

**SURETY BONDS** A surety bond is a type of payment or performance bond in which a mining company (the principal) and an institution (the surety) in which the surety guarantees to pay for or perform the mining company's cleanup obligations. The surety agreement will dictate the terms for release, the amounts involved, and other conditions and provisions. For mine permitting and regulation surety bonds may be the most popular method of financial assurance because they are often specifically required and also offer possibly the best balance between cash and self-guarantee. They allow the mining company to pay a policy premium for specified coverage that may be released (forfeited) to the government regulatory body if certain conditions are met - usually the mining company's bankruptcy or other financial trigger, the company's failure to maintain or complete specified obligations (such as continued ground water pumping and treatment) certain requirements.

There is a distinction worth noting between a performance bond and a payment bond. A performance bond guarantees performance of duties specified in an agreement. Examples may include earthwork or revegetation. A payment bond assures payment of an obligee's financial requirements. There are possible applications of both in the CERCLA setting but CERCLA section 108(b) refers to ensuring a financial mechanism is available for payment and is not as directly concerned with the performance of tasks (performance bond). Performance bonds are more common actual mining permit and related regulatory actions.

A particular problem with surety bonds is that their logistical terms, such as the timing and procedures/process to release funds, may not accommodate the governmental regulatory needs in the event of failure. If the company acts or fails to act in some way that leads to the default of its bond the surety agreement may limit the release of funds for certain purposes or only at certain times or in increments or subject to other conditions that could hamper or stall the government's

ability to quickly respond. The surety company may stand to profit from delay or holding back funds from release. Therefore, it is critical that surety bond agreements specify the exact terms of bond default and conditions for the release of funds - and these terms and conditions must be acceptable to the government.

A Forfeiture Surety Bond may be both a general description of surety bonds but is also a bond in which the full value of the bonded amount is paid out by the surety company upon the event of forfeiture (a claim by the regulatory agencies) regardless of the amount of the actual loss or damage or threat of loss or damage.

Legal conditions or limitations on the amount of the financial assurance released should be avoided to ensure that upon forfeiture the EPA and other agencies have immediate, unencumbered access to the funds. If the government is fighting the financial assurance company for money that may hamper necessary on-the-ground responses and will almost certainly cost the agencies money (tax dollars). Financial institutions make money with the value of their holdings (loans, short and long term investments, etc.) and slowing or limiting the release of funds may be an incentive to the surety company. It is therefore important for bonding agreements to identify what remedy the agencies demand in response to forfeiture - whether it is the full bond amount or an amount(s) otherwise determined and how that determination is made. In no situation should determination of the bond amount be allowed to hamper release of funds.

If written precisely, surety bond agreements can offer a financial assurance instrument that provides the near-liquidity of cash while being significantly less expensive than cash.

**TRUST FUND** A trust fund is a financial account that is managed by a third party (the "trustee") with funds provided by the mining company/operator (the "settlor") and payable to the beneficiary (the government/regulatory agency). The three parties all ratify an agreement that establishes the account's management, investment strategy(s) and the distribution of funds from the principal and/or interest. The corpus of the account can be grown by contributions from the mining company and investment income/interest. Part of the benefit of a trust fund is that it is intended for long-term obligations - something that surety bonds are not really intended to accomplish. The trust fund acknowledges that there is no real likelihood of "release" of the fund.

A problem with trust funds is that they must be matched with some other form of financial assurance until the corpus reaches an amount sufficient to cover the designed task. Trust funds are essentially underfunded until they reach the design value, and it is not prudent to depend only on a partially funded trust fund to supply a full financial assurance. If there is a reasonable likelihood that there could be long-term treatment or treatment into perpetuity then a trust fund might be a viable - and valuable, financial mechanism to employ. A trust fund may offer benefits of both cash and surety



bonds in terms of balancing liquidity with cost. Like trust funds, it is important that their legal instruments be carefully crafted.

**INSURANCE** Insurance refers to a contract between a PRP (the “insured” policyholder) and an insurance company (the “insurer”) whereby the insurer agrees to pay for claims made against the PRP or the insurance policy in connection with site-related issues. In this context, qualification as a self-insurer refers to a mining company demonstrating its tangible net worth in relation to the size of the superfund risks and costs balanced against the extent of its request for self-insurance authority. If the company had sufficient assets then the idea is that it can cover its own insurance liabilities. Generally, insurance requires a commitment and proof of maintaining the policy and self-insurance requires commitments to maintain a specified net worth that will ensure that the company’s net worth is consistent with the original assessment.

