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October 25, 2017

The Honorable Scott Pruitt
Administrator
United States Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue
Washington DC 20460

Docket ID No. EPA-HQ-SFUND-2015-0781-0001

Re: Supplemental Comments on Financial Responsibility Requirements
Under CERCLA § 108(b) for Classes of Facilities in the Hardrock Mining
Industry 82 Fed. Reg. 3388 (Jan. 11, 2017)

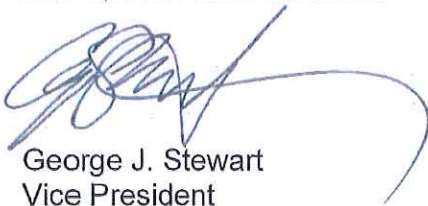
Dear Administrator Pruitt:

Rio Tinto America Inc., on behalf of certain U.S. operations of the Rio Tinto group of companies, submits these supplemental comments for your consideration in connection with the above referenced proposed regulation.

Thank you for your consideration of this submission. Please contact me should you have any questions. I can be reached at 801-204-2803 or at George.Stewart2@riotinto.com.

Respectfully submitted,

RIO TINTO AMERICA INC.



George J. Stewart
Vice President

not demonstrate a degree of risk, as “*releases do not equal exposure*”⁷⁷ and “pounds of releases ... is not an indicator of any health risks posed by the chemicals.”⁷⁸

Lastly, as EPA acknowledged, the RCRA “data concerning volume of hazardous waste generated and managed alone does not provide a direct indicator of risk of release or of management of wastes.”⁷⁹ As such, if these data do not indicate a risk of release, the data cannot justify the proposed requirements. To the contrary, the record evidence summarized above demonstrates that current operational practices, superintended by strict federal and state law, have substantially ameliorated the risk of releases or unfunded CERCLA cleanup obligations.

⁷⁷ EPA, “What can the Toxic Release Inventory Tell You about Risk?” at 17 (July 2015) (emphasis in original).

⁷⁸ EPA “TRI National Analysis 2015” at 36 (Updated Jan. 2017).

⁷⁹ 82 Fed. Reg. at 3478.

**SUPPLEMENTAL COMMENTS OF RIO TINTO AMERICA INC. ON EPA PROPOSED
FINANCIAL RESPONSIBILITY RULES FOR THE HARDROCK MINING INDUSTRY**

October 25, 2017

SUPPLEMENTAL COMMENTS OF RIO TINTO AMERICA

The January 11, 2017 Proposed Rule (Proposed Rule or NPRM) found that the Hardrock Mining (HRM) industry presented the “highest level of risk” under Section 108 of CERCLA.¹ These supplemental comments highlight and summarize key evidence before EPA demonstrating that the proposed finding is incorrect, and, moreover, that EPA should take the next logical step and withdraw the Proposed Rule given the limited “degree and duration of risk” associated with hardrock mining. EPA made a fundamental misstep in the Proposed Rule by not recognizing the extensive federal and state regulatory protections that directly apply to the HRM industry. These protections both reduce the likelihood of releases requiring a CERCLA response and require mine owners/operators to maintain significant financial assurance in order to protect taxpayers even in the unlikely event that there is a significant release that an operator does not correct. The proposal could find otherwise only by adopting a flawed interpretation of Section 108(b) that ignored the importance of these protections and key evidence demonstrating the robustness of these programs. Finally, the purported factual findings made in the Proposed Rule to justify burdensome financial assurance regulation were based on an inaccurate and incomplete analysis of the historical evidence concerning the risks posed by the HRM industry.

EPA MUST CONSIDER EXISTING FEDERAL AND STATE LAWS TO ASSESS THE “DEGREE AND DURATION” OF RISK FROM HARDROCK MINING FACILITIES

Claim in Proposed Rule: The NPRM asserted existing state and federal mining laws are designed to ensure either that a facility meets certain technical engineering and regulatory requirements or that a site is properly closed or reclaimed, but, according to the NPRM, those laws are allegedly different from the Proposed Rule, which was structured “to address the CERCLA liabilities at a regulated facility and to create incentive for practices that will prevent the need for future CERCLA responses.”² Thus, the proposal only considered existing federal and state laws at the “backend” as potential reductions to levels of financial responsibility.³

Response: Preliminarily, the Proposed Rule approach is based on a flawed reading of Section 108, and EPA should expressly disavow it in the final rule or other final agency action. At the heart of Section 108(b) is Congress’s direction to consider the “degree and duration of risk” associated with a particular industry or class of facilities in deciding whether additional federal financial assurance regulation is warranted. The Proposed Rule misreads the statutory text by failing to give appropriate weight to existing state and federal laws that already regulate the HRM industry and bear directly on the “degree and duration of risk.”

First, contrary to the Proposed Rule’s statement that Section 108 addresses “other Federal law only in a very limited way,” Congress in Section 108 clearly intended EPA to take into account other federal regulatory programs that would impact the “degree and duration of risk”

¹ Financial Responsibility Requirements Under CERCLA §108(b) for Classes of Facilities in the Hardrock Mining Industry, 82 Fed. Reg. 3388 (Jan. 11, 2017).

² *Id.* at 3403.

³ *Id.* at 3468-70.

when considering whether to issue financial assurance requirements.⁴ It did so by specifying that EPA “shall” promulgate financial responsibility “requirements” for facilities “in addition” to those under RCRA and “other Federal law.” In context, “in addition to” is best read as to supplement or augment existing law, and not to duplicate.⁵ Congress expressed this clear intent in its legislative history. There, the Senate Committee that advanced this provision made plain its concern that persons engaged in business that handled hazardous substances had been “financially irresponsible.”⁶ Hence it wanted those engaged in that business to show financial responsibility “commensurate with the risk which they present.”⁷ For that reason, a “purpose of this provision” was “to extend financial responsibility requirements to facilities ... that are not now covered...”⁸ At the same time, Congress was very clear that facilities that were already covered should not be subject to “two financial responsibility requirements for the same dangers.”⁹ To be sure, the Committee report focused on not duplicating the financial responsibility imposed by RCRA and on which it had “modelled” this CERCLA provision,¹⁰ but by including both RCRA and “other Federal law” in the final statutory language, Congress left no doubt that EPA should not impose duplicative requirements for risks already covered under “other federal law.” Congress in fact reaffirmed its intent in more recent legislation that directed EPA to develop a plan “to avoid requiring financial assurances that are duplicative of those already required by other Federal agencies.”¹¹

In all events, even if there were some ambiguity on this score, EPA should find as a matter of policy that the “in addition to” language in Section 108(b) is best read as prohibiting EPA from imposing financial assurance requirements that largely duplicates regulation imposed by other federal agencies, such as the Bureau of Land Management (BLM) or the U.S. Forest Service (USFS).

Second, the Proposed Rule misinterprets Section 108 of CERCLA by failing to give appropriate weight to how existing state and federal programs reduce the current level of risk presented by the HRM industry. EPA in the final rule (or other final action) should make clear that under Section 108, state programs are highly relevant to determining the “degree and duration of risk” and whether financial assurance regulation is warranted. A “risk” is the probability that an event may occur—as EPA has properly recognized in the past.¹² These

⁴ 82 Fed. Reg. at 3402.

⁵ Oxford English Dictionary, Online Edition, Definition of “addition” as “something which is added or joined to another thing ... an augmentation” available at <http://www.oed.com> (last visited Oct. 23, 2017).

⁶ S. Rep. 96-848 at 92 (1980).

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.*

¹¹ Conference Committee Report, Consolidated Appropriations Act of 2016, PL114-113.

¹² U.S. EPA, Risk Assessment Guidance for Superfund: Volume 1 Human Health Evaluation Manual Supplement to Part A - Community Involvement In Superfund Risk Assessments, EPA 54-R-98-042 (Mar. 1999) at 13 (“risk is a measure of the probability that damage to life, health, property and/or the environment

federal and state regulations described in detail in the comments are enforceable legal constraints on mine operations that reduce the probability that a release may occur that may require an EPA CERCLA response.¹³ That is precisely what EPA should consider when evaluating “risk” under section 108. Also, as the record evidence overwhelmingly demonstrates, existing federal/state financial rules are far more extensive than the NPRM suggested – including requiring financial assurance for the very environmental controls essential to prevent releases – as well as measures required to respond to releases. It simply makes no sense to read Section 108 as authorizing the agency to impose burdensome financial assurance regulation that are largely *duplicative* of existing regulation.

Federal law. Many mines are operated on federal land and are subject to regulation by BLM and USFS.¹⁴ BLM rules require operators to develop a Plan of Operations for BLM approval that will establish project design, operation, monitoring, management, and reclamation requirements.¹⁵ By regulation, reclamation includes the “isolation, control or removal of acid forming, toxic or deleterious substances.”¹⁶ BLM rules further impose financial assurance requirements that cover reclamation costs, “including construction and maintenance costs for any treatment facilities necessary to meet Federal and State environmental standards, as well as any “interim stabilization and infrastructure maintenance costs” that may be needed to comply “with applicable environmental requirements.”¹⁷ BLM requires that these financial guarantees for all mining and exploration disturbances be approved by BLM as part of the Plan of Operations before activities proceed—and can require an owner/operator to establish a mechanism to fund

will occur as a result of a given hazard”); U.S. EPA Exposure Factors Handbook 2011 Edition, National Center for Environmental Assessment, EPA/600/R-09/052F (2011) at G-9 (risk is “the probability of an adverse effect in an organism, system or population caused under specified circumstances by exposure to an agent”).

¹³ See, e.g., Comments of Rio Tinto America, Letter from R. Borden to S. Pruitt, Financial Responsibility Requirements Under CERCLA § 108 (b) for Classes of Facilities in the Hardrock Mining Industry at 12-19 (July 10, 2017) (Rio Tinto America Comments); Comments of National Mining Association, Letter from K. Sweeney and T. Bridgeford, Financial Responsibility Requirements under CERCLA § 108(b) for Classes of Facilities in the Hardrock Mining Industry at 29-38 (July 11, 2017) (NMA Comments); Comments of Freeport McMoRan Inc. on EPA Proposed Financial Responsibility Rules for the Hardrock Mining Industry at 22-40 (July 11, 2017) (Freeport Comments); D. Struhsacker, SRK Consulting, Review of State Financial Responsibility Requirements for Hardrock Mines and the Response Categories in EPA’s CERCLA 108(b) Proposed Rule, (July 2017) (SRK Report) (attached as Appendix A to NMA Comments).

¹⁴ E.g., 43 C.F.R. Part 3809 (BLM regulations); 36 C.F.R. Part 228, Subpart A (USFS regulations); see Letter from L. Weldon, Deputy Chief, National Forest System, Comments on Financial Responsibility Requirements Under CERCLA §108(b) for Classes of Facilities in the Hardrock Mining Industry (April 18, 2017) (USFS Comments); S. Richey and S. Elliot, USDA Forest Service, EPA 108b Proposed Regulations Comments (June 22, 2017) (USFS Comments II); NRC, National Academy of Sciences, *Hardrock Mining on Federal Lands* (1999) (NAS Study) (finding federal and state laws “provide mining-related environmental protection [that] is complicated but generally effective”).

¹⁵ 43 C.F.R. § 3809.401 (plan of operations); § 3809.411 (requiring BLM approval).

¹⁶ 43 C.F.R. §§ 3809.5, 3809.401(b)(3) and 3809.420 (requiring reclamation to meet “performance standards” that include “measures to prevent or control on-site and off-site damage”).

¹⁷ See 43 C.F.R. § 3809.552(a).

long-term treatment to meet water quality standards and other long term, post closure care and maintenance.¹⁸ BLM must review these guarantees periodically and will “require increased coverage if necessary.”¹⁹

The USFS likewise has its own hard rock mining regulations that “already serve th[e] function” that the NPRM claimed to address.²⁰ Like BLM, USFS rules “require operators to provide a bond sufficient to insure stabilization, rehabilitation, and reclamation of the area of operations” and thereby assure “certification of compliance with all applicable environmental standards.”²¹ Like BLM, USFS requires an operator to develop a “Plan of Operations,” which includes reclamation and closure plans.²² Subject to USFS review and approval,²³ the plan must include appropriate engineering controls for closure and sufficient “financial responsibility to ensure that, upon closure, the operation no longer presents a risk to the environment and a liability to the Forest Service and public.”²⁴ This must include a “long-term” financial assurance instrument so that USFS has the means to act “even if the operator declares bankruptcy or is otherwise unable to perform.”²⁵ Like BLM, USFS may also require an operator to modify the plan and adjust bond requirements to address changed circumstances.²⁶ Hence, these existing measures already do what the Proposed Rule purports to do. Quite simply: “Laws and regulations governing mining operations conducted on NFS land prohibit releases of hazardous substances, and the Forest Service requires surety that is reasonably calculated to insure that operations and reclamation are conducted to avoid releases and respond to releases that may occur.”²⁷ All told, BLM and USFS have required and now hold \$3.5 billion in financial assurance for hardrock mining facilities.²⁸

Nonetheless, the NPRM’s premise appears to be that these BLM/USFS rules are somehow insufficient or different from the proposal. Respectfully, that is simply incorrect. As

¹⁸ E.g., 43 C.F.R. § 3809.552(c) (BLM may require “trust fund or other funding mechanism” that “must be adequate to provide for construction, long-term operation, maintenance, or replacement of any treatment facilities and infrastructure, for as long as the treatment and facilities are needed after mine closure.”)

¹⁹ 43 C.F.R. § 3809.552(b); see also *BLM, Notice- and Plan-Level Cost Estimate Guidelines - Components of a Reclamation Cost Estimate* (last visited Oct. 23, 2017).

²⁰ *USFS Comments* at 4; see 36 C.F.R. Part 228.

²¹ *USFS Comments* at 3; see 36 C.F.R. § 228.13 (bonds).

²² 36 C.F.R. § 228.4; *USFS Comments* at 5. Moreover, EPA reviews the plan of operations and related documents in connection with its role under the National Environmental Policy Act, and thus can provide comments to ensure the adequacy of mitigation measures and reclamation plans. *USFS Comments* at 5 and *USFS Comments II* at 2.

²³ 36 C.F.R. § 228.5 (Plan of operations approval).

²⁴ *USFS Comments* at 5.

²⁵ *USFS Comments* at 4.

²⁶ 40 C.F.R. § 228.4(e).

²⁷ *USFS Comments* at 2.

²⁸ *SRK Report* at 4.

the Forest Service has explained, EPA's CERCLA 108(b) rules are "unnecessary," "duplicative," and "redundant" of BLM and USFS requirements.²⁹ The "'clean-up' activities that EPA describes in the preamble and in supporting documents are in fact *identical* to the 'closure' activities" that USFS (and BLM) consider when deciding what reclamation should be assured, "e.g. constructing a cap, closure of underground workings, addressing geochemistry of pit water at an open pit mine, providing for water treatment so that water will meet water quality standards, etc."³⁰ The very "source controls" that the NPRM claims must be assured by CERCLA financial responsibility "are essentially the same methods of closure, identified by the Forest Service after in-depth studies using site-specific data incorporated into the vigorous NEPA process, which are determined to mitigate the risk of a release of a hazardous substance."³¹ Moreover, just as the NPRM has proposed, the federal agencies consider past history in setting levels of financial assurance.³² In short, as USFS concludes, the USFS "reclamation and closure regulations ... already accomplish the goal that EPA hopes to accomplish with the proposed regulations..."³³

State law. States likewise have adopted environmental protection programs for hard rock mining that are similar to those adopted by federal agencies and provide substantial protections against the likelihood of uncompensated remediation.³⁴ The states promulgated or enhanced most of these rules during the late 1980s through the mid-1990s.³⁵ As now configured, these increasingly stringent state programs provide "cradle to grave" protection for the permitting, project development, closure and post-closure care of hard rock mining facilities that can prevent environmental degradation and minimize the potential for releases of hazardous substances.³⁶ These "regulatory requirements" are directly relevant to EPA's decision because the state laws permit and control the features of hardrock mining the NPRM has identified as the key risk factors for potential future releases – including open pits, waste rock, tailing impoundments and heap and dump leach.³⁷ Under state operating permit programs, hardrock mine facilities have

²⁹ USFS Comments at 3 and USFS Comments II at 1.

³⁰ USFS Comments at 3.

³¹ USFS Comments at 3.

³² USFS Comments at 6 ("The costs of past Superfund actions, and those actions themselves, are the same information that regulators and operators use to analyze current and proposed operations, and calculate [financial assurance] requirement for those operations.")

³³ USFS Comments at 6.

³⁴ SRK Report.

³⁵ BGC Engineering Report, Review & Response to EPA's CERCLA 108(b) Proposed Rule, submitted by Freeport-McMoRan, Inc. at Section 1.1, Table 1-1 (July 11, 2017) (BGC Engineering Report); NAS Study at 5 (as of 1999, "overall structure of the federal and state laws and regulations that provide mining-related environmental protection is complicated but generally effective.") (emphasis added).

³⁶ BGC Engineering Report at Section 2; SRK Report.

³⁷ Compare 82 Fed. Reg. at 3471-75 with BGC Engineering Report at Section 2.1.1 (comprehensive program in Arizona, including the Aquifer Protection Program authorized by the Arizona Environmental Quality Act of 1986 and the Mined Land Reclamation program authorized by the Arizona Mined Land Reclamation Act of 1994), Section 2.1.2 (comprehensive program in New Mexico authorized under the New Mexico Mining act and New Mexico Water Quality Control Act), Section 2.1.3 (regulation of hard

had to improve their facilities by making upgrades to process units and environmental control systems.³⁸ Further, the state permits include monitoring and reporting requirements that provide the states with the ability to identify and address potential releases promptly.³⁹

The NPRM also asserts that inspections revealed some noncompliance with state (and federal) regulatory requirements at some unspecified sites.⁴⁰ This general assertion in no way means the existing laws are not adequate, as the NPRM provides no specifics regarding any of these unnamed sites or whether any releases have required any CERCLA response. Nor does the NPRM suggest that existing state financial assurance would not cover any such issues. To the contrary, state financial assurance does protect against potential releases by covering the costs to operate and maintain the controls a facility needs to comply with environmental protection and performance standards in its operating permit.⁴¹ The major mining states already hold significant financial assurance to cover hard rock mining facilities – such as Nevada (\$2.66 billion) and New Mexico (\$692 million).⁴² In Arizona alone, Freeport McMoRan has provided \$578 million in financial assurance.⁴³ As the on-the-ground regulators, states have the required experience to implement these requirements appropriately.⁴⁴ Moreover, states have and have exercised the authority to increase financial assurance requirements when changed circumstances warrant additional protection.⁴⁵ Hence, these authorities provide the mechanisms to address the potential longer-term “duration” of risk associated with hard rock mining facilities.

rock mining in Colorado under the Colorado Mined Land Reclamation Act as implemented through the Colorado Hardrock, Metal and Designated Mining Operations Rule); Table 1, Utah Statutes and Rule Equivalents to CERCLA § 108 (b) Response Categories in [Rio Tinto America Comments](#) at 16-17, *citing* Utah Code Ann. § 40-8-1, *et seq.* and Utah Admin Code R. 643 *et seq.*; Utah Code Ann. § 19-1-101, *et seq.* and Utah Admin Code R. 305 through 317; Utah Code Ann. § 73-51-101, *et seq.* and Utah Admin Code R. 655-10-1 *et seq.*; *see also* [SRK Report](#) (discussing state regulatory requirements).

³⁸ *E.g.*, [Freeport Comments](#) at 24.

³⁹ *E.g.*, [NMA Comments](#) at 33.

⁴⁰ [82 Fed. Reg. at 3475](#).

⁴¹ [SRK Report](#).

⁴² *See* [Letter from D. Emme, Administrator, Nevada Department of Environmental Protection at 1 \(Aug. 17, 2016\)](#) and [letter from B. Brancard, General Counsel of the New Mexico Energy, Minerals and Natural Resources Department](#).

⁴³ [BGC Engineering Report](#) at 26. In total, Freeport alone provides \$1.1 *billion* in financial assurance to secure its obligations under state programs. [Freeport Comments](#) at 23.

⁴⁴ [Comment of Beth A. Botsis, Deputy Executive Director, Interstate Mining Compact Commission at 2 \(Aug. 16, 2016\)](#) (states have “extensive expertise ... and understanding of the various mining methods and technologies used by their hardrock industries, and have years of experience in evaluating mining operations, calculating bond amounts based on the unique circumstances of each mining operation” as well as the “expertise necessary to make informed predictions of how the real value of financial assurance may change over the life of the mine...”)

⁴⁵ As an example, the Proposed Rule had identified the Zortman-Landusky mines in Montana as mines where the bonding under state law was inadequate. [82 Fed. Reg. 3473-74](#). The revised state regulations have corrected that by specifying that “the bond amount should be adequate to cover the point of maximum

THE RECORD ESTABLISHES THAT HARDROCK MINING FACILITIES DO NOT PRESENT THE “DEGREE AND DURATION OF RISK” TO SUPPORT REGULATION.

Claim in Proposed Rule: Based on “various sources of data,” the Proposed Rule asserts there is “abundant evidence” that hardrock mining facilities continue to pose risks associated with the management of hazardous substances at their sites.⁴⁶

Response: Looking at key data sources cited in the Proposed Rule in light of the additional information submitted by commenters, it is clear that the cited data do not substantiate EPA’s previously stated need to impose financial responsibility requirements.

- Office of Land and Emergency Management, Memorandum to the Record: Releases from Hardrock Mining Facilities (Nov. 22, 2016) cited at 82 Fed. Reg. at 3471.

The NPRM asserted this internal memo documented current releases that occurred despite improved regulation and modern practices.⁴⁷ However, the cited examples do not support that conclusion. Many of the sites had significant legacy mining issues with operations dating as far back as the 1800’s. Hence, they are not representative of current operations.⁴⁸ Moreover, in other instances the operator has addressed the releases under government direction and/or has provided increased financial assurance to cover additional issues – all without any need for CERCLA response.⁴⁹ Indeed, each of the mining sites from the memo that were

reclamation liability, and not necessarily the conditions that would exist at the anticipated end of mine life.” BLM, Final Supplemental Environmental Impact Statement for Reclamation of the Zortman and Landusky Mines at 6-14 (Dec. 2001) (BLM Final SEIS).

⁴⁶ 82 Fed. Reg. at 3470-78.

⁴⁷ BLM Final SEIS at 1.

⁴⁸ NMA Comments at 48 (at least 12 of the sites are associated with significant historical and largely unregulated mining) and at Appendix C, Table C-2, Facilities Referenced in Releases Report (Beal Mountain, MT – placer operations as early as 1864 with recent operations 1988-1997; Brewer Gold, SC – began operations in 1828 and closed in 1995; Cimarron, NM – operated 1960-1979; Formosa Mine, Or – originally operated 1910-1937; Golden Sunlight, MT – operations began 1890; Kendall Mine, MT – mining began in 1880s; Silver Mountain, WA – mining began in 1928, if not earlier; Summitville, CO – historical mining operations began in late 1800s; Zortman and Landusky – historical underground mining in the 1800s with open pit mining in 1977).

⁴⁹ NMA Comments at 47 and at Table C-2 (e.g., Beal Mountain, MT – federal and state regulators have increased bonding requirements; Buckhorn Mine, WA – operator is addressing; Florida Canyon, NV – operator is addressing; Golden Sunlight, MT – operator is addressing, including \$112 million in financial assurance; Greens Creek, AK – where issues have arisen, operator has addressed; Grouse Creek, ID – site has been reclaimed with former operator addressing residual issues; Illinois Creek, AK – operator is addressing under state program; Kendall Mine, MT – no public money being used for remediation; Kinsley Mine, NV – federal and state authorities have increased financial assurance; Lone Tree Mine, NV – operator addressing issues with over \$70 million in financial assurance; McLaughlin Mine, CA – owner/operator has addressed and has more than \$42 million in financial assurance; South and Central Rasmussen Ridge, ID – owner/operator addressing; Rain Mine, NV – issues identified under state required monitoring and owner/operator is addressing and state holds \$67 million in financial assurance; Red Dog, AK – reclamation and closure bond covering); Freeport Comments at 50-51.

discussed in the Proposed Rule is either a legacy site or a site where operational issues have been adequately addressed under existing laws.⁵⁰ That the facilities EPA chose to highlight are being addressed underscores how the existing legal framework is an effective mechanism for addressing potential risk.

- EPA Comprehensive Report: An Overview of Practices at Hardrock Mining and Mineral Processing Facilities and Related Releases of CERCLA Hazardous Substances (Nov. 30, 2016) (“Practices Report”) - EPA, V.E. Housman and S. Hoffman, *Mining Sites on Superfund’s National Priorities List* (July 1992) cited at 82 Fed. Reg. at 3471-75.

EPA prepared the Practices Report in an effort to supplement a 1992 paper regarding hardrock mining practices, EPA, V.E. Housman and S. Hoffman, *Mining Sites on Superfund’s National Priorities List* (July 1992). Relying on these reports, the NPRM points to specific mining practices it alleges present risks of release to support a proposed conclusion that mining practices “continue to present risks of release of hazardous substances.”⁵¹

However, as the Practices Report acknowledged, the Report was not a formal risk assessment of currently operating facilities,⁵² it did not characterize the environmental or human health risks associated with any specific releases from current facilities,⁵³ and it relied on incomplete, anecdotal information.⁵⁴ As such, the Report could not have fully assessed the effectiveness of current programs and practices.

By contrast, the record now before EPA details *current* practices at current hardrock mining facilities. In particular, an expert panel from the Society for Mining Metallurgy & Exploration, Inc. (SME) has provided a critique of EPA’s Practices Report.⁵⁵ SME is a professional society whose more than 15,000 members represent professionals serving the minerals industry across 100 countries and include engineers, geologists, metallurgists,

⁵⁰ 82 Fed. Reg. at 3471; see also NMA Comments at Table C-2. (1) Smoky Canyon Mine, ID: The issues that occurred were the result of historical mining practices no longer in use. The mine owner/operator has addressed these issues and covered all costs associated with the response, including the state and federal agency oversight costs. (2) Buckhorn Mine, WA: The state regulator has taken the necessary enforcement steps and the operator has been implementing the required improvements. (3) Florida Canyon Mine, NV: The mine began operations in 1987 before Nevada implemented new mining regulations. The state regulator and the operator have been addressing the identified issues. (4) Jerritt Canyon, NV: The design pre-dates the state’s mining regulations. The operator has undertaken necessary measures, under the direction of state and federal officials. There is already \$74.4 million in financial assurance for this mine, with \$23.5 million specifically dedicated to completing any corrective action from the tailings facility.

⁵¹ 82 Fed. Reg. at 3471-74; *id.* at 3475-76.

⁵² Practices Report at 4.

⁵³ Practices Report at 4-5.

⁵⁴ Practices Report at 4-5 (“Systematic and comprehensive information about facility characteristics, waste management, releases and regulatory oversight was not available for either non-operating sites or currently operating facilities. Thus, this profile is based on information that may be incomplete or anecdotal.”)

⁵⁵ NMA Comments, Appendix D (SME 2017 Report).

educators, students and researchers.⁵⁶ Moreover, BGC Engineering, a respected engineering firm, provided a detailed analysis of current mining practices.⁵⁷ These reports and other comments demonstrate how mining practices have in fact changed—and changed materially—in the past decades. These changes, when combined with the increasingly stringent federal and state regulation summarized above, demonstrate that EPA should not continue to rely on historic operations in judging current risks for this industry as “the improvements in modern mining and ore processing technologies ... greatly reduce ... both the degree and duration of risk of a release of hazardous substances to zero or de minimis levels.”⁵⁸

Importantly, the many improvements in mining infrastructure, process technology, operations, and planning address the very risk factors highlighted in the Proposed Rule. For example, current mining has implemented (i) more sophisticated methods for managing the acidic content of waste rock; (ii) improved waste rock facilities designed to minimize risk of groundwater contact, (iii) made changes to the design and operation of tailings storage facilities to use engineered, geotechnically stable designs; and (iv) increased automation to reduce risk of upset and provide real-time monitoring.⁵⁹ The Agency cannot fairly rely on a 25-year old paper to judge current mining practices, as “the weight of scientific evidence” demonstrates that mining practices and mineral/ore processing technologies have evolved substantially over the past two plus decades.⁶⁰ EPA has itself recognized these changes in other settings.⁶¹

The Proposed Rule also states that EPA has developed a profile of historical and current mining practices and releases of hazardous substances associated with those practices based on a review, in part, of CERCLA sites and related documentation.⁶² However, actual CERCLA site data indicate federal and state programs have been effective at preventing material releases from active hard rock mining facilities. This is demonstrated, in part, by the fact that modern hardrock mining sites designed and operated under current regulatory requirements are not being added to the CERCLA National Priorities List (“NPL”). EPA has added only one hard rock mining facility to the NPL that had begun operations in the last 40 years.⁶³ Of all of the mining sites that EPA has placed on the NPL in the past ten years, only six operated into the mid-1990s or beyond. Private parties are taking the necessary response actions at three of those sites. At the three sites where EPA has had to fund CERCLA responses, mining operations ended more than

⁵⁶ SME 2017 Report at 1.

⁵⁷ BGC Engineering Report at Section 1, pp. 1-20.

⁵⁸ SME 2017 Report at 2; *see* BGC Engineering Report, Section 3.2 (modern hardrock mining is fundamentally different from historical, unregulated mining due to advances in mining practices).

⁵⁹ BGC Engineering Report at 117-119.

⁶⁰ SME 2017 Report at 2; BGC Engineering Report, Section 3.3.1 at 113.

⁶¹ *E.g.*, EPA Office of Inspector General, *Nationwide Identification of Hardrock Mining Sites*, Report No. 2004-P-00005 at 5 (Mar. 2004) (“According to EPA, in recent years, environmental practices employed by the mining industry have improved considerably and reduced the environmental impacts from mining projects”).

⁶² 82 Fed. Reg. at 3472.

⁶³ NMA Comments at 34-35.

two decades ago or earlier, before the modern state regulatory programs had taken full effect.⁶⁴ BLM and USFS report that neither agency has approved an operation over the past 30 years that EPA has had to place on the NPL.⁶⁵ Moreover, numerous hard rock mines have been successfully closed and reclaimed in the last 25 years—without requiring any intervention by the Superfund.⁶⁶ Collectively, the actual, current data indicate that the current regulations and financial assurance requirements have in fact proven to be effective at addressing the risk of releases from currently operating hard rock mining facilities.⁶⁷

- [Evidence of CERCLA Hazardous Substances and Potential Exposures at CERCLA 108\(b\) Mining and Mineral Processing Site \(2016\) \(“Evidence Report”\) cited at 82 Fed. Reg. at 3475.](#)

The Evidence Report purported to compare practices at historical mine sites to current sites in order to assess the risk at current sites.⁶⁸ Relying on this report, the NPRM attempted to draw the conclusion that sites requiring a past CERCLA cleanup “share characteristics” with sites operational in 2009.⁶⁹

This report likewise misses the mark, as these historical sites are in fact not representative of current risk at hardrock mining sites. For its detailed analysis, this Report randomly chose 24

⁶⁴ [Freeport Comments](#) at 45.

⁶⁵ See Letter from R. Abbey, BLM Director at 5 (June 21, 2011) (none of the 659 plans of operation for mine production authorized by BLM since 1990 has been put on the NPL) (*cited in* [NMA Comments](#) at 34); Letter from T. Vilsack, Secretary of the U.S. Department of Agriculture at 4 (July 20, 2011) (none of the 2685 mines permitted by the USFS since 1990 has been added to the NPL) (*cited in* [NMA Comments](#) at 34).

⁶⁶ [BGC Engineering Report](#), Section 2.2 at Table 2-1 (summarizing sites)

⁶⁷ In discussing the Practices Report, the Proposed Rule raised concerns with operations at certain sites. See [82 Fed. Reg. at 3472-75](#). These sites do not support a federal financial responsibility rule, as they concern legacy operations—or are sites where current laws are addressing any potential risk: (1) The releases discussed at Rio Tinto Kennecott Bingham Canyon) arose out of legacy operations and are being addressed by the current site owner/operator through current operations under existing state laws, as EPA’s own records of decision document. See [Rio Tinto America Comments](#) at 12-19, 22-24. (2) The Formosa, OR site was originally mined 1910 to 1937. [NMA Comments](#), Appendix C, Table C-1. (3) The Barite Hill, SC mine, which operated from 1989 to 1994, was designed and constructed before significant changes were made to the state Mining Law in 1990. *Id.* (4) The Beal Mountain, MT placer operations began as early as 1864 with recent operations from 1988-1997. *Id.* (5) Zortman and Landusky, MT mining operations began in the 1880s with more recent operations beginning in 1977. *Id.* (6) Robertson Nevada Mining, NV dates back to the 1860s, and releases referenced in the proposal were promptly addressed—and the mine currently has financial assurance valued at \$89.7 million. *Id.* (7) The ArcelorMittal, MN cleanup is being addressed by the site operator. *Id.* (8) The U.S. Silver Galena mine discharge has been resolved with the state and federal governments with the operator addressing the cleanup. *Id.* (9) The Golden Sunlight, MT mine operations began in 1890, with current operations identifying and addressing any releases. *Id.*

⁶⁸ [Evidence Report](#), ES-1.

⁶⁹ [82 Fed. Reg. at 3475](#).

sites.⁷⁰ However, one-quarter of the sites were smelters, not representative of hardrock mining at the core of the Proposed Rule.⁷¹ Moreover, the Report looked at sites that operated after 1980,⁷² a timeframe that would not reflect the current approach to hardrock mining and mine regulation. Regulatory changes were still being made four decades ago with the modern regulatory framework not fully implemented until the late 1990's and thereafter. Further, again, the sites selected were largely sites that had started operations many decades ago—some as early as the 1880s.⁷³ These types of legacy sites are not indicative of how mines currently operate and are permitted under current regulations, as a site-by-site review of each of the specific facilities considered in the Evidence Report demonstrates.⁷⁴ Moreover, where such long-operating sites are still operating, the state permitting programs have required mines to bring currently operating features up to current standards, and the separate legacy aspects that are no longer operational are also being addressed.

- Other data and reports – ERNS, TRI and RCRA cited at 82 Fed. Reg. at 3475-78.

In the Proposed Rule, EPA also considered Emergency Response Notification System (ERNS) data, release reports submitted to the Toxics Release Inventory (TRI), and analysis of reports of hazardous waste generated under the Resource Conservation and Recovery Act (RCRA). The NPRM asserted these types of data served as other evidence of releases, generation, and management of CERCLA hazardous substances at mining sites.⁷⁵

While these data indicate the potential presence of certain harmful substances that may be present in mining operations, these data provide no basis for finding that the “degree and duration of the risk” presented by hardrock mining require federal financial responsibility regulations. ERNS is a “database of initial notifications” to the National Response Center and thus does not provide a picture of either the “degree” or “duration” of an incident.⁷⁶ Moreover, the fact that a facility makes a report, suggests the site is actively monitoring and addressing issues if they arise.

Similarly, more than 99% of the materials reported as required under TRI reporting involved placement of waste in onsite land management units at the mine site, as opposed to releases from the site into the external environment. As outlined above, existing regulations, current permitting regimes and financial assurance provide the necessary protection for these inventories of waste rock and tailings. Moreover, as EPA has stated previously, TRI data does

⁷⁰ *Id.*

⁷¹ BGC Engineering Report, Section 3.1.1, Table 3-3 at 98 (historical 24 sites by type)

⁷² Evidence Report, ES-1.

⁷³ BGC Engineering Report, Table 3-2 at 97 (Details of Historical Sites in Evidence Report).

⁷⁴ NMA Comments, Appendix C, Table C-3, Facilities Referenced in Evidence Report.

⁷⁵ 82 Fed. Reg. at 3476-78. The NPRM also cited to other reports published 20-25 years ago. *Id.* 3475-76. These outdated reports should not be afforded any weight in view of the many changes in the operations and regulation of the mining industry, as outlined above. Moreover, the reports concerned historical mining operations and/or incidents that were being addressed under existing laws. NMA Comments at 64-66.

⁷⁶ EPA, “An Overview of ERNS: Fact Sheet” at 1 (EPA 540-F-94-027) (Mar. 1995).

not demonstrate a degree of risk, as “*releases do not equal exposure*”⁷⁷ and “pounds of releases ... is not an indicator of any health risks posed by the chemicals.”⁷⁸

Lastly, as EPA acknowledged, the RCRA “data concerning volume of hazardous waste generated and managed alone does not provide a direct indicator of risk of release or of management of wastes.”⁷⁹ As such, if these data do not indicate a risk of release, the data cannot justify the proposed requirements. To the contrary, the record evidence summarized above demonstrates that current operational practices, superintended by strict federal and state law, have substantially ameliorated the risk of releases or unfunded CERCLA cleanup obligations.

⁷⁷ EPA, “What can the Toxic Release Inventory Tell You about Risk?” at 17 (July 2015) (emphasis in original).

⁷⁸ EPA “TRI National Analysis 2015” at 36 (Updated Jan. 2017).

⁷⁹ 82 Fed. Reg. at 3478.