

APPENDIX B:  
Written Comments Submitted by Small Entity Representatives

# EPA's Outreach Meeting with potential Small Entity Representatives for the CERCLA 108(b) Hardrock Mining Rulemaking (June 9, 2016)

## Written Comments from Potential Small Entity Representatives

1. Richard Brown (Wyo-Ben, Inc.)
2. Tim Dyhr (Nevada Copper)
3. Paul Goranson (Energy Fuels)
4. Tim Havey (Pebble Limited Partnership)
5. Debbie Lassiter (Carlin Resources)
6. Brad Moore (PolyMet Mining Inc.)
7. Frank Ongaro (MiningMinnesota)
8. Ron Rimelman (NOVAGOLD Resources Inc.)
9. Laura Skaer (American Exploration & Mining Association) – *SENT PRIOR TO JUNE 9 MEETING*
10. Laura Skaer (American Exploration & Mining Association) – *SENT AFTER JUNE 9 MEETING*
11. Debra Struhsacker (Pershing Gold Corporation)
12. Eric Struhsacker (Renaissance Exploration Inc.)



# WYO-BEN, INC.

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July 7, 2016

Ms. Lanelle Wiggins  
RFA/SBREFA Team Leader  
US EPA - Office of Policy (1803A)  
1200 Pennsylvania Ave N.W.  
Washington D.C. 20460

Ms. Linda Barr  
Economist  
US EPA  
1200 Pennsylvania Ave N.W.  
Washington D.C. 20460

Dear Ms. Wiggins and Barr:

Thank you for the opportunity to serve as a Small Entity Representative (SER) to the Small Business Advocacy Review (SBAR) Panel for the proposed EPA rulemaking on CERCLA 108(b) Financial Responsibility for the hard rock mining industry (the "Rule"). This letter responds to EPA's request during the June 9, 2016 initial pre-panel meeting/conference call that SER's provide written comments on the SBAR process and on the proposed CERCLA 1089b) rule.

Wyo-Ben, Inc. is a small, 65 year old, privately held and family owned mining and manufacturing company with mines in the Big Horn Basin of northwestern Wyoming and south central Montana. A substantial portion of our mining operations occur on mining claims on federal lands administered by the Bureau of Land Management. All of our mining operations operate under existing permits issued by the Departments of Environmental Quality in Montana and Wyoming and, when on federal lands, by the BLM and all operations are bonded to meet all current DEQ and BLM requirements.

As a prospective SER I have participated in the Pre-Panel outreach meetings/conference calls conducted by EPA on May 17<sup>th</sup> and June 9<sup>th</sup> of this year and have listened carefully to EPA's explanation and logic for promulgating the proposed Rule. I have also reviewed the information that has been sent out to the prospective SER's. This has led me to the following observations:

- The proposed Rule will have a significant adverse impact on small entities in the mining industry, such as my company, which may not have access to the capital or bonding that would be needed to establish the additional financial assurance required by the Rule. EPA has not demonstrated that the bonding and surety industry is either willing to, or capable of, supplying the level of financial assurance anticipated by the proposed Rule. Without assurances from this industry that sufficient bonding will be available it could become economically impossible for small entities to provide the financial assurance instruments they need to continue operation.
- Much of the information on existing financial assurance programs from states and Federal Land Management Agencies (FLMA) is out of date or in draft form. This makes it impossible for the SER's to fulfill their responsibility to provide meaningful and accurate advice and recommendations to the Panel. It would be irresponsible for the SER's to provide the required

1. Richard Brown (Wyo-Ben, Inc.)

guidance to the Panel without final, up-to-date information on which to base it. As a result, the lack of current, final information for the SER's makes the initiation of the SBAR Panel process premature. In recognition of this EPA should delay the SBAR process until the information listed in the attached Table 1 is supplied in current and final form to the SER's so that they can fulfill their responsibility.

- The description of the model proposed by EPA to calculate CERCLA 108(b) financial responsibility lacks sufficient detail to enable the SER's to understand how it will work. Without additional detailed information about the model and its inputs it is impossible for the SER's to determine the relationship between the proposed Rule and existing state and FLMA financial assurance programs and provide any meaningful comment to the Panel. This is fundamental to the charge given to the SERs and must be corrected if they are to provide useful advice to the Panel.
- EPA has not demonstrated the need for the proposed regulations. No significant gap in the current financial assurance programs administered by the states or the FLMA's has been defined. To the contrary, some states, like Wyoming, are currently reassessing their mine bonding practices to determine if they are over bonding. As a result, the proposed Rule appears to unnecessarily duplicate these programs. This duplication will create unnecessary and unwarranted economic stress on small entity mining companies that has the potential to drive some of them out of business. At a minimum, EPA must conduct a GAP Analysis to identify where deficiencies currently exist and whether the proposed Rule is likely to produce any improvement. If none is found then EPA should acknowledge this and withdraw its proposed Rule.
- The EPA approach to financial assurance determination appears to be strongly tilted towards a one-size-fits-all philosophy. This is in significant contradiction to the approach adopted by the states and FLMA's which recognize the site-specific nature of assessing appropriate financial assurance. This increases the likelihood of inappropriately high levels of financial assurance being required which will place an increased burden on small mining entities. EPA should acknowledge the superior position of the states and FLMA's to determine appropriate financial assurance levels and defer to them.

In the June 9<sup>th</sup> pre-panel outreach materials provided by EPA prospective SER's were directed to respond to issues related to four elements. My responses, based upon the information that the SER's have been provided by EPA, follow:

1. Who are the small entities to which the proposed rule will apply?

Unfortunately, it is not possible to define the scope of the entities that the proposed Rule will apply to because EPA has not adequately responded to the request for information listed in Table 1 made on June 1, 2016. Key among the information requests made at that time was for sufficient information to understand how EPA's model would work including the input information that would be used. Without a detailed understanding of the EPA model the scope of the entities, small or large, that would be subject to the Rule is impossible to define.

2. What are the anticipated reporting, recordkeeping, and other compliance requirements of the upcoming proposed rule?

Once again, insufficient information and a lack of understanding of the EPA model and its inputs makes it impossible to respond to this question at this time.

3. Are there any existing federal rules that may duplicate, overlap or conflict with the regulation?



1. Richard Brown (Wyo-Ben, Inc.)

The June 17<sup>th</sup> presentations by the states of Nevada, Utah, New Mexico and South Dakota, as well as those by the Bureau of Land Management and U.S. Forrest Service, made it very clear that robust, effective and comprehensive financial assurance programs are already in place at both the state and federal levels. Moreover, these presentations made it abundantly clear that these programs were not narrowly focused on reclamation (recontouring and revegetation) but also included provisions to deal with releases of contaminants meeting the CERCLA definition of hazardous substances from operating and closed mine sites. Although not part of the presentations on June 17th Wyoming, where most of Wyo-Ben's mines are located, is another example of a state with programs that have a long term focus on potential hazardous material release. The Wyoming Environmental Quality Act states at 35-11-405(a) "No mining operation may be commenced or conducted on land for which there is not in effect a valid mining permit..."; at 315-11-406(m)(ix) that a mine permit may be denied if "The operator is unable to produce the bonds required"; at 35-11-417 (a) that "The purpose of any bond required to be filed with the administrator by the operator shall be to assure that the operator shall faithfully perform all requirements of this act and comply with all rules and regulations..."; and at 35-11-402 (vi) requires that regulations be established for "Prevention of pollution of waters of the state from mining operations, substantial erosion, sedimentation, landslides, accumulation and discharge of acid water, and flooding, both during and after mining and reclamation." (underline added). This further establishes that state statutes and regulations are in place that focus directly on the type of financial assurance that EPA targets the proposed Rule.

4. Are there any significant regulatory alternatives that could minimize the impact on small entities? EPA must ensure that any final rule does not conflict with or duplicate existing state and FLMA financial assurance programs. This will require the detailed GAP Analysis previously noted in order to discretely identify gaps in these programs, if any exist. If gaps are found, EPA should work with the states and FLMA's to adjust the existing regulatory framework t rather than creating a new layer of regulation.

I look forward to continuing participating as an SER in the SBAR process on the proposed CERCLA 108(b) Rule. Prior to convening the SBAR panel I ask that the information requested in Table 1 be provided to all SER's, in current and final form, so that we may fully and meaningfully participate in this process. Thank you for your consideration.

Sincerely,



Richard K. Brown  
Vice President, Resources  
Wyo-Ben, Inc.

Attachment

Table 1  
Essential Information Required for the SERs to Provide Meaningful Comments to the  
SBAR Panel on the Proposed CERCLA 108(b) Rule

1. The model EPA will use to calculate CERCLA 108(b) financial responsibility
2. The cost data, engineering data, and underlying formulas that the model will use or otherwise inform the model;
  - a. Where did EPA obtain the costs and data?
  - b. Is EPA using costs from Superfund cleanup of pre-regulated mines?
3. How is the HAA determined?
  - a. Justify the proposed fixed amount when each mine site is unique?
4. How is the NRD percentage determined?
  - a. Justify the proposed fixed amount when each mine site is unique?
5. List the BMPs being considered for model inputs to determine credit reductions in the amount of required financial assurance.
6. List the engineering controls being considered for model inputs to determine credit reductions in the amount of required financial assurance.
7. List the site features used as model inputs
8. Clarify when in the mining life cycle the CERCLA 108(b) financial responsibility instrument has to be provided
  - a. Does it need to be provided before operations begin?
9. Is the amount of required financial assurance negotiable or appealable?
10. When could a CERCLA 108(b) financial assurance instrument be released?
  - a. Can there be partial release?
  - b. How long will it take after a facility closes to release the instrument?
11. Provide the financial assurance capacity study including information on who prepared the study
  - a. Did the study evaluate collateral requirements?
  - b. What will EPA do if this study reveals that the financial assurance and insurance industries are unwilling or unable to provide financial assurance instruments pursuant to the Proposed Rule?
  - c. Did this study include a credit rating survey for the range of entities, including small businesses, which will be subject to the Proposed Rule? If so, please provide.
12. Demonstrate that the Proposed Rule does not duplicate the existing financial assurance requirements under federal and state laws and regulations.
  - a. Identify with specificity any perceived gaps in the existing federal and state regulatory and financial assurance programs for hardrock mining that need to be filled with the Proposed Rule.
  - b. Demonstrate that EPA is the right entity, rather than the Federal Land Management Agencies and the state agencies, to fill those gaps.
  - c. Show that the EPA has the necessary expertise to address any gap or to administer the Proposed Program.

The logo for Nevada Copper, featuring the words "NEVADA COPPER" in a bold, sans-serif font, centered within a dark brown, rounded rectangular border.

## Pumpkin Hollow Project

July 7, 2016

Lanelle Wiggins  
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Linda Barr  
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Economist  
US Environmental Protection Agency  
1200 Pennsylvania Ave. N.W.  
Washington, D.C. 20460

Dear Ms. Wiggin and Ms. Barr:

On behalf of Nevada Copper Corp., doing business as Nevada Copper, Inc., a Nevada company (“Nevada Copper” or the “Company”), as an approved Small Entity Representative (SER), please find herein formal comments on the Small Business Regulatory Enforcement Fairness Act (SBREFA) review process being undertaken by the Environmental Protection Agency (EPA), Small Business Administration (SBA) and the Office of Management and Budget (OMB) regarding the proposed rulemaking on CERCLA 108(b) financial assurance for hardrock mining.

Nevada Copper owns 100% of the Pumpkin Hollow Copper Development Property located in Lyon County, Nevada, United States. Pumpkin Hollow is a large advanced stage development copper property with substantial reserves and resources including copper, gold, silver, as well as a large iron resource. Nevada Copper has been working on development of the Pumpkin Hollow Project since 2006. Since then, the company has been able to secure all necessary permits to build the mine.

Recently the City of Yerington, Lyon County and the Company collaborated to acquire 10,000 acres of federal land to facilitate and expedite development. As a result, Pumpkin Hollow is entirely on private land regulated by the Nevada Division of Environmental Protection. This also allowed the City of Yerington to annex the project into the City so that it could receive a portion of property and net proceeds of mines taxes. It also affords the City and the Company the opportunity to and partner with them to integrate infrastructure and additional industrial, commercial and recreational development on this large parcel.

Since 2006 the company has invested over \$100 million to explore and delineate the mineral resource, conduct engineering design, much of which is focused on environmental controls, secure permits and develop an environmental management plan to comply with all applicable local, state and federal permit requirements and regulatory standards. Included in the permit process was a detailed calculation of financial assurance for closure; reclamation; demolition of facilities no longer needed for mining and not converted to another post-mining land use; removal and disposal of all chemicals and hazardous materials; and post-closure site management and monitoring.

■ Delivery: 61 E Pursel Lane ■ U.S. Mail: P.O. Box 1640 ■ Yerington ■ Nevada ■ 89447  
Telephone: (775) 463-3510 ■ Facsimile: (775) 463-4130  
Tim Dyhr (Cell): (775) 843-0764 ■ E-mail: [tdyhr@nevadacopper.com](mailto:tdyhr@nevadacopper.com) ■ Facsimile: (775)-463-4130

Nevada Copper Comment Letter

SBREFA Review of Proposed CERCLA 108(b) Rulemaking

July 7, 2106

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One of the most difficult aspects of mine development is the time and effort to comply with various federal, state and local regulatory requirements. Recently the Company compiled all the different regulatory requirements it needs to meet into a summary table for the City of Yerington to assure them that every aspect of the project is subject to numerous state and federal standards. Hazardous materials need to be addressed in the Nevada Water Pollution Control Permit (WPCP), Reclamation Permit (including detailed calculations for and posting of financial assurance for removal and proper disposal of hazardous materials), Air Pollution Control Permit (including estimates of all chemical and hazardous emissions, and appropriate controls to meet National Ambient Air Quality Standards), Spill Prevention, Countermeasures and Control Plan (SPCC), Stormwater Pollution Prevention Plan (SWPP) and a Nevada Hazardous Materials Permit that must quantify and manage hazardous materials stored on site; notify fire service workers as to quantities and locations of hazardous materials; collect Safety Data Sheet (SDS) for all products stored on property; utilize SDS to determine all hazardous components in all products stored on property; maintain an updated inventory of all products on site; update online database with complete listing of all hazardous materials from all products on property; and include coordinates of locations of all products.

In particular note the extensive requirements in the Reclamation Permit for calculation of the financial assurance for removal, disposal, demolition, stabilization, long term process fluid management and reclamation of the site. All of these actions and associated financial assurance are required to assure that the mine site does not cause pollution to air, water and land. The actions required by all these permits are intended to assure that the risks or release of pollutant's, chemicals or hazardous materials are eliminated or reduced and if they are not sufficient financial assurance is in place to address them. Our mining operation is engineered and designed to eliminate or prevent release to the environment, as noted in the myriad of regulatory programs and standards listed above.

That summary table is attached to this letter, and demonstrates that EPA has not adequately considered both the regulatory programs and financial assurance requirements that are currently in place for hardrock mining operations.

In light of the above, Nevada Copper wonders what specific aspects of our operation are not addressed? Specifically:

- Where are the gaps? Why are existing federal and state programs insufficient to address the concerns? EPA has not provided a detailed analysis of any conflicts in the proposed rule with state programs;
- Where are mining sites that EPA refers to justify the need for these financial assurance requirements? Were they subject to the same standards as our project or any current active project? EPA should identify all specific projects that are subject to current regulatory and financial assurance requirements that have caused environmental damage or are high risk and why they are high risk.
- Where is the technical and scientific materials and analyses used to support this proposed rule;

2. Tim Dyhr (Nevada Copper)

Nevada Copper Comment Letter

SBREFA Review of Proposed CERCLA 108(b) Rulemaking

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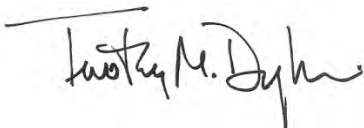
- EPA has stated that the need for the rulemaking based on the “degree and duration of risk associated with the production, transportation, treatment, storage, or disposal of hazardous substances.” Yet all the programs mining companies and other numerous state and federal regulators have provided to EPA as part of this review process are specially intended to eliminate and reduce risks. Yet EPA is completely remiss in including these programs into their analysis to date.
- In EPA’s “Identification of Priority Classes of Facilities for Development of CERCLA Section 108(b) Financial Responsibility Requirements; Priority Notice of Action” it cites a number of factors for the need for a rule. Yet every one of these is addressed by other state and federal programs. Again it is necessary for EPA to identify specifically and in detail here these existing programs do not address the potential and risk of *actual release* and not just the presence of these materials

Other SER’s and mining associations have commented on this proposed rule, and as a member of that group we participated extensively in identifying the numerous shortcomings supporting the proposed rule. Nevada Copper concurs with those comments and endorses them as part of our comments.

Due to a number of factors, including the significant efforts required to obtain permits and significant financial commitment, including and not limited to existing financial assurance requirements, and market conditions the project is still seeking financing, after almost 10 years of design and development work, to build it. The company currently employs only nine fulltime staff. For a company at this stage, all the regulatory obligations represent a major commitment of time and resources.

After 10 years of planning and 10’s of thousands of man-hours to design a mine that meets all regulatory standards, we still have 2-5 years before the project will earn its first penny! Needless to say, developing a mine is a very arduous, complex and time-consuming process. Clearly, any new regulation and particularly this regulation would unnecessarily put a “significant economic impact” and burden on Nevada Copper and other small entities attempting to develop a mine.

Sincerely,



Tim Dyhr  
Vice President, Environment & External Relations  
Nevada Copper Corp.  
Pumpkin Hollow Project



***Pumpkin Hollow Project  
Summary of Permits & Regulatory Requirements  
Community, Health, Environmental, Safety & Sustainability (CHESS<sup>sm</sup>)***

***As of May 19, 2016***

Filename CHESS-PermitsRegsOverview2016520



***Pumpkin Hollow Project***  
***Summary of Permits & Regulatory Requirements***  
***Community, Health, Environmental, Safety & Sustainability (CHESS™)***

<b>Permit &amp; Agency</b>	<b>Regulatory Requirement or Environmental Standard &amp; Requirements</b>
<p>The International Building Code (IBC) building code</p> <p>International Code Council (ICC).</p> <p>City of Yerington</p>	<p>IBC has been adopted throughout most of the United States. A comprehensive building code that establishes minimum regulations for building systems using prescriptive and performance-related provisions. It is founded on broad-based principles that make possible the use of new materials and new building designs. 700+ pages</p> <ol style="list-style-type: none"> <li>1. Building occupancy classifications</li> <li>2. Building heights and areas</li> <li>3. Interior finishes</li> <li>4. Foundation, wall, and roof construction</li> <li>5. Fire protection systems (sprinkler system requirements and design)</li> <li>6. Materials used in construction</li> <li>7. Elevators and escalators</li> <li>8. Already existing structures</li> <li>9. Means of egress</li> </ol>
<p>Code of Federal Regulations 30CFR56 Subchapter K Safety And Health Standards – Part 56 Surface Metal And Nonmetal Mines Part 57 -Underground Metal And Nonmetal Mines</p> <p>Mine Safety &amp; Health Administration (MSHA)</p>	<p>The Mine Act regulates safety at all metal and nonmetal mining operations in the United States. This includes conducting inspections and investigations at mine sites to ensure compliance with health and safety standards required by the Mine Act. When inspectors and investigators observe violations of health or safety standards, they issue citations and orders to mine operators that require the operators to correct the problems.</p> <p>The following is only a summary of the areas and activities regulated under 30CFR56:</p> <p><b>Part 56 Surface Metal And Nonmetal Mines</b></p> <p><b>Subpart A—General</b> PROCEDURES 56.1000 Notification of commencement of operations and closing of mines.</p> <p><b>Subpart B—Ground Control</b> MINING METHODS; PRECAUTIONS</p> <p><b>Subpart C—Fire Prevention and Control</b> PROHIBITIONS/PRECAUTIONS/HOUSEKEEPING; FIREFIGHTING EQUIPMENT; FIREFIGHTING; PROCEDURES /ALARMS/DRILLS; FLAMMABLE AND COMBUSTIBLE LIQUIDS AND GASES; INSTALLATION/CONSTRUCTION/MAINTENANCE; WELDING/CUTTING/COMPRESSED GASES</p> <p><b>APPENDIX I TO SUBPART C—NATIONAL CONSENSUS STANDARDS</b> AIR QUALITY; STORAGE; TRANSPORTATION; DRILLING; ROTARY JET PIERCING</p> <p><b>Subpart H—Loading, Hauling, and Dumping</b> TRAFFIC SAFETY; TRANSPORTATION OF PERSONS AND MATERIALS</p> <p><b>Subpart I—Aerial Tramways</b></p> <p><b>Subpart J—Travelways</b></p> <p><b>Subpart K—Electricity</b></p> <p><b>Subpart L—Compressed Air and Boilers</b> SAFETY DEVICES AND MAINTENANCE REQUIREMENTS; SAFETY PRACTICES AND OPERATIONAL PROCEDURES</p>



***Pumpkin Hollow Project***  
***Summary of Permits & Regulatory Requirements***  
***Community, Health, Environmental, Safety & Sustainability (CHESS™)***

Permit & Agency	Regulatory Requirement or Environmental Standard & Requirements
<p>Code of Federal Regulations 30CFR56 Subchapter K Safety And Health Standards – Part 56 Surface Metal And Nonmetal Mines Part 57 -Underground Metal And Nonmetal Mines</p> <p>Mine Safety &amp; Health Administration (MSHA)</p>	<p><b>APPENDIX I TO SUBPART M—NATIONAL CONSENSUS STANDARDS</b></p> <p><b>Subpart N—Personal Protection</b></p> <p><b>Subpart O—Materials Storage and Handling</b></p> <p><b>Subpart Q—Safety Programs</b></p> <p><b>Subpart R—Personnel Hoisting</b> HOISTS; WIRE ROPES; HEADFRAMES AND SHEAVES; CONVEYANCES; HOISTING PROCEDURES; SIGNALING; SHAFTS; INSPECTION AND MAINTENANCE</p> <p><b>Subpart S—Miscellaneous</b> 56.20001 Intoxicating beverages and narcotics. 56.20002 Potable water. 56.20003 Housekeeping. 56.20005 Carbon tetrachloride. 56.20008 Toilet facilities. 56.20009 Tests for explosive dusts. 56.20010 Retaining dams. 56.20011 Barricades and warning signs. 56.20013 Waste receptacles. 56.20014 Prohibited areas for food and beverages.</p> <p><b>Part 56 Underground Metal And Nonmetal Mines</b></p> <p><b>Subpart A—General</b> 57.1 Purpose and scope. 57.2 Definitions. PROCEDURES 57.1000 Notification of commencement of operations and closing of mines.</p> <p><b>Subpart B—Ground Control</b> SCALING AND SUPPORT—SURFACE AND UNDERGROUND SCALING AND SUPPORT—UNDERGROUND ONLY PRECAUTIONS—SURFACE AND UNDERGROUND PRECAUTIONS—UNDERGROUND ONLY</p> <p><b>Subpart C—Fire Prevention and Control</b> PROHIBITIONS/PRECAUTIONS/HOUSEKEEPING; FIREFIGHTING EQUIPMENT; FIREFIGHTING; PROCEDURES/ALARMS/DRILLS; FLAMMABLE AND COMBUSTIBLE LIQUIDS AND GASES; INSTALLATION/CONSTRUCTION/MAINTENANCE; WELDING/CUTTING/COMPRESSED GASES; VENTILATION CONTROL MEASURES</p> <p><b>APPENDIX I TO SUBPART C—NATIONAL CONSENSUS STANDARDS</b> AIR QUALITY—SURFACE AND UNDERGROUND</p>





***Pumpkin Hollow Project***  
***Summary of Permits & Regulatory Requirements***  
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<b>Permit &amp; Agency</b>	<b>Regulatory Requirement or Environmental Standard &amp; Requirements</b>
Code of Federal Regulations 30CFR56 Subchapter K Part 56 - Surface Metal And Nonmetal Mines Part 57 -Underground Metal And Nonmetal Mines	AIR QUALITY—UNDERGROUND ONLY RADIATION—UNDERGROUND ONLY DIESEL PARTICULATE MATTER—UNDERGROUND ONLY <b>Subpart E—Explosives</b> STORAGE—SURFACE AND UNDERGROUND STORAGE—UNDERGROUND ONLY TRANSPORTATION—SURFACE AND UNDERGROUND USE—SURFACE AND UNDERGROUND ELECTRIC BLASTING—SURFACE AND UNDERGROUND NONELECTRIC BLASTING—SURFACE AND UNDERGROUND EXTRANEIOUS ELECTRICITY—SURFACE AND UNDERGROUND MAINTENANCE—SURFACE AND UNDERGROUND GENERAL REQUIREMENTS—SURFACE AND UNDERGROUND GENERAL REQUIREMENTS—UNDERGROUND ONLY <b>Subpart F—Drilling and Rotary Jet Piercing</b> DRILLING—SURFACE ONLY DRILLING—UNDERGROUND ONLY DRILLING—SURFACE AND UNDERGROUND <b>Subpart G—Ventilation</b> SURFACE AND UNDERGROUND UNDERGROUND ONLY <b>Subpart H—Loading, Hauling, and Dumping</b> TRAFFIC SAFETY TRANSPORTATION OF PERSONS AND MATERIALS SAFETY DEVICES, PROVISIONS, AND PROCEDURES FOR ROADWAYS, RAILROADS, AND LOADING AND DUMPING SITES <b>Subpart I—Aerial Tramways</b> <b>Subpart J—Travelways and Escapeways</b> TRAVELWAYS—SURFACE AND UNDERGROUND TRAVELWAYS—SURFACE ONLY TRAVELWAYS—UNDERGROUND ONLY ESCAPEWAYS—UNDERGROUND ONLY <b>Subpart K—Electricity</b> SURFACE AND UNDERGROUND UNDERGROUND ONLY <b>Subpart L—Compressed Air and Boilers</b> SAFETY DEVICES AND MAINTENANCE REQUIREMENTS



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<p>Code of Federal Regulations 30CFR56 Subchapter K Part 56 - Surface Metal And Nonmetal Mines Part 57 -Underground Metal And Nonmetal Mines</p>	<p>SAFETY PRACTICES AND OPERATIONAL PROCEDURES <b>APPENDIX I TO SUBPART M—NATIONAL CONSENSUS STANDARDS</b> <b>Subpart N—Personal Protection</b> SURFACE AND UNDERGROUND UNDERGROUND ONLY <b>Subpart Q—Safety Programs</b> SURFACE AND UNDERGROUND; UNDERGROUND ONLY; HOISTS; WIRE ROPES; HEADFRAMES AND SHEAVES; CONVEYANCES; HOISTING PROCEDURES; SIGNALING; SHAFTS; INSPECTION AND MAINTENANCE <b>Subpart S—Miscellaneous</b> 57.20001 Intoxicating beverages and narcotics. 57.20002 Potable water. 57.20003 Housekeeping. 57.20005 Carbon tetrachloride. 57.20008 Toilet facilities. 57.20009 Tests for explosive dusts. 57.20010 Retaining dams. 57.20011 Barricades and warning signs. 57.20013 Waste receptacles. 57.20014 Prohibited areas for food and beverages. 57.20020 Unattended mine openings. 57.20021 Abandoned mine openings. 57.20031 Blasting underground in hazardous areas. 57.20032 Two-way communication equipment for underground operations. <b>Subpart T—Safety Standards for Methane in Metal and Nonmetal Mines</b> GENERAL 57.22001 Scope. MINE CATEGORIZATION; FIRE PREVENTION AND CONTROL; VENTILATION; EQUIPMENT; UNDERGROUND RETORTS ILLUMINATION; EXPLOSIVES</p>



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**Community, Health, Environmental, Safety & Sustainability (CHESS™)**