**CORPORATE AND SELF-GUARANTEE** A corporate guarantee refers to a financial guarantee by a related corporate entity (the “guarantor”) of a PRP, based on the guarantor’s ability to satisfy specified financial test criteria and reporting requirements, to pay for or perform the PRP’s obligations if the PRP fails to perform work that is required. A *self-guarantee* is a company’s self-assurance or attestation that it has the assets to complete the required work and a commitment to use those assets to complete the required work.

**Corporate and Self-Guarantee Not Acceptable** Corporate and self guarantees are not acceptable. From a governmental and public perspective, corporate guarantees are an unacceptable form of financial assurance because no hard assets, cash or cash equivalents stand behind a corporate self-guarantee. It has been shown on numerous occasions that financial assurance may not be available should the company fail. By definition self-guarantees are only as strong as the company, and the mining industry is historically subject to periods of particularly strong and corresponding weak financial performance. As the financial turmoil of 2008 demonstrated, the notion of “too big to fail” is fatally flawed: Any corporation can fail. Because of this corporate and self-guarantees should not be accepted as CERCLA Section 108(b) financial assurance instruments.

Additionally, markets generally move faster than government. When businesses or markets change quickly - which they do - government cannot possibly respond quickly enough to replace corporate guarantees. At that point the government will be chasing after funds from the company - which in the case of bankruptcy or dramatic market swings means that the government will be chasing funds as part of a pack. Meanwhile, the government and public are left exposed to liability.

# Reliability of the Company Assuring the Financial Assurance

A review of the financial assurance company is necessary to assess its reliability and durability. If for example, a company insures ten mines of a particular type (e.g. gold) then that company may be particularly vulnerable to its own failure should gold prices drop and gold mines declare bankruptcy. Similarly, if a financial assurance company issues a lot of assurances in a particular area (e.g. in the earthquake zone of California or Alaska) and there is a major earthquake and numerous companies are forced to declare bankruptcy then the assurance company may be unable to cover all of the liabilities in the impacted region. In these loosely conceived examples, a financial assurance company may not be sufficiently assured. One method to help ensure a company's viability may be Treasury Circular 570.

## TREASURY CIRCULAR 570

The Department of the Treasury reviews insurance companies to determine whether they qualify to underwrite insurance and annually publishes the list of qualified companies in what is known as Treasury Circular 570.<sup>22</sup> The federal government requires the list to ensure that the financial assurances covering federal lands (such as under BLM jurisdiction) are of a sufficient quality to be reliable.<sup>23</sup> As financial turmoil since 2008 demonstrates, there is no guarantee of financial value, but the federal list adds a significant benefit of high-level scrutiny and annual updating. It is highly recommended that CERCLA 108(b) regulations demand financial assurance comes from a company favorably and appropriately selected from the latest Treasury Circular 570 listings.

## Financial Assurance Release

It is essential that EPA and other trustees hold and ensure that the companies maintain a sufficient financial assurance until the need for that assurance has ended and the public has had the opportunity to participate in the partial or full bond release determination. Certain conditions are essential for all financial assurance release.

1. Financial sureties should not be released until site activities and closure are complete, all impacts have been mitigated, and cleanup has been shown to be effective for a sufficient (representative) period of time after mine closure.
2. Provisions for release should include interim and final benchmarks that must be met.
3. Final financial assurance release should not occur for at least five years after the last activities at the site. This 5-year period should re-start whenever activities are taken to maintain or enhance reclamation. It is important to demonstrate that the activities completed have been successful and a minimum of 5-years is a necessary minimum period.
  - a. For example, applied to a revegetation plan, the revegetation financial assurance should be held until the company has reasonably demonstrated that plants have established and are self-sustaining.

- b. If supplemental activities are taken (such as watering, adding amendments, fixing erosion or subsidence, recontouring, reseeding, planting, weed control, etc.) then the clock should re-start to ensure that vegetation is actually surviving on its own. The 5-year period should demonstrate the site's ability to sustain itself - not demonstrate that with various treatments a company can keep the site growing.
- 4. As a permitting matter, treatment in perpetuity should not be allowed. However, based on site conditions, if long term treatment and/or treatment in perpetuity is reasonably likely to be necessary, then
  - a. The financial assurance should be held during the entire treatment period.
  - b. The financial assurance should be an amount sufficient to:
    - i. Monitor effluent quality to ensure treatment is effective to permitted or regulatory requirements,
    - ii. Monitor, operate and maintain the treatment facility for as long as necessary to meet regulatory requirements,
    - iii. Replace or rebuild portions of the facility or the entire facility that will wear out or otherwise fail to perform.

## Forfeiture

Forfeiture refers to actions taken by the obligee to collect from the financial assurance, the issuer of collateral or the guarantor of any financial assurance, the amount of the financial assurance upon failure of the mining company to perform the conditions for which the financial assurance was created.

The terms and conditions for forfeiture will vary for each site but in general the terms triggering forfeiture should include:

1. The company is not pursuing the financial assurance requirements in a reasonable and zealous manner in accordance with the terms of the site action plans.
2. The company has not taken reasonable and zealous actions to prevent deficiencies when they should be reasonably known by the company or have been identified to the company by the regulatory agencies or public. The timeframe may vary but should not exceed 30-days except where a longer period is expressly provided for in writing by the EPA and regulatory agencies.
3. The company has abandoned the site, which shall be cause for immediate forfeiture. Abandonment should be defined as the cessation of significant activities at the site for longer than 5 business days without advanced written explanation from the company; company failure to respond to EPA and agency inquiries and correspondence within 5 business days; failure to immediately respond to a known or reasonably known emergency or condition that reasonably threatens human health or the environment or has caused significant harm to human health or the environment.

4. The company fails to reasonably perform work that is required in the terms of the decree, order, or other EPA or agency requirement. This should include failure to remedy deficiencies in a timely manner.
5. The company fails to renew or maintain the full value of the financial assurance.

Once forfeiture is triggered, there should be no pre-existing encumbrances on the EPA or other agencies to how the financial assurance funds may be expended. The public or the company may claim or seek to challenge EPA or agency expenditures based on the appropriateness, propriety, or merits of the expenditures but the terms and intent of the financial assurance should not be grounds for claims. The EPA and agencies should be allowed to operate the site according to the terms of the CERCLA process, decrees, and orders, and not be constrained by any instrument or agreement with the financial assurance company or forfeiting mining company.

The provisions of financial assurances must ensure that the financial assurance guarantors, bonding companies, and other underwriters of a financial assurance will immediately release assurance funds when called-upon. Further, they should not be allowed to hamper or delay the EPA's or other agencies' expenditures based on the terms of the financial assurance instrument(s). For example, if after forfeiture the EPA or other agencies determine that a different action is necessary than what was identified by the financial assurance instrument(s) then that should not be grounds for the backer or underwriter (or premium payer) to challenge those actions.

## Avoiding Federal Preemption of State and Tribal Financial Assurance Rubrics

EPA has identified that its CERCLA Section 108(b) regulations are not intended to preempt state or tribal requirements.<sup>24</sup> Preemption refers to instances where federal and state law conflict and federal law prohibits enforcement of state law.<sup>25</sup> Preemption may apply regardless of whether the conflicting federal and state laws come from legislatures, courts, administrative agencies, or constitutions.<sup>26</sup> There are many areas where the US Congress has preempted state regulation.<sup>27</sup> Congress may either preempt all state regulation, such as in the case of medical devices, or Congress may allow federal regulatory agencies to establish minimum standards but did not preempt state regulations from imposing more stringent standards, such as in the case of the clean water act or prescription drugs.<sup>28</sup> Where rules or regulations do not clearly state whether or not preemption should apply, the Supreme Court tries to follow lawmakers' intent, and prefers interpretations that avoid preempting state laws.<sup>29</sup> CERCLA Section 114(d) provides that an owner or operator of a facility that establishes and maintains financial assurances pursuant to EPA's rules shall not be required under any state or local law to establish financial assurances "in connection with liability for the release of a hazardous substance." While this provision could preempt a limited number of state or local requirements, the differences between the purpose of many or most state financial assurance rubrics and CERCLA Section 108(b)'s purpose is likely to limit or render moot the concern about preemption.

Section 108(b) financial responsibility is designed to assure that funds are available to pay for CERCLA liabilities. Most state and tribal financial assurance requirements seek to assure compliance with state regulatory requirements, such as for mining permits, reclamation, etc. Such assurances

are not “in connection with liability for the release of a hazardous substance” and accordingly would not be preempted by federal financial assurances. It is also important to note that any potential preemption would take place on a facility-by-facility basis under CERCLA Section 114(d). Accordingly, EPA must evaluate preemption as it develops the specific amount of financial assurance required for individual facilities.

When developing financial assurance requirements for an individual facility, EPA must first consider whether there are any state, tribal, or local requirements that impose assurances for liability for release of a hazardous substance; since many state, tribal, and local requirements are imposed for other reasons, in many cases there will not be any regulations that would be preempted. In the event that states, tribes, or local jurisdictions have imposed financial assurance requirements on a mining facility that are in connection with liability for the release of a hazardous substance under CERCLA, then EPA should address on a facility-by-facility basis how the federal financial assurance requirement will interact with the state, tribal, or local requirements. EPA should first calculate the amount and form of financial assurance it would otherwise require from the facility, in accordance with the principals discussed above. Where that amount exceeds the amount of the state, tribal, or local requirement, and/or where the federal assurance would require other important safeguards (e.g., a more liquid form of assurance or stronger forfeiture provisions) than the state, tribal, or local requirements, then EPA must require federal assurances that preempt the state, tribal, or local requirement. Where, in contrast, the state, tribal, or local requirements are more stringent, and the state, tribal, or local jurisdiction can provide continuing assurance to EPA that those requirements are being revisited and maintained under provisions at least as stringent as those contained in EPA’s regulations, then EPA should avoid issuing more lenient financial assurance requirements for that facility. State, tribal, and local jurisdictions represent citizens that live in close proximity to the site in question and it is those jurisdictions that will be most profoundly affected by releases of hazardous substances. Where a state, tribal, or local jurisdiction chooses to require a major polluter to maintain substantial and robust financial assurances, EPA must respect that jurisdiction’s choice to protect its citizens.

# Case Studies:

## Financial Assurance Failures at Four Mines

The threat of mining failures is significant and very real. There is unfortunately a plethora of examples to demonstrate mine failures that cost taxpayers tens of millions of dollars. EPA's data indicates that the tens of billions of dollars are necessary to clean up the largest hard rock mining sites, representing approximately a dozen times EPA's total annual Superfund budget.<sup>30</sup> EPA's own estimates indicate it will cost between \$20 billion and \$54 billion to clean hard rock mine contamination that is not currently budgeted for cleanup.<sup>31</sup> This does not include countless other sites that are inadequately funded for reclamation and cleanup. A few selections underscore the problem that could be significantly reduced by EPA's establishing prudent and effective financial assurance requirements.

Taken together these examples and others demonstrate the critical need to improve all aspects of calculating, implementing, and enforcing financial assurances at hard rock mines. EPA's development of CERCLA Section 108(b) represents an opportunity to craft suitable financial assurance regulations to protect human and environmental health -- and taxpayer dollars.

### 1) BEAL MOUNTAIN MINE – PRIORITY POLLUTANTS

The Beal Mountain Mine, located in Montana began operations in Montana in 1989 in a high quality watershed.<sup>32</sup> Beal's parent company, Canadian company Pegasus Gold Corp., did not apply for a water quality permit, promising that no mine or process water would discharge to surface waters.<sup>33</sup> Two years later cyanide leaking started, creating downstream water issues and in 1998 Pegasus filed for bankruptcy.<sup>34</sup> At the Beal Mine the bond of \$6.3 million was insufficient to cover the

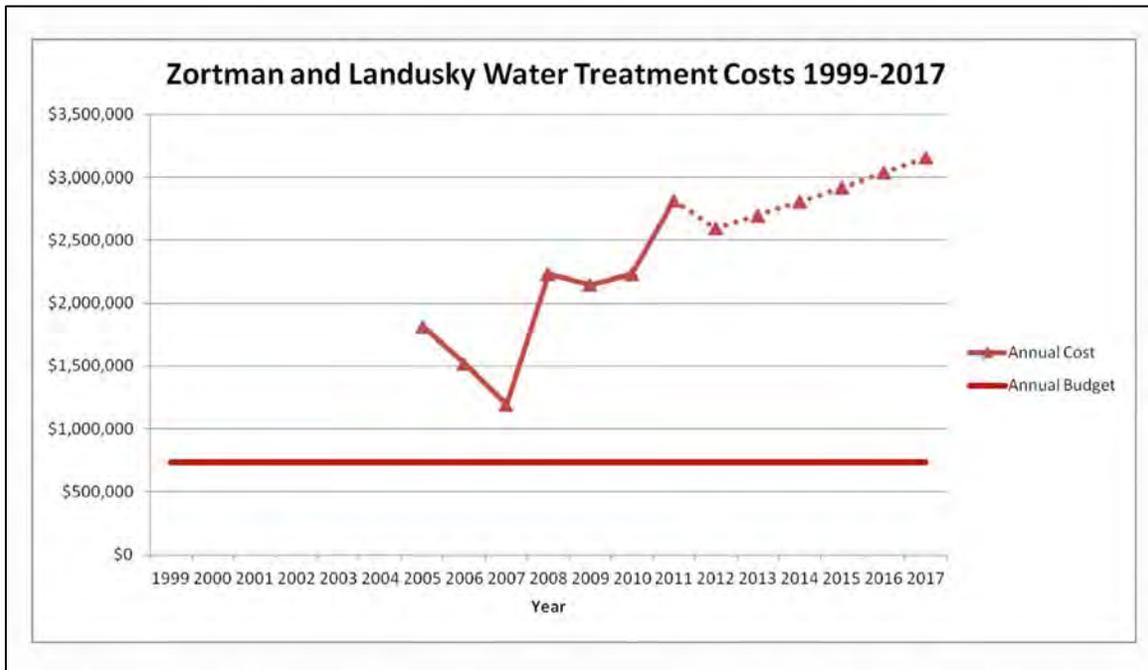


Beal Mountain mine, located on public lands, has caused lasting water pollution. \$12.6 million in public funds has been spent to date.

approximately \$40 million in cleanup costs, leaving the public liable for the difference.<sup>35</sup> Beal highlights the issues of priority pollutants, such as cyanide and selenium, which can present substantial risks. Pegasus had a total of six mining operations in Montana so the Beal mine, while emblematic, was not alone in requiring taxpayers to pay for company failures.<sup>36</sup>

## 2) ZORTMAN LANDUSKY – PERPETUAL POLLUTION

In 1992, the Zortman Landusky mine started operations and in 1995 cyanide and heavy metal contamination was discovered - leading to Zortman’s parent company, Pegasus Gold, to pay \$36 million to settle state, federal and tribal lawsuits.<sup>37</sup> Pegasus Gold declared bankruptcy in 1998, after which the Montana Department of Environmental Quality and US Bureau of Land Management assumed control of the mine, which was only 15% reclaimed (surface reclamation) and still had cyanide problems.<sup>38</sup> More importantly, the mine had developed acid mine drainage, requiring costly water treatment in perpetuity. The government’s preferred cleanup costs were estimated at over \$63 million but the then-existing bond was only \$29.6 million.<sup>39</sup> At the Zortman Landusky mine, water treatment for acid mine drainage will be required in perpetuity. As of August 2014, a total of \$69.3 million has been spent on reclamation and water treatment at this mine, with no end in sight for ongoing costs.<sup>40</sup> Of the total, \$23.6 million has been paid with public funds.<sup>41</sup> An increasing number of mines require water treatment in perpetuity. This presents substantial difficulties to determining a sufficient financial assurance that will cover such costs. These difficulties, however, should not be a bar to ensuring that the mining company protects the government and public from these potential permanent costs.



Presentation by the Montana Department of Environmental Quality shows the cost of water treatment far exceeding the budget.

### 3) ASARCO – TOO BIG TO FAIL?

ASARCO mining company was once one of the world's largest copper and other metals mining/refining companies. It was taken over by the Mexican mining giant, Grupo México, which subsequently transferred many of ASARCO's revenue generating assets into another subsidiary, after which ASARCO filed for bankruptcy.<sup>42</sup> Faced with billions of dollars in mining and reclamation liabilities, the United States was forced to pursue assets from Grupo México and the reformed ASARCO.<sup>43</sup> In 2009 - after years of negotiations with the companies and many legal filings and maneuvers, the US settled its claims in bankruptcy court for \$1.79 billion.<sup>44</sup> The federal government had originally sought \$3.6 billion.<sup>45</sup> With the advantage of hindsight it appears that ASARCO's bankruptcy was inevitable if not intended, or at least was not prevented.<sup>46</sup> None of the corporate activities would have mattered if ASARCO had not been allowed to so greatly, and systemically, underfund its reclamation assurance obligations. It provides an excellent example of markets moving faster than government and the need for government to protect its public assets thru irrevocable, enforceable financial assurances.<sup>47</sup> It also underscores the notion that even the biggest companies are subject to failure - none are too big to fail.



### 4) CORPORATE GUARANTEES - UNSUPPORTED PROMISES

In Wyoming, self-bonding issues are currently unfolding that underscore the financial risks to taxpayers of corporate guarantees. A number of large coal companies – including the largest - have filed for bankruptcy, with combined self-bonding obligations for mine reclamation of over \$3 billion.<sup>48</sup> Although the coal companies were required to pass a financial test before self-bonding was authorized, some companies were allowed to self-bond or maintain their self-bonds despite questionable financial health. In one instance, the parent company used the financial health of a subsidiary rather than the company as a whole.<sup>49</sup> In another case, the regulating agencies acted too late to require a more secure replacement bond: Wyoming regulators informed Alpha Natural Resources Inc., which holds \$411 million in self-bonds, that it no longer qualified for self-bonding.<sup>50</sup> The regulator was unable to secure a replacement bond before the company filed for bankruptcy.

Wyoming has agreed to allow Alpha to reorganize under bankruptcy, putting the state in front of other creditors for \$61 million if Alpha ultimately fail. Arch Coal Inc. was given a similar agreement. Inside Energy calculated that in the top ten U.S. coal producing states, more than one million acres of land has been disturbed by coal mining operations.<sup>51</sup> With a depressed coal economy there is no



predicting how coal or individual companies will fare. The issue in Wyoming is not whether or not Wyoming will succeed in protecting taxpayers from covering the company liabilities. The issue is that such risks should not be allowed to occur in any mining sector. Like coal, minerals from hard rock mines follow sometimes volatile and extreme cycles and trends in value. Neither human health or the environment should be left subject to those cycles. As a prospective regulation, EPA's CERCLA 108(b) financial assurance rubric should not even entertain such a flawed form of assurance.



# Conclusions

Financial assurance regulations that authorize EPA to require mining companies to provide funding, up front, to cover the cost of clean-up of hazardous materials are long overdue. The backlog of clean-up costs for hardrock mines in the U.S. are estimated at \$20-\$54 billion, and new sites are being added to the list of unfunded liabilities every year. Across the nation, communities are faced with polluted water, contaminated soils, and public health risks due to inadequate funding for mine clean-up. This report identifies many important components and criteria for EPA's CERCLA 108(b) regulations for mining. Among the most critical are:

- No self-bonding or corporate guarantees. Financial assurance must be in a form that is secure, independently guaranteed, and readily accessible.
- Sites that require water treatment for more than one hundred years, or "in perpetuity," must be prioritized because they present financial liabilities that will continue long after the reasonably expected life of the company.
- The detailed calculation of the financial assurance must be accurate and complete - encompassing all clean-up costs, costs for government or other implementation (direct and indirect costs), and emergency preparedness/planning.
- Deductions for engineering controls must be clearly demonstrated to reduce the estimated costs of clean-up and financial assurance.
- Public review at all phases of the financial assurance process must be an integral part of the regulations. After all, it is the public that incurs the liability if the bond calculations are insufficient.

# Endnotes

<sup>1</sup> See generally <http://www.epa.gov/toxics-release-inventory-tri-program/2013-tri-national-analysis-metal-mining>. "The portion of the metal mining sector covered by TRI includes facilities mining for copper, lead, zinc, silver, gold, and several other metals. In 2013, 88 metal mining facilities reported to TRI and they tend to be in Western states where most of the copper, silver, and gold mining occurs; however, zinc and lead mining tend to occur in Missouri, Tennessee, and Alaska. Metals generated from U.S. mining operations are used in a wide range of products, including automobiles and electrical and industrial equipment. The extraction and beneficiation of these minerals generate large amounts of waste."

<sup>2</sup> EPA 2012 Toxic Release Inventory National Analysis Overview. Available at: <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKewjMn4ONv73MAhVV5WMKHR4jALoQFggcMAA&url=https%3A%2F%2Fwww.epa.gov%2Ftoxics-release-inventory-tri-program%2F2012-tri-national-analysis-overview&usq=AFQJCNFEQpG0FIFOaHmeYL63zOfzE-5XoQ&bvm=bv.121099550,d.cGc>

<sup>3</sup> Metal Mining Production-Related Waste Managed (From: [http://www.epa.gov/sites/production/files/2014-12/2013-tri-na-ch4-industry-sectors\\_0.xlsx](http://www.epa.gov/sites/production/files/2014-12/2013-tri-na-ch4-industry-sectors_0.xlsx))

Metal Mining Production-Related Waste Managed											
(From: <a href="http://www.epa.gov/sites/production/files/2014-12/2013-tri-na-ch4-industry-sectors_0.xlsx">http://www.epa.gov/sites/production/files/2014-12/2013-tri-na-ch4-industry-sectors_0.xlsx</a> )											
Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Recycled (lb.)</b>	30,539,201	23,229,494	33,481,686	44,397,008	49,494,894	45,156,623	58,627,268	69,798,430	58,109,019	61,136,485	66,061,556
<b>Energy Recovery (lb.)</b>	16	51	72	94	30	51	55	133	14	20	5
<b>Treated (lb.)</b>	51,373,124	65,061,800	70,926,425	63,601,120	77,873,377	74,647,083	87,132,146	91,069,589	12,940,492	22,945,566	25,234,353
<b>Disposed of or Otherwise Released (lb.)</b>	1,240,015,918	1,066,996,398	1,163,098,027	1,261,350,705	1,145,374,124	1,154,989,566	1,199,784,234	1,508,130,527	1,875,098,179	1,446,844,064	1,772,099,639

<sup>4</sup> <http://www.epa.gov/superfund/superfund-financial-responsibility>.

<sup>5</sup> US Office of Inspector General. Nationwide Identification of Hardrock Mining Sites. Report No. 2004-P-00005. March 31, 2004.

<sup>6</sup> Id.

<sup>7</sup> Id. Citing Superfund's Future: What Will It Cost? Katherine N. Probst and David M. Konisky, Resources for the Future, 2001.

<sup>8</sup> Id. This EPA report sought to answer whether there is: "... a financial impact from hardrock mining sites on the Superfund Trust fund and on States?" The base data included an inventory of all non-coal mines, mills, and primary smelters that had cost or have the potential to cost the Superfund Trust fund \$1 million or more. EPA identified 156 hardrock mining sites nationwide that have the potential to cost between \$7 billion and \$24 billion total to clean up (at a maximum total cost to EPA of approximately \$15 billion). These costs are over 12 times EPA's total annual Superfund budget of about \$1.2 billion for the last 5 years [Note: report from 2004]. Notable conclusions include:

- At least one potentially responsible party (PRP) was been identified at 83% of the hardrock mining sites; but
- The majority (59%) of all the projected sites will need 40 years to "in perpetuity" for cleanup - to which EPA questioned the ability of businesses to sustain efforts for such lengths of time.
- When site cleanup is financed by the EPA Superfund, States will be impacted under current EPA regulations because states must pay 10% of long-term response costs for up to ten years - and then responsibility is turned over to the state.

<sup>9</sup> Cleaning Up Cleaning Up the Nation's Waste Sites: Markets and Technology Trends, 2004 Edition (latest edition available). Office of Solid Waste EPA 542-R-04-015 and Emergency Response September 2004 (5102G). <https://clu-in.org/market/>

<sup>10</sup> Burlington Northern and Santa Fe RR Co. v. United States, U.S., 129 S. Ct. 1870, 1874, 173 L.



Ed. 2d 812, 818 (2009) (*internal quotes omitted*).

<sup>11</sup> 42 U.S.C. § 9608(b).

<sup>12</sup> CERCLA Section 108(b) Financial Responsibility, A public webinar hosted by the United States Environmental Protection Agency. September 29, 2016. Video presentation of slides accessed on February 21, 2016 at:

<https://www.youtube.com/watch?v=xq5Di3Ti6Oc&feature=youtu.be>. See also USEPA CERCLA 108(b) Financial Responsibility Tribal Lands and Environment Forum, Ben Lesser, August 18, 2015. PowerPoint presentation accessed 21 February 21, 2016 via: [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKewjg9TQ04rLAhWKLb4KHem9DfEQFggcMAA&url=http%3A%2F%2Fitepsrv1.itep.nau.edu%2Fitep\\_course\\_downloads%2FRLF%2FRLF\\_2015\\_Presentations%2FWednesday%2FWED\\_1030\\_CERCLA108b\\_Lesser.pdf&usg=AFQjCNGG7TgyHf7kuWHMT-55zehDZ7fX-A&bvm=bv.114733917,d.cGc&cad=rja](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKewjg9TQ04rLAhWKLb4KHem9DfEQFggcMAA&url=http%3A%2F%2Fitepsrv1.itep.nau.edu%2Fitep_course_downloads%2FRLF%2FRLF_2015_Presentations%2FWednesday%2FWED_1030_CERCLA108b_Lesser.pdf&usg=AFQjCNGG7TgyHf7kuWHMT-55zehDZ7fX-A&bvm=bv.114733917,d.cGc&cad=rja).

<sup>13</sup> Id.

<sup>14</sup> Id.

<sup>15</sup> Id.

<sup>16</sup> This item warrants special consideration because it is often omitted or underfunded. Following financial assurance forfeiture or default (governmental takeover and/or company withdrawal/abandonment), the government will have to manage and oversee the operations, maintenance, and CERCLA activities at the site. This will continue until the completion of site activities or the transfer to another operator or entity to operate and/or complete all site activities. All activities must be assumed to be third-party contractors with independent (separate from the mine) equipment and labor,<sup>16</sup> plus governmental regulatory oversight (both site inspection and monitoring oversight). The mindset must be that the company is gone, along with its resources, contracts, equipment, labor, etc., and the government must be able to run the site on its own and with resources available from the surety. The government may or may not be able to hire former company employees or contracted firms, lease its former equipment, and use its former materials/chemicals, etc. After bankruptcy, creditors that now own mining company resources may be interested in working with the regulators but they may also take their resources and vanishing. To be useful, the bond must assume the worst-case scenario for governmental operations and maintenance because the government will have to perform the activities itself or hire an entity to perform the activities. Either way it will cost the government money.

<sup>17</sup> It may be appropriate to add a multiplier to estimate governmental costs, such as a 35% increase over the costs estimated for a private company to be in charge of the work/completion.

- <sup>18</sup>
- Universe of facilities to be regulated;
  - Flow of funds from the financial responsibility instrument to the CERCLA cleanup;
  - Financial responsibility scope and amount;
  - Relationship of Section 108(b) financial responsibility to state, tribal, and local government law; and
  - Relationship of Section 108(b) financial responsibility to other federal law.

Excerpted from: The United States Environmental Protection Agency hosted a May 2016 public webinar titled "CERCLA Section 108(b) Financial Responsibility; May 17, 2016."

<sup>19</sup> EPA has not actually included this item in its list - it included the next five items. Cash is included because it is best option for governmental and public-resource protection. It is the best and most reliable method of protecting public/government resources. It also happens to be somewhat impractical from the mining point of view. Its inclusion is not so much a suggestion as an option as a gauge against which other instruments can be compared.

<sup>20</sup> CERCLA Section 108(b) Financial Responsibility, A public webinar hosted by the United States Environmental Protection Agency. September 29, 2016. Video presentation of slides accessed on February 21, 2016 at:

<https://www.youtube.com/watch?v=xq5Di3Ti6Oc&feature=youtu.be>. See also USEPA CERCLA 108(b) Financial Responsibility Tribal Lands and Environment Forum, Ben Lesser, August 18, 2015. PowerPoint presentation accessed 21 February 21, 2016 via: [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKewjg9TQ04rLAhWKLb4KHem9DfEQFggcMAA&url=http%3A%2F%2Fitepsrv1.itep.nau.edu%2Fitep\\_course\\_downloads%2FRLF%2FRLF\\_2015\\_Presentations%2FWednesday%2FWED\\_1030\\_CERCLA108b\\_Lesser.pdf&usg=AFQjCNGG7TgyHf7kuWHMT-55zehDZ7fX-A&bvm=bv.114733917,d.cGc&cad=rja](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKewjg9TQ04rLAhWKLb4KHem9DfEQFggcMAA&url=http%3A%2F%2Fitepsrv1.itep.nau.edu%2Fitep_course_downloads%2FRLF%2FRLF_2015_Presentations%2FWednesday%2FWED_1030_CERCLA108b_Lesser.pdf&usg=AFQjCNGG7TgyHf7kuWHMT-55zehDZ7fX-A&bvm=bv.114733917,d.cGc&cad=rja).

<sup>21</sup> As discussed below, depending on the instrument and institution it is strongly recommended that Treasury Circular 570 be required.

<sup>22</sup> <https://www.fiscal.treasury.gov/fsreports/ref/suretyBnd/c570.htm>.

<sup>23</sup> § 31 CFR 223.16 - List of certificate holding companies. A list of qualified companies is published annually as of July 1 in Department Circular No. 570, Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies, with information as to underwriting limitations, areas in which licensed to transact surety business and other details.... Selection of a particular qualified company from among all companies holding certificates of authority is discretionary with the principal required to furnish bond.

[34 FR 20189, Dec. 24, 1969, as amended at 40 FR 6499, Feb. 12, 1975; 42 FR 8637, Feb. 11, 1977; 49 FR 47002, Nov. 30, 1984].

<sup>24</sup> CERCLA Section 108(b) Financial Responsibility, A public webinar hosted by the United States Environmental Protection Agency. September 29, 2016. Video presentation of slides accessed on February 21, 2016 at:

<https://www.youtube.com/watch?v=xq5Di3Ti6Oc&feature=youtu.be>.

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<sup>27</sup> Id.

<sup>28</sup> Id.

<sup>29</sup> Id.

<sup>30</sup> US Office of Inspector General. Nationwide Identification of Hardrock Mining Sites. Report No. 2004-P-00005. March 31, 2004.

<sup>31</sup> Cleaning Up the Nation's Waste Sites: Markets and Technology Trends, 2004 Edition (*latest edition available*). Office of Solid Waste EPA 542-R-04-015 and Emergency Response September 2004 (5102G).  
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<sup>38</sup> Id.

<sup>39</sup> Id.

<sup>40</sup> Funding summary of Zortman Landusky expenses from 1999-August 2014, provided by Tom Livers, MTDEQ.

<sup>41</sup> Id.

<sup>42</sup> [http://helenair.com/news/local/grupo-mexico-sells-asarco-interest-in-mining-outfit/article\\_d139eee4-9109-58a5-8ac6-10826f90f01d.html](http://helenair.com/news/local/grupo-mexico-sells-asarco-interest-in-mining-outfit/article_d139eee4-9109-58a5-8ac6-10826f90f01d.html). s

<sup>43</sup> [http://helenair.com/news/local/grupo-mexico-files-reorganization-plan/article\\_3c0a19c4-9310-5b9a-9e2b-c15d8b00e6c2.html](http://helenair.com/news/local/grupo-mexico-files-reorganization-plan/article_3c0a19c4-9310-5b9a-9e2b-c15d8b00e6c2.html).

<sup>44</sup> <http://www.epa.gov/enforcement/case-summary-asarco-2009-bankruptcy-settlement>.

<sup>45</sup> [http://www.nytimes.com/2009/12/11/science/earth/11settle.html?\\_r=0](http://www.nytimes.com/2009/12/11/science/earth/11settle.html?_r=0).

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<sup>50</sup> <http://www.wyofile.com/facing-downturn-alpha-can-no-longer-self-bond-wyo/>

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