Permit & Agency	Regulatory Requirement or Environmental Standard & Requirements
<p><b>Water Pollution Control Permit WPCP 2008103</b> For Mining Facilities</p> <p>Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) Regulation Branch</p>	<p>Permit to Construct &amp; Operate Mine Facilities</p> <ol style="list-style-type: none"> <li>1. Submit application at least 180 days prior to the planned construction date of any component of a mining operation or the planned start of mining. It takes approximately 180 days to obtain a WPCP. This time frame includes the public notice, notification of the County Board and City, and a 30-day public review and comment period. <i>[Note: the City will also be automatically included on this list for notification all future applications].</i></li> <li>2. A WPCP is valid for a duration of 5 years, provided the operator remains in compliance with the regulations.</li> <li>3. Mine facilities include: Mine waste rock, ore and tailings (residual material from ore processing) which must be characterized to determine if it will have the potential to release metals or contaminants that may pollute surface water or groundwater. Characterization includes extensive sampling, laboratory tests (acid generating potential [humidity cells] and leaching potential [meteoric water mobility test]), laboratory analysis and evaluation to characterize those materials; facilities included “fluid management system” - ponds, ditches, pipes, tanks buildings and any other constructed facilities that may have the potential to degrade surface water of groundwater.</li> <li>4. Mine facilities must be designed by a licensed professional engineer and be designed so that there is no discharge of process fluids or contaminant to the environment (“zero discharge); process water ponds must have two impermeable liners to prevent the escape of process fluids; if tailings contain fluids that can leach into the ground the tailings storage system must have an impermeable liner system;</li> <li>5. Contents of permit application and modifications:             <ol style="list-style-type: none"> <li>5.1. Assess area within 5-mile radius of mine (hydrogeological and lithological information which defines the subsurface conditions of the site beneath and adjacent to all point sources to a minimum depth of 100 feet; a geological map covering the area within a 1-mile radius of the process components; A topographic map which identifies: (1) All known surface waterways, streams, springs and seeps within a 1-mile radius of the facility; (2) All existing habitable buildings within a 1-mile radius of the facility; (3) The boundaries and area of the upgradient watershed and the degree to which the 100-year, 24-hour storm event will affect the process components; and (4) All wells constructed for supplies of drinking water within 5 miles downgradient of the site identified in the records of the Division of Water Resources of the Department or known to the applicant. 2. The Department may require that a greater or lesser area of review be prescribed in an application for a permit based upon: (a) The ability of the geologic formation at the site of the facility to inhibit contaminant migration; (b) The size of the human population in the area; (c) The depth from the surface to all groundwater; (d) The distance to all surrounding bodies of surface water; and (e) The quality, uses and potential uses of the ground and surface water within the area of review.</li> <li>5.2. Meteorological (temperature, precipitation, wind) report.</li> <li>5.3. Provide extensive site-wide and regional hydrogeological characterization program including groundwater modelling, predictive modelling of post-mining pit lake depth and chemistry; chemical characterization of all ore, mine waste rock, tailings and any other materials place or stored at the site.</li> <li>5.4. Description and design of all hydrocarbon storage facilities and secondary containment;</li> <li>5.5. An engineering design report must be prepared and submitted to the Department by a professional engineer registered in Nevada. The report must include the following information, if applicable: (a) Engineering plans for the process components used for beneficiation; (b) The general specifications and calculations for the process components; (c) Topographic maps showing the location of all potential sources at the facility including, but not limited to: (1) The extraction sites; (2) The process components used for beneficiation; (3) The disposal sites for waste rock; and (4) The disposal sites for spent ore; (d) Drawings which indicate the layout of the structures and devices for controlling process fluids; (e) Methods for the control of storm flow runoff; (f) The existing geological</li> </ol> </li> </ol>
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<p><b>Water Pollution Control Permit WPCP 2008103</b> For Mining Facilities</p> <p>Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) Regulation Branch</p> <p>Continued</p>	<p>and hydrogeological conditions beneath and adjacent to the site of the fluid management system and waste rock disposal sites and the degree to which these conditions provide natural containment, preferential flow pathways and structural stability; (g) A description of the liner material and installation procedures for all leach pads, ponds and ditches, including a description of the subbase preparation; (h) Details of leak detection and site-monitoring systems; and (i) Process schematics of the facility. 2. Specifications for constructing the fluid management system and for the material to be used must be submitted to the Department with the application for a permit, and must include, but not be limited to, the methods to be utilized for inspecting, testing, and quality assurance and control. 3. The information required by subsections 1 and 2 must be of sufficient detail to allow the Department to make the following factual determinations: (a) Which of the potential sources at the facility are to be considered process components; (b) That the design of the process components is sufficient to protect the waters of the State from degradation; and (c) That the monitoring system is adequate to determine if the process components are operating so as to protect the waters of the State from degradation. Any material modification to a process component requires the approval of the Department before construction begins.</p> <p>Design criteria:</p> <p>5.6. All process components must be designed to withstand the runoff from a 24-hour storm event with a 100-year recurrence interval;</p> <p>5.7. Primary fluid management system must be designed to be able to remain fully functional and fully contain all process fluids including all accumulations resulting from a 24-hour storm event with a 25-year recurrence interval.</p> <p>5.8. Operating plans must be prepared and updated to assure that contingency plans for managing process contaminated flows in excess of the design quantity must be described in the appropriate operating plans.</p> <p>5.9. The fluid management system must be designed to be functional for 5 years after the projected operating life of the process component and permanent closure period.</p> <p>5.10. The design of the process components must take into consideration the proposed range of operating conditions for each component and the history of seismic events at the site in order to preclude any differential movement or shifting of the subbase, liner or contained material which endangers primary or secondary containment integrity.</p> <p>5.11. Additional containment of process fluids may be required in areas where groundwater is considered to be near the surface. Groundwater is considered to be near the surface if: (a) The depth from the surface to groundwater is less than 100 feet and the top 100 feet of the existing formation has a coefficient of permeability greater than that exhibited by 100 feet of 1x10<sup>-5</sup> cm/sec material; (b) Open fractured or faulted geologic conditions exist in the bedrock from the surface to the groundwater; or (c) There is an inability to document that all exploratory and condemnation borings beneath the site have been adequately sealed. [Note: Wherever historic exploratory and condemnation borings are located, and prior to operation of mine components there, these historic exploratory and condemnation borings need to be plugged and sealed per state regulations]</p> <p>5.12. Process components containing process fluids may not be located within 1,000 feet of any dwelling which is occupied at least part of the year and which is not a part of the facility.</p> <p>5.13. Components that contain process fluids must have an engineered liner system. Process facilities are located above areas where groundwater is considered near the surface, the Department may require a liner system with a higher level of engineered containment.</p> <p>5.14. All ponds which are intended to contain process fluids must have a primary synthetic liner and a secondary liner. Between the liners there must be a material which has the ability to rapidly transport any fluids entering it to a collection point which: (a) Is accessible; and (b) Has a system for recovering those fluids. 2. When the material between the liners is unable to collect, transport and remove all liquids at a rate that will prevent hydraulic head transference from the primary liner to the secondary liner, the pond must be shut down.</p>



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<p><b>Water Pollution Control Permit WPCP 2008103</b> For Mining Facilities</p> <p>Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) Regulation Branch</p>	<p>3. Ponds which are primarily designed to contain excess quantities of process fluids that result from storm events for limited periods may be constructed with a single liner if approved by the Department. 4. Ponds containing non-process fluids may be required to be lined depending on their potential to degrade waters of the State.</p> <p>5.15. Vats, tanks and other containers which confine process fluids and can be inspected for leaks visually do not require double liners if an area for secondary containment equal to 110 percent of the largest container is provided. Vats, tanks or other containers that are partially buried and cannot be visually inspected must have a system to detect leaks.</p> <p>5.16. Minimum design criteria: Tailings impoundments. 1. A tailings impoundment must utilize a system of containment equivalent to: (a) Twelve inches of re-compacted native, imported, or amended soils which have an in place re-compacted coefficient of permeability of no more than 1x10-6 cm/sec; or (b) Competent bedrock or other geologic formations underlying the site which has been demonstrated to provide a degree of containment equivalent to paragraph (a). 2. An alternate level of containment may be required by the Department for all of the tailings impoundment or for a portion thereof after considering the following factors: (a) The anticipated characteristics of the material to be deposited; (b) The characteristics of the soil and geology of the site; (c) The degree to which the hydraulic head on the impoundment liner is minimized; (d) The extent and methods used for recycling or detoxifying fluids; (e) Pond area and volume; (f) The depth from the surface to all groundwater; and (g) The methods employed in depositing the impounded material.</p> <p>5.17. Minimum design criteria: Liners. 1. When placed on native materials, soil liners must have a minimum thickness of 12 inches and be compacted in lifts which are no more than 6 inches thick. Except when used in tailing impoundments, a soil liner must have a permeability of not more than that exhibited by 12 inches of 1x10-7 cm/sec material. 2. Synthetic liners must be rated as having a resistance to the passage of process fluids equal to a coefficient of permeability of 1x10-11 cm/sec. 3. The Department shall review for completeness the applicant's evaluation of the following design parameters, where applicable, for a liner: (a) The type of foundation, slope and stability; (b) The over liner protection and provisions for hydraulic relief; (c) The load and means of applying load; (d) The compatibility of a liner with process solutions; (e) The complexity of the leak detection and recovery systems; (f) The depth from the surface to all groundwater; and (g) The liner's ability to remain functionally competent until permanent closure has been completed.</p> <p>5.18. Program required to control quality of construction of liner systems. A quality assurance and quality control program must be developed and carried out for the construction of all liner systems. A summary of the quality control data must be submitted to the Department with the as-built drawings.</p> <p>5.19. Monitoring: Site of facility. 1. The program to monitor the site of a facility must be designed to monitor the quality of all ground and surface water which may be affected by the facility. The type, number and location of the monitoring points must be described in the application as part of the monitoring plan and must be approved by the Department. 2. Final monitoring requirements must be established by the Department. 3. Baseline data must be collected before operation of the facility. 4. In areas where there is a substantial separation between the process components and the groundwater, a system for monitoring highly probable escape pathways in the unsaturated zone may be required by the Department. 5. The decision where to locate the monitoring points for the site must be made after considering the site's geology and hydrogeology. [Note; Nevada Copper conducts, or will conduct, daily, weekly, monthly and quarterly monitoring of its process components and monitoring wells and also of water management facilities per WPCP 2008109]</p> <p>5.20. Monitoring: Procedure upon variation in parameter or element being monitored. If the Department determines that there has been a variation in a parameter or element being monitored by the site-monitoring system as required which is caused by the facility and has the potential to degrade the waters of the State: 1. The holder of the permit shall conduct and submit an evaluation to the Department which: (a) Identifies the source and escape pathways of the elements of concern; (b) Determines the type, extent and ability of a system</p>





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<p>Continued</p> <p><b>Water Pollution Control Permit WPCP 2008103</b> For Mining Facilities</p> <p>Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) Regulation Branch</p>	<p>needed to contain or confine any migrating contaminant; and (c) Identifies methods which can be carried out to remediate the contamination during the continued operation of the facility or at permanent closure. 2. The Department shall, based on the information provided pursuant to subsection 1: (a) Require the immediate shut down of the process component and the immediate initiation of cleanup activities; (b) Allow continued operation of the process component which is the source of the elements of concern with concurrent cleanup activities; (c) Allow continued operation of the process component which is the source of the elements of concern while requiring the facility to continue to control the migration of the contaminant while cleanup activities are postponed; or (d) Determine that no remedial action is warranted at the present time.</p> <p>5.21. Monitoring: Process components. 1. The Department shall determine the extent and complexity to which the holder of a permit must monitor individual process components for the release of contaminants after reviewing site and process controlled design conditions. Systems designed to detect and control leaks from process components must be located at the interface of the unit process components and the adjacent environment and be able to provide the first indication that pollutants or contaminants have escaped their primary containment. 2. The program to monitor the process components must include: (a) A schedule of activities; (b) A roster of current job titles for persons responsible for and involved in the monitoring program; and (c) The form and frequency of reports to be submitted to the Department. The Department may randomly collect information or samples for reference. The cost of analyzing samples may be placed upon the holder of the permit.</p> <p>5.22. Monitoring: Beneficiation process. Monitoring of the beneficiation process must include the routine characterization of those process materials which will be disposed. The data obtained must be used by the holder of the permit to evaluate periodically and, when necessary, to refine the plan for the permanent closure of the facility.</p> <p>6. [Projects must have a temporary closure plan at the time of application for a permit]:</p> <p>6.1. Examples of planned and unplanned temporary closures. 1. The following are examples of planned temporary closures which have specific conditions defining their beginning and end: (a) Seasonal closures because of normal weather cycles. (b) Interruptions in the active beneficiation processes to provide planned periods of quiescence for metallurgical or operating reasons. (c) Any other planned process condition which will interrupt the active beneficiation process. 2. The following are examples of unplanned temporary closures: (a) A closure because of unforeseen weather events. (b) A failure in a major system component or a process failure which causes the fluid management system or a portion thereof to shut down. (c) The discontinuation of a facility's operations because of litigation. In the event of an unplanned temporary closure of one or more process components, the holder of the permit shall: (a) Within 30 days after an unplanned temporary closure begins, inform the Department of the closure and describe the procedures and controls which have been carried out to maintain the process components during this period. (b) Within 90 days after the Department has been notified of the unplanned temporary closure: (1) Begin to evaluate the procedures which will be required to carry out a permanent closure of the process components affected and petition the Department to approve one or more procedures needed for the permanent closure of the process components affected; or (2) For just cause, request that the Department grant an extension and delay permanent closure. Except as otherwise provided in subsection 2 of NAC 445A.420, the extension may not be longer than the remaining term of the existing permit or for 3 years, whichever is greater. 2. The Department shall approve or disapprove the proposed procedures for permanent closure within 30 days after they are submitted to the Department. 3. Unless the Department has granted an extension pursuant to subparagraph (2) of paragraph (b) of subsection 1 within 270 days after the Department has been notified of the unplanned temporary closure, the holder of the permit shall initiate the approved procedures for permanent closure. 1. The permanent closure of a facility must be initiated: (a) Following the request of the holder of the permit; (b) For a facility which is under a temporary closure, no</p>



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<p>Continued</p> <p><b>Water Pollution Control Permit WPCP 2008103</b> For Mining Facilities</p> <p>Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) Regulation Branch</p>	<p>later than at the end of one renewal of a 5-year permit (c) When the end of the design life of that process component is reached. 2. Permanent closure is complete when the requirements contained in NAC 445A.429, 445A.430 and 445A.431 have been achieved. 3. The time required for monitoring the facility following permanent closure depends upon the particular site and process characteristics, but in no event may the time required exceed 30 years. 1. Plans for permanent closure are required for all sources at a facility. 2. A final plan for permanent closure of any source which has been identified as a process component must be submitted to the Department at least 2 years before the anticipated permanent closure of that process component. 3. Sources which have not been classified as process components must be evaluated at the end of their operating life to determine the potential for pollutants from these sources to migrate and degrade the waters of the State under the final proposed site conditions and must be closed in accordance with the State Handbook of Best Management Practices.</p> <p>6.2. A project must submit a Tentative Permanent Closure Plan at the time of application, modification or renewal of a permit.</p> <p>6.3. Other compliance items:</p> <p>6.3.1. A detailed process fluid management plan must be submitted and updated whenever there are changes to the plan;</p> <p>6.3.2. A detailed mine rock and tailings management plan must be submitted and updated whenever there are changes to the plan;</p> <p>6.3.3. Quarterly and annual monitoring reports that include all monitoring data for wells, laboratory analyses of materials that were sampled and analyzed, operating conditions, quantities and characteristics of ore processed, mine waste rock and tailings produced</p> <p>7. Permit must be renewed a minimum every five years with the same public notice and public review as an original application; or</p> <p>7.1. Whenever there is a change to any facility or mine component an application for modification must be made</p> <p>7.1.1. Major modification ‘significant changes’ to design and operation of facility (180 days with public notice and public comment)</p> <p>7.1.2. Minor modification changes to location, size, but not the basic operating conditions of facilities (Nevada Copper will notify City when applications are made)</p> <p>7.1.3. Engineering design change (EDC) minor changes in configurations of facilities (Nevada Copper will notify City when applications are made)</p> <p>8. Must provide as-built drawings of all constructed facilities or any component prior to operation;</p> <p>9. Must notify NDEP-BMMR upon completion of construction and prior to operating a permitted, designed constructed facility or component.</p>
<p><b>Water Pollution Control Permit WPCP 2008109</b> For Dewatering &amp; Water Infiltration Facilities</p> <p>Nevada Division of Environmental Protection (NDEP)</p>	<p>Permit to Construct &amp; Operate dewatering, water discharge and water management facilities</p> <p>1. All of the general requirements for WPCP 103 are applicable to this permit and also include:</p> <p>2. Design by a registered professional engineer and operation of water management facilities (pipelines, settling tanks, sediment tanks and methods to settle fined sediments &amp; rapid infiltration basins, oil water separation)</p> <p>3. Detailed operating, emergency response and temporary closure plans, tentative plan for permanent closure, reclamation plan and and schedules for water management describing the items below.</p> <p>4. Mine shaft dewatering and underground dewatering (pumping)</p> <p>5. Design of dewatering well, construction and operation</p> <p>6. Site-wide monitoring well network (currently one water supply well, two dewatering wells and 21 groundwater monitoring wells, four groundwater standpipe monitoring wells, 16 vadose (unsaturated zone) wells)</p> <p>7. Minimum of two quarters of monitoring well water quality data before deposition of water into a water basin</p>



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Bureau of Mining Regulation and Reclamation (BMRR) Regulation Branch	<ol style="list-style-type: none"> <li>8. Extensive groundwater predictive modelling examining site-level and regional groundwater depths and water chemistry the effects to groundwater and groundwater quality.</li> <li>9. Geotechnical (soil borings, test pits, infiltration and percolation tests) and geochemical (soil and bedrock chemistry) site investigation, laboratory testing (permeability, soil particle size, water capacity) and characterization of all water management basin areas;</li> <li>10. Design for 100-year, 24-hour storm events.</li> <li>11. As-built reports for all facilities before operating</li> <li>12. Quarterly and annual reports describing quantities of water pumped, placed and re-infiltrated into rapid infiltration basins, water quality of pumped water, water contained in basins, water treatment activities, quantities of sediment removed from sediment basins, chemical characterization of sediments, depth of water in vadose and groundwater monitoring wells</li> <li>13. Calculations of reclamation financial assurance (bond) amount</li> <li>14. Posting of bond prior to construction and operation (included in the overall site reclamation and closure bond).</li> </ol>
<b>Reclamation Permit 0288</b> For Reclamation of Mine Facilities  Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) Reclamation Branch	Reclamation permit for exploration and mining operations <ol style="list-style-type: none"> <li>1. The operator of a mining operation shall apply to the Division for a permit that includes: (a) The applicant’s name, address and telephone number; (b) If the applicant is a corporation or other business entity which is required to have a registered agent, the name, address and telephone number of its registered agent and its principal officers or partners; (c) A complete plan for reclamation; (d) The estimate of the cost of executing the plan for reclamation; (e) A statement that the applicant agrees to assume responsibility for the reclamation of any surface area affected by his or her mining operation; (f) A map which depicts the area to be covered by the surety; (g) For the purpose of calculating the amount of the surety, the average number of drill holes to be left open at any one time during the life of the project; and (h) The fee charged by the Division for an application for and the issuance of a permit.</li> <li>2. Notice of intent to issue draft of permit or to deny application.                         <ol style="list-style-type: none"> <li>2.1. 1. Except as otherwise provided in subsection 3, the Division shall, at least 30 days before the issuance of a draft permit or a notice of intent to deny the application for a permit for an exploration project or mining operation to be conducted on privately owned land: (a) Circulate a public notice of the intent to issue a draft permit or deny the application in a manner intended to inform interested persons; (b) Cause to be published in a newspaper of general circulation within the geographic area of a proposed exploration project or mining operation, a notice of the intent to issue the permit or deny the application; and (c) Mail to the operator, landowner of record who is identified by the applicant in the application, members of the board of county commissioners of the county in which the project or operation is to be located, Division of Minerals of the Commission on Mineral Resources and any other person or group who so requests, written notice of the intent to issue a draft permit or deny the application. <i>[Note: the City will be automatically included on this list for all future applications]</i></li> <li>2.2. 2. Notice given pursuant to subsection 1 must include: (a) The name, address and telephone number of the Division; (b) The name and address of the operator; (c) The location of the proposed project or operation; (d) The tentative decision of the Division to issue a draft permit or deny the application for a permit; (e) A description of the procedure which the Division will use to make a final decision to issue or deny the permit; f) The location where interested persons may obtain further information or inspect and copy the draft of the permit and other relevant forms and documents; and (g) A statement that interested persons must submit to the Division written comments and information on the tentative decision of the Division within 30 days after the date on which the notice is published.</li> </ol> </li> </ol>





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<p>Continued</p> <p><b>Reclamation Permit 0288</b></p> <p>For Reclamation of Mine Facilities</p> <p>Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) Reclamation Branch</p>	<p>3. The Division shall schedule a public hearing on an application for a permit if: 1. A person who is directly affected by the application for a permit requests the hearing and the Division determines that the request is reasonable and there is a significant degree of public interest in the matter; or 2. The Division deems it necessary.</p> <p>4. On or before April 15, 1991, and on or before April 15 of each year thereafter, an operator of an exploration project or a mining operation shall submit to the Division for services rendered by the Division the applicable fees required by this section.</p> <p>4.1. For each mining operation which is active on October 1, 1990, and for which a permit has been issued by the Division or an application for a permit has been submitted to the Division, the operator shall submit to the Division: (a) If the total affected area is 50 acres or less, a fee of \$500. (b) If the total affected area is more than 50 acres but not more than 200 acres, a fee of \$1,500. (c) If the total affected area is more than 200 acres but not more than 500 acres, a fee of \$3,000. (d) If the total affected area is more than 500 acres but not more than 1,000 acres, a fee of \$4,500. (e) If the total affected area is more than 1,000 acres but not more than 2,500 acres, a fee of \$9,000. (f) If the total affected area is more than 2,500 acres but not more than 5,000 acres, a fee of \$12,000. (g) If the total affected area is more than 5,000 acres, a fee of \$16,000.</p> <p>5. Exemption of open pits and rock faces from requirements. 1. An operator may request in writing that the Division grant an exception to the requirements for reclamation for open pits and rock faces which may not be feasible to reclaim. The Division shall consider, without limitation, the: (a) Topography of the site; (b) Geology and stability of the site; (c) Time required to complete reclamation; (d) Consumption of resources required to complete reclamation; (e) Potential adverse environmental impacts to the quality of the air and water associated with the activities for reclamation; and (f) Future access to mineral resources. 4. Upon request by the applicant, the return of material to the open pit from which it was extracted shall be considered to be not feasible for the purposes of reclamation. 5. If an open pit or rock face is exempted from reclamation, public safety must be provided for by means other than reclamation, including, but not limited to, restrictions on access to the site or restrictions on the deed to the property.</p> <p>6. The plan for reclamation for a mining operation must include:</p> <p>6.1. A topographic map of the area of the operation depicting: (a) The boundaries of the area of the operation; (b) Surface ownership of the land within the area of the operation; (c) The areas to be affected in sufficient detail so that they can be located from the ground; (d) The kind of disturbances, including: (1) Tailings impoundments; (2) Leach pads; (3) Waste rock dumps; (4) Buildings; (5) Roads; and (6) All other surface facilities; and [a description of operations that were conducted by a previous operator]</p> <p>6.2. A description of any land within the area of operation: (a) On which the operation is active on or after October 1, 1990; and (b) Comprising access roads which were created before January 1, 1981.</p> <p>6.3. The location of any surface water body within one-half-mile down gradient of the operation which may be impacted by excess sedimentation resulting from the mining operations.</p> <p>6.4. An estimate of the number of acres affected by each type of disturbance.</p> <p>6.5. A proposed productive post-mining use of the land</p> <p>6.6. A proposed schedule of the time for initiation and completion of activities for reclamation.</p> <p>6.7. The proposed post-mining topography.</p> <p>6.8. The technical criteria used to determine the final gradient and stability of slopes created or affected by the mining operation.</p> <p>6.9. The proposed methods to be used in reclaiming impoundments used during the operation.</p> <p>6.10. A statement of any constraints on the estimated time to complete reclamation caused by the residual moisture content or physical or chemical qualities of impoundments.</p>



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<p>Continued</p> <p><b>Reclamation Permit 0288</b></p> <p>For Reclamation of Mine Facilities</p> <p>Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) Reclamation Branch</p>	<p>6.11. The kinds of access roads and their estimated width and length which will be built and the manner in which they will be reclaimed.</p> <p>6.12. A description of the best management practices employed during operation and reclamation to control erosion and minimize the transport and delivery of sediment to surface water, which must be the best management practices described in the State of Nevada Handbook of Best Management Practices or practices equivalent thereto.</p> <p>6.13. The proposed revegetation of the land for its post-mining land use, including:</p> <p>6.13.1. (a) A plan for the management of topsoil and growth medium; (b) A list of each species of vegetation; (c) The rate of seeding of vegetation; (d) The type of fertilizer and mulch to be used; (e) When the planting will occur; and (f) The proposed methods to monitor and control noxious weeds as described in NAC 555.010 during reclamation.</p> <p>6.14. The proposed disposition of: (a) Buildings; (b) Equipment; (c) Piping; (d) Scrap; (e) Reagents; and (f) Any other equipment and materials.</p> <p>6.15. A description of any surface facilities such as buildings or roads which will not be reclaimed.</p> <p>6.16. A description of any necessary monitoring and maintenance of fences, signs and other structures which will be performed by the operator on the reclaimed land.</p> <p>6.17. A description of any reclamation which is necessary because of instream mining.</p> <p>6.18. A statement of the effect that the proposed reclamation will have on future mining in the area.</p> <p>6.19. A statement setting forth the effect that the proposed reclamation will have on public safety.</p> <p>7. Requirements for productive post mining use of land.</p> <p>7.1. A productive post mining use of the land required to be submitted with a plan for reclamation need not provide a use of the land and degree of productivity which is identical with the use of the land before the mining began or the use of the adjacent land or the degree of use.</p> <p>7.2. Land which is returned to its pre-mining use or reclaimed after mining or exploration to a level of productivity which is generally consistent with the pre-mining level of productivity or the level of productivity of the surrounding land shall be deemed to be a productive post-mining use.</p> <p>7.3. Land which is reclaimed to a degree of productivity which is less productive than its pre-mining use shall be deemed to be productive if the operator takes reasonable measures, including, but not limited to: (a) Ensuring adequate fertilization of the soil;(b) Ensuring the quantity and quality of the topsoil or growth medium; and (c) Establishing a productive post-mining use of the land within site-specific economic and technical constraints of the area.</p> <p>7.4. Land subject to excessive erosion will not be deemed to be reclaimed to a productive post-mining use unless excessive erosion existed before mining or exists on the adjacent land. Evidence of the excessive erosion must be provided by the operator to the Division.</p> <p>7.5. If the operator is not the owner of the surface of the affected lands, the Division shall consider any comments received from the landowner pursuant to NAC 519A.190 and 519A.205 in making the final determination that the proposed plan for reclamation adequately provides for a productive post-mining use of the land.</p> <p>7.6. Approval required of proposed post-mining use of land. (NRS 519A.160) a proposed post-mining use of land must be approved by: . . . . 2. If the land is privately owned and if required by law, a local governmental entity with the authority to approve the post-mining use of private land within its jurisdiction.</p> <p>8. Time for initiation of reclamation; extension of time; completion of reclamation. 1. If affected land cannot practicably be reclaimed concurrently with an exploration project or mining operation, reclamation must be initiated: (a) Within 2 years after completion or</p>



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<p>Continued</p> <p><b>Reclamation Permit 0288</b> For Reclamation of Mine Facilities</p> <p>Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) Reclamation Branch</p>	<p>abandonment of the exploration project or mining operation; (b) Within 3 years after a temporary closure of an exploration project or mining operation;</p> <p>9. The Division may grant one or more extensions of the time when reclamation must begin if the operator of an exploration project or mining operation demonstrates that a reasonable likelihood exists that the project or operation will resume, based on a consideration of factors including, but not limited to: (a) The presence of additional mineralization of the commodity being mined or other commodities in commerce; (b) Historical fluctuations in the value of the commodity being mined or other commodities present if they can be mined using the same disturbances; (c) The design life of any beneficiation process components existing at a mining operation; and (d) If the closure was caused because of litigation. Each extension is for a 3-year period.</p> <p>10. Once initiated, final reclamation activities must be completed as set forth in an approved plan for reclamation, unless the exploration project or mining operation is reactivated.</p> <p>11. Departure from approved plan for reclamation</p> <p>11.1. 1. An operator may not depart from an approved plan for reclamation without a modification of the plan which is approved by the Division or other written approval from the Division except in the case of an emergency.</p> <p>11.2. 2. As used in this section, emergency means a situation in which compliance with a provision of an approved plan for reclamation may result in bodily injury or in environmental damage not anticipated in the plan.</p> <p>12. Procedure for operator to modify plan for reclamation.</p> <p>12.1. An operator may request a modification to a plan for reclamation:</p> <p>12.2. (a) By submitting to the Division a written request and those portions of the application for a permit which are applicable to the requested modification, including, a revision to the calculated cost of executing the plan for reclamation and the amount of surety, if applicable; and</p> <p>12.3. (b) For any reason, including: (1) A proposed change in the post-mining land use; (2) The addition of a new disturbance to the affected land; and (3) Proposed changes to the methods and techniques which will be used for reclamation.</p> <p>12.4. The Division shall review a request for a major modification to a plan for reclamation or a minor modification to a plan for reclamation of a mining operation and notify the applicant if additional information is required within 15 days after the receipt of the request. The notice must state the information which is required.</p> <p>12.5. If the applicant provides additional information to complete a request, the Division shall notify the applicant if more additional information is required within 15 days after receipt of the additional information. The notice must state the additional information which is required.</p> <p>12.6. The Division shall issue a notice of intent to allow or deny the request within 15 days after the later of: (a) The close of the period for public comment provided in NAC 519A.190; or (b) The receipt of the request for modification and the corresponding fees. 5. If the request for a modification is denied, the Division shall notify the applicant of: (a) The reasons for denial; and (b) The time allowed and procedures for appealing the decision pursuant to NAC 519A.415.</p> <p>13. Modification by Division of plan for reclamation.</p> <p>13.1. The Division, on its own motion, may modify an approved plan for reclamation if: (a) A provision of the plan is in conflict with the provisions of a specific statute; (b) It becomes impossible or impracticable to comply with any provision of the plan; or (c) A significant problem is discovered to exist which results or may result from compliance with any provision of the plan.</p>



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<p>Continued</p> <p><b>Reclamation Permit 0288</b></p> <p>For Reclamation of Mine Facilities</p> <p>Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) Reclamation Branch</p>	<p>29.2. The entire surety must not be released until all of the requirements of the permit have been fulfilled, except that: (a) A portion of the surety covering the reclamation of a discrete part of a disturbance must be released when the requirements of the permit regarding the discrete part of the disturbance have been fulfilled. (b) That portion of the surety covering a discrete activity must be released when the requirements of the permit regarding that discrete activity have been fulfilled. (c) Except as otherwise provided in subsection 3, if revegetation is part of the plan for reclamation, 60 percent of the posted surety must be released upon completion of the earthwork. After revegetation has been performed by the operator on the regraded lands, according to the approved plan for reclamation, the Division may release an additional 25 percent of the surety. The remaining surety must not be released until all requirements of the permit have been satisfied. (d) Upon transfer of a permit to a new operator and upon acceptance of the required surety from the new operator, the Division shall release the surety posted by the original operator.</p> <p>29.3. Percentages greater than those specified in paragraph (c) of subsection 2 may be released if the operator demonstrates that the remaining surety is sufficient to ensure completion of the required reclamation.</p> <p>29.4. Within 30 days after receiving a request for release of a surety, the agency holding the surety, or its designated agent pursuant to NRS 519A.140, shall inspect the permitted exploration project or mining operation to determine whether the operator has fulfilled the requirements of his or her permit and either: (a) Release the surety or portion thereof as requested; or (b) Notify the operator that the requested surety will not be released, the reasons why and the measures necessary to satisfy the requirements of the permit.</p> <p>29.5. If a request to release is denied, the operator may appeal the decision pursuant to NAC 519A.415.</p> <p>29.6. The 30 days within which an agency must respond to a request to release a surety pursuant to subsection 3 may be extended if weather conditions prevent an inspection of the reclaimed area.</p> <p>30. Forfeiture of surety: Grounds; notice and hearing.</p> <p>30.1. A surety filed with the Division, the Bureau of Land Management, the United States Forest Service or another federal land management agency is subject to forfeiture if: (a) An exploration project or mining operation has been completed, abandoned, or temporarily closed for a period greater than allowed pursuant to NAC 519A.285 without initiating activities for reclamation; (b) The permit is suspended or revoked pursuant to NAC 519A.220; or (c) The operator ceases to conduct business in the State of Nevada and does not transfer the permit to a new operator.</p> <p>30.2. The Division shall notify an operator personally or by registered mail that his or her surety is subject to forfeiture, and inform the operator of his or her right to a hearing before the Commission. A hearing must be scheduled pursuant to NAC 519A.400, or pursuant to NAC 519A.220 if the permit is suspended or revoked.</p> <p>31. Trust Fund for Short-Term Fluid Management</p> <p>NAC 519A.392 Payments for deposit into Fund; use and reimbursement of money in Fund. (NRS 519A.160)</p> <p>31.1. In addition to the surety required pursuant to NAC 519A.350, on or before October 1, 2000, an operator of a mining operation that is required to hold a permit from the Department of Wildlife pursuant to NRS 502.390 shall submit to the Division: (a) Thirty-six thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than \$35,000,000 as of the date the operator submits the money; (b) Twenty-four thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than \$7,000,000 but less than or equal to \$35,000,000 as of the date the operator submits the money; (c) Six thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than \$1,000,000 but less than or equal to \$7,000,000 as of the date the operator submits the money; or (d) One thousand dollars if the</p>



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<p>Continued</p> <p><b>Reclamation Permit 0288</b> For Reclamation of Mine Facilities</p> <p>Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) Reclamation Branch</p>	<p>total amount of surety the operator is required to provide pursuant to NAC 519A.360 is less than or equal to \$1,000,000 as of the date the operator submits the money.</p> <p>31.2. In addition to the surety required pursuant to NAC 519A.350 and the payment required pursuant to subsection 1, on or before April 15, 2001, an operator of a mining operation that is required to hold a permit from the Department of Wildlife pursuant to NRS 502.390 shall submit to the Division: (a) Thirty-six thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than \$35,000,000 as of the date the operator submits the money; (b) Twenty-four thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than \$7,000,000 but less than or equal to \$35,000,000 as of the date the operator submits the money; Six thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than \$1,000,000 but less than or equal to \$7,000,000 as of the date the operator submits the money; or (d) One thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is less than or equal to \$1,000,000 as of the date the operator submits the money.</p> <p>31.3. In addition to the surety required pursuant to NAC 519A.350 and the payments required pursuant to subsections 1 and 2, on or before April 15, 2002, an operator of a mining operation that is required to hold a permit from the Department of Wildlife pursuant to NRS 502.390 shall submit to the Division: (a) Thirty-six thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than \$35,000,000 as of the date the operator submits the money; (b) Twenty-four thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than \$7,000,000 but less than or equal to \$35,000,000 as of the date the operator submits the money; (c) Six thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is more than \$1,000,000 but less than or equal to \$7,000,000 as of the date the operator submits the money; or (d) One thousand dollars if the total amount of surety the operator is required to provide pursuant to NAC 519A.360 is less than or equal to \$1,000,000 as of the date the operator submits the money.</p> <p>31.4. The Division shall: (a) Establish the Trust Fund for Short-Term Fluid Management; (b) Deposit money collected pursuant to this section in the Trust Fund; (c) Credit all interest earned on the money in the Trust Fund to the Trust Fund; (d) Use the money in the Trust Fund only for the management of fluids at a site while the process for forfeiture of a surety pursuant to NAC 519A.390 is pending; and (e) After the conclusion of the process for forfeiture of a surety pursuant to NAC 519A.390, if the surety was forfeited, reimburse the Trust Fund with the surety that was forfeited. Such reimbursement must be in an amount equal to the total amount of money used from the Trust Fund at the site for which the surety was forfeited.</p> <p>31.5. An operator that operates more than one mining operation in this State may combine the amount of surety required pursuant to NAC 519A.360 for each site to determine the total amount of surety the operator is required to provide pursuant to NAC 519A.360 for purposes of determining the amount of money to submit pursuant to this section.</p> <p>32. Enforcement Inspections by Division and federal agencies; submission of results to operator. (NRS 519A.160)</p> <p>32.1. The Division may inspect an exploration project or mining operation to determine if it is in compliance with the terms and conditions of a permit and the status of activities for reclamation. Such an inspection must be conducted during normal business hours and the operator may be given adequate notice so that personnel familiar with the permit and its requirements may be present.</p> <p>32.2. Pursuant to NRS 519A.140, the Division, the Bureau of Land Management, the United States Forest Service or another federal land management agency may inspect a permitted exploration project or mining operation which is located on federal land or on both federal and private land to determine compliance with the terms and conditions of a permit and the status of activities for reclamation.</p>



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<p>Continued</p> <p><b>Reclamation Permit 0288</b></p> <p>For Reclamation of Mine Facilities</p> <p>Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) Reclamation Branch</p>	<p>Inspection of activities for reclamation on private property must be conducted during normal business hours and the operator may be given adequate notice so that personnel familiar with the permit and its requirements may be present.</p> <p>32.3. The results of the inspection must be forwarded to the operator within 30 days of completion after the report of the inspection.</p> <p>33. Notice of noncompliance: Service; contents; withdrawal. (NRS 519A.160, 519A.270)</p> <p>33.1. If the Division has reason to believe that an operator has violated any provision of chapter 519A of NRS, NAC 519A.010 to 519A.415, inclusive, or an approved plan for reclamation, it shall serve a notice of noncompliance on the operator. The notice must: (a) Be served personally or by registered mail addressed to the operator at the address shown in the records of the Division; (b) Specify each violation; and (c) Set a date and time for a hearing and inform the operator that his or her permit may be suspended or revoked and his or her surety forfeited upon completion of the hearing or if the operator fails to attend the hearing.</p> <p>33.2. The Division may withdraw a notice of noncompliance and cancel a hearing required by subsection 1 if the operator demonstrates that the alleged violation has been remedied or has agreed to a corrective plan of action approved by the Division.</p> <p>34. Maximum amount of civil penalty. (NRS 519A.160, 519A.280) The civil penalty imposed by the Division pursuant to NRS 519A.280 must not exceed \$5,000 per violation.</p>



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<p>Continued</p> <p><b>Reclamation Permit 0288</b> For Reclamation of Mine Facilities</p>	
<p>Class II Air Quality Control Permit <b>AP1012-3369</b></p> <p>Nevada Division of Environmental Protection NDEP Bureau of Air Pollution Control (BAPC)</p>	<p>Control fugitive dust and other particulate emissions.</p> <ol style="list-style-type: none"> <li>1. Annual reports of all emissions totals will be provided to the BAPC prior to 30 March.</li> <li>2. Equipment Description: Provide information about the Standard Industrial Classification Code (SIC), describe the processes and products by SIC, including any associated with an alternative operating scenario identified in this application, model number, manufacture date, dimensions and UTM coordinates. [NAC 445B.295.3]</li> <li>3. Design Rate/Operating Parameters: Describe all production rates, operating schedules and materials used in the process. [NAC 445B.295.3]</li> <li>4. Fuel Usage: Describe all fuels and fuel usage. [NAC 445B.295.3]</li> <li>5. Pollution Control Equipment/Exhaust Stack Parameters: Identify and describe all air pollution control equipment. [NAC 445B.295.4]</li> <li>6. Requested Emission Limits: Provide the requested emission limits for each emission unit. Include emission rates of all regulated air pollutants that are subject to an emissions limitation pursuant to an applicable requirement. The emission rates must be described in pounds per hour and tons per year and in such terms as are necessary to establish compliance using the applicable standard reference test method. [NAC 445B.295.8, NAC 445B.3363(d)]</li> <li>7. Alternative Operating Scenarios: Complete a separate application form for each emission unit having an alternative operating scenario. (A common example of an alternative operating scenario is a steam boiler that utilizes natural gas as the primary fuel, but may combust diesel fuel as an alternate fuel source). Please check the box in the upper right hand corner of each application form for emission units requesting an alternative operating scenario. Additionally, for each emission unit application form requesting an alternative operating scenario.</li> <li>8. Complete a Surface Area Disturbance application form for any land disturbances that equal or exceed 5 acres.</li> <li>9. Develop dust control plan is required for each surface area disturbance.</li> <li>10. Develop numerical dispersion model for all emission sources.</li> </ol>



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<p>Stormwater Pollution Prevention Plan <b>SWPPP M-364</b></p> <p>Nevada Division of Environmental Protection (NDEP) Bureau of Water Pollution Control (BWPC)</p>	<p>Ensure coverage and protection of Waters of the State in case of storm events.</p> <p>Permit to Construct &amp; Operate Mine Facilities</p> <ol style="list-style-type: none"> <li>1. Regional topographic map (U.S.G.S. 7.5 Min. Quad map) showing project area, and a Site map(s) showing point(s) of potential sources and respective discharge; all mining areas, buildings, facilities, disposal and storage areas, associated drainage areas, roads, stormwater control structures, and ground cover.</li> <li>2. Describe BMPs planned to be installed and implemented to protect water quality, and to prevent sedimentation, erosion, and scour in the receiving water during any active discharge.</li> <li>3. Describe Minimum BMP's to be considered and included as appropriate in the SWPPP are as outlined in Chapter 9: Mining of the Best Management Practices Handbook, and control measures that will be implemented so that water quality standards are not violated.</li> <li>4. Estimated Discharge Rate(s) in GPM from each Site and the Total Estimated volume of discharge.</li> <li>5. Identify sources of potential pollutants that may be discharged as a result of a stormwater event.</li> <li>6. A description of the intended sequence of major activities which disturb soils for major portions of the site (e.g., mining, grubbing, excavation, grading, utilities and infrastructure installation).</li> <li>7. Estimates of the total area of the site and the total area of the site that is expected to be disturbed by excavation, grading, or other activities including offsite borrow and fill areas.</li> <li>8. Identify Drainage Patterns and Approximate Slopes Anticipated after Major Grading.</li> <li>9. Identify locations of Waters of the US. Location and description of any discharge associated with Mining or site activity. The name of the receiving water(s) and the areal extent and description of wetland or other special aquatic sites at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project:</li> <li>10. List, describe, and quantify all spills and leaks of Clean Water Act or CERCLA reportable quantities that have occurred from three years prior to the SWPPP date to present. Describe each clean up action taken.</li> <li>11. List all miscellaneous non-stormwater discharges authorized pursuant to Part I.C.11 of this permit, and any other non-stormwater discharges that may occur. List BMPs used to minimize impacts of these discharges.</li> <li>12. Identify those individuals or positions within an organization, which are responsible for implementation of the SWPPP and the respective phone numbers.</li> <li>13. Detail applicable sewer systems, sanitary waste systems for the project area.</li> <li>14. The SWPPP will include a description of construction and waste materials expected to be stored on-site with updates as appropriate. The SWPPP will also include a description of controls to reduce pollutants from these materials including storage practices to minimize exposure of the materials to stormwater, and spill prevention and response.</li> <li>15. Within six months of the effective date of this permit, Nevada Copper will submit to NDEP for review and approval, a schedule of monitoring activities to sample and analyze stormwater flows from the Mine Rock Storage Facilities and overburden piles to waters of the U.S.</li> <li>16. Within six months of the effective date of this permit, Nevada Copper will submit to NDEP for review and approval, information, as a separate section within the SWPPP, indicating that any stormwater flow from the Mine Rock Storage area and Work Area will not cause or contribute to exceedances of applicable state water quality standards. At a minimum, such information will include the following:</li> <li>17. A statement as to why any stormwater discharges from waste rock dumps and overburden piles to waters of the U.S. will not cause or contribute to exceedances of applicable state water quality standards; that discharge to jurisdictional waters of the United States;</li> </ol>



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<p>Continued</p> <p>Stormwater Pollution Prevention Plan <b>SWPPP M-364</b></p> <p>Nevada Division of Environmental Protection (NDEP) Bureau of Water Pollution Control (BWPC)</p>	<ol style="list-style-type: none"> <li>18. A description of the BMP’s and any other treatment practices that are presently in-place or are planned to be installed, including supporting information for any assumptions made concerning the effectiveness of the BMPs or treatment;</li> <li>19. A plan for BMP maintenance, including routine visual monitoring and site inspections; Best Management Practices components will be inspected at least quarterly and after storm events that generate run-off.</li> <li>20. Actions to identify and correct leaks, spills, and other types of events that can impact storm water quality; Any necessary repairs will be noted on the inspection form and the inspection amended with a record of repairs, including nature of work, date, and people performing work.</li> <li>21. Annual reports will be submitted to NDEP each year on or before December 1. The reports will be generated from the CHESS© Schedule that will be maintained and recorded on an ongoing basis. It will document inspection findings; update spill, leak, and unauthorized discharge information including clean up and preventive actions taken; evaluate the effectiveness of the SWPPP in reducing pollutant loads; and provide a schedule for modifying the BMPs and revising the SWPPP if further reductions of pollutant loads can be reasonably achieved.</li> <li>22. Compliance with the terms and conditions of this general permit will also be monitored by means of photo documentation of the water management BMPs and the discharge point BMPs (prior to discharge to a water of the U.S.). The photos will be submitted as part of the Annual Report with a brief summary narrative.</li> <li>23. SWPPP will be updated every five years.</li> </ol>
<p>Spill Prevention Countermeasures and Control Plan (SPCC)</p>	<p>Prevent or reduce the quantity of potential pollutants accidentally released to the environment.</p> <ol style="list-style-type: none"> <li>1. Outline mitigation guidelines for hazardous materials stored on the Project.</li> <li>2. Include detail design on primary and secondary containment structures and facilities.</li> <li>3. Develop detailed reporting procedures for employees to contact and inform supervisors.</li> <li>4. Develop step-by-step spill response procedures for incidents.</li> <li>5. Develop specific lists of Authorities to notify in the event of spill incidents.</li> <li>6. Notify state and local emergency response authorities as appropriate. Information to be provided includes:             <ol style="list-style-type: none"> <li>6.1. The name, addresses, and telephones number of the facility and the owner/operator</li> <li>6.2. The chemical name or identity of the substance released</li> <li>6.3. The degree of hazard attributed to the substance</li> <li>6.4. An estimate of the quantity released</li> <li>6.5. The time and duration of the release</li> <li>6.6. The media into which the release entered</li> <li>6.7. Any known acute or chronic health effects associated with the emergency</li> <li>6.8. Proper precautions to be taken by first responders</li> <li>6.9. The name and phone number of the person to be contacted for more information</li> </ol> </li> <li>7. Release of a reportable quantity of a listed hazardous material to the environment in any 24-hour period requires immediate reporting to the National Response Center.</li> <li>8. Develop a preventative maintenance plan.</li> <li>9. Identify potential sources of pollution. Detail strategies for dealing with sources.</li> </ol>





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<p>Continued</p> <p>Spill Prevention Countermeasures and Control Plan (SPCC)</p>	<ol style="list-style-type: none"> <li>10. Detail Best Management Practices for Contingency. Within 24 hours of an identified spill, the Environmental Manager or Environmental Coordinator will notify the appropriate state agencies.</li> <li>11. If a petroleum product is spilled or released off containment, the material will be contained with the appropriate absorbent material, such as booms, sheets, or floor dry. A berm may also be constructed with dirt as a temporary containment measure with a bulldozer or backhoe. Impacted soil will be excavated and placed in metal DOT drums or bins. Absorbent materials will be placed in a separate metal DOT drum. All drums will be properly labeled and logged into the mine hazardous waste storage area. The contaminated material will be tested to determine if the material qualifies as a hazardous waste. Test results will dictate disposal methods.</li> <li>12. If antifreeze is spilled or released off containment, the material will be contained with the appropriate absorbent material, such as booms, sheets, or floor dry. A berm may also be constructed with dirt as a temporary containment measure with a bulldozer or backhoe. Impacted soil will be excavated and placed in metal DOT drums or bins. Absorbent materials will be placed in a separate metal DOT drum. All drums will be properly labeled and logged into the mine hazardous waste storage area. The contaminated material will be tested to determine if the material qualifies as a hazardous waste. Test results will dictate disposal methods.</li> <li>13. If solvent is spilled or released off containment, the material will be contained with the appropriate absorbent material, such as booms, sheets, or floor dry. Impacted soil will be excavated and placed in metal DOT drums. Absorbent materials will be placed in a separate metal DOT drum. All drums will be properly labeled and logged into the mine hazardous waste storage area. The contaminated material will be tested to determine if the material qualifies as a hazardous waste. Test results will dictate disposal methods.</li> <li>14. If lime is spilled or released off containment, the material will be immediately cleaned up and placed on the stockpile for the mill feed system. Proper personnel protection will be taken to protect the responder's eyes and skin from contact with the lime.</li> <li>15. Any releases of solutions containing a pollutant, hazardous waste, or contaminant product to the land surface must be reported to the General Manager, Safety Manager, and Environmental Manager as soon as possible after the release and no later than the next working day. All spills are to be cleaned up per Nevada Copper's Spill Prevention Countermeasure and Control Plan.</li> </ol>
<p>Hazardous Materials Permit <b>58249</b></p> <p>Nevada Department of Public Safety. Nevada State Fire Marshal.</p>	<p>Quantify and manage hazardous materials stored on site. Notify fire service workers as to quantities and locations of hazardous materials.</p> <ol style="list-style-type: none"> <li>1. Collect Safety Data Sheet (SDS) for all products stored on property.</li> <li>2. Utilizer SDS to determine all hazardous components in all products stored on property.</li> <li>3. Maintain an updated inventory of all products on site.</li> <li>4. Update online database with complete listing of all hazardous materials from all products on property. Include coordinates of locations of all products.</li> <li>5. Online database will be updated annually with all new product before 1 March.</li> </ol>
<p>Water Rights <b>#77104, #77105, #83090, #83450, #83451, #83452, #83453, #83454, #83455, #83552, #83704T, #83705, #84776T</b></p>	<p>Quantify water used in the project area.</p> <ol style="list-style-type: none"> <li>1. Monitor and quantify water use from all sources site wide.</li> <li>2. Elevations will be measured using a manual waterline steel tape, recorded in a field book and finally entered into an excel spreadsheet for ease of data management and reporting.</li> <li>3. Flowmeters, also known as totalizers are positioned at DW-01, DW-02, WW-01 and the shaft, Nevada Copper, Inc. will record the daily flow rate in gallons per minute and calculate total volume of dewatering site wide. When DW-04 or any additional dewatering wells are drilled, flowmeters will be installed in a similar fashion.</li> </ol>



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Nevada Division of Water Resources	4. Submit quarterly and annual reports detailing static water levels in all selected wells. Detail quantity of water used, in Acre-Feet and Million Gallons for: Total Pumping, Mining and Milling, Infiltration, Irrigation, Storage, Evaporation, Dust Suppression, Miscellaneous. Quantify the maximum flow rate from each diversion in cubic feet per second.
Asset Retirement Obligation  Compliance with Canadian financial reporting and consistent with Sarbanes-Oxley Financial Reporting Requirements	Pursuant to financial reporting and international standards of disclosure, it identifies "the retirement of tangible long-lived assets and the associated asset retirement costs for financial accounting and reporting for obligations (Financial Accounting Standards (FAS) 143). <ol style="list-style-type: none"> <li>1. This report presents the evaluation of closure and reclamation, based on the current status of facilities and of expected reclamation and closure actions and costs to adequately stabilize facilities once mining and associated operations are completed.</li> <li>2. Provided a reclamation plan and cost estimate for all site facilities.</li> <li>3. Quantify costs for decommissioning (conversion to alternative use, removal, or disposal), closure, and reclamation of each component are then determined, using the appropriate action to accomplish this, and verified in local unit costs to calculate an overall closure cost. Unit costs include, but are not limited to, building and facility removal, waste disposal, regrading and recontouring of mine rock storage facilities to safe stable slopes, placement of suitable growth medium, preparation of the reclaimed area for seeding and revegetation, seeding of suitable native plants for revegetation of disturbed areas, and well abandonment and removal where appropriate.</li> <li>4. Report will be updated annually. As-built maps of all facilities will be included.</li> </ol>
Non-Transient Non-Community Public Water System <b>NV-0001133</b>  NDEP Bureau of Safe Drinking Water	Provide safe drinking water for users of a system serving more than 25 individuals. <ol style="list-style-type: none"> <li>1. Provide documentation regarding Nevada Administrative Code (NAC) 445A.66695 subsection 5 - The requirements for fire flow and fire demand.</li> <li>2. Provide capacity calculations, both wells and tank.</li> <li>3. Provide the following well information: Valid Division of Water Resources water right - NAC 445A.66875, Well test and well yield - NAC 445A.6688, Water chemistry results - <a href="http://ndep.nv.gov/bsdw/docs/non-transient.pdf">http://ndep.nv.gov/bsdw/docs/non-transient.pdf</a> - NAC 445A.66885 subsection 1, Disinfection and bacteriological sampling note - NAC 445A.66885 subsection 2, Access port or sounding tube - NAC 445A.6692 subsection 1-2, Smooth-nosed sample tap - NAC 445A.6693, Backup power source – a backup generator or electrical outlet for a backup generator is acceptable: NAC 445A.6705 subsection 2</li> <li>4. Provide the following pump facility information: Hinged opening that will facilitate unobstructed maintenance – NAC 445A.66985 subsection 1, Sufficient space to conduct maintenance – NAC 445A.66985 subsection 4, Pump make/model/capacity – NAC 445A.66995 subsection 1, Spare parts and control equipment - NAC 445A.66985 subsections 4-5, Automatic controls - NAC 445A.6701 subsection 3 and NAC 445A.67045, Alarm - NAC 445A.67015 subsection 1, Smooth-nosed sample tap - NAC 445A.6702 subsection 1, Pressure gauge - NAC 445A.67035 subsection 1. Ensure the well and pump facilities have freeze protection.</li> <li>5. Provide the following storage tank information: Foundation - NAC 445A.6708 subsection 1, Ability to be isolated from the system - NAC 445A.6708 subsection 2, Vent - NAC 445A.6708 subsections 4-5, Silt stop - NAC 445A.6708 subsection 6, Automatic controls - NAC 445A.6708 subsection 7, Freeze protection - NAC 445A.6708 subsection 9, Smooth-nosed sample tap - NAC 445A.6708 subsection 11, Disinfection and bacteriological note - NAC 445A.67085 subsection 3.</li> <li>6. Provide the following distribution system information: Network analysis and system pressures (MDD+fire,PHD, MDD) - NAC 445A.6711-67115, Materials &amp; construction - NAC 445A.67125 subsection 1, NAC 445A.67145 subsection 1, Valve box detail (if</li> </ol>





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<b>Permit &amp; Agency</b>	<b>Regulatory Requirement or Environmental Standard &amp; Requirements</b>
<p>Continued</p> <p>Non-Transient Non-Community Public Water System <b>NV-0001133</b></p> <p>NDEP Bureau of Safe Drinking Water (BSDW)</p> <p>Continued</p>	<p>necessary) - NAC 445A.6713 subsection 4, Air release valve (if necessary) - NAC 445A.67135 subsection 1, Trench detail - NAC 445A.67145 subsection 3, Thrust restraint - NAC 445A.67145 subsection 4, Locator tape - NAC 445A.67145 subsection 5, Disinfection and bacteriological note - NAC 445A.67145 subsection 6, Pressure testing - NAC 445A.67145 subsection 7, Reduced Pressure Assembly installation requirements - NAC 445A.67235.</p> <ol style="list-style-type: none"> <li>7. Please provide Cross-Connection Control, Emergency Response and Operations and Maintenance Manuals.</li> <li>8. Describe the community or non-transient non-community water system that includes: a) Legal description of the proposed area of service including a layout map and township, range and section location; b) State the purpose of the system and a plan to resolve any operational problems concerning the operation of the system; c) Describe the program to be submitted for the control of cross-connections as required in NAC 445A.67185; d) Describe a plan for restoration of services in an emergency as required in NAC 445A.66665; e) Describe the operation and maintenance plan (to be submitted) that the water system will use in accordance with NAC 445A.66667; f) Describe the type of water treatment used (if applicable); g) Describe any unique characteristics of the service area or water system;</li> <li>9. An analysis of the managerial capability of the system, including: a) The name, address and phone number of each owner, manager or operator of the system; b) The name, address and phone of a person to notify in the case of an emergency; c) The type of operator certificates held by each operator; d) The organization, by-laws and policies of the system; e) The manner in which the system will bill customers and/or correspond with customers; f) An evaluation of each position employed to manage, operate, or maintain the system, including: job responsibilities, monitoring of state and federal regulations and determining if they apply to management, operation or maintenance of the system; determination of the cost to comply with regulations</li> <li>10. Information concerning planning for the system; a) Estimated population served by the system; b) Number of service connections served by the system; c) Estimated amount of water required for the system; d) A description of the customers served by the system; e) An estimate of the proposed use of the property for 20 years in 5 year increments;</li> <li>11. An analysis of the technical capability of the system; a) The standards for the design, construction, operation and maintenance of the system; b) Analysis of water quality for samples of water from sources supplying the system; c) A description of the inventory of system components;</li> <li>12. An analysis of the water resources of the system; a) A plan for water conservation or water meter effectiveness; b) The estimated amount of water required for the five year period after startup; c) Demonstration of the ownership of water rights/appropriation from the State Engineer sufficient to serve the five year period after startup; d) An analysis of the effect(s) of user discontinuation of service (if any); e) A plan for responding to any water shortages during the five years after startup;</li> <li>13. A description/analysis of other sources of water available to the system, including; a) A description of each source; b) Identification of the nearest community or non-transient non-community water system to the system; c) A plan to obtain support for the operation and maintenance of the system from any other system; d) Any connection that is available to the system from any other system; e) Reasons for specifying the use of any other source of water for the system;</li> <li>14. A program of capital improvements for the system including a schedule for implementation; a) Identification of any project(s) necessary for the system to begin or maintain the operation of the systems and reasons for the project(s); b) A schedule that ranks the projects(s) in order of priority; c) A list of costs incurred by the system for each of the project(s); d) Each source of money or financing required for each of the project(s);</li> </ol>



***Pumpkin Hollow Project***  
***Summary of Permits & Regulatory Requirements***  
***Community, Health, Environmental, Safety & Sustainability (CHESS™)***

<b>Permit &amp; Agency</b>	<b>Regulatory Requirement or Environmental Standard &amp; Requirements</b>
<p>Non-Transient Non-Community Public Water System <b>NV-0001133</b></p> <p>NDEP Bureau of Safe Drinking Water (BSDW)</p>	<ol style="list-style-type: none"> <li>15. Demonstration of the financial capability of the system, including; a) An operating budget for five years after startup of operation that includes the ability of the system to spend money for emergency improvements, capital improvements and normal operation and maintenance of the system; b) An evaluation of the rate structure and connection fees of the system; c) An evaluation of the total cost of providing service to the customers of the system; d) An evaluation of the manner in which the total cost set forth in paragraph c) will be recovered by the system; e) An evaluation of the stability of the cash flow of the system;</li> <li>16. Information concerning any legal matters relating to the system, including; a) A plan to operate the system if the system is declared bankrupt or is placed into receivership; b) The ownership of any real property of the system and any buildings located on that property; c) Any right-of-way, easement or restrictive covenant obtained by the system or which applies to the system; d) Any contract to which the system is a party or which applies to the system;</li> <li>17. A statement that specifies any federal, state or local governmental entity that may adopt regulations concerning the operation of the system or enforce any law or regulation that applies to the system;</li> <li>18. Any other pertinent information that the Division may request will be provided.</li> <li>19. The full extent of the application will be prepared under the supervision of a State of Nevada Registered Engineer. All drawings will be stamped by the engineer in responsible charge of the work.</li> <li>20. All water sources will be sampled for bacteriological and chemical parameters quarterly, semi-annually, annually, tri-annually, and pentannually. Results will be reported to the BSDW quarterly at a minimum.</li> </ol>
<p>Industrial Artificial Pond Permit</p> <p>Nevada Department of Wildlife</p>	<p>Register all Process Fluid impoundments. Provide mechanism for reporting of wildlife mortality.</p> <ol style="list-style-type: none"> <li>1. All wildlife mortalities will be reported quarterly to the Nevada Department of Wildlife including mammals, raptors, songbirds, waterfowl, shorebirds, upland game. Locations of the mortalities will be recorded, as will cause of mortality.</li> <li>2. Prepare an application detailing facility locations, responsible parties, land status, project type, term of project, number of process ponds, potential solutions that could be contacted by animals, and solution application methods.</li> </ol>



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July 7, 2016

SENT VIA EMAIL

Lanelle Wiggins  
RFA/SBREFEA Team Leader  
U.S. EPA Office of Policy  
1200 Pennsylvania Ave., N.W.

Linda Barr  
Economist, U.S. Environmental Protection Agency  
1200 Pennsylvania Ave, N.W.  
Washington, DC 20160

**Re: CERCLA 108(b) Financial Responsibility SBREFEA Pre-Panel Outreach**

Dear Ms. Wiggins and Ms. Barr:

Energy Fuels Resources (USA) Inc., (Energy Fuels), is a leading, US-based, integrated producer of uranium – the fuel for carbon-free, emission-free nuclear energy. We utilize both conventional and in-situ recovery (“ISR”) technology and produce uranium from two strategic facilities – the White Mesa Mill in Utah (conventional) and the Nichols Ranch Plant in Wyoming (ISR). We have operations and projects located in Arizona, Colorado, New Mexico, Texas, Utah, and Wyoming. As a member of the Small Business Advocacy Review Panel for the proposed CERCLA 108(b) rulemaking, Energy Fuels respectfully submits the following comments under the pre-panel phase of the SBREFEA process.

As a small business, Energy Fuels, the proposed CERCLA 108(b) requirements will have significant economic impacts on all of its projects and operations. As described earlier, Energy Fuels, conducts business in several State and Federal jurisdictions that maintain well established and experienced regulatory programs that regulate mining. In all of these jurisdictions, there are well defined requirements for financial assurance for reclamation, decommissioning, stability monitoring, and environmental protection. Because of such requirements, the proposed rules will unnecessarily duplicate currently effective State and Federal programs and will significantly increase the costs of operations without demonstrated benefits to human health and environmental quality. At a time when the uranium industry in the United States is under pressure from historically low commodity prices and competition from sovereign owned companies that do business in other countries and do not require the same level of protection to human health and the environment as the United States, this proposed rulemaking can have a significant negative impact on the domestic uranium industry that is comprised mostly of small businesses.

**Specific Comments**

EPA should provide additional information and analysis to the SBAR Panel.

- **EPA has not established the need for further federal rulemaking for financial assurance.** The States and Federal Land Managers have, for multiple decades, successfully managed the financial assurance programs for hard rock mines, and the EPA has failed to provide adequate rationale for additional financial assurance. The States and Federal Land Managers make regular, typically



annually, reviews of updated cost estimates for reclamation and decommissioning that include new and near term impacts from mining activities along with reviewing the actual financial assurance mechanisms along the same frequency.

- **EPA has not provided the final versions of the necessary background reports and analysis.** From the presentations and meetings to date, it appears that much of EPA's basis for the development of the rulemaking is based upon a contractor's report regarding the financial assurance programs of 20 States and three Federal Land Managers. This analysis is incomplete, because in some of the descriptions provided by EPA, in-situ uranium recovery is discussed in the context of hard rock mining, and there is no discussion of the financial assurance requirements of the U.S. Nuclear Regulatory Commission or its Agreement States. Nor is there any discussion of financial assurance requirements for underground injection control programs regulated under the Safe Drinking Water Act by EPA or the States that have primacy. Because there are significant in situ uranium recovery operations that occur on locatable minerals, those financial assurance programs must be included in the analysis. We believe that because of the lack of complete information supporting the basis, that EPA has not fulfilled its obligations under the Regulatory Flexibility Act and the Small Business Regulatory Enforcement Fairness Act and is hamstringing the SBAR panel in its duties and responsibilities.
- **EPA must provide more information on BMP's and Engineering Controls.** In its presentations, EPA publicly states that the presence of Best Management Practices and engineering controls, as they relate to the control of hazardous substances at mine sites, will be important determining factors in financial assurance calculations. In order for the SBAR Panel to evaluate the proposed regulations and impacts to small business, the relevant information and policies must be provided so that a better understanding of the practices and control can be developed and how they will be factored into the financial assurance determination.
- **EPA must provide more information on the duration and release of financial assurance.** A key component for any financial assurance mechanism is the term of the financial instrument(s) that must be maintained and the ultimate criteria for release. In order to determine the impact on small business, EPA must provide the SBAR Panel their proposed policies and requirements related to bond duration and release. It is not reasonable that perpetual financial assurance is always necessary or even available. Under the conditions of the surety industry, obtaining any form of surety instrument, including trusts, is limited and nearly impossible to obtain for a small business.

EPA should conduct additional studies and gather additional information before proceeding with the proposed rulemaking.

- **A cost benefit analysis is needed.** The costs of the proposed CERCLA 108(b) rulemaking, including costs to small and large businesses and to State and local governments, appear to vastly outweigh any potential public health and environmental benefits. We call on EPA to conduct a full and thorough cost benefit analysis of the proposed regulatory action. The analysis must quantify any public health and environmental improvements versus the economic impacts to business and



potential loss of jobs in the U.S. That analysis should be completed and provided to the SBAR Panel in order for it to fulfill its statutory obligations.

- **EPA has not provided a gap analysis between the proposed rulemaking and existing regulatory programs.** The State and Federal regulatory programs that already oversee hard rock mining have decades of experience in evaluating mining operations, determining levels of financial assurance, compelling reclamation and decommissioning, and ensuring that releases of hazardous substances do not occur. EPA is proposing an additive regulatory scheme in the absence of clearly articulated need as to why these existing programs are deficient or the need for additional financial assurance. Energy Fuels recommends that EPA complete a comprehensive gap analysis to identify specific areas where the existing financial assurance requirements fall short or are not protective of human health and the environment. Again, the results of this analysis must be made available to the SBAR panel in order for it to fulfill its statutory obligations.
- **EPA should explain how it expects to calculate natural resources damages and any financial assurance is required.** The prospective calculation of Natural Resources Damage (NRD) is highly subjective and can be subject to highly unrealistic assumptions and economic manipulation. Energy Fuels requests that EPA provide the basis of NRD calculations under the CERCLA 108(b) process so that impacts to small business can be fully evaluated and why such financial assurance is considered necessary.
- **The SBAR Panel should meet in the west, and include a tour of an operating mine(s).** Hard rock mining is principally located in the western States, and as a result, the SBAR panel is heavily populated by small businesses with their principle operations located in the west. From the presentations, one can conclude that the EPA rulemaking team lacks familiarity with mine facilities and mining sites along with current State and Federal regulatory and financial assurance programs that are implemented in the western States. Having the meeting out west along with tours of mining operations would provide EPA with additional context as it continues with this process.

The proposed rulemaking is duplicative of currently effective State and Federal programs.

- **Existing programs are effective.** On June 17, 2016, EPA and SBAR Panel members heard presentations from several States and Federal Land Managers concerning existing financial assurance programs and regulations. From the information provided, it is apparent that existing financial assurance programs are robust and address public health, ecological risks, and hazard release and response requirements under CERCLA. It is clear from the record that the current programs are effective.
- **Existing State and federal programs address the release of hazardous substances.** Through State specific mining statutes and federally delegated programs, (e.g. Clean Water Act, Resource Conservation and Recovery Act, Clean Air Act, Safe Drinking Water Act, Uranium Mill Tailings and Recovery Act), the States and Federal regulatory agencies already have adequate authority to comprehensively address the prevention and release of hazardous substances. The history of



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modern mining regulation bears out the effectiveness of these programs. CERCLA 108(b) bonding is an unnecessary and duplicative federal regulatory program.

- **Existing State and Federal programs are flexible and can increase financial assurance requirements as needed.** Existing State and Federal financial assurance programs already require periodic reviews and revisions to financial assurance obligations.

We suggest that EPA consider working within the existing regulatory frameworks that are currently maintained by the States and other Federal agencies. To date, EPA has failed to demonstrate that there is a serious gap or urgent need for the proposed rulemaking nor factored in the existing programs. As a result, the proposed rulemaking creates a duplicative and overly expensive program that will not provide any benefit to human health or the environment, and it will place a punitive burden on small business.

Energy Fuels has extensive experience with financial assurance requirements in several jurisdictions, and based on that experience, it is our opinion EPA has failed to provide a compelling case for this potential rulemaking. We urge EPA to recognize the effectiveness of existing programs, utilize the existing expertise and experience of the States, Federal Land Managers, and Federal regulatory agencies, and consider alternatives to a prescriptive regulation. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'William Paul Goranson'.

William Paul Goranson, P.E.  
Executive Vice President ISR Operations,  
Energy Fuels Resources (USA) Inc.





July 7, 2016

Lanelle Wiggins  
RFA/SBREFA Team Leader  
USEPA Office of Policy (1803A)  
1200 Pennsylvania Avenue NW  
Washington, DC 20460

Linda Barr  
Economist  
USEPA  
1200 Pennsylvania Avenue NW  
Washington, DC 20460

Re: Small Business Advocacy Review for CERCLA 108(b) Rulemaking

Dear Ms. Wiggins and Ms. Barr:

Thank you for the opportunity to provide comments on the proposed CERCLA 108(b) Financial Responsibility for Hardrock Mining Industry rule. I hereby submit these comments in my role as a Small Entity Representative (SER) participating in the Small Business Advocacy Review (SBAR) pre-panel for the proposed rule.

The Pebble Limited Partnership (PLP) is advancing the development of the Pebble Project, a globally significant copper-gold-molybdenum deposit containing one of the largest stores of mineral wealth ever discovered. The deposit is located on land specifically selected by the State of Alaska for its mineral potential in the Cook Inlet Land Exchange of 1974. Development of the project would bring significant economic benefit to an economically depressed and underserved area of southwest Alaska through thousands of jobs and millions of dollars in taxes and royalties.

In summary, the proposed rule:

- Is unnecessary and addresses a regulatory need that EPA has failed to identify. The extensive public record supporting the existing framework requires EPA to provide an explicit justification for any new regulation.
- Duplicates existing federal or state financial assurance programs, which are more robust and better suited to the site-specific requirements of modern mining operations.
- Implements a generic, nationwide model that directly contravenes more than three decades of experience and expertise developed by industry in partnership with state and federal agency managers.
- Will have considerable financial impact on small businesses while simultaneously achieving little or no discernible benefit.
- Lacks any consideration of less-burdensome alternatives.

Furthermore, EPA has hindered SER review under the SBREFA process by failing to provide adequate information in a timely manner. SERs cannot be expected to provide a meaningful review without full and unfettered access to the necessary information.

## I. BASIS AND NEED FOR PROPOSED RULE IS UNFOUNDED

EPA's stated intent with the proposed rule is to "assure the availability of funds for hazardous substance response should a mining or mineral processing company declare bankruptcy or be otherwise unable to conduct necessary response activities."<sup>1</sup> Compliance would be demonstrated through a new, separate financial assurance bond (or other instrument) managed by EPA under CERCLA.

To date, however, EPA has provided no evidence that the proposed action would address a clear, specific need that is not sufficiently covered by other programs. Likewise, information shared by Federal Land Management Agency (FLMA) and state agency representatives indicates that there are no significant unaddressed issues that would be captured by the proposed rule. The industry record for modern mining operations (post 1990) demonstrates the collective effectiveness of state and federal regulations in providing the necessary financial assurance to address potential hazardous material releases.

SERs (and EPA) would be well served if we were able to consider the proposed rule within the context of real-world examples of modern mining facilities with unfunded hazardous material liabilities. If those cases exist, EPA should demonstrate why the proposed rule is the preferred, most cost-effective method for achieving financial assurance rather than another alternative. At a minimum, EPA must demonstrate why the proposed rule is *not* duplicative of existing programs.

PLP requests that a comprehensive gap analysis be performed to identify deficiencies in existing programs and further justify the need for any new regulation.

## II. PROPOSED RULE IGNORES EXISTING PROGRAM IMPLEMENTATION

EPA provided a draft *Summary of Alaska State Financial Responsibility Requirements Applicable to Classes of Potential CERCLA 108(b) Hardrock Facilities (June 2012)* for review. While this summary was provided late in the process and is outdated, an initial review clearly shows that it fails to provide any accounting of how the state's financial assurance requirements are implemented at existing Alaska facilities. Instead, the reader is left with inferences that the state program is deficient despite evidence to the contrary. In addition, the summary document implies that removal and/or remediation of hazardous materials is not included in the financial assurance estimate since the program focus is "closure and reclamation". These conclusions are incorrect.

Financial assurance for hardrock mines in Alaska is a rigorous process that receives input from multiple state resource agencies as well as independent experts in fields ranging from finance and cost estimation to geology and engineering. Successful completion of the process is a prerequisite to receiving both the Reclamation Plan Approval (RPA) and Waste Management Permit (WMP), both of which are required prior to mine construction.

RPA and WMP renewal are contingent upon a satisfactory environmental audit conducted by an independent 3<sup>rd</sup> party expert. This audit, performed at least once every 5 years, is a comprehensive review of a facility's environmental compliance record and any operational changes that may affect future closure and reclamation planning. A key aspect of the audit is a rigorous, comprehensive inventory of all potential pollutant sources, including tailings, waste rock, *and hazardous materials*. In addition, existing treatment systems and planned closure activities are assessed for adequacy. These are only two components of many that serve as the basis for a revised financial assurance calculation.

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<sup>1</sup> <https://www.epa.gov/superfund/superfund-financial-responsibility>



The lack of comprehensive review in the summary document further clarifies the need for EPA to document how current financial assurance programs are being successfully implemented across the country. A desktop review without a complementary ground truthing exercise is of very limited value and cannot be used to justify the need for the proposed rule.

PLP will provide additional comments on the summary document as time permits.

### III. RULE DEVELOPMENT TRANSPARENCY AND INFORMATION AVAILABILITY

As a whole, the process EPA has employed to develop the proposed rule is opaque, with little explanation of the inputs or rationale behind key components like the financial model. Information critical to the SBAR review process has not been provided in a timely manner, if at all. SERs will not be able to fulfill their obligations to the panel unless this information is made available.

Without access to underlying data and assumptions, SERs have no way of understanding how or if site-specific factors can be considered. For example,

- Does the model allow for regional climate or meteorological considerations such as permafrost?
- How does the model account for parallel or sequential reclamation?
- Is the model flexible enough to account for techniques/methods that are unique to a given facility?
- How does the model scale along with a progressive mining operation?
- How are best practices defined and deemed “best” for a specific mine?

At a minimum, EPA must provide:

- All data supporting the financial responsibility model, including spreadsheets, inputs, formulae and assumptions.
- Site features and inputs from the 64 facilities used to develop cost data, including the basis for choosing these facilities and their suitability as analogs to modern mining facilities subject to the proposed rule.
- Basis and assumptions for statistically derived factors and engineering controls used in the model.
- Complete list of BMPs available to the model and their role in determining credit reductions.

SERs, industry representatives, as well as FLMA/state agency staff have a wealth of expertise that would be invaluable to the process. It is not clear to what level EPA has engaged these resources to develop the proposed rule. Any financial assurance calculation with a potential compliance cost of 10s or 100s of millions should be rigorous, not rushed. Any model proposed by EPA must, at a minimum, demonstrate a level of refinement, scrutiny and peer-review equivalent to financial assurance tools currently in use.

### IV. DUPLICATIVE AND UNNECESSARY COST IMPLICATIONS FOR SMALL FACILITIES

Information reviewed to date strongly suggests the proposed rule would impart duplicative burdens on small facilities, requiring unnecessary expenditures to comply with a regulation that has little to no practical benefit. It is not clear whether EPA has considered the full range of these costs during its

evaluation of regulatory alternatives. Underlying each of these concerns is the understanding that for each regulatory effort—EIS, permit application, financial assurance, etc.—subject matter experts and legal counsel must be retained by the company at significant cost.

For example, the proposed rule is structured in a manner that effectively requires a company to demonstrate functionally equivalent financial assurance not once, but twice, and do so using completely different methods and models. Under this framework PLP would be required to develop and submit a financial assurance calculation to EPA (separate from State of Alaska requirements) and then apply for best practices “credits” that would hypothetically reduce the financial assurance amount. If, as discussed elsewhere, the proposed rule is entirely duplicative of other state/federal programs, credits could effectively reduce that amount to zero, thus requiring PLP to incur an unknown cost for no discernible benefit.

Furthermore, EPA has provided no guidance on how the credit process would be implemented. Is EPA the sole arbiter of whether to grant credits? Is there a process for appealing credit denial? Is the public invited to comment? The Pebble Project, perhaps more than any other mining project in the US, is subject to intense public scrutiny at every stage of the process. Almost any action taken by PLP to further the project in a meaningful way is contested, if not litigated, by public stakeholders, often at significant cost. It is entirely reasonable to envision the same or greater scrutiny being applied when PLP seeks to obtain credits under the proposed rule.

The proposed rule also minimizes or ignores the potential financial impact to exploration projects such as Pebble, despite exempting this category from compliance. Exploration is but one phase in the development of a larger mine. Financial evaluations undertaken at this stage are forward-looking analyses, taking into account all potential future costs in order to determine the project’s financial viability. By adding an unnecessary and duplicative cost element, particularly one with an unclear, “black box” methodology and compliance costs ranging from 10s to 100s of millions of dollars over the project’s lifetime, the proposed rule may significantly hinder a company’s ability to attract the financial backing necessary to advance the project.

At a minimum, EPA should conduct a thorough cost-benefit analysis to quantify the likely financial impacts of the proposed rule, including a full accounting of direct and indirect compliance costs.

## V. COMPLEXITY OF HARDROCK MINING FACILITIES REQUIRES SITE-SPECIFIC METHODOLOGY

Modern mining methods and the unique nature of individual mine sites across the United States are incompatible with the generic, “one-size-fits-all” financial assurance model in the proposed rule. EPA’s proposal to institute this model on a nationwide scale ignores more than three decades of industry, state agency and FLMA experience that has conclusively demonstrated the need for *greater* specificity when developing financial assurance, not less. Site-specific methods are proven to be more accurate and reflective of actual conditions. This, in turn, establishes the higher level of certainty necessary to allay concerns from government agencies, investors, underwriters, and the public.

Critical to the success of any site-specific method is the cooperation between multiple agency personnel, industry representatives, and independent experts; financial assurance calculations are not simply a data entry exercise. EPA has not demonstrated the capacity to provide comparable expertise necessary to implement the proposed rule on a national scale, nor has it identified why such expertise would not be required with the generic model.

## VI. LACK OF ALTERNATIVE IMPLEMENTATION STRATEGIES

The proposed action would constitute a substantial—and costly—change by requiring a new, separate financial assurance mechanism on top of existing state and federal requirements. Carefully crafted procedures and tools used to develop site-specific financial assurance—some of which reflect a decades-long interaction between agency and industry experts—would need to accommodate an untested, unvetted model that lacks the same specificity and rigor. These programs can be considered at least functional equivalents to the proposed approach; in many cases their requirements are more rigorous and provide a more defensible financial assurance calculation.

Given that the existing financial assurance framework is well-developed and the potential for costly disruptions with a new model is high, EPA must provide a more detailed justification for selecting the proposed rule as the preferred alternative (if, indeed, other alternatives have been considered). Surely more incremental—and less burdensome—options are available that could accomplish the same goal of assuring “the availability of funds.” Has EPA considered other, less intrusive alternatives (e.g., memoranda of understanding/agreement with other agencies) that would accomplish the same objective?

Considering that CERCLA functions as a response program (rather than a permitting program), the proposed rule would be more effective if formulated as a backstop to other state/federal financial assurance requirements, i.e., addressing programmatic gaps, instead of hindering implementation of existing programs by instituting an unnecessary layer to the process. The most effective and straightforward approach is also the one that would impose the least burden on the regulated community: provide an exemption for projects covered by existing financial assurance mechanisms.

PLP urges EPA to continue refining the proposed rule by recognizing the effective programs already in place and weighing the purported benefits against the impact to small businesses. I look forward to continued participation in the SBAR process over the coming months. Thank you for considering these comments.

Sincerely,

Tim Havey  
Environmental Manager  
Pebble Limited Partnership



## CARLIN RESOURCES

July 7, 2016

### **Submitted via e-mail**

Lanelle Wiggins  
RFA/SBREFA Team Leader  
USEPA Office of Policy (1803A)  
1200 Pennsylvania Avenue NW  
Washington, DC 20460

Linda Barr  
Economist USEPA  
1200 Pennsylvania Avenue NW Washington, DC 20460

### **Subject: Small Business Advocacy Review for CERCLA 108(b) Rulemaking**

Dear Ms. Wiggins and Ms. Barr:

Carlin Resources, LLC (Carlin Resources) appreciates the opportunity to provide comments on the proposed CERCLA 108(b) Financial Responsibility for Hardrock Mining Industry rule. I am a Small Entity Representative (SER) participating in the Small Business Advocacy Review (SBAR) pre-panel for the proposed rule.

Carlin Resources currently owns and operates the Hollister Underground Mine and Esmeralda Mine in Nevada. Significant resources have been expended at these properties in permitting, capital investment, and operating costs and they bring a much-needed economic benefit to the local communities and the State of Nevada. Both projects have significant expansion potential.

The proposed rule clearly duplicates existing federal and state financial assurance programs which have been developed through direct involvement with and understanding of how mining operations function and what financial assurance is necessary. It is unclear as to the justification for a duplicate program that would introduce a severe and completely unnecessary financial burden on our small business. Mining is very cost-intensive and small businesses bear the burden of extreme sensitivity to cost increases such as that which this rule would introduce.

Carlin Resources feels that that the EPA has not provided the information needed to adequately perform our SER review through this process. The EPA should provide additional information and analysis to the SBAR Panel as described below.

***The cost to both small and large businesses must be reviewed in terms of benefit gained.***

The costs of the proposed CERCLA 108(b) rulemaking, including costs to small and large businesses and to State and local governments, appear to vastly outweigh any potential public health and environmental benefits. The EPA must conduct a thorough cost benefit analysis of the proposed regulatory action. The analysis must quantify any public health and environmental improvements versus the economic impacts to business and potential loss of jobs in the U.S. That analysis should be completed and provided to the SBAR Panel in order for it to fulfill its statutory obligations.

***The EPA has not established the need for further federal rulemaking for financial assurance.***

Please provide adequate rationale as to the need for additional financial assurance programs given that the State and Federal land management programs for hardrock mining are quite robust and time-tested. These land managers have also accessed funds for the purpose of performing reclamation and closure activities and have the direct expertise necessary to properly manage these programs.

**EPA has not provided a gap analysis between the proposed rulemaking and existing regulatory programs.** The State and Federal regulatory programs that already oversee hard rock mining have decades of experience in evaluating mining operations, determining levels of financial assurance, compelling reclamation and decommissioning, and ensuring that releases of hazardous substances do not occur. The EPA is proposing an additive regulatory scheme in the absence of clearly articulated need as to why these existing programs are deficient or the need for additional financial assurance. Carlin Resources recommends that the EPA complete a comprehensive gap analysis to identify specific areas where the existing financial assurance requirements fall short or are not protective of human health and the environment. Again, the results of this analysis must be made available to the SBAR panel in order for it to fulfill its statutory obligations.

**EPA should explain how it expects to calculate natural resources damages and any financial assurance is required.** The prospective calculation of Natural Resources Damage (NRD) is highly subjective and can be subject to highly unrealistic assumptions and economic manipulation. Carlin Resources requests that EPA provide the basis of NRD calculations under the CERCLA 108(b) process so that impacts to small business can be fully evaluated and why such financial assurance is considered necessary.

**The SBAR Panel should meet in the west, and include a tour of an operating mine(s).** Hard rock mining is principally located in the western States, and as a result, the SBAR panel is heavily populated by small businesses with their principle operations located in the west. From the presentations, one can conclude that the EPA rulemaking team lacks familiarity with mine facilities and mining sites along with current State and Federal regulatory and financial assurance programs that are implemented in the western States. Having the meeting in the west along with tours of mining operations would provide the EPA with additional context as it continues with this process.

***The EPA has not provided the final versions of the necessary background reports and analysis.***

From the presentations and meetings to date, it appears that much of the EPA's basis for the development of the rulemaking is based upon a contractor's report regarding the financial assurance programs of 20 States and three Federal Land Managers. This analysis is incomplete, because in some of the descriptions provided by the EPA, in-situ uranium recovery is discussed in the context of hard rock mining, and there is no discussion of the financial assurance requirements

of the U.S. Nuclear Regulatory Commission or its Agreement States. Nor is there any discussion of financial assurance requirements for underground injection control programs regulated under the Safe Drinking Water Act by EPA or the States that have primacy. Because there are significant in situ uranium recovery operations that occur on locatable minerals, those financial assurance programs must be included in the analysis. We believe that because of the lack of complete information supporting the basis, that EPA has not fulfilled its obligations under the Regulatory Flexibility Act and the Small Business Regulatory Enforcement Fairness Act and is hamstringing the SBAR panel in its duties and responsibilities.

***EPA must provide more information on BMP's and Engineering Controls.*** In its presentations, the EPA publicly states that the presence of Best Management Practices and engineering controls, as they relate to the control of hazardous substances at mine sites, will be important determining factors in financial assurance calculations. In order for the SBAR Panel to evaluate the proposed regulations and impacts to small business, the relevant information and policies must be provided so that a better understanding of the practices and control can be developed and how they will be factored into the financial assurance determination.

***EPA must provide more information on the duration and release of financial assurance.*** A key component for any financial assurance mechanism is the term of the financial instrument(s) that must be maintained and the ultimate criteria for release. In order to determine the impact on small business, EPA must provide the SBAR Panel their proposed policies and requirements related to bond duration and release. It is not reasonable that perpetual financial assurance is always necessary or even available. Under the conditions of the surety industry, obtaining any form of surety instrument, including trusts, is limited and nearly impossible to obtain for a small business.

On June 17, 2016, EPA and SBAR Panel members heard presentations from several States and Federal Land Managers concerning existing financial assurance programs and regulations. From the information provided, it is apparent that existing financial assurance programs are robust and address public health, ecological risks, and hazard release and response requirements under CERCLA. It is clear from the record that the current programs are effective.

Through State-specific mining statutes and federally delegated programs, (e.g. Clean Water Act, Resource Conservation and Recovery Act, Clean Air Act, Safe Drinking Water Act, Uranium Mill Tailings and Recovery Act), the States and Federal regulatory agencies already have adequate authority to comprehensively address the prevention and release of hazardous substances. Existing State and Federal financial assurance programs already require periodic reviews and revisions to financial assurance obligations.



5. Debbie Lassiter (Carlin Resources)

CERCLA SBAR Comments

July 7, 2016

Carlin Resources recommends that the EPA consider working within the existing regulatory frameworks that are currently maintained by the States and other Federal agencies. It is clear that the current programs are effective and adequate to protect human health and the environment, thus showing no gap or need for the proposed rulemaking and the associated burden that would be placed on small business.

Best Regards,



Deborah Lassiter  
Executive Director, Environmental Affairs  
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July 1, 2016

Lanelle Bembenek Wiggins  
RFA/SBREFA Team Leader  
U.S. EPA – Office of Policy (1803A)  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

Dear Ms. Bembenek Wiggins:

Thank you for the opportunity to serve as a Small Entity Representative (SER) to the Small Business Advocacy Review (SBAR) Panel for the EPA rulemaking on CERCLA 108(b) Financial Responsibility for the Hardrock Mining Industry (EPA Rule). I am writing in response to the EPA's request during the June 9, 2016 introductory SBAR meeting/conference call that SERs provide written comments on the Small Business Regulatory Enforcement Fairness Act (SBREFA) slides that the EPA provided, and on the CERCLA 108(b) rule in general.

As you may know, PolyMet is well into the process of permitting its NorthMet copper-nickel-precious metals mine in northeastern Minnesota. The U.S. Army Corps of Engineers, U.S. Forest Service and Minnesota Department of Natural Resources (DNR) issued their Final Environmental Impact Statement (FEIS) for the project in November of 2015, and the DNR issued its Determination of Adequacy for the FEIS in March of 2016. Thus, we are working with our state regulators, including the DNR, who are in charge of evaluating our mine permit application when it is submitted (including our reclamation plan and related financial assurance).

This letter is intended to provide you with our perspective on the following concerns. First, we believe that the extensive financial assurance requirements imposed by the State of Minnesota already effectively address the risks that the EPA Rule seeks to address; that Minnesota's requirements are illustrative of the financial assurance obligations that many states impose; and that the EPA needs to review how specific state requirements like those in Minnesota relate to, and are fairly accounted for by the EPA's Rule. Second, while PolyMet wants to fulfill its role as a SER to the SBAR Panel, it cannot provide meaningful input until the EPA discloses basic information on its financial assurance model and the underlying data and assumptions on which it is built. The task at hand is very complex, and we all need to work together in providing the needed expertise, varying perspectives, and peer review needed to produce a rule that accomplishes the EPA's goal fairly and effectively. Third, whatever tool the EPA develops to calculate and impose financial assurance must account for the unique

Ms. Bembenek Wiggins

circumstances that exist at every mine site, not only to ensure fairness but to provide incentives for mine owners/operators to employ the most sound and environmentally responsible design, operations, and closure appropriate for their site conditions.

### **EPA Needs to Review Specific State Financial Assurance Requirements**

Clearly, state financial assurance laws and rules have evolved in recent years to address risks of response costs, natural resource damages, and health assessments associated with modern hardrock mining. It appears there is little need for a new rule or that the rule's scope should be narrowly defined to cover only gaps in state financial assurance requirements.

In fact, PolyMet strongly believes that the comprehensive and strict requirements under Minnesota law governing financial assurance for reclamation, closure, and post-closure (so as to fully protect against the risk of releases to the environment that lead to response costs, natural resources damages, and health assessments) eliminate the need for any additional CERCLA 108(b) financial assurance requirement for projects in Minnesota. *See* Chapter 6132 of the Minnesota Administrative Rules for Department of Natural Resources Regulations on Nonferrous Metallic Mineral Mining. Minnesota regulations provide comprehensive protection against releases and any need for corrective action from the start of mining operations through post-closure, including the following:

- Mine operators must submit as part of their mine permit application a contingency reclamation plan, estimate of costs necessary to implement it (including costs of closure and post-closure) if operations cease within the first calendar year, and sufficient financial assurance to cover those costs if the Minnesota Department of Natural Resources (DNR) must hire a third-party contractor to implement the contingency reclamation plan. MINN. R. 6132.1200, subp.2.
- This contingency reclamation plan, related cost estimate, and bankruptcy proof financial assurance then must be updated annually to reflect (1) changes to the mine that will occur in the upcoming year and (2) current dollar value of third-party contractor implementation of the contingency reclamation plan. *Id.*
- If the DNR determines that corrective action is necessary, cost estimates (based on third-party contractor implementation) and related financial assurance are required, and such corrective action plans, related cost estimates, and financial assurance must be updated annually. MINN. R. 6132.1200, subp.3.
- Financial assurance for contingency reclamation and/or corrective action cannot be released until the need for any post-closure maintenance ceases. MINN. R. 6132.3200,

We believe that the EPA needs to carefully study already applicable state and federal financial assurance requirements as part of its rulemaking effort and fairly account for obligations like those imposed in Minnesota in whatever rule (and supporting model) the EPA develops.



Ms. Bembenek Wiggins

### **An Open and Transparent Rulemaking Process is Essential**

Minnesota's requirement to annually review contingency reclamation plans and related financial assurance is necessary because the timing and approach of every mine plan is unique, requiring project-specific adjustments on a frequent basis. Just as each mine plan is unique, so is the engineering and design for the various mine facilities, which are often chosen in light of the unique resource context (geology, hydrology, weather conditions, proximity to risk receptors, etc.) in which the mine will be constructed, operated, and eventually reclaimed and closed.

Thus, PolyMet believes that the task of developing a financial assurance model that accounts fairly and accurately for risks associated with the spectrum of engineering/design features that could be used on the varied menu of facilities operating at mine sites situated across the nation is an ambitious task. To date, the mining industry (which has much expertise to lend to this task) knows virtually nothing about the model that will serve as the centerpiece to implementing the EPA's proposed rule or how it was constructed. Given the short timeline and the task at hand, we need to understand (1) the formulas used in the model to determine the amount of financial assurance required for the categories of facility characteristics and site conditions identified by the EPA; (2) the assumptions that went into building those formulas; (3) the complete body of historical data from which those assumptions were built; and (4) How the EPA will account for, or reconcile already existing state, BLM, and USFS financial assurance with EPA's financial assurance model results.

Given the complexity of what the EPA is trying to accomplish and the unrealistic timeline for doing so, PolyMet believes not only that full disclosure of the model to stakeholders is imperative, but also that full peer review is necessary. As you know, the peer review involved in the NEPA process for a single mine project can take years to define the scope, vet alternatives, come to agreement on a preliminary statement of project impacts, and account for all material concerns in the final environmental impact statement, record of decision, and permit. Yet, the EPA's model is not dealing with a single, defined project, but rather attempts to gauge the risks associated with every permutation of mine design, operating condition, and project setting. The difficulty of that task demands formal and transparent peer review by experts representing all stakeholders, rather than sole review and comment so that the EPA's proposed rate can be fine-tuned before finalizing. To date, the mining industry has not been told who the third-party experts are supporting the EPA to determine whether any are a fair proxy for the perspective of the mining industry, or specifics on how the EPA intends to engage industry experts to improve the model.

In short, while PolyMet appreciates the opportunity to work with the EPA on this rulemaking via this SBAR Panel, we are concerned about our ability to provide meaningful input while operating without the necessary baseline information. We sincerely hope that the EPA will rectify this situation well in advance of issuing its proposed rule by disclosing its financial assurance model, providing all of its underlying data and assumptions, and making its experts available to explain how the model was developed.

Ms. Bembenek Wiggins

### **Any Model/Formula Must Account for the Unique Circumstances of a Mine**

At PolyMet, we are concerned that the EPA may have relied on information from many legacy sites that used outdated design, technology, and practices to serve as the basis for its model, thereby penalizing more modern mines, like our NorthMet Project, which will employ modern design, technology, and practices that are dramatically more protective against risks to the environment and human health than those employed at the sites upon which the EPA has constructed its assumptions, formulas, and the model.

PolyMet also has concerns about how the EPA will fairly account for unique aspects of a given mine's design and operations once the model has been used to establish a baseline. For example, on slide 9 ("Process to Comply with the Rule") of the EPA's June 9, 2016 SBAR presentation, the EPA states that the mine owners/operators simply calculate their required financial assurance using the HRM financial responsibility formula, submit those calculations and supporting documentation to the EPA, and obtain the required level of financial assurance. There is no consideration for adjustments to the model result. Slide 18 suggests that the facility-specific inputs into the formula generate a baseline level of financial responsibility, which could then be reduced by demonstrating that current controls are in place at the facility; however, there is no discussion of when/how such demonstrations would be made.

Accounting for the unique ways that facility design protects the environment is an important consideration for PolyMet. For example, PolyMet specifically sited one of the NorthMet tailings/processing residue facilities at an existing wet-storage basin related to the former LTV Steel operations. We did this to avoid extensive additional resource impacts that would have resulted from building a new tailings basin on undisturbed land, and because siting the facility in this manner will facilitate our ability to more effectively mitigate ongoing groundwater issues resulting from the historical operations. As a result of its construction within the footprint of an existing tailings basin, the new facility may not have what the EPA model treats as design features for which the EPA's financial assurance model provides maximum credit; yet it is fully protective of the environment, will improve historical groundwater conditions, and will avoid the resource impacts of greenfield siting/construction.

PolyMet should not be penalized for its environmentally responsible reuse of this facility just because the design features do not fit within the standard menu built into the EPA's model. More importantly, the EPA's model must not create disincentives to integrating remediation of legacy sites into modern mine operations by imposing duplicative financial assurance obligations for such operations. And, to the degree that state financial assurance requirements fully displace the need for CERCLA 108(b) financial assurance – e.g., a mine commits \$50 million in trust for long-term, post-closure water treatment – that amount should directly offset any CERCLA 108(b) requirement on a dollar-for-dollar basis.

To conclude, the mining industry must operate so as to obtain the mineral resources that society needs while minimizing impacts to the natural resources that will sustain our planet

Ms. Bembenek Wiggins

well into the future. Financial assurance plays an important part in achieving this delicate balance. The question is, are more financial assurance obligations truly needed in light of stringent state (and federal) laws that already protect against the risks targeted by the EPA's Section 108(b) Rule? If so, how does the EPA ensure that its additional financial assurance requirements are determined in a manner that properly accounts for (1) the financial assurance obligations mines already must satisfy and (2) the unique characteristics of each mine and the natural setting in which it operates.

We believe that a fair and expeditious answer can be achieved only through transparent involvement of all stakeholders impacted by this rule. PolyMet would like to help, but the EPA needs to take the steps needed to allow that to happen, and provide full disclosure concerning its model and how it was constructed. Thank you for your consideration.

Sincerely,



Brad Moore  
Executive VP – Environmental and Governmental Affairs  
PolyMet Mining

- C: Jon Cherry, President & CEO, PolyMet Mining  
Laura Skaer, Executive Director, American Exploration & Mining Association  
Katie Sweeny, Senior VP Legal Affairs and General Counsel, National Mining Assoc.  
Frank Ongaro, Executive Director, Mining Minnesota





July 7, 2016

**VIA E-MAIL**

Lanelle Wiggins  
RFA/SBREFEA Team Leader  
U.S. EPA Office of Policy  
1200 Pennsylvania Ave. N.W.  
Washington, D.C. 20460

Linda Barr  
Economist U.S. Environmental Protection Agency  
1200 Pennsylvania Ave. N.W.  
Washington, D.C. 20160

**RE: MiningMinnesota Comments to CERCLA 108(b) Financial Responsibility SBREFEA Pre-panel Outreach**

Dear Ms. Wiggins and Ms. Barr:

As a member of the Small Business Advocacy Review Panel for the proposed CERCLA 108 (b) rulemaking, MiningMinnesota respectfully submits the following written comments under the pre-panel phase of the SBREFEA process. MiningMinnesota is an industrial trade organization made up of all nonferrous exploration and mineral development companies in Minnesota, along with approximately 100 supplier and vendor businesses, all committed to sustainable and environmentally responsible copper-nickel and PGM mineral development and mining in Minnesota.

The proposed CERCLA 108 (b) rule will have a significant economic impact on all operators, especially small operators with more limited financial and human resources. Small entity members are reporting that a duplicative CERCLA 108 (b) rule calculating financial assurance according to the examples in the SBREFEA slides will dramatically limit access to investment capital and prevent companies from raising the capital necessary to develop their projects into a producing mine or to expand an existing mine.

This requirement will have an adverse effect on the overall economic impact on the mining industry. Since most producing mines begin as an exploration project by an exploration company, junior mining company or other small mining company, the result will be fewer high paying jobs and increased dependence by the United States on foreign sources of minerals necessary for national defense and economic security, as well as fewer spin-off jobs in the surrounding communities that are created by every mineral development project and mining operation.

Also, the requirements will unnecessarily duplicate current State and federal programs and significantly increase the costs of operations without any demonstrated benefit to the environment, safety, human health, or taxpayers. The extensive financial assurance requirements imposed by the State of Minnesota already effectively address the risks that the EPA Rule seeks to address.

The two federal land management agencies (FLMAs) have also clearly demonstrated their comprehensive regulatory and financial assurance programs designed to prevent release of hazardous substances and to provide financial assurance in the event the operator is unable to complete reclamation and closure, or to take corrective action if and when necessary.

The EPA is proposing an additional regulatory scheme without demonstrating or providing any analysis to existing deficiencies. The EPA must complete a comprehensive gap analysis to demonstrate where, if any, specific existing requirements are not comprehensively protective. The results of this analysis must be made available to the SBAR.

In addition, EPA must provide a significant amount of additional information, as requested by several SERs, prior to actually convening the SBAR Panel. From a list of the 64 mine sites modeled, to the selection criteria, to the dates the mines began operating and whether or not they are operating today, to the formula and other necessary data for how the financial responsibility amounts were calculated. All of this information is necessary for a constructive discussion. Without this information, it is premature to consider convening the SBAR Panel.

The EPA has not established the need for further federal rulemaking and must recognize that the FLMAs and State programs are best positioned to prevent the release of hazardous substances, have the expertise to ensure adequate financial assurance, and protect the taxpayer. Neither the States nor FLMAs see any basis for EPA moving forward with a CERCLA 108 (b) rule.

Finally, EPA should consider the following alternatives that will lessen the economic, compliance, record keeping and cost burden on small entities consistent with the requirements of CERCLA 108(b).

1. We believe the record demonstrates clearly that a CERCLA 108(b) rule as contemplated by EPA in the SBREFA slides and additional materials provided will duplicate and overlap existing FLMA and state financial assurance programs that are the functional equivalent of a CERCLA 108(b) rule. Therefore, EPA should conclude that CERCLA 108(b) rule is unnecessary and publish that finding in the Federal Register.
2. EPA should defer to the existing FLMA and state mine regulatory and financial assurance programs.
3. EPA should exempt mine sites that are covered by existing FLMA and state financial assurance programs that are designed to prevent the release of hazardous substances and provide evidence of financial responsibility consistent with the degree and duration of risk associated with the production, transportation, treatment, storage, or disposal of hazardous substances.

4. EPA should identify gaps, if any, in existing FLMA and state programs and allow those programs to fill the gaps instead of proposing a new regulatory and financial assurance program that will increase the costs to small entities.

In summary, the hardrock mining states and the federal land management agencies have comprehensive, robust regulatory programs in place that address financial assurance requirements associated with mining and beneficiation, reclamation, closure and post-closure issues. These programs substantially reduce, if not eliminate, the risk that a mine will have a release of hazardous substances. The states and FLMAs have the expertise and staff to calculate the appropriate amount of financial assurance based on the unique circumstances and features, including geochemistry of the rock, for each mining operation and to adjust financial assurance as required over the life of the operation, including post-closure.

The FLMA's and state's comprehensive, robust regulatory programs are designed to prevent the release of hazardous substances and assure sufficient financial assurance is in place to protect the taxpayer in the event of bankruptcy or an event that requires corrective action. The fact no hardrock mining or beneficiation plan of operation approved by the BLM or USFS since 1990 has been added to the CERCLA NPL demonstrates that the "degree and duration of risk" for hardrock mining is too small to regulate. This is the conclusion EPA should publish as a proposed rule on December 1, 2016.

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in black ink that reads "Frank Ongaro". The signature is written in a cursive, flowing style.

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July 7, 2016

Ms. Lanelle Bembenek Wiggins  
RFA/SBREFEA Team Leader  
US EPA - Office of Policy (1803A)  
1200 Penn Ave NW  
Washington DC - 20460

Re: Comments on EPA CERCLA 108(b) Rulemaking

Dear Ms. Wiggins:

NOVAGOLD Resources, Inc. (NOVAGOLD) (NYSE-MKT, TSX: NG, [www.novagold.com](http://www.novagold.com)) appreciates the opportunity to provide comments at this stage of the Small Business Advocacy Review (SBAR) panel process. Our comments address the materials provided prior to and after, and discussions held, during the initial SBAR meeting on June 9, 2016. They also reflect the broader information that EPA has publicly distributed regarding the ongoing rulemaking.

### **Background**

Donlin Gold LLC is a 50/50 partnership between NOVAGOLD and Barrick Gold US Corporation. The partnership was formed to advance the development of our flagship asset, the Donlin Gold Project in southwestern Alaska. The Donlin Gold Project is one of the largest and highest-grade undeveloped open-pit gold deposits in the world. In August 2012, Donlin Gold LLC submitted the initial permit applications for the Donlin Gold Project to the U.S. Army Corps of Engineers. This submittal triggered the start of the National Environmental Policy Act (NEPA) review process. The Draft Environmental Impact Statement (DEIS) was released in November 2015 and the public comment period closed on May 31, 2016. As proposed in the permit applications, the Donlin Gold Project is expected to produce, on average, approximately 1,100,000 ounces of gold per year over its projected 27-year life.

The Donlin Gold Project is also a partnership with the shareholders of the Calista Corporation (Calista) and The Kuskokwim Corporation (TKC). These Alaska Native corporations have a direct interest in the Donlin Gold Project because Calista owns the mineral estate and TKC owns much of the surface estate on which the Project will be developed. Calista selected the lands at Donlin Gold as part of the compensation granted to Alaska Natives for the relinquishment of their aboriginal rights under the Alaska Native Claims Settlement Act (ANCSA). The lands were selected specifically because of their known mineral potential. Calista is mandated to responsibly develop the natural resources on the lands for the economic benefit of its shareholders, and through ANCSA's 7(i) and 7(j) revenue sharing provisions, the economic benefit of all Alaska Natives. Congress enacted ANCSA to "provide for the real economic and social needs of Natives ... with maximum participation by Natives in decisions affecting their rights and property." The agreements between NOVAGOLD (through Donlin Gold LLC) and the Native corporations provide for significant economic benefits to Alaska Natives in the Yukon-Kuskokwim region, which is one of the poorest areas in the U.S. Therefore, any regulatory action undertaken by EPA that adversely effects the development of the Donlin Gold Project will have significant economic impacts on Alaska Natives. This is also the case with other mining projects in Alaska, most notably the operating Red Dog Mine, which is a partnership between Teck Resources, Inc. and NANA Regional Corporation.

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Overall, NOVAGOLD understands EPA's concerns regarding potential unanticipated releases from mining sites that could incur Federal liability for remediation. However, we respectfully suggest that the approach EPA is envisioning is overly simplistic in terms of how to address these concerns. Moreover, it does not take into consideration the exhaustive efforts that States and Federal land management agencies, and mining companies have undertaken over the last several decades to minimize the risk of unanticipated releases of hazardous substances.

### **Gaps in Existing Programs**

EPA's approach appears to be based on the concept that mining has historically caused significant Federal CERCLA liability; therefore, future releases that will require remediation are inevitable. As such, EPA seems to believe there is a need for substantial financial assurance under CERCLA Section 108(b) across all hardrock mining operations. We argue that the risks of such releases have been drastically reduced across the modern mining industry. This argument is supported by information provided to EPA by the Western Governors Association, individual States, and the Federal Land management agencies. As such, we ask that EPA explain the risks/gaps that they are specifically addressing in the proposed rulemaking to justify the expenses associated with compliance. This can only be done by providing the detailed case study information that EPA is using to support the rulemaking. It is not reasonable to impose a new, significant expense on small businesses that has no demonstrated need or environmental benefit.

### **Financial Impacts/Costs**

In terms of costs, EPA has provided simple examples of the potential financial assurance requirements and costs associated with the rule. We appreciate the fact that EPA has met with key financial institutions in developing the rule. However, based on the current information, it is impossible for us to determine the annual cost of complying with the rule. On slide 28 of the May 24<sup>th</sup> presentation, EPA cites an example of a large open pit copper mine with approximately \$1 billion in revenue. At a very broad level, the open pit, tailings storage facility, and waste rock facility sizes are comparable to the scale of the Donlin Gold Project. The required financial assurance is cited as about \$525 million and the annual cost is determined to be \$19 million. At a project level, it is reasonable to assume 10 to 20 percent of the revenue reflects operating profit margin for a mine. As such, the example could have an annual profit margin of \$100-200 million. Therefore, a potential 10-20 reduction in profit is significant and ultimately may make the difference in determining the viability of a project. More broadly, without the specific formulas that were used, we cannot assess how much our actual expected annual compliance costs will be. At these levels, a difference of 50 percent or more could have dramatic financial implications for a project. More broadly, we have no basis for approaching the financial industry to independently verify whether the necessary instruments would be available (and at what cost). We have significant concerns that given the potential scale of the required financial assurance for individual facilities and across the entire industry, instruments may not be available to small businesses (or any regulated entity). The availability of such instruments could also be impacted by issues such as third-party liability claims as well as uncertainties related to the potential perpetual duration of liability. There

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should no question that without such instruments, the cost of fully funding the required financial assurance would be prohibitive.

### **Determination of and Credit for Best Practices**

NOVAGOLD has concerns regarding EPA's concept of providing credit for engineered controls/best practices. EPA appears to rely upon a very general methodology to determine what practices are appropriate across all mining projects. We respectfully disagree with this approach. For the Donlin Gold Project, the design of individual facilities has been developed over decades with input from State and Federal agencies (including EPA Region 10), Alaska Native corporations, and the public under the NEPA process. Throughout this process, one of the primary goals has been to avoid environmental and human health risks both from planned operations and potential unanticipated releases of hazardous and deleterious substances such as acid rock drainage, mercury, cyanide, and fuel oil. In addition to the expertise of Donlin Gold and its consultants, the agencies and Native corporations have employed outside experts to assist in reviewing the proposed Project. The product of this exhaustive review process will be more than 100 permits that will ensure that best management practices are implemented and maintained throughout the mine life.

For EPA's rulemaking to circumvent the review process could in fact serve to preclude implementation of best practices at the Donlin Gold Project. For example, in reviewing the May 24, 2016 presentation it appears that EPA is contemplating providing significant credit for use of dry/paste tailings disposal. While such disposal methods have beneficial application for some mining projects, their feasibility and effectiveness is highly site-specific. Specifically, there is minimal precedent for their use at a large scale and in wet/very cold climates. In addition, the environmental benefits can be offset by other impacts associated with dust control, increased metals leaching potential, and climate change effects related to the resource intensive nature of material placement in a large dry or paste stack. At Donlin Gold, we considered dry and paste tailing options in mine planning and determined that a different option would be a better alternative for minimizing long-term risk of release from the tailings storage facility. This approach includes: (1) downstream construction with a rockfill dam keyed into bedrock, (2) a synthetic liner, (3) provision for advanced water treatment and discharge to control the operational water balance, and (4) dry closure of the facility. As noted above, the proposed tailings management plan is undergoing intensive scrutiny by the agencies (and their experts) and the public.

More broadly, in its June 28, 2016 response to questions about the rule, EPA consistently cites practices described in the Global Acid Rock Drainage (GARD) Guide. While a valuable planning and reference document, it is intended to be a "guide" and the document consistently emphasizes the need to take into account facility- and site-specific considerations in making individual mine determinations. Moreover, it is not appropriate to only consider the potential for acid generation in determining best technology. It is in our view the most important component of the GARD guide is the emphasis on following a clearly-defined process for site-specific determinations of best practice. We believe that we have diligently followed such a process for the Donlin Gold Project.

The above highlights one of our primary recommendations to EPA – that it consider incorporating a site-specific review component into the rulemaking. As EPA has heard from a number of States and Federal



Ms. Lanelle Bembenek Wiggins  
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land management agencies, the risk concerns that EPA is trying to address are being considered (and minimized) on a site-specific basis through their regulations and in-depth facility reviews under the NEPA and permitting processes. Once permits are issued, agency oversight does not end, in fact, intensive scrutiny continues during operations and closure to ensure best practices are being properly implemented and maintained – emphasizing the need for adaptive management to continue to address site-specific factors and observations. Overall, we strongly encourage EPA staff to work with their agency counterparts to find ways to complement, rather than duplicate and/or conflict with, their existing programs.

### **Credit for Approved Closure Plans**

In a number of materials and discussions, EPA has indicated that it would not provide credit for best practices/engineering controls until they are actually implemented. We strongly recommend that EPA revise this approach. We assume that one of EPA's primary concerns is the long-term risk of release from mine sites after closure. If such risk is minimized by a closure plan that is fully guaranteed by existing financial assurance mechanisms, immediate credit should be provided. For example, the Donlin Gold Project can only initiate construction and operation with an approved reclamation and closure plan that includes financial assurance for dry closure of the tailings storage facility. Therefore, credit for dry closure should be granted immediately upon plan approval and State access to the financial assurance mechanism.

### **Incorporation of Risk Management into Best Practice Determinations**

Our experience shows that preventing releases from mining projects is not only dependent on selection of individual best practices but also relies on a company's capabilities and processes for monitoring, responding to, and reporting on risk. Such processes allow senior corporate managers to take steps to avoid risk prior to releases occurring. We consider such processes critical to abiding by our own corporate-wide commitments to environmental protection, health and safety, performance reporting, and social responsibility. Therefore, we recommend that EPA consider an approach that provides credit for development and implementation of corporate environmental and risk management systems.

### **Overlap with Existing Financial Assurance Programs**

EPA has consistently indicated that the CERCLA 108(b) rulemaking is independent of existing State and Federal financial assurance programs. This is based on the concept that existing programs address remediation of planned mining operations while the CERCLA 108(b) rule will address unanticipated releases of hazardous substances that may result in CERCLA liability. We respectfully disagree. In many instances, the existing financial assurance mechanisms are part of broader Federal and State permitting efforts to minimize the potential for unplanned releases during operations and, as importantly, post-closure. Our view is that the post-closure mechanisms specifically address the major concern over the lack of responsibility and funding for long-term care and maintenance of mine sites. For example, the Donlin Gold Project's proposed financial assurance combines surety mechanisms for closure activities with a trust fund for post-closure care and maintenance, including water management and treatment. The trust fund would be controlled by outside parties, including the State and Native corporation

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landowners. Here again, we ask that EPA further explain the “gap” that it is addressing – especially since the States and Federal land management agencies seem to concur there is program overlap. We also encourage EPA staff to look further into providing credits for existing permitting and financial assurance programs and suggest additional outreach on this with their agency counterparts.

### **Peer Review**

It is troubling to us that EPA has not apparently provided for any outside expert peer review of the proposed model and determination of best practices/engineering controls. Given the implications of the rulemaking on mine design, we believe such review is essential to making sound scientific and engineering decisions. We reject the notion that unbiased reviewers are not available. In fact, EPA itself provided for an independent review of its technical work on the Pebble Mine Project. Further, EPA staff have repeatedly cited the work of the independent review panel for the Mt. Polley tailings failure. On the Donlin Gold Project, the Native corporation landowners, State agencies, and EPA have hired outside expert consultants to support their reviews of the project. Expert review panels have become standard practice throughout the world – and the reviewers consistently take their independent roles and reputations very seriously. We also are not sympathetic to any rationale that cites schedule as a reason for avoiding peer review. This rulemaking has been undertaken for many years and the Court rulings allow for further timeline extensions for good reason.

### **Review of State Financial Assurance Programs**

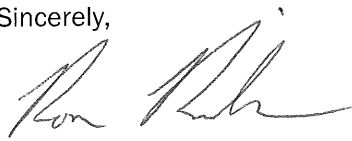
We, among others, will be providing detailed comments on EPA’s review of the State of Alaska’s financial assurance mechanisms. The document is well-written and provides a good summary of the regulations. However, its broad statements related to the lack of correlation to toxicological risk are misleading. In fact, as part of the exhaustive permitting process for mining projects in Alaska, financial assurance in Alaska is based on avoiding potential releases of hazardous and other deleterious substances. The Alaska Departments of Natural Resources and Environmental Conservation, and Dam Safety program work together to ensure that not only traditional reclamation is conducted but also water quality and management, and dam stability are ensured over the long term. Again, it would be very helpful if EPA could share its detailed case studies used for the rulemaking so we can better assess and comment on how they relate to actual conditions at mine sites in Alaska.

Ms. Lanelle Bembenek Wiggins  
July 7, 2016

### Conclusion

Thank you again for the opportunity to participate in the SBAR process and we look forward to continued, constructive dialogue with EPA staff. Most importantly, to fulfill our mandate, we believe that EPA needs to provide additional details on the methodologies it is using to develop the proposed rule. Without such information, we cannot effectively comment on its specific applicability and costs to our businesses, and suggest alternatives to mitigate impacts. Please feel free to contact me at (303) 884-1823 with any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Ron Rimelman". The signature is fluid and cursive, with the first name "Ron" being more prominent than the last name "Rimelman".

Ron Rimelman, NOVAGOLD Resources, Inc.  
Vice President, Environment, Health, Safety & Sustainability



American Exploration &  
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June 1, 2016

Lanelle Wiggins  
RFA/SBREFEA Team Leader  
US EPA Office of Policy  
1200 Pennsylvania Ave. N.W.  
Washington, D.C. 20460

Linda Barr  
Economist  
US Environmental Protection Agency  
1200 Pennsylvania Ave. N.W.  
Washington, D.C. 20460

*Sent via email*

**Re: CERCLA 108(b) Financial Responsibility SBREFEA Pre-panel Outreach**

Dear Lanelle and Linda:

This letter is written on behalf of the hardrock mining SERs and concerns the pre-panel phase of the CERCLA 108(b) SBREFEA process and the introductory meeting/conference call on Thursday June 9, 2016.

I have been in communication with the SERs and confirmed that they have reviewed and studied the slides presented at the May 17, 2016 public webinar. I also have confirmed that the SERs have reviewed, studied and analyzed the SBREFEA slides attached to your May 27, 2016 email advising of the pre-panel introductory meeting. On behalf of the SERs, we are requesting that EPA skip or dispense with the slide presentation and, after introductions, move into addressing questions and comments on the slides and the proposed rule. We believe this will ensure that the introductory meeting is productive, useful for all parties, and an efficient use of everyone's limited time.

Our examination and study of the SBREFEA slides raises several questions and a need for additional information which we would like answered/provided prior to the June 9<sup>th</sup> meeting. These questions and information requests, identified by slide, are attached to this letter. The SERs would appreciate receiving answers and the requested information on or before June 7, 2016. The SERs will not be able to properly fulfill their role as contemplated by SBREFEA without the answers and information requested. Receiving answers to these questions and the information requested prior to the June 9 meeting will ensure a more productive, efficient and useful introductory meeting.

In addition, the SERs have developed a list of questions and information absolutely essential to fulfilling the role of SERs under SBREFEA in the Small Business Advocacy Review Panel (SBAR) process. A list of those questions and additional information needed also is attached to this letter as Attachment II.

CERCLA 108(b)

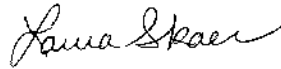
Page 2

**SER Helper**

The SERs request approval to bring a SER helper to the introductory meeting to assist the SERs in their review, analysis and comment on the proposed rule. Identifying the proper elements of a CERCLA 108(b) financial assurance responsibility rule and calculating financial assurance is a highly technical, highly specialized field. While the SERs represent a number of important fields of responsibility with respect to environmental management of mine sites and implementing existing federal and state financial assurance requirements, the SERs do not possess the knowledge and expertise to develop and analyze models and the underlying statistical analysis and formulae that make up the model. Therefore, the SERs request approval to engage a SER helper in the CERCLA 108(b) Financial Responsibility SBAR process who is an expert in modeling and calculating financial assurance.

Thank you for your timely consideration of these requests. I am available to discuss this with you prior to the June 9 meeting. My telephone number is 509-624-1158 x16; email [lskaer@miningamerica.org](mailto:lskaer@miningamerica.org).

Yours truly,



Laura Skaer  
Executive Director

Attachments

cc: Sonja Sasseville, Acting Director Program Implementation and Information Division, US Environmental Protection Agency.  
Barbara Foster, CERCLA 108(b) Rule Writing Team, US Environmental Protection Agency  
Kevin Bromberg, SBA Office of Advocacy  
Tayyaba Waqar, SBA Office of Advocacy  
Danielle Jones, Office of Management and Budget  
All SERs

## ATTACHMENT I to June 1 SER letter to EPA

### SER Questions Concerning the May 24, 2016 SBREFA Slides

#### Slide 3 - Background: CERCLA 108(b) Financial Responsibility

- ▶ EPA calculations show that, through FY2011, the Agency had spent approximately \$4.6 billion to clean up hard rock mines and mineral processors.

Please provide detail for this statement by identifying by name and location the hardrock mine sites and mineral processor sites, the amount spent by EPA at each site, the dates when those monies were spent, and provide a copy of the spreadsheets or documents used to calculate or arrive at \$4.6 billion. Also, identify which of those sites are on the NPL.

- ▶ EPA also intends for the rule to create financial incentives for improved mining practices that reduce financial responsibility costs where existing practices ultimately may also help reduce risks and costs to the Superfund program.

Question 1 -- Please identify the improved mining practices EPA believes will be incentivized by a CERCLA 108(b) financial responsibility rule.

Question 2 --What mining practices would be different under a CERCLA 108(b) rule than under current BLM, USFS, states' mining and financial assurance regulations?

#### Slide 6 – CERCLA 108(b) Financial Responsibility Proposed Rule Structure

- ▶ CERCLA is a response program that addresses CERCLA Section 107 liabilities – response costs, natural resource damages (NRD), and health assessments – and is distinct from closure and reclamation requirements of federal and state mine permit programs.

The federal land management agency regulations (BLM 43 CFR 3809 regulations (3809.420 and 3809.500 et. seq.), the U.S. Forest Service (USFS) 36 CFR 228A regulations (228.8 and 228.13)), and the states mine regulatory and financial assurance programs (*See* Western Governors' Association (WGA) letter to EPA Administrator McCarthy dated March 29, 2016 and Interstate Mining Compact Commission (IMCC) letter dated May 3, 2016)), focus on minimizing risks to the environment and include requirements, among others, for managing solid waste and water, minimizing acid rock drainage, managing cyanide use, ensuring mine operations comply with all applicable environmental laws and regulations, and providing, where appropriate, long term trusts to ensure post closure treatment and maintenance operations to ensure compliance with Clean Water Act standards.

These requirements directly minimize the risk of a future hazardous substance release and ensure money is set aside to financially cover an adverse event if one should happen. These requirements also are working as evidenced by the BLM's and USFS' response to the March 8, 2011 letter from Senator Murkowski that a combined 3,334 mining plans of operations approved

since 1990 and not one of those sites has been placed on the CERCLA NPL. In other words, the BLM, USFS and states' requirements are the "functional equivalent" of a CERCLA 108(b) financial responsibility rule. For example, BLM's 43 CFR 3809 surface management regulations for hardrock minerals provides at §3809.552(c):

*(c) When BLM identifies a need for it, you must establish a trust fund or other funding mechanism available to BLM to ensure the continuation of long-term treatment to achieve water quality standards and for other long term, post-mining maintenance requirements. The funding 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. BLM may identify the need for a trust fund or other funding mechanism during plan review or later.*

Question 1 --In view of the fact the federal land management agencies' and states' mine regulatory and financial assurance programs address more than closure and reclamation, please explain how addressing CERCLA § 107 liabilities are "distinct from closure and reclamation requirements of federal and state mine permit programs."

**Slide 10 – A Preliminary Clarification: What the Rule Does *Not Do***

As mentioned above, both WGA and IMCC disagree with EPA's assertion that proposed CERCLA 108(b) financial assurance requirements distinctly different from existing state and federal requirements for hardrock mining facilities.

Question 1 -- How is EPA going to address the significant concerns raised by the WGA and IMCC in its proposed rule? It appears from the information presented at the May 17, 2016 webinar and in the SBREFA slides that these concerns have largely gone unaddressed.

Question 2 -- Has EPA this year consulted with the USFS, BLM, or other relevant federal agency/department on the Congressional directive to complete a plan to avoid duplication with existing federal regulations? Will there be an interagency review of any proposal before it is finalized so the USFS, BLM, the Nuclear Regulatory Commission and any other appropriate federal department or agency has an opportunity to review the proposal and provide comments before it is finalized?

Question 3 -- What financial responsibility requirements will be different under a CERCLA 108(b) rule than under current BLM, USFS and state requirements?

Question 4 -- How is EPA going to factor in reductions for compliance with existing state and federal laws and regulations? For example, if a facility has a financial assurance instrument that covers \$50 million in long-term water quality treatment and monitoring, will EPA reduce the CERCLA 108(b) financial assurance requirement commensurate (dollar for dollar) with that other existing obligation?



### **Slide 11 – Universe of Facilities to be Regulated**

- ▶ EPA would also include in the proposed rule primary processing activities located at or near the mine site that are under the same operational control as a regulated mine.

Question 1 --Is EPA proposing to apply a CERCLA 108(b) financial responsibility rule to inactive mine operations, either those that are in the process of or have been closed or are co-located with operating facilities?

Question 2 --Does EPA intend to apply a CERCLA 108(b) financial responsibility rule to closed, inactive or abandoned mine site not collocated with an active mine site or facility?

Question 3 --Does processing include beneficiation?

### **Slides 13 & 14 – Financial Responsibility Scope and Amount**

- ▶ To determine the amount of financial responsibility required for response costs, the Agency is developing a formula that would identify an amount of financial responsibility to reflect the primary site conditions and characteristics that would affect the costs of removal or remedial action.

Question 1 -- Please provide the formula, details and any spreadsheets EPA will use to determine the amount of financial responsibility that reflects primary site conditions and characteristics and how those primary site conditions and characteristics were determined.

Question 2 -- What equations are built into the spreadsheets? Please identify and list. Please provide a copy of the equations and spreadsheets.

- ▶ The formula would assign dollar values for a facility based on facility and unit characteristics (e.g., open pits, waste rock, tailings, heap leach, process ponds, water management, and operations, maintenance, and monitoring).

Question 3 -- What is EPA using as its data source for the formula? Is EPA using mine sites on the NPL? Is EPA using data from active mines sites? How was this data obtained? Please provide a copy of the underlying data. Is EPA using certain databases or documents to pull this information and assign dollar values to the various facilities in the formula? Please identify these sources and provide a copy of the sources and data used to assign dollar values in the formula.

Question 4 -- There are a number of legacy mining and mineral processing sites on the Superfund NPL that involve sites constructed and operated tens to a hundred years prior to modern environmental laws, regulations and financial responsibility requirements. Those sites were not designed, built and operated to minimize impacts to the environment and prevent release of hazardous substances during operation and at closure. EPA in its “Phase 1” study reviewed NPL sites listed during or after 1990 and then confirmed whether the on-site activities occurring during or after 1990 contributed to the contamination. According to EPA:

The intent of filtering sites in this manner was to control for the effect of ‘legacy’ waste management practices by removing sites that are on the NPL only because of legacy activity. This step was taken under the assumption that, by 1990, regulatory programs were sufficiently in place to limit the risks posed by some industry practices.

In developing the formula and selecting appropriate data, has EPA again used a similar filtering technique to ensure that legacy sites are not used to develop the formula and the cost inputs, and thus grossly overestimating the liability risk? If not, please explain what type of filtering technique the agency is using in developing the formula.

- ▶ The Agency is considering a fixed amount of financial responsibility for health assessment costs and a fixed percent of aggregate financial responsibility for natural resource damages, that would be required at all facilities.

Question 5 -- Health assessment costs and natural resource damages are very site-specific depending on the type of release. How can EPA create a one-size-fits-all amount for these costs when CERCLA 108(b) only allows for financial assurance “consistent with the degree and duration of risk associated” with the various activities on a site? How is EPA going to ground truth these “fixed” and “fixed percent” amounts so as not to violate the statute and impose an unnecessary financial burden on facilities?

#### **Slide 15 – Relationship of Section 108(b) Financial Responsibility to State, Tribal and Local Government Law**

- ▶ In particular, Section 108(b) financial responsibility is designed to assure that funds are available to pay for CERCLA liabilities, whereas EPA’s review of state law financial responsibility requirements to date indicates many are designed to assure compliance with state regulatory requirements, and thus are not “in connection with liability for the release of a hazardous substance” under Section 114(d).

Question 1 --See statements and questions under **Slide 6**. In view of the fact the states’ mine regulatory and financial assurance programs address more than closure and reclamation, *i.e.*, minimize adverse impacts to the environment and assure long term water quality, please explain in detail how state mine regulatory and financial responsibility programs are not “in connection with liability for the release of a hazardous substance” under Section 114(d).

#### **Slide 16 - Relationship of Section 108(b) Financial Responsibility to Other Federal Law**

- ▶ EPA has evaluated the applicability of Section 108(b) requirements at facilities where other federal financial responsibility requirements apply.

Question 1 --Please list the facilities EPA evaluated and include whether the facilities are currently regulated by BLM, USFS, a state or a combination of these.

- ▶ EPA believes that Section 108(b) requirements, established to address CERCLA liabilities, are distinct from federal closure and reclamation bonding requirements imposed under other statutes.

Question 2 --See statements and questions under **Slide 6**. Please explain in detail how § 108(b) requirements “are distinct from federal closure and reclamation bonding requirements imposed under other statutes.”

- ▶ It is important to note that EPA intends the Section 108(b) financial responsibility amount to account for environmentally protective practices already in place, including those required by other regulations.

Question 3 --How is EPA accounting for environmentally protective practices required by existing federal and state environmental laws and regulations, including the BLM 3809 regulations, the USFS 228A regulations and applicable state requirements? How is EPA assigning a value to those requirements and practices? How is EPA calculating those reductions? Please provide a copy of the data used to assign values and calculate reductions.

### **Slide 17 – Market Study**

Question 1 --Who has the agency consulted with in the financial and insurance sectors? Please provide the names of individuals and their companies and the dates of those meetings or consultations.

Question 2 --Is EPA continuing that consultation process as it develops the rule? Please provide the date or dates when EPA intends to meet with representatives of the financial and insurance sectors and the names of the representatives and their companies with whom EPA intends to continue the consultation process.

Question 3 --Did EPA provide the insurance, surety, and other appropriate financial sectors with the formula/model EPA is developing, the cost assumptions and calculations, and potential duration of the obligation in advance of writing the draft report? Did EPA seek the advice of these sectors on these details? If not, how is EPA going to ground-truth its report on market capacity? Will EPA be releasing this information to the Senate?

Question 4 --A key component of the rule that will significantly impact the capacity of the market to provide necessary and affordable financial responsibility instruments is the length of time in which a company is obligated to provide financial assurance and when that obligation will cease. For example, a requirement to secure financial assurance for a duration of 10 years past closure is far less onerous than a requirement to secure financial assurance for 30 or 50 years past closure. What timeframes has the agency provided to the financial and insurance sectors for their evaluation of market capacity?

### **Slide 18 – Financial Responsibility Scope and Amount – HRM Financial Responsibility Formula**

- ▶ The baseline could then be reduced through demonstrating that current controls at the facility are in place.

Question 1 -- How is EPA determining which controls warrant reductions in the baseline calculation? What sources is EPA using to make these decisions? What are the selection criteria used to extract the data from the sources? How is EPA determining how to calculate the reductions (i.e., how is EPA choosing which technologies get what reduction)?

Question 2 -- Is EPA consulting with industry, the federal land management agencies and the states on the operational controls and best management practices currently used at facilities to ensure the list is inclusive of these controls and practices?

### **Slide 19 – EPA has identified several categories it is currently analyzing to obtain statistically-derived factors for use in the formula, including components:**

Please provide a complete list of the basis and assumptions used to obtain the “statistically-derived factors.”

### **Slide 20 – HRM Financial Responsibility Formula: Examples of Expected Formula Inputs**

Question 1 -- How did EPA identify these site features for inclusion in the model? What data sources did EPA use? What are the selection criteria used to extract the data used from the data sources? Is this intended to be a complete and exhaustive list?

### **Slide 21 - HRM Financial Responsibility Formula: Examples of Expected Formula Reductions**

- ▶ EPA is looking at current engineering controls as the basis for reductions to the baseline amount

Question 1 -- How is EPA determining which controls warrant reductions in the baseline calculation? What sources is EPA using to make these decisions? How is EPA determining how to calculate the reductions (i.e., how is EPA choosing which technologies get what reduction)?

Question 2 -- Is EPA consulting with industry, BLM, USFS and the states on the operational controls and best management practices currently used at facilities to ensure the list is inclusive of these controls and practices?

**Slide 27 - SBA defined Small Mine Example and Slide 28 - SBA defined Small Mine Example compared with Two large Mines Examples**

Question 1 --How did EPA calculate the amount of CERCLA 108(b) financial responsibility prior to giving credit for engineered controls and best practices? Were those amount obtained from engineering handbooks? If so, please list the handbooks used.

Question 2 --We understand EPA has identified 64 mining and mineral processing sites from which cost response data was obtained. Please identify those sites and the selection criteria used to identify those sites. How many of those sites are on the NPL? Which sites are mining sites? Which sites have co-located mineral processing or beneficiation activates? Which sites, if any, are stand-alone mineral processing of beneficiation sites?

Question 3 -- Please describe in detail how EPA came up with the credit reductions for best practices? What data sources were used and how are the calculations done? What are the selection criteria used to extract the data from the sources?

Question 4 --Is there a list of engineered controls and best practices? Please provide that list. With whom did EPA consult to develop a list of engineered controls and best practices? Will industry be able to add to that list? Will the list be peer reviewed in this rulemaking process?

Question 5 --How is the agency reducing a CERCLA 108(b) financial responsibility obligation to take into consideration the bonding requirements (either state or federal) that cover the same type of long-term liabilities? For example, if a facility already has a \$50 million trust for long-term water quality and maintenance will the agency reduce any CERCLA 108(b) liability by the amount of the trust fund?

Question 6 -- How did EPA choose the types of instruments that would be available for each financial responsibility obligation? How did EPA calculate annualized instrument cost for each instrument?

**Slide 29 - Request input from Potential SERs on issues related to:**

- ▶ An identification, to the extent practicable, of all relevant Federal rules which may duplicate, overlap or conflict with the proposed rule

Response 1 --Please see the Federal Land Policy and Management Act section 302(b) (43 U.S.C. 1732(b) last sentence); BLM 43 CFR 3809 Regulations and the USFS 36 CFR 228A regulations. BLM Surface Management Handbook, H-3809-1; USFS *Training Guide for Reclamation and Administration*, adopted in April 2004; USFS Forest Service Manual 2800; July 24, 2015 memo from USFS Chief Tom Tidwell concerning USFS authority to require long term trusts to address post closure liabilities; Nuclear Regulatory Commission rules at 10 CFR Part 40, Appendix A, criterion 9.

## SER Questions Concerning the May 24, 2016 SBREFA Slides

Page 8 of 8

- ▶ A description of any significant alternatives to the proposed rule which accomplish the stated objectives of the applicable statutes and which minimize any significant economic impact of the proposed rule on small entities

Response 2

- A. Defer to the existing federal land management agencies' and states' environmental regulations and financial responsibility programs because there is complete overlap and a separate CERCLA 108(b) financial responsibility rule is unnecessary to protect the taxpayer and the Superfund. The federal land management agencies' and states' regulatory programs are designed to minimize adverse impacts to the environment and prevent releases of hazardous substances and their financial responsibility programs are the functional equivalent of a CERCLA 108(b) financial responsibility rule.
- B. Identify if there are any serious gaps in the existing federal and state requirements and allow the federal land management agencies and states to address and fill those gaps.
- C. Additional ideas to be provided as the SBAR process develops.



## **Attachment II to June 1 SER letter to EPA**

The hardrock mining SERS respectfully request that EPA answer the following questions and provide the requested information prior to the June 9 pre convening conference. Answering these questions and providing this information prior to the June 9 will help ensure a more productive meeting and efficient use of our limited time.

1. Please provide the model EPA will use to calculate CERCLA 108(b) financial responsibility.
2. EPA has indicated it is developing statistically-derived factors to use in the formula. Please identify in detail the basis and assumptions EPA is using in obtaining the statistically –derived factors.
3. Please provide the cost data, engineering data, and underlying formulae that the model will use or otherwise inform the model; Where did EPA obtain the costs and data? Is EPA using costs from Superfund cleanup of pre-regulated mines?
4. How is the HAA amount determined? What is justification for a fixed amount when each mine site is unique?
5. How is the NRD percentage determined? What is justification for a fixed amount when each mine site is unique?
6. Please provide a complete list of BMPs considered under the proposed rule as model inputs or otherwise used to determine credit reductions in the amount of required financial responsibility.
7. Please provide a complete list of engineering controls considered under the proposed rule as model inputs or otherwise used to determine credit reductions in the amount of required financial responsibility.
8. Please provide a complete list of site features inputs used in developing the model. We understand EPA has identified 64 mining and mineral processing sites from which cost response data was obtained. Please identify those sites and the selection criteria used to identify those sites. How many of those sites are on the NPL? Which sites are mining sites? Which sites have co-located mineral processing or beneficiation activates? Which sites, if any, are stand-alone mineral processing or beneficiation sites?
9. Where in the mine life cycle would CERCLA 108(b) financial responsibility attach? Does it have to be in place before operations in an approved plan of operations begin? EPA has indicated that one of the acceptable financial responsibility instruments is Trust Funds. Will EPA allow trust funds to be funded over the life of the mine or will EPA require full funding at the beginning of operations? Is the amount negotiable or appealable? To whom?
10. Please provide details on the evaluation and timing of release of CERCLA 108(b) financial responsibility instruments. How would it work? How long after a facility closes?

## Attachment II

## Page 2

11. Financial assurance capacity study—who did EPA consult? What did EPA provide the companies? Is the study ongoing? Did EPA inquire about collateral requirements in order to obtain a financial responsibility instrument? What will EPA do if the financial assurance and insurance industries are unwilling or unable to offer financial instruments that comply with a CERCLA 108(b) rule?
12. Please demonstrate in detail how CERCLA 108(b) requirements are different than BLM/USFS/states' reclamation, closure, water and waste management financial assurance requirements.
13. The BLM & USFS follow an adaptive management protocol that requires monitoring to collect data the agencies and companies can use to determine 1) if their facility is functioning properly and complying with permit requirements and limits; and 2) to provide an early warning system to indicate if a problem may be developing so that a proper response can be developed and implemented. Both BLM and USFS have ample statutory and regulatory authority to increase financial assurance in response to identified problems. For example, BLM's surface management regulations at 43 CFR §3809.552(c) provides:

*(c) When BLM identifies a need for it, you must establish a trust fund or other funding mechanism available to BLM to ensure the continuation of long-term treatment to achieve water quality standards and for other long term, post-mining maintenance requirements. The funding 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. BLM may identify the need for a trust fund or other funding mechanism during plan review or later.*

Has EPA considered and discussed with BLM and USFS their adaptive management response to mine site monitoring data?

14. Has EPA conducted a credit rating survey for the range of entities, including small businesses that will be subject to a CERCLA 108(b) financial responsibility requirement? Please provide a copy of that survey.
15. Is EPA assuming that all currently operating mines and all future mines pose a risk of Section 107 liabilities, Natural Resource Damages and Human Health Assessment costs? How does EPA reconcile this with the fact that no mine permitted on federal land since 1990 has been added to the NPL? Do this mean the risk has been reduced to the point that no additional financial assurance is required?
16. What is EPA's budget for implementing and administering any CERCLA 108(b) rule? This information is needed to assure timeliness and responsiveness to small businesses.



## WESTERN GOVERNORS' ASSOCIATION

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March 29, 2016

Honorable Gina McCarthy  
Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W. (1101A)  
Washington, D.C. 20460

Dear Administrator McCarthy:

Many western states rely on the hard rock mining industry for economic development and employment. Western states where mining occurs have staff dedicated to mine permitting and compliance. They ensure that hard rock mining facilities are designed, constructed and operated to minimize risks to the environment and ensure reclamation. State regulators ensure proper mine closure on both private and public lands when the time comes. They coordinate with federal land agencies to ensure bonding is adequate.

A recent D.C. Circuit court decision approved a settlement agreement negotiated by the Environmental Protection Agency (EPA) and several non-governmental organizations. It requires EPA to publish a notice of proposed rulemaking pursuant to section 108(b) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) for the hard rock mining industry by December 1, 2016.<sup>1</sup>

Western Governors are concerned that EPA may impose additional financial assurance requirements on the hard rock mining industry. As stated in section A(3) of WGA Policy Resolution 2014-07, [Bonding for Mine Reclamation](#) (attached to these comments and incorporated by reference), western states have developed regulatory bonding programs to evaluate and approve financial assurance requirements for hard rock mining operations. Each western state has also developed detailed design, construction, operating, monitoring and permitting standards for hard rock mining facilities.

Governors have specific concerns with the potential introduction of EPA bonding requirements including:

- *Duplicative Federal Regulations* – Proposed federal requirements would duplicate existing state financial assurance requirements and could preempt existing state requirements for hard rock mining operations. They would require compliance with federal design, construction and

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<sup>1</sup> Order *In re: Idaho Conservation League, et al.*, No. 14-1149 (D.C. Cir. Jan. 29, 2016).

March 29, 2016

Page 2

operating standards, to the exclusion of proven state standards. These additional financial assurance requirements would impair western economies and the hard rock mining industry in America. Section B(2) of WGA Policy Resolution 2015-09, [National Minerals Policy](#), reinforces the importance of the mining industry to both local and national economies. Reliable supplies of American minerals play a critical role in meeting national security needs.

- *Inappropriately Hampering Effective State Programs* – EPA has not indicated to states what, if any, problems or gaps the agency perceives in state financial assurance requirements. EPA has likewise failed to indicate that modern, state-driven standards necessitate any alternative program. Western states have the staff and expertise necessary to ensure environmental compliance, reclamation and site closure. Reclamation and closure bonding calculations are based on the unique circumstances of each mining operation, the local ecology and post reclamation land use. Local expertise allows for informed decisions on financial assurances required – based on real values over the life of the mine and after its closure. Many of the hard rock mines in the Western U.S. are on private or public lands, and at times on both. Only state regulatory agencies can oversee bonding and closure on sites with dual ownership and split mineral estate.
- *Failure to Recognize States' Primacy Role in Water Management* – Hard rock mine reclamation and bonding are required to protect water resources. States are identified under the Clean Water Act as the primary regulators of water. It is appropriate to recognize the lead and primary role of states in regulating water-related impacts incident to mine reclamation – including associated bonding requirements.

The referenced D.C. Circuit court order directed EPA to determine by December 1, 2016 whether to issue notice of proposed rulemaking on CERCLA 108(b) financial assurance requirements for (a) chemical manufacturing; (b) petroleum and coal products manufacturing; and (c) electric power generation, transmission and distribution industries. We note similar concerns regarding EPA's introduction of bonding requirements for these industries.

Prior to publishing a notice of proposed rulemaking for any of these industries EPA should consult with Governors and engage state regulators. This should occur early in the process – before rulemaking. Substantive consultation during development of rules or decisions should occur well before formal rulemaking is launched. This should include a review by Governors and state regulators of any proposals before they are sent to the White House Office of Management and Budget for finalization.

Honorable Gina McCarthy

March 29, 2016

Page 3

As part of early consultation on any proposals, we request that EPA provide Governors and state regulators the following:

- A detailed state consultation timeline and plan for obtaining individual state comments from Governors and state regulators;
- All technical and scientific materials and analyses used to support any proposed rule, denoting whether any such materials were peer-reviewed;
- A statement indicating how the EPA solicited ideas about alternative methods of compliance and potential flexibilities in order to reduce the economic burden placed on affected entities;
- A statement indicating how EPA solicited information from the Governors and state regulators as to whether the proposed rule will not duplicate similar state requirements;
- A copy of a federalism assessment or the reason why EPA did not complete a federalism assessment;
- Explanation of the reason existing state programs are insufficient to address the concerns and an analysis of any conflicts in the proposed rule with state programs; and
- Analysis of financial assurance instruments that would satisfy any proposed EPA requirement.

Western states are committed to environmental protection and to responsible and comprehensive regulation and bonding for hard rock mining operations. Western Governors urge you to consider the concerns raised here.

Sincerely,



Matthew H. Mead  
Governor of Wyoming  
Chairman, WGA



Steve Bullock  
Governor of Montana  
Vice Chair, WGA

cc: Honorable Lisa Murkowski, Chairwoman, Senate Energy & Natural Resources Committee;  
Honorable Maria Cantwell, Ranking Member, Senate Energy & Natural Resources Committee;  
Honorable Fred Upton, Chairman, House Energy & Commerce Committee;  
Honorable Frank Pallone, Ranking Member, House Energy & Commerce Committee



## Western Governors' Association Policy Resolution 2014 - 07

### *Bonding for Mine Reclamation*

#### A. BACKGROUND

1. All Western states in which mining occurs have staff dedicated to ensuring that ongoing mine operations develop and follow appropriate reclamation plans.
2. An important component of a state's oversight of mine reclamation is the requirement that mining companies provide financial assurances in a form and amount sufficient to fund required reclamation if, for some reason, the company itself fails to do so. These types of financial assurances, often referred to generically as "bonding," protect the public from having to finance reclamation and closure if the company goes out of business, or fails to meet its reclamation obligation.
3. All Western states have developed regulatory bonding programs to evaluate and approve the financial assurances required of mining companies. The states have developed the staff and expertise necessary to calculate the appropriate amount of the bonds, based on the unique circumstances of each mining operation, as well as to make informed predictions of how the real value of current financial assurance may change over the life of the mine, and even post-closure.
4. Section 108(b) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9608(b), requires EPA to promulgate financial responsibility requirements for industrial facilities that take into account the risks associated with their use and disposal of hazardous substances. After the Sierra Club sued EPA for failing to timely comply with this section of CERCLA, a federal District Court in California ordered EPA to do so.<sup>1</sup>
5. In response to the Court's ruling, EPA announced in July, 2009 that it had selected hard-rock mining as the first industry sector for which it would undertake an analysis of whether federal bonding requirements under CERCLA Sec. 108<sup>2</sup> were needed.
6. Since EPA's 2009 announcement, Western Governors have expressed concern that any bonding requirements that EPA may develop for the hard-rock mining industry could be duplicative of state requirements, and could even pre-empt them entirely. The Governors have also questioned whether EPA has the resources to implement

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1 See Sierra Club v. Johnson, 2009 WL 2413094 (N.D. Cal. 2009)

2 See 74 Fed. Reg. 37213 (July 28, 2009).



reclamation bonding for hard-rock mines, since bond calculations usually reflect very site-specific reclamation needs, tasks and costs.

7. State mining agencies provided detailed comments to EPA in August 2011 on the structure and extent of each state's hard rock mining financial assurance requirements. EPA has yet to indicate if or what problems or gaps the agency has found in existing state requirements. Recently, EPA indicated that a rulemaking on this issue is not likely for at least another year.

## **B. GOVERNORS' POLICY STATEMENT**

1. Because mine reclamation is needed primarily to protect adjacent waters, it is both appropriate and consistent with Congressional intent to recognize the states' lead and primary role in regulating water related impacts of mine reclamation, including the associated bonding. See Clean Water Act, Sec. 101(b), 33 U.S.C. § 1251(b).
2. Western states have a proven track record in regulating mine reclamation in the modern era – including for hard rock mines -- having developed appropriate statutory and regulatory controls, and are dedicating resources and staff to ensure responsible industry oversight.
3. In contrast, EPA currently has no staff dedicated to oversight of mine reclamation, or to the approval of bonding associated with mine reclamation. As a consequence, if EPA proceeds to promulgate bonding requirements for the hard-rock mining industry under CERCLA Sec. 108, it will have to create a new federal regulatory program -- an unnecessary investment of federal funds -- at a time when the federal government is trying to get its fiscal house in order.
4. Western Governors believe that states currently have financial responsibility programs in place that are working well, and that functional programs should not be duplicated or pre-empted by any program developed by EPA pursuant to Section 108(b) of CERCLA.

## **C. GOVERNORS' MANAGEMENT DIRECTIVES**

1. The Governors direct the WGA staff, where appropriate, to work with Congressional committees of jurisdiction and the Executive Branch to achieve the objectives of this resolution.
2. Furthermore, the Governors direct WGA staff to develop, as appropriate and timely, detailed annual work plans to advance the policy positions and goals contained in this resolution. Those work plans shall be presented to, and approved by, Western Governors prior to implementation. WGA staff shall keep the Governors informed, on a regular basis, of their progress in implementing approved annual work plans.



SENT PRIOR TO JUNE 9 MEETING

## Interstate Mining Compact Commission

445-A Carlisle Drive, Herndon, VA 20170

Phone: 703/709-8654 Fax: 703/709-8655

Web Address: [www.imcc.isa.us](http://www.imcc.isa.us) E-Mail: [gconrad@imcc.isa.us](mailto:gconrad@imcc.isa.us) or [bbotsis@imcc.isa.us](mailto:bbotsis@imcc.isa.us)

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West Virginia

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Wyoming

### ASSOCIATE MEMBERS

GOV. JOHN HICKENLOOPER  
Colorado

GOV. SUSANA MARTINEZ  
New Mexico

EXECUTIVE DIRECTOR  
GREGORY E. CONRAD

May 3, 2016

The Honorable Gina McCarthy  
Administrator  
Office of the Administrator – Mail Code 1101A  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

Dear Administrator McCarthy:

Please find attached a resolution that was unanimously adopted by the member states of the Interstate Mining Compact Commission at its recent annual meeting concerning a rulemaking being undertaken by the U.S. Environmental Protection Agency (EPA) concerning financial assurance requirements under Section 108(b) of the Comprehensive Emergency Response, Compensation and Liability Act (CERCLA). We appreciate the effective working relationship that we have enjoyed with the Office of Land and Emergency Management and look forward to addressing the several concerns set forth in the resolution over the coming months, particularly with regarding to federalism and preemption.

Sincerely,

Gregory E. Conrad  
Executive Director

cc. Barnes Johnson



## *Resolution*

### *Interstate Mining Compact Commission*

#### *Re. Financial Assurance for Hardrock Mine Reclamation*

**BE IT KNOWN THAT:**

**WHEREAS**, the development of our Nation's minerals necessarily involves the surface disturbance of the land and often results in impacts to air and water resources; and

**WHEREAS**, state and national laws provide for the reclamation of land disturbed by mining and for the protection of human health and the environment related to those disturbances; and

**WHEREAS**, with regard to hardrock and noncoal minerals development, state governments have largely taken the lead in fashioning regulatory programs that address environmental protection and reclamation requirements; and

**WHEREAS**, an important component of state regulatory programs is the requirement that mining companies provide financial assurances in a form and amount sufficient to fund required reclamation if, for some reason, the company fails to do so in accordance with the state program. These types of financial assurances, often referred to as bonding, protect the public from having to finance reclamation and closure if the company goes out of business or fails to meet its reclamation obligation; and

**WHEREAS**, all states have developed regulatory bonding programs to evaluate and approve the financial assurances required of mining companies. States have also developed the staff and expertise necessary to calculate the appropriate amount of bonds, based on the unique circumstances of each mining operation, and to make informed predictions of how the real value of current financial assurance may change over the life of the mine, including post-closure; and

**WHEREAS**, Section 108(b) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. Sec. 9608(b), requires that the U.S. Environmental Protection Agency (EPA) consider promulgating financial responsibility requirements for industrial facilities that take into account the risks associated with their use and disposal of hazardous substances; and

**WHEREAS**, pursuant to a federal court decision in California (*Sierra Club v Johnson*, 2009 WL 2413094 (N.D. Cal. 2009)) which ordered EPA to move forward with the rulemaking, EPA announced in July 2009 that it selected hardrock mining as the first industry sector for which it would develop financial responsibility requirements under CERCLA Section 108(b) (74 Fed. Reg. 37213, July 28, 2009); and



**WHEREAS**, pursuant to a D.C. Circuit court decision (Order *In re: Idaho Conservation League, et al.*, No. 14-1149 (D.C. Cir. Jan. 29, 2016)) approving a settlement agreement between the EPA and several non-governmental organizations, EPA is required to publish a notice of proposed rulemaking regarding CERCLA Sec. 108(b) financial assurance for the hardrock mining industry by December 1, 2016; and

**WHEREAS**, in preparation for its rulemaking, EPA undertook an analysis of reclamation bonding requirements in approximately 20 state regulatory programs throughout the U.S.; and

**WHEREAS**, since the initiation of EPA's rulemaking initiative, a number of IMCC member states have expressed concern that any bonding requirements that EPA may develop for the hardrock and noncoal mining industry could be duplicative of state requirements, and could even preempt them entirely under EPA's reading of Section 114(d) of CERCLA. The states have also questioned whether EPA has the resources to implement reclamation bonding for hardrock and noncoal mines, since bond calculations usually reflect site-specific reclamation needs and costs; and

**WHEREAS**, the states are concerned that EPA may be attempting to fill alleged "gaps" in state reclamation bonding programs that either may not exist or that are unrelated to the purpose of a reclamation bonding program;

***NOW THEREFORE BE IT RESOLVED THAT THE INTERSTATE MINING COMPACT COMMISSION:***

Recognizes the states' lead and primary role in regulating the environmental impacts associated with hardrock and noncoal mining operations within their borders, including financial assurance requirements for reclamation; and

Affirms that IMCC member states are committed to environmental protection and to responsible and comprehensive regulation and bonding for hardrock mining operations; and

Affirms that the states have a proven track record in regulating mine reclamation, having developed appropriate statutory and regulatory controls and dedicated resources and staff to ensure full and effective implementation of their regulatory programs; and

Believes that the states currently have financial responsibility programs in place that are working well and as such should stand in-lieu of federal requirements under Section 108(b) of CERCLA; and

Recommends that an independent, impartial body (such as the National Academy of Sciences) conduct a study to review financial responsibility requirements under state



regulatory programs to determine their sufficiency, to identify any serious gaps, and to recommend whether a federal rulemaking on the matter is needed; and

Urges the EPA to engage with state regulators through the IMCC prior to publishing a notice of proposed rulemaking regarding CERCLA Sec. 108(b) financial assurance for the hardrock mining industry, which should include substantive consultation with and provision of proposals to state regulators before formal rulemaking is launched; and

Requests that EPA provide to state regulators the following: a detailed state consultation timeline and plan for obtaining individual state comments; all technical and scientific materials and analyses used to support any proposed rule, denoting whether any such materials were peer-reviewed; a statement indicating how the EPA solicited ideas about alternative methods of compliance and potential flexibilities in order to reduce the economic burden placed on affected entities; a statement indicating how EPA solicited information from state regulators as to whether the proposed rule will duplicate similar state requirements; a copy of a federalism assessment or the reason why EPA did not complete a federalism assessment; explanation of the reason existing state programs are insufficient to address financial assurance concerns and an analysis of any conflicts in the proposed rule with state programs; and an analysis of financial assurance instruments that would satisfy any proposed EPA requirement

Issued this 20th day of April, 2016

ATTEST:



Executive Director





American Exploration &  
Mining Association

10 N Post St. Ste. 305 | Spokane WA 99201-0705  
P. 509.624.1158 | F. 509.623.1241  
info@miningamerica.org | www.miningamerica.org

July 7, 2016

Lanelle Wiggins  
RFA/SBREFA Team Leader  
U.S. EPA Office of Policy  
1200 Pennsylvania Ave. N.W.  
Washington, D.C. 20460

Linda Barr  
Economist U.S. Environmental Protection Agency  
1200 Pennsylvania Ave. N.W.  
Washington, D.C. 20160

Sent via email

**Re: CERCLA 108(b) Financial Responsibility SBREFA Pre-panel Outreach**

Dear Lanelle and Linda:

This letter supplements our June 1 letter, and the questions and requests for information contained in that letter and attachments I and II. While we appreciate the information provided by email on June 28, it is not what the SERs need in order to effectively comment on the model or the formulae. The table summarizing features and statistics of the mines modeled is useless. It omits critical information the SERs require, including the 64+ mine sites modeled, the selection criteria used, the dates the mines began operating and whether they are operating today. The SERs also need the formulae and/or spreadsheets in order to understand how the financial responsibility amount outputs are calculated. This information also is necessary to determine if the sites chosen by EPA for analysis and model creation align with the sites EPA has chosen for regulation per the draft definition related to the scope of the rule.

We must reiterate our request for all of the information requested in our June 1 letter as it is absolutely necessary to providing constructive comments to EPA. Please answer the questions and provide the information requested in our June 1 letter before convening the SBAR Panel. It would be premature to convene the SBAR panel before answering the questions and providing all of the information previously requested.

### **June 16, 2016 FLMA & State Presentations**

On Thursday, June 16, 2016, the two federal land management agencies (FLMAs) and three states provided detailed presentations of their mine regulatory and financial assurance programs. South Dakota provided a PowerPoint of its program with examples but did not present. Each presentation revealed comprehensive regulatory and financial assurance programs designed to prevent the release of hazardous substances and to provide financial assurance in the event the operator is unable to complete reclamation and closure or take corrective action if and when necessary.



The six presentations revealed:

- Site specific, complex programs that take into account the unique geology, geography, terrain, climate, mining methods, engineering controls and management practices attributable to an individual mine.
- That the FLMAs and states' regulatory and financial assurance programs for hardrock mining clearly cover the release of hazardous substances, provide financial assurance post closure, and demonstrate the functional equivalent of a CERCLA 108(b) rule.
- That the only way a hardrock mining financial assurance program can work is if it is calculated on a site-specific basis. A nationwide financial assurance program and/or a one-size-fits-all formula will not work. Therefore, the use of a general formula for all mines is arbitrary and capricious.
- That in several states, different regulatory agencies cover different aspects of mining, milling and processing, but together they provide complete coverage. This inter-agency approach works. A review of some of the draft reports of state hardrock mining regulatory and financial assurance programs prepared by EPA's contractor indicates that the contractor did not consider an inter-agency approach.
- That the Bureau of Land Management (BLM), the U.S. Forest Service (USFS) and the states have the authority and regulatory tools to address unanticipated events at any time. They adapt to changing conditions or circumstances to prevent the release of hazardous substances and increase financial assurance. They have the authority, using monitoring data, to require plan modifications and increase financial assurance. This is the principle of adaptive management.
- The fact BLM holds almost \$3 billion in financial assurance in addition to the value of long-term trust funds for post closure water quality monitoring and treatment demonstrates clearly that its regulatory and financial assurance programs cover more than reclamation and closure, and is not distinct from a CERCLA 108(b) program.
- That a CERCLA 108(b) rule would be duplicative and appears to completely overlap existing federal and state financial assurance programs.
- That the expertise and experience to calculate financial assurance for hardrock mines resides with the states and the FLMAs, and that EPA lacks this experience and expertise. The states and FLMAs have been calculating financial assurance on a site-by-site basis for more than 25 years.
- That the FLMAs and states are in the best position to prevent the release of hazardous substances and to ensure adequate financial assurance to protect the taxpayer.

- That any CERCLA 108(b) program must be site specific. A nationwide bonding standard is unworkable. It would be arbitrary and capricious to calculate financial assurance at one site based on data from another site. There is no room for a one-size-fits-all formula. It would be arbitrary to apply credits applicable at one site to a different site.
- That neither the FLMAs nor the states see any basis for EPA moving forward with a CERCLA 108(b) rule.

It is clear there would be substantial if not complete overlap between the FLMA and state programs and an EPA CERCLA 108(b) program based on the information provided by EPA to date. Contrary to EPA's position that CERCLA 108(b) regulations are significantly different as compared to existing requirements for hardrock mining facilities, the FLMA and state regulatory requirements, financial assurance requirements and long-term trust funds ensure not only permit compliance, they also *prevent the release of hazardous substances* and ensure post-closure water quality. There is nothing left for EPA to cover. The taxpayer is protected.

Given the comprehensive and robust hardrock mining regulatory and financial assurance programs of the FLMAs and states, we believe the burden is on EPA to show where and how a CERCLA 108(b) rule would not duplicate the state and FLMA programs. The burden is on EPA to identify if there are any gaps in the states' and FLMAs' hardrock mining regulatory and financial assurance programs that would justify a CERCLA 108(b) rule. If EPA is able to demonstrate gaps in any of the FLMA or state programs, then a 108(b) rule should be limited to identifying those gaps and allowing existing FLMA and state programs to fill those gaps.

### **Information provided by email dated June 28, 2016**

#### Mining Practices Currently Under Consideration for the Formula

The GARD Guide contains practices focused on the prevention and control of acid rock drainage (ARD). However, not all mines pose a risk of ARD, e.g., mines in a limestone ore body, and not all of these engineering controls/practices will be applicable to all mines. While many of the GARD Guide recommendations are applicable to mines without ARD issues, it is clear that one cannot look to a single guide or code to determine appropriate engineering controls or best practices. Since each mine is unique in its geology, metallurgy, geography, topography, and climate; the engineering controls and best management practices for protecting the environment, ensuring compliance with federal and state environmental laws and regulations, and preventing the release of hazardous substances must be determined on a mine by mine, site-specific basis.

The list of engineering controls explicitly and indirectly accounted for in the cost formula provided by EPA is a small sample of the engineering controls and best practices utilized at modern mines and must be expanded. In addition to the GARD Guide, the International Cyanide Management Code ([Cyanide Code](#)) provides engineering controls and best management practices for mines using cyanide in the production of gold. The FLMA and state mine regulatory programs governing hardrock mining include many design controls and requirements to minimize the likelihood of a release of a hazardous substance and the enforcement

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mechanisms to deal with an unplanned release or system upset, e.g., BLM's 43 CFR 3809.420 performance standards. While EPA stated in the SBREFA slides and at the June 9, 2016 pre-panel outreach meeting that the amount of financial responsibility a facility is obligated to cover will "account for environmentally protective practices already in place, including those required by other regulations," to date EPA has not provided a list of these EPA approved practices or the criteria used to identify these practices. The SERs cannot assess the financial impacts to their businesses or recommend regulatory alternatives without this information. AEMA requests EPA provide this information prior to convening the formal SBAR panel.

In addition, the SERs need to know how the engineering controls and best practices will be factored into the financial responsibility calculations. The hypothetical mine examples in the SBREFA slides do not contain the information needed to assess financial impacts to small businesses. Not only do the SERs need to know the complete list of engineering controls and best practices, the SERs also need to know the corresponding percentage reduction for *each* practice (not just a total as provided in the hypotheticals) and the basis for those percentage reductions (i.e., the criteria, source data, assumptions, and calculations). This must be done on a site-specific basis. To understand the financial impact, a SER must be able to beta-test the formula and input its own site-specific features, operational controls, and best practices. EPA must provide the SERs this opportunity prior to or during the convening of the formal SBAR panel.

#### Draft Definition(s) related to the Scope of the Rule with Respect to Mine Operation Status

Thank you for clarifying the scope of the rule. We believe EPA has correctly concluded that CERCLA 108(b) requirements, if any, would apply only to mines operating or authorized to operate on or after the effective date of the rule (if a rule is promulgated). We interpret the draft definition to mean that EPA does not intend to apply a CERCLA 108(b) rule to abandoned, inactive or legacy sites unless those sites are covered by a current or future operating permit. We believe this definition is correct and consistent with CERCLA's statutory language and legislative intent.

We are unaware of any mines that might be operating without required authorization or permits.

Now that EPA has concluded that a CERCLA 108(b) rule will be applied only to mines operating on or after the effective date, or idle but authorized to operate on or after the effective date, it is unreasonable, arbitrary and capricious for EPA to assume that all currently operating mines and mines which will be authorized in the future pose a risk of releasing hazardous substances to the environment. There is no evidence that a CERCLA 108(b) rule is necessary because there are no modern mines sites permitted since 1990 on the CERCLA National Priorities List as confirmed by BLM and USFS responses to Sen. Lisa Murkowski's March 8, 2011 letter to Secs. Salazar and Vilsack.

Sen. Murkowski asked each secretary to answer questions concerning the BLM and USFS financial assurance programs respectively, and also asked if any hardrock mining and beneficiations plans of operation approved since 1990 have been placed on the CERCLA NPL.

The BLM answered 659 and 0; The USFS answered 2,685 and 0. These answers demonstrate that modern mine regulatory and financial assurance programs together with modern mining practices and engineering controls are working and that a CERCLA 108(b) rule is unnecessary. Copies of Sen. Murkowski's March 8, 2011 letter and BLM and USFS responses are attached to this comment letter and incorporated by reference. Note that in 2011 BLM stated that they held \$1.7 billion in financial assurance and on June 16 BLM stated that it held over \$2.9 billion in financial assurance (in addition to long term trusts), a 71% increase in just 5 years. This is additional evidence that BLM's financial assurance program provides the authority and flexibility for BLM to increase financial assurance to cover increased costs or modifications in mine plans of operation.

List of Insurance, Surety, and Banking Companies and Organizations with whom EPA has met and dates of those meetings

These four meetings and four follow-up telephone calls over a three month period do not represent a good faith effort "to collect and analyze information from the commercial insurance and financial industries regarding the use and availability of a necessary instruments (including surety bonds, letters of credit, and insurance) for meeting any new financial responsibility requirements" as required by the FY2016 Omnibus Appropriations Act. We have been in contact with company representatives who attended one or more of the meetings described by EPA. They expressed frustration with the lack of information necessary to evaluate the risk and determine whether or not financial responsibility instruments would be available to meet any new financial responsibility requirements of a CERCLA 108(b) rule.

In addition, during the May 17, 2016 public webinar question and answer period, EPA admitted the insurance, surety and banking companies expressed concern with the "direct action" provision of CERCLA 108(c) and that a direct action requirement would be a hindrance to issuing financial responsibility instruments and, may in fact, prevent these companies from offering financial responsibility instruments. Has EPA continued a dialogue with these entities to address these concerns? If so, has EPA developed alternative regulatory approaches to lessen this burden on instrument providers? If so, please provide these alternatives in the materials for the formal panel.

EPA also admitted that it has completed a "draft study [that] examines both the current state and future outlook of the markets for financial responsibility instruments based on publically available and attributable data (from the US Treasury, GAO, Standard & Poor's, industry, and non-profit institutions)" and that this draft is currently undergoing internal agency review. AEMA is extremely concerned that this "draft study" is not rooted in reality, given that the U.S. Treasury, GAO, industry, and others were provided no concrete details on the formula that is at the heart of this rulemaking or the duration of the obligation. Even if there is excess market capacity today, that does not mean there will be market capacity once hundreds of facilities begin to procure instruments to cover tens to hundreds of millions of dollars of liability coverage under the rule. What limited capacity there is today will be completely overwhelmed and wiped out by this new regulatory obligation. The impact on small mining businesses will be devastating.

AEMA requests that EPA provide the “draft study” to the SERs during the formal SBAR panel process for review and comment.

The presumed lack of available financial responsibility instruments from the insurance, surety and banking companies will leave cash as the only available instrument. Small mining companies will be unable to raise the cash required to meet any CERCLA 108(b) requirements. A CERCLA 108(b) rule without the ability to purchase insurance or other financial responsibility instruments at a reasonable cost will price most small mining companies out of business.

Exploration and junior mining companies will not be able to raise the necessary capital to explore for and develop mineral deposits knowing there will be a cash requirement for duplicative financial assurance under a CERCLA 108(b) rule. This will have an adverse effect on the mining industry food chain as most producing mines begin as an exploration project by an exploration company, junior mining company or other small mining company. The result will be fewer high paying jobs and increased dependence by the United States on foreign sources of minerals necessary for national defense and economic security.

#### Modeled Universe Summary Statistics

The table EPA provided is useless to an understanding of the mine sites EPA analyzed for preparing the model and determining inputs in the examples contained in the SBRFA slides. This summary table omits critical information required including the approximately 64 mine sites modeled, the selection criteria used, the dates the mines began operating, and whether they are operating today. The SERs need the formula and/or spreadsheets in order to understand how the financial responsibility amount outputs are calculated. These are critical omissions.

The SERs must know whether the mines summarized in this table are currently operating mines, modern mines; or are they older mines that pre-date modern environmental regulatory and financial responsibility requirements. Are any of the mines on the NPL? The fact the mean size for an open pit is only 407 acres suggests that the sample size includes many small and perhaps older mines.

Now that EPA has agreed that a CERCLA 108(b) rule would apply only to mines operating or authorized to operate on or after the effective date, it is important to know the identity of each mine that makes up this summary table. We must know that the sites used to justify a proposed CERCLA 108(b) rule and to build the model are the same sites which will be subject to the rule. If not, then EPA is building a model that has no relevance to modern mines subject to modern environmental regulation and financial responsibility requirements.

#### Draft Summaries of 21 state and 3 FLMA financial responsibility programs prepared by EPA’s Contractor

Thank you for providing these summaries. Given the fact that these summaries are 4-6 years old, we are disappointed to learn that EPA does not plan to have their contractor review, update and finalize these summaries. We have just begun our review of these summaries for completeness

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and accuracy and are finding that some of the summaries are incomplete, inadequate and out of date. An example is Alaska. We asked our members operating in Alaska to review and comment on the summary. A copy of the Alaska summary with comments in Track Changes accompanies this letter. Another example is Idaho. Last year Idaho increased the *minimum* cost per acre from \$2,500 to \$15,000.

We are continuing our review of the other summaries and may have additional comments to submit.

## **Other Comments**

### Economic Harm

Our small entity members are telling us a duplicative CERCLA 108(b) rule calculating financial assurance according to the examples in the SBREFA slides will chill access to investment capital and prevent companies from raising the capital necessary to develop their projects into a producing mine or to expand an existing mine. A CERCLA 108(b) rule would increase the cost of doing business to our member companies without providing any benefits to the company, the environment, or the taxpayer.

### EPA Must Provide a Gap Analysis

Based on the information EPA has provided to date, and the FLMA and state presentations of their mine regulatory and financial assurance programs, EPA's proposal duplicates and overlaps FLMA and state financial assurance requirements and potentially pre-empts state regulation. If EPA perceives there are gaps in FLMA and state financial assurance requirements, EPA must identify those gaps. The burden is on EPA.

### Natural Resource Damages

Natural resource damages belong to "the trustees." They are in essence tort claims against an alleged polluter. They are not, in any case, a taxpayer liability. Please explain EPA's legal authority to require financial assurance for potential claims that belong to other parties such as states and tribes. In addition, please provide the "fixed percentage of aggregate financial responsibility for natural resource damages" the EPA is currently considering for inclusion in the rule. Without this information, the SERs cannot assess the financial impacts to their operations.

### Incomplete SER Representation

For CERCLA 108(b) purposes, EPA has modified the commonly understood meaning of hardrock mining and beneficiation (locatable minerals under the 1872 Mining Law) to include certain leaseable minerals (e.g. phosphate, gypsum, sulfur and asbestos). The 15 company potential SERs mine locatable minerals and do not mine leaseable non-metallic, non-fuel minerals. AEMA has members that mine phosphate, but those members do not meet the SBA definition of Small Entity for SBREFA purposes. AEMA does not have members that mine



gypsum, sulfur, asbestos or other non-metallic, non-fuel leaseable minerals. There are no potential SERs that mine the leaseable non-metallic, non-fuel minerals included in EPA's definition of hardrock mining and beneficiation.

### Regulatory Alternatives

EPA should consider the following alternatives that will lessen the economic, compliance, record keeping and cost burden on small entities consistent with the requirements of CERCLA 108(b).

1. We believe the record demonstrates clearly that a CERCLA 108(b) rule as contemplated by EPA in the SBREFA slides and additional materials provided will duplicate and overlap existing FLMA and state financial assurance programs that are the functional equivalent of a CERCLA 108(b) rule. Therefore, EPA should conclude that CERCLA 108(b) rule is unnecessary and publish that finding in the Federal Register.
2. EPA should defer to the existing FLMA and state mine regulatory and financial assurance programs.
3. EPA should exempt mine sites that are covered by existing FLMA and state financial assurance programs that are designed to prevent the release of hazardous substances and provide evidence of financial responsibility consistent with the degree and duration of risk associated with the production, transportation, treatment, storage, or disposal of hazardous substances.
4. EPA should identify gaps, if any, in existing FLMA and state programs and allow those programs to fill the gaps instead of proposing a new regulatory and financial assurance program that will increase the costs to small entities.

### Information required prior to convening the SBAR panel

In preparation for the formal SBAR panel, AEMA reiterates that prior to formally convening the SBAR Panel the following critical information must be provided to ensure an effective Panel:

1. The selection criteria used to identify the 64+ mining and mineral processing sites used in the model/formula.
2. The names of the 64+ mining and mineral processing sites and the information (i.e., site characteristics, risk evaluations, dates of operation and other relevant information) from these sites that is used in the model/formula.
3. The criteria for identifying engineering controls and best management practices that will be assigned reduction values in the model/formula.
4. The complete list of engineering controls and best management practices the agency is currently considering for reductions in the total financial responsibility obligation,

including those controls and practices EPA intends to include that are currently required under state and federal regulatory programs.

5. The corresponding reduction percentages/values for each engineering control and best management practice and the criteria, formula, and assumptions used to determine these numbers.
6. The formula, calculations, and assumptions, including spreadsheets, used to determine the annualized instrument costs to obtain the hypothetical financial responsibility amounts in the SBREFA slides, including the costs for insurance policies, trust funds, and letters of credit, as well as information on costs for surety bonds (not provided in the slides or at the June 9, 2016 meeting).
7. The fixed percentage EPA is currently considering for natural resource damages. The fixed amount EPA is currently considering for health assessment costs. The criteria used to determine or calculate those amounts.
8. The duration of the obligation is currently unknown. Instead, EPA has only shared that it would “evaluate the facility and the continued financial responsibility, and would adjust the level of financial responsibility required, or release the owner or operator from the requirement to obtain financial responsibility.” EPA must provide more detail on this evaluation process, how it will work and what criteria EPA will rely on to base its ultimate decision to continue or release companies from the obligation.
9. The draft market capacity study.

### Summary

EPA’s CERCLA 108(b) rulemaking for hardrock mining and beneficiation is a classic “*solution in search of a problem*,” a problem that clearly does not exist. The hardrock mining states and the federal land management agencies have comprehensive, robust regulatory programs in place that address financial assurance requirements associated with mining and beneficiation, reclamation, closure and post-closure issues. These programs substantially reduce, if not eliminate, the risk that a mine will have a release of hazardous substances. The states and FLMAs have the expertise and staff to calculate the appropriate amount of financial assurance based on the unique circumstances and features, including geochemistry of the rock, for each mining operation and to adjust financial assurance as required over the life of the operation, including post-closure.

The FLMA’s and state’s comprehensive, robust regulatory programs are designed to prevent the release of hazardous substances and assure sufficient financial assurance is in place to protect the taxpayer in the event of bankruptcy or an event that requires corrective action. The fact no hardrock mining or beneficiation plan of operation approved by the BLM or USFS since 1990 has been added to the CERCLA NPL demonstrates that the “degree and duration of risk” for

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hardrock mining is too small to regulate. This is the conclusion EPA should publish as a proposed rule on December 1, 2016.

Yours truly,

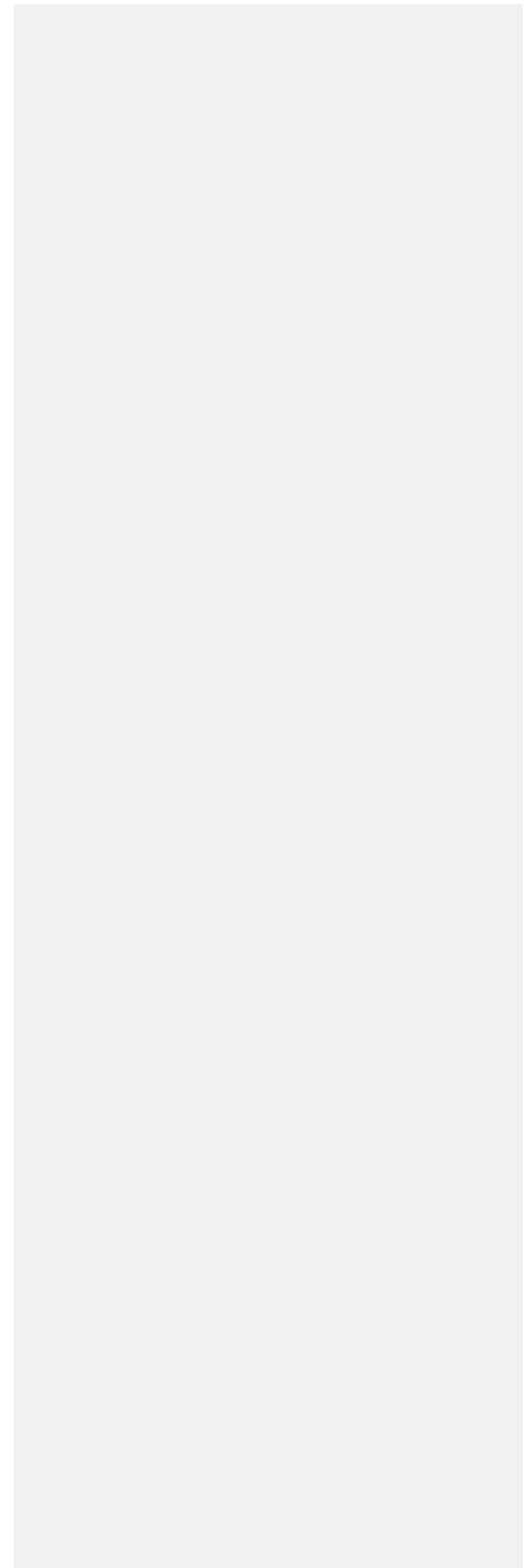
A handwritten signature in cursive script that reads "Laura Skaer".

Laura Skaer  
Executive Director

DRAFT

October 2012

**Summary of Alaska State Financial Responsibility  
Requirements Applicable to Classes of Potential CERCLA 108(b) Hardrock Facilities**



DRAFT

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DRAFT

## 1. Executive Summary

This report summarizes financial responsibility requirements applicable to classes of hardrock mining facilities under Alaska law. Although the scope of the financial responsibility requirements has evolved for over 20 years, operators of hardrock mining facilities in Alaska have been required to demonstrate financial responsibility for reclamation, waste management, and dam safety costs. Currently, authorization for requirements fall under three separate Alaska laws: Chapter 19, “Reclamation,” of Title 27 of the Alaska Statute (AS); chapter 3, “Environmental Conservation,” of Title 46, Alaska’s water pollution control and waste disposal statute; and the Alaska Dam Safety Act, AS 46.17. Most of the detailed requirements themselves are in State regulations adopted by the Alaska Department of Natural Resources and the Alaska Department of Environmental Conservation.

First, under the “Reclamation” statute and regulations, prior to commencement of mining operations on state-owned, federal, municipal, or private land, a reclamation plan must be approved and financial responsibility must be demonstrated in an amount reasonably necessary to ensure performance of the plan. This statute applies to operations that involve the development, extraction, or processing of minerals other than oil, gas, and coal. Mines are to be reclaimed so as “to leave the site in a stable condition.” A \$750/acre cap on financial responsibility for reclamation of mined lands was eliminated for lode mines in 2004, but remains in effect for placer mines. Also, a bond pool is provided for certain eligible mining operations (e.g., placer mines and hardrock exploration projects) where participants pay an initial deposit and an annual fee not to exceed 15% and 5% of the otherwise required financial responsibility amount, respectively.

Financial responsibility instruments for reclamation may take the following forms: (1) a surety bond; (2) a letter of credit; (3) a certificate of deposit; (4) payments into the mine reclamation trust fund; or (5) any other form that the agency determines to be acceptable. Alaska’s statute authorizes the use of corporate guarantees if the state first establishes financial tests in regulation, which it has yet to do. Violation of reclamation requirements results in forfeiture of the instrument. Reclamation plan approvals and applications for mining waste disposal permits are public noticed along with the mine closure and reclamation cost estimates.

Second, under Alaska’s water pollution control and waste disposal statute, additional financial responsibility may be required for those mining operations that chemically process ores or have the potential to generate acid. Financial responsibility may be required to ensure that the mining facility is managed and closed in a manner that the Department of Environmental Conservation finds “will control or minimize the risk of the release of unauthorized levels of pollutants from the facility to waters.” The allowed forms of financial assurance are similar to those listed above for reclamation.

Third, under the Alaska Dam Safety Act, operators of hardrock mines (and other facilities) that involve the construction of mine tailings dams must, prior to construction, demonstrate financial responsibility to cover reclamation and post-closure monitoring and maintenance of the dam.

This financial responsibility must be demonstrated as part of an application for a certificate of approval to construct such a dam.

None of the state programs explicitly exclude any financial responsibility instrument (other than corporate guaranties in the absence of regulatory financial tests), and demonstration of financial responsibility under any of these programs can potentially be used to demonstrate financial responsibility under a different program if it is determined to be sufficient to cover all required activities. This determination is made on a case-by-case basis by the administering agencies. Additionally, EPA found no programs that explicitly differentiate financial responsibility requirements according to toxicological risk or degree and duration of toxicological risk or financial responsibility requirements that cover remedial or removal actions due to the future release of CERCLA hazardous substances.

EPA identified no state guidelines for determining amounts of financial responsibility for reclamation, waste management, or dam safety costs. However, the Alaska Department of Natural Resources and the Alaska Department of Environmental Conservation have collaborated in writing *DRAFT Mine Closure and Reclamation Cost Estimation Guidelines*. According to the Alaska Minerals Commission, this document has not been formally reviewed or adopted but such a document is needed to ameliorate what the Commission says are subjective reclamation cost calculations, with differences in permittee and agency calculations ranging up to 50% or more. The ADNRR says its calculations are detailed.

**Commented [MS1]:** These guidelines have still not been adopted but the agencies use them as if they were. Unless it is convenient not to....

## 2. Introduction

This summary was prepared as background for the Environmental Protection Agency's research into potential federal financial responsibility regulations under section 108(b) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). This summary describes current financial responsibility regulations applicable to hardrock mining facilities in Alaska. Hardrock activities of interest include exploration/prospecting, development, extraction, beneficiation, primary smelting or refining, and/or processing as defined by 40 CFR 261.4(b)(7). This summary is one of a series describing financial responsibility regulations in important hardrock mining states; some states, such as Alaska, have several applicable programs.

The summary includes background context on the regulation of hardrock activities in Alaska. For each applicable financial responsibility program identified, the summary describes the following:

- (1) Applicability -- who must demonstrate financial responsibility and which hardrock activities trigger a requirement to demonstrate financial responsibility?
- (2) Scope of Financial Responsibility Coverage -- what is the financial responsibility intended to cover?
- (3) Amounts of Required Financial Responsibility -- who determines the amount required and what does the amount represent (e.g., third-party costs)?



(4) Allowable Instruments and Eligible Providers -- which instruments are acceptable for demonstrating financial responsibility and who is eligible as a provider or issuer?

(5) Procedures for Demonstrating and Maintaining Effective Financial Responsibility -- when must financial responsibility be provided (e.g., in relation to commencing hardrock activities) and maintained, including access to funds and release from financial responsibility requirements.

The material in these summaries largely comes from current state statutes and regulations; guidance documents and other materials (e.g., rulemaking documents, legislative reports) are used where readily available via the Internet. State regulatory authorities have reviewed and provided comments on a draft of this summary. EPA has carefully considered these comments and addressed them.

This summary does not describe state financial responsibility regulations solely applicable to:

- commodities such as sand, gravel, stone, peat, clays, and nonfuel minerals;
- coal, oil, and natural gas;
- inactive, closed, or abandoned hardrock facilities; and
- enforcement actions.

Additionally, these summaries do not describe state financial responsibility regulations that are counterparts to Federal financial responsibility regulations for (1) RCRA Subtitle C hazardous waste facilities,<sup>1</sup> (2) Safe Drinking Water Act Underground Injection Control wells, and (3) Atomic Energy Act Uranium and Fuel Cycle facilities. Such state financial responsibility regulations tend to mirror the Federal counterpart regulations, whereas the state programs described in this series of reports are very different in many respects and have not been designed in most cases by reference to a Federal model.

The summaries also do not describe state financial responsibility regulations applicable to non-municipal, non-hazardous solid waste facilities, absent specific language or other documentation (e.g., permits) indicating that such programs apply to classes of hardrock facilities.<sup>2</sup> Similarly, state financial responsibility regulations generally applicable to remediation of hazardous wastes, hazardous substances, and non-hazardous wastes are not included absent specific language or other documentation that such programs apply to classes of hardrock facilities.

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<sup>1</sup> Approximately 35 hardrock processing facilities nationwide have Resource Conservation and Recovery Act (RCRA) Subtitle C treatment, storage, or disposal facilities (TSDFs), as reported by the Resource Conservation and Recovery Act Information system (RCRAInfo), 2010. <http://www.epa.gov/enviro/html/rcris/index.html>, queried on 04/06/10). These facilities may be subject to federal- or state-administered RCRA financial responsibility requirements applicable to Treatment, Storage and/or Disposal Facilities (TSDFs.) Every state, with the exceptions of Alaska and Iowa, has been authorized to implement the financial responsibility requirements for TSDFs under RCRA.

<sup>2</sup> State non-hazardous solid waste financial responsibility programs tend to follow RCRA Subtitle C and D models, although they are not required to do so.

### 3. Background Context

Numerous state, federal, and local government permits and approvals are required before construction and operation of a hardrock mine in Alaska can begin. The specific permits and approvals required can vary from project to project. The Alaska Department of Natural Resources (ADNR)'s Office of Project Management and Permitting coordinates the permitting of large mine projects across various state agencies. The goal is to coordinate the timing and completion of the decision making process for the numerous state permits and authorizations required for a hardrock mine to open and operate.

According to the Director of the Division of Mining, Land and Water (DMLW) within ADNR, there are currently no major mines in Alaska today where legacy contamination is a significant issue. Furthermore, the Director stated that if a new mine were proposed in an area with legacy contamination, the State would work with the applicant to look for potential ways to collaborate in the clean-up.<sup>3</sup>

The State of Alaska has adopted federal Clean Air Act standards and emissions controls for hardrock sources subject to National Emission Standards for Hazardous Air Pollutants (NESHAPs), New Source Performance Standards (NSPS), and similar requirements. The State of Alaska has implemented air pollution control requirements specifically for hardrock facilities. The construction, modification, and operation of mining facilities that produce air contaminant emissions require a State Air Quality Control Permit to construct, and a separate Air Quality Control Permit to Operate.<sup>4</sup> Neither Federal or State air pollution control requirements typically include financial responsibility regulations.

On October 31, 2008, Alaska was granted authority over discharges to surface water by the EPA under the Clean Water Act, enabling Alaska to enforce its own version of the National Pollutant Discharge Elimination System (NPDES) permit program for hardrock sources.<sup>5</sup> This transfer of permitting authority is a phased process that will be completed on October 31, 2012. The federal Clean Water Act generally does not include financial responsibility regulations. However, some states address post-mining water discharges with financial responsibility requirements to assure long-term water treatment; and such programs are described in this series of reports. Alaska's NPDES permit program does not have such financial responsibility regulations; however, State regulation 18 AAC 60.265 requires proof of financial responsibility to comply with closure requirements for a landfill; such closure requirements may necessitate long-term water treatment<sup>6</sup>.

Alaska is no longer administering a hazardous waste regulatory program pursuant to the Resource Conservation and Recovery Act (RCRA). On July 1, 1996, the EPA Region 10

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<sup>3</sup> E-mail from Edmund J. Fogels, Director, Alaska Department of Natural Resources (ADNR), to Elizabeth McCullough, ICF (Sept. 30, 2010).

<sup>4</sup> Alaska Department of Environmental Conservation (ADEC), *Mining Authorizations required by ADEC*, <http://dnr.alaska.gov/mlw/mining/largemine/pogo/dec.htm> (last visited Aug. 16, 2010).

<sup>5</sup> ADNR, *Alaska Pollutant Discharge Elimination System*, <http://www.dec.state.ak.us/water/npdes/AboutAPDES.htm> (last visited Aug. 11, 2010).

<sup>6</sup> Comments from Tom Crafford, Director, ADNR Office of Project Management and Permitting, July 13, 2012,

assumed primary responsibility for the regulation of hazardous waste management in the State of Alaska. Financial responsibility regulations apply to certain hazardous waste treatment, storage, or disposal facilities (TSDFs), although few hardrock facilities that generate hazardous wastes are subject to the TSDF regulations for financial responsibility. In addition, wastes from extraction, beneficiation, and processing are exempt from RCRA under the Beville Exclusion, with some exceptions for specified mineral processing wastes.

#### 4. Summaries of Alaska State Financial Responsibility Programs

Figure 1. Applicable Alaska Laws and Guidance

Authorizing Statutes:	Implementing Regulations:	Guidance:
Title 27: Mining. Chapter 19, Reclamation [ALASKA STATUTE (AS) 27.19].	Title 11: Natural Resources. Chapter 97, Mining Reclamation [ALASKA ADMINISTRATIVE CODE (AAC) 11 AAC 97.400 - .450].	
Title 46: Water, Air, Energy, and Environmental Conservation. Chapter 3, Environmental Conservation. Section 100, Waste Management and Disposal Authorization [AS 46.03.100].	Title 18: Environmental Conservation. Chapter 60, Solid Waste Management [18 AAC 60.265 and 18 AAC 15.090(3)].	
Title 46: Water, Air, Energy, and Environmental Conservation. Chapter 17, Supervision of Safety of Dams and Reservoirs. Alaska Dam Safety Act [AS 46.17].	Title 11: Natural Resources. Chapter 93, Water Management. Article 3, Dam Safety [11 AAC 93.150 - 93.201].	Division of Mining, Land, and Water, Guidelines for Cooperation with the Alaska Dam Safety Program [Guidelines].

#### 4.1. Reclamation

##### 4.1.A. Applicability of Reclamation Financial Responsibility

The Commissioner of the ADNR (commissioner) administers chapter 19, “Reclamation,” of Title 27 of the Alaska Statutes (AS), which was enacted June 6, 1990, became effective on October 15, 1991, and was most recently amended in June of 2004. The 2004 amendment included eliminating the per acre limit on financial responsibility required for lode mines, expanding the allowable financial responsibility instruments, and creating the Mine Reclamation Trust Fund, codified at AS 37.14.800 - .840.

AS Title 27 applies financial responsibility requirements to locatable or leasable mineral deposits or materials exploration and mining operations<sup>7</sup> on state, federal, municipal, and private land. It does not apply to fuel spills, chemical neutralization, detoxification, or clean-up of hazardous substances used in mineral processing facilities.<sup>8</sup> However, heap leach operations are explicitly covered and are required to demonstrate financial responsibility.<sup>9</sup> Title 27 also does not apply to areas disturbed by mining operations before October 15, 1991<sup>10</sup> unless a mining operation disturbs a previously mined area, which must then be reclaimed to the standards of Title 27 and the costs of such reclamation included in the mine closure and reclamation cost estimate.

**Commented [MS2]:** Reclamation estimates would cover any know needs for this and are therefore covered under the required financial assurance.

Owners, operators, or leaseholders (collectively referred to as “miners”)<sup>11</sup> of mining operations, unless exempted as a small operation, are required to demonstrate financial responsibility. Exploration disturbing more than five acres is treated as mining under this law. “Small operations” that are exempt from financial responsibility requirements include mining operations (1) where less than five acres are mined at one location in any year and there is a cumulative unreclaimed mine area of less than five acres at one location; or (2) where less than five acres and fewer than 50,000 cubic yards of gravel or other materials are disturbed or removed at one location in any year and there is a cumulative disturbed area of fewer than five acres at one location.<sup>12</sup> Exploration activities that exceed five acres of disturbance are bonded through the Statewide Mining Bond Pool that also is used for placer mining operations. The State of Alaska, the federal government and municipalities are exempted from demonstrating financial responsibility under this chapter.<sup>13</sup>

#### 4.1.B. Scope of Reclamation Financial Responsibility

The scope of required financial responsibility covers the “faithful performance of the requirements of the approved reclamation plan.”<sup>14</sup> The reclamation plan must include the following:

- measures for topsoil removal, storage, protection, and replacement;
- measures for reclamation of tailings impoundments, settling ponds, reservoirs, heaps, open pits and cuts, shafts, adits, tunnels, portals, overburden, waste rock storage areas, and all other areas affected by the mining operations.
- measures for stream placement and reclamation at the end of mining; and

<sup>7</sup> “Mining operation” (A) means each function, work, facility, and activity in connection with the development, extraction, and processing of (i) a locatable or leasable mineral deposit except oil, gas, or coal; (ii) other materials or of a sand and gravel deposit; and (iii) each use reasonably incident to the development, extraction, and processing of a locatable or leasable mineral deposit or materials; (B) includes the construction of facilities, roads, transmission lines, pipelines, and other support facilities. AS 27.19.100(4). According to the Alaska Department of Natural Resources, exploration is treated as mining under this law as long as the exploration activities exceed the five-acre “small operations” exemption.

<sup>8</sup> Applicability, 11 Alaska Administrative Code (AAC) 97.100(d).

<sup>9</sup> Heap leach operations, 11 AAC 97.230.

<sup>10</sup> Applicability, 11 AAC 97.100(d). However, if after October 14, 1991, a mining operation disturbs a previously mined area, then the miner must reclaim the previously mined area to the standards of this Act; if only a portion of the previously mined area is disturbed after October 14, 1991, financial responsibility requirements apply only to that disturbed portion.

<sup>11</sup> Definitions, Alaska Statute (AS) 27.19.100(4).

<sup>12</sup> Exemption for Small Operations, AS 27.19.050(a).

<sup>13</sup> Exception to the bonding requirement, 11 AAC 97.450.

<sup>14</sup> Reclamation Financial Assurance, AS 27.19.040(a).

- measures for reclaiming or converting access roads leading to the mining operation, airstrips, and other associated facilities.<sup>15</sup>

Other required reclamation activities include disposal of buildings, structures, and debris on state land; stabilization and closure of all underground mine openings; prevention of the generation and offsite discharge of acid mine drainage; and recontour, regrade, or backfill consistent with post-mining land use, conducive to revegetation.<sup>16</sup>

Title 27 does not explicitly differentiate the scope of financial responsibility requirements according to toxicological risk or degree and duration of toxicological risk or cover potential remedial or removal actions due to the future release of hazardous substances. Like many states, Alaska can recover hazardous substance spill response costs from responsible parties under other authorities, but EPA found no specific financial responsibility requirement.

**Commented [MS3]:** Detailed reclamation plans assess and address this risk in order to prevent this from happening. At some point the perpetual “what if” game has to stop.

Title 27 does not preclude a federal or state agency (including the ADNR), a state corporation, the University of Alaska, a municipality, or a private landowner, acting under its own regulatory or proprietary authority, from establishing and enforcing additional requirements or higher standards for reclamation which could include additional financial responsibility requirements<sup>17</sup>

#### 4.1.C. Required Amount of Financial Responsibility for Reclamation

The required financial responsibility amount is based on the cost of performing the approved reclamation plan and “should not exceed an amount reasonably necessary to ensure” compliance.<sup>18</sup> Under the original 1990 Act, financial responsibility was calculated by multiplying the projected number of acres to be mined throughout the upcoming year, plus any area mined in a previous year for which reclamation must be completed, by \$750/acre or the reduced per-acre amount.<sup>19</sup> In 2004 the Alaska Legislature amended the Act to require that the financial responsibility amount not exceed \$750 for each acre of mined land, “except that the \$750 an acre limitation does not apply to the assurance amount required for a lode mine.”<sup>20</sup> Because a “lode mine” includes all “mining operation[s] that remove[ ] the minerals from consolidated rock rather than from a placer deposit,”<sup>21</sup> large hardrock mining operations are no longer limited to this \$750/acre amount for financial responsibility.

The required financial responsibility amount may change after its inception.<sup>22</sup> Under the current Alaska regulations, which do not yet reflect the 2004 amendment, the per acre rate for reclamation can be adjusted based on evidence provided to the commissioner showing the

<sup>15</sup> Reclamation Plan, 11 AAC 97.310(b)(6).

<sup>16</sup> Reclamation Performance Standards, 11 AAC 97.200 – .240.

<sup>17</sup> Applicability, 11 AAC 97.100(c).

<sup>18</sup> Reclamation Financial Assurance, AS 27.19.040(a).

<sup>19</sup> Acreage to be bonded, 11 AAC 97.415(a). For an underground mine, only the surface acreage disturbed by the operation constitutes a “mined area” for purposes of the financial responsibility requirement.

<sup>20</sup> Reclamation Financial Assurance, AS 27.19.040(a).

<sup>21</sup> Definitions, AS 27.19.100(1).

<sup>22</sup> Term; conditional approval; renewal, 11 AAC 97.320(a). The commissioner can approve a reclamation plan for any term not to exceed 10 years. If the plan is for more than one year, the commissioner can require the miner to file an annual report that includes the total acreage and volume of material mined in that year, the total acreage reclaimed in that year, and a statement as to whether the reclamation plan is on schedule.

reasonable and probable cost of reclamation under the approved reclamation plan.<sup>23</sup> The required amount of financial responsibility must be based on an estimate of the labor and equipment costs that would be incurred to hire a third-party contractor to perform the reclamation.<sup>24</sup> In evaluating a miner's proposal for the required financial responsibility amount, the commissioner must consider the nature of the surface, its uses, buildings or projects close to the mining operation, the degree of risk involved, and any other relevant factors.<sup>25</sup>

The 2012 Alaska Minerals Commission Report to the Governor and Alaska Legislature stated that:

[The] ADNR and the ADEC [Alaska Department of Environmental Conservation] collaborated in writing, *DRAFT Mine Closure and Reclamation Cost Estimation Guidelines*. [The document has not been formally reviewed or adopted. With no official state guidelines for determining reclamation costs, calculation estimates, particularly of indirect costs, are subjective, and at the complete discretion of the state permit writer. Disagreement between the permittee and agencies on these costs is common, with differences in each party's calculations ranging up to 50 percent or more. Without approved guidelines, it is not possible for mining companies to meaningfully conduct financial planning for an operation until very late in the permitting process.<sup>26</sup>

**Commented [MS4]:** The State has had DOWL review the document in order to make recommendations on indirect costs. The report is here: [http://dnr.alaska.gov/mlw/mining/largemine/rcindirects\\_dowlreport20150407.pdf](http://dnr.alaska.gov/mlw/mining/largemine/rcindirects_dowlreport20150407.pdf)

The ADNR commented to EPA that the Minerals Commission's statement was written in response to miner input that mines are subject to arbitrary over-bonding<sup>27</sup>.

EPA found no mention of including a contingency in the statute or regulations amount when calculating the required amount of financial responsibility; however, the Director of the Division of Mining, Land and Water (DMLW) within ADNR stated that contingency costs are included as an "indirect cost" for every hardrock mine closure and reclamation cost estimate under this law.<sup>28</sup> The amount of the contingency typically varies between 10% and 20% of the estimated cost (including direct and indirect costs) for the closure and reclamation of the mine.

**Commented [MS5]:** Their draft guidance suggests this range. Every mine is different due to the unique scale, circumstances, and logistics that surround each mine in Alaska.

Although EPA identified no explicit opportunities for public participation in the determination of the financial responsibility amount, the DMLW Director informed EPA that reclamation plan approvals are public noticed and comments are solicited on mine closure and reclamation cost estimates.<sup>29</sup>

**Commented [MS6]:** This is done through the waste management permit process which includes the reclamation plan, cost estimate, and proposed financial assurance.

<sup>23</sup> Amount of bond, 11 AAC 97.420(b).

<sup>24</sup> *Ibid.*

<sup>25</sup> *Ibid.*

<sup>26</sup> ALASKA MINERALS COMMISSION, 2012 REPORT TO THE GOVERNOR AND ALASKA STATE LEGISLATURE 11, <http://www.dced.state.ak.us/ded/dev/minerals/pub/mineralsreport2012.pdf>. The Alaska Minerals Commission was created by the Alaska Legislature on June 6, 1986. The enabling legislation instructs the Commission to make recommendations to the Governor and Legislature on ways to mitigate constraints, including governmental constraints, on the development of minerals.

<sup>27</sup> E-mail from Edmund J. Fogels, Director, ADNR, to Elizabeth McCullough, ICF (Sept. 30, 2010).

<sup>28</sup> *Ibid.*

<sup>29</sup> *Ibid.*

#### 4.1.D. Reclamation Financial Responsibility Instruments

In order to satisfy the financial responsibility requirements under AS Title 27, hard rock mines that use chemical processing must provide financial responsibility to the commissioner, to another government agency, or provide a general performance bond to an agency of Alaska. Placer or exploratory miners may opt to participate in the Statewide Mining Bond Pool.

##### *Bond Pool*

The commissioner is required to establish a statewide bond pool that provides miners an alternate means for demonstrating financial responsibility. Although not yet reflected in the ADNR regulations, in 2004 the Alaska Legislature amended AS Title 27 to allow the commissioner to determine which mining operations are eligible to participate in the Statewide Mining Bond Pool based on the projected cost of reclamation in relation to the size of the pool. The amendment prevents mining operations that chemically process ore or have the potential to generate acid from participating in the pool.<sup>30</sup> The DMLW Director reports that the Statewide Mining Bond Pool is used almost exclusively for placer mining and exploration<sup>31</sup>.

A miner participating in the bond pool must contribute an initial refundable deposit not to exceed 15% of the financial responsibility amount plus an additional nonrefundable annual fee not to exceed 5% of the financial responsibility amount.<sup>32</sup>

##### *Other Financial Responsibility Instruments*

In 2004 the Alaska Legislature amended AS Title 27 to allow miners not participating in the Statewide Mining Bond Pool to demonstrate financial responsibility using one of the following instruments:

- Surety Bond<sup>33</sup>
  - o Surety bond must be executed by a corporate surety approved and authorized to do business in Alaska and must be submitted on a form prescribed by the commissioner.<sup>34</sup>
- Letter of Credit
  - o Letter of credit must be irrevocable and issued by a bank or other financial institution authorized to do business in the U.S.<sup>35</sup>

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<sup>30</sup> Reclamation Financial Assurance, AS 27.19.040(b).

<sup>31</sup> E-mail from Edmund J. Fogels, Director, ADNR, to Elizabeth McCullough, ICF (Sept. 30, 2010).

<sup>32</sup> Reclamation Financial Assurance, AS 27.19.040(b). The bond pool is used primarily for placer mines and hard-rock mining exploration projects. E-mail from Edmund J. Fogels, Director, ACNR, to Elizabeth McCullough, ICF (Sept. 30, 2010).

<sup>33</sup> Reclamation Financial Assurance, AS 27.19.040(e) (1).

<sup>34</sup> Corporate surety bond, 11 AAC 97.405.

<sup>35</sup> Personal bond and letter of credit, certificate of deposit, or deposit of cash or gold, 11 AAC 97.410(a).



- Certificate of Deposit
  - o Certificate of deposit must be issued in sole favor of the ADNR by a bank or other financial institution authorized to do business in Alaska.<sup>36</sup>
- Payments or Deposits into Mine Reclamation Trust Fund<sup>37</sup>
  - o May be accompanied by a memorandum of understanding between the commissioner and the miner outlining a schedule of expected payments into the trust and the relationship of the payments and accumulated earnings to reclamation obligations. The memorandum of understanding may also address the expected use of the fund by the commissioner.<sup>38</sup>

According to the 2004 amendment, the principal and earnings of the mine reclamation trust fund are to be held by the state for the purpose of protecting the public interest in reclaiming mine sites in the state.<sup>39</sup> The fund is composed of the mine reclamation trust fund income account and the mine reclamation trust fund operating account.<sup>40</sup> The mine reclamation trust fund income account consists of payments and deposits made by miners' reclamation bonding or financial responsibility obligations and earnings on the income account.<sup>41</sup> The mine reclamation trust fund operating account consists of appropriations by the legislature of the annual balance of the mine reclamation trust fund income account and any earnings on those appropriations while in the operating account.<sup>42</sup>

The commissioner can make expenditures from the mine reclamation trust fund operating account for the following purposes:<sup>43</sup>

- 1) reclamation of mining operations for which a payment or deposit has been made into the fund;
- 2) maintenance of dams and other permanent features related to a mining operation;
- 3) monitoring of site stability and water quality related to a mining operation;
- 4) control and treatment of acid rock drainage and other leachate related to a mining operation;
- 5) protection and treatment of surface water and groundwater related to a mining operation;
- 6) long-term site management of a mining operation; and
- 7) refunds to miners of the deposit to the fund upon satisfactory completion of reclamation tasks as determined by the ADNR.

<sup>36</sup> Personal bond and letter of credit, certificate of deposit, or deposit of cash or gold, 11 AAC 97.410(a).

<sup>37</sup> Regulations have not been promulgated to explain the requirements or restrictions associated with participating in the Trust Fund. While testifying before the Alaska House Resources Standing Committee, Bob Loeffler, Director of the Division of Mining, Land, and Water, addressed the reasons for including payments to the Trust Fund as a financial responsibility instrument. He testified that the Trust Fund provides an advantage to the state: a way to deal with long-term reclamation bonding obligations. He noted that if a company is putting money aside for long-term reclamation, the interest it earns on this money is taxable, but because the state is not a taxable entity, money held by the state in a state trust fund accumulates tax-free. Alaska House Resources Standing Committee Minutes (Mar. 1, 2004), available at [http://www.legis.state.ak.us/basis/get\\_minutes.asp?session=23&comm=RES&chamb=B&date1=20040301&date2=20040301](http://www.legis.state.ak.us/basis/get_minutes.asp?session=23&comm=RES&chamb=B&date1=20040301&date2=20040301).

<sup>38</sup> Mine Reclamation Trust Fund Established, AS 37.14.800(c).

<sup>39</sup> Mine Reclamation Trust Fund Established, AS 37.14.800(a).

<sup>40</sup> *Ibid.*

<sup>41</sup> Mine Reclamation Trust Fund Established, AS 37.14.800(b).

<sup>42</sup> *Ibid.*

<sup>43</sup> Mine Reclamation Trust Fund Established, AS 37.14.800(c).

Additionally, the amended Title 27 allows “any other form of financial responsibility that meets the financial test or other conditions set in regulation by the commissioner.”<sup>44</sup> However, such regulations have not yet been promulgated. Instead, current regulations allow for the following instruments:

- Personal Collateral Bond
  - o Submitted on a form prescribed by the commissioner;<sup>45</sup> and
  - o Accompanied by one of the following:<sup>46</sup>
    - an irrevocable letter of credit issued by a bank or other financial institution authorized to do business in the U.S.;
    - a certificate of deposit, in sole favor of the AK Department of Natural Resources, issued by a bank or other financial institution authorized to do business in AK;
    - a cash deposit maintained in a depository account as directed by the commissioner; or
    - a deposit of gold held in escrow by a bank or other financial institution, payable to the State of Alaska if the bond is forfeited, and with a value of 25% more than the bond obligation, to allow for potential decreases in gold prices.
- General Performance Bond<sup>47</sup>
  - o Must be written in favor of an agency of the State of Alaska;
  - o Requires reclamation to standards no less effective than those established by Title 27;
  - o In an amount no less than \$750/acre; and
  - o Stipulates that, if the bond is liquidated, proceeds in the amount of \$750 per acre of mined area will be paid or reserved exclusively for the purpose of reclamation until all mined areas are reclaimed to standards no less effective than those established by Title 27.

Corporate guarantees, while authorized by statute, are not currently allowed by the ADNR and will not be accepted unless and until the Department promulgates regulations that specifically establish financial tests to be used by the state in considering this form of financial responsibility.<sup>48</sup>

#### 4.1.E. Procedures for Demonstrating and Maintaining Effective Financial Responsibility for Reclamation

At least 45 days before the proposed start of mining activities, a miner must submit a proposed reclamation plan for approval<sup>49</sup> and approval of the plan is necessary prior to the commencement of mining operations. The approval of the reclamation plan does not take effect until the miner

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<sup>44</sup> Reclamation Financial Assurance, AS 27.19.040(e)(6).

<sup>45</sup> Personal bond and letter of credit, certificate of deposit, or deposit of cash or gold, 11 AAC 97.410(a).

<sup>46</sup> *Ibid.*

<sup>47</sup> Bonding Required, 11 AAC 97.400(4).

<sup>48</sup> E-mail from Edmund J. Fogels, Director, ADNR, to Elizabeth McCullough, ICF (Sept. 30, 2010).

<sup>49</sup> Reclamation plan approval, procedure, 11 AAC 97.300(a).

satisfies financial responsibility requirements.<sup>50</sup> Reclamation plan approvals include a requirement for a periodic third-party environmental audit of the mine, including an evaluation of the adequacy of the mine closure and reclamation financial responsibility.<sup>51</sup> The environmental audit is tied to the schedule for permit renewals, commonly a five-year cycle.<sup>52</sup> After a multi-year reclamation plan goes into effect, the miner must ensure that the financial responsibility is sufficient at all times to cover any area to be mined during the current calendar year, plus any area mined in a previous year that has not yet been reclaimed.<sup>53</sup>

If an interest in a mining operation is transferred from one miner to another by sale, assignment, lease, or otherwise before completion of reclamation, the reclamation plan must be amended to reflect the transfer. The commissioner will approve the amendment if the operation is in compliance with the reclamation plan, the successor assumes full responsibility and liability under the reclamation plan, and the financial responsibility requirements are met.<sup>54</sup> If a miner participating in the bond pool assigns his or her interest in any uncompleted mining operation, and the commissioner has amended the reclamation plan, then the commissioner will transfer the assignor's bond pool deposit and annual nonrefundable bond pool fee to the assignee upon the written request of the assignee and written consent of the assignor.<sup>55</sup>

Financial responsibility must remain in effect until each requirement of the approved reclamation plan has been completed.<sup>56</sup> Before authorizing release of or decrease in the amount of financial responsibility, or refund of a deposit paid into the bond pool, the commissioner will inspect or review actions taken under the approved reclamation plan and will make a written finding that each applicable requirement of the approved reclamation plan has been completed.<sup>57</sup> To initiate release, the miner must submit an application for release.<sup>58</sup> The application must include a sworn statement, executed under penalty of perjury, verifying that the miner has examined the requirements of his or her approved reclamation plan, has investigated the nature and extent of reclamation, and certifies as true that all applicable reclamation responsibilities have been completed.<sup>59</sup> ADNR says that it routinely requires a periodic third party environmental audit of each mine, including an evaluation of the adequacy of financial assurance.<sup>60</sup> EPA found no such provision in its examination of state law. However, ADNR argues that its insistence on periodic environmental audits comports with ADEC's requirement for environmental audits, including evaluation of the adequacy of financial assurances, per AS 46.03.110(d).

#### *Access to Funds*

Financial responsibility instruments filed with the commissioner are subject to forfeiture if the commissioner determines that a miner has violated or permitted a violation of the approved

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<sup>50</sup> Reclamation plan approval, procedure, 11 AAC 97.300(d).

<sup>51</sup> E-mail from Edmund J. Fogels, Director, ADNR, to Elizabeth McCullough, ICF (Sept. 30, 2010).

<sup>52</sup> *Ibid.*

<sup>53</sup> Acreage to be bonded, 11 AAC 97.415(b).

<sup>54</sup> Successor in interest, 11 AAC 97.350.

<sup>55</sup> Assignment, 11 AAC 97.445.

<sup>56</sup> Release or decrease of bond, and refund of bonding pool deposit, 11 AAC 97.435(a).

<sup>57</sup> Release or decrease of bond, and refund of bonding pool deposit, 11 AAC 97.435(b).

<sup>58</sup> Release or decrease of bond, and refund of bonding pool deposit, 11 AAC 97.435(a).

<sup>59</sup> *Ibid.*

<sup>60</sup> E-mail from Edmund J. Fogels, Director, ADNR, to Elizabeth McCullough, ICF (Sept. 30, 2010).

reclamation plan and has failed to comply with a lawful order of the commissioner.<sup>61</sup> In addition to forfeiture of the bond, the miner is liable to the State in a civil action for the full amount of reclamation and administrative costs incurred by the State related to the action.<sup>62</sup> If the commissioner is unable to recover the full cost of reclamation through a civil action, the commissioner may use the bond pool to reclaim the site, except that the commissioner may not use one miner's refundable deposit to fulfill another miner's reclamation obligation.<sup>63</sup>

## 4.2. Mining Waste Management and Disposal

### 4.2.A. Applicability of Mining Waste Management and Disposal Financial Responsibility

The Alaska Department of Environmental Conservation (ADEC) administers chapter 3, "Environmental Conservation," of Title 46, Alaska's water pollution control and waste disposal statute. This law prohibits the disposal<sup>64</sup> of, or conduct that results in the disposal of, solid or liquid waste material or heated process or cooling water into the waters or onto the land of the state without prior authorization, regardless of land ownership.<sup>65</sup> Mining waste disposal permit applicants must demonstrate financial responsibility to manage and close the facility in a manner that ADEC finds will control or minimize the risk of the release of unauthorized levels of pollutants from the facilities to waters<sup>66</sup>.

Under ADEC's regulations, "except when the only chemical used is a flocculent to enhance settling, tailings from hard rock mines and tailings from placer mines that have been amalgamated or chemically treated" are subject to ADEC's waste management and disposal permitting requirements as necessary to prevent a violation of Alaska air quality and water quality standards.<sup>67</sup> Financial responsibility is required only if the department determines that financial responsibility is necessary to protect the public health, safety, or welfare, or the environment.<sup>68</sup> ADEC may accept as adequate to satisfy the requirements of the regulations financial responsibility for reclamation provided to another state or federal land management agency.<sup>69</sup>

Excluded from this law are discharges of solid or liquid waste material or water discharges from mineral drilling, trenching, ditching, and similar activities "if the discharge is incidental to the

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<sup>61</sup> Reclamation Financial Assurance, AS 27.19.040(c).

<sup>62</sup> Violations, AS 27.19.070(a).

<sup>63</sup> Reclamation Financial Assurance, AS 27.19.040(c).

<sup>64</sup> "Disposal" means the deposit of a solid or liquid waste into or onto the water or land of the state, whether the waste is contained or uncontained, by discharging, injecting, dumping, spilling, leaking, placing, discarding, or abandoning the waste so that the waste or any part or byproduct of the waste might enter the environment. Definitions, 18 AAC 60.990(39).

<sup>65</sup> Waste Management and Disposal Authorization, AS 46.03.100(a). Authorization is provided by one or a combination of the following: (1) an individual permit issued for a specific facility or disposal activity; (2) a general permit issued on a statewide, regional, or other geographical basis for a category of disposal activities that the commissioner, using information available when the permit is developed, determines are similar in nature and will comply with applicable environmental quality standards established under Title 46; (3) regulations adopted by the department authorizing a category of disposal without requiring a permit and establishing specific siting or operational requirements, discharge limits, or best management practices for the disposal category; (4) designation and approval of a plan for a sewerage system or treatment works; or (5) an integrated waste management and disposal authorization. AS 46.03.100(b).

<sup>66</sup> AS 46.03.100(f).

<sup>67</sup> Mining Waste, 18 AAC 60.455.

<sup>68</sup> Proof of financial responsibility, Mining Waste, 18 AAC 60.265.

<sup>69</sup> Waste Management and Disposal Authorization, AS 46.03.100(f).

activity and the activity does not produce a discharge from a point source directly into any waters of the United States.”<sup>70</sup>

Permits covering the disposal of waste rock from mining are exempt from demonstrating financial responsibility unless the waste rock is “mixed with other nonexempt waste, there is a public health, safety, or welfare threat or environmental problem associated with management of the material, or the material is being managed in a manner that causes or contributes to a nuisance.”<sup>71</sup> Waste rock<sup>72</sup> that does not have an environmental problem associated with its management is excluded under this program because financial responsibility must be demonstrated for the reclamation of waste rock under reclamation regulations discussed above in Section 4.1, which addresses waste rock with an associated environmental problem.

EPA found no evidence of explicit financial responsibility requirements under Alaska’s water pollution control and waste disposal statute applicable to remediation of prospective releases of CERCLA hazardous substances. However, in its comments to EPA on a draft of this Summary, the state noted the requirement (in Alaska’s Superfund law, as in most states’ Superfund laws) that the owner/operator immediately report releases of hazardous substances and clean them up to the state’s satisfaction (based on cleanup standards and water quality standards). Alaska, like most states, maintains an “Oil and Hazardous Release Response Fund” that can be used to clean up spills or to respond to an imminent threat of a spill. Expenditures are recoverable from the responsible parties.<sup>73</sup>

#### 4.2.B. Scope of Mining Waste Management and Disposal Financial Responsibility

Under 18 AAC 60.265, ADEC can require financial assurance for managing and closing the mining facility in a manner that controls or minimizes the release of pollutants to water. Under these regulations, which have not been revised since the statutory bonding authority was established in 2004<sup>74</sup>, financial responsibility may be required to cover the cost of closing a landfill<sup>75</sup> and the cost of post-closure monitoring.<sup>76</sup>

Required closure activities include placing a final cover on those waste management areas that have reached final elevation within 90 days after the last waste placement.<sup>77</sup> Required post-closure activities also include visual and air monitoring, surface water monitoring, and ground water monitoring.<sup>78</sup> An operator of a mining waste facility must conduct visual monitoring for settlement and erosion for at least 60 consecutive months (5 years) immediately following closure.<sup>79</sup> The department can require periodic visual monitoring at the facility for up to 360 consecutive months (30 years) immediately following closure.<sup>80</sup> In addition to visual

<sup>70</sup> Waste Management and Disposal Authorization, AS 46.03.100(e)(4).

<sup>71</sup> Purpose and Applicability, Mining Waste, 18 AAC 60.005(c).

<sup>72</sup> Waste rock is defined as “rock that has been removed during mining or advanced exploration that does not contain sufficient metallic minerals to constitute ore; waste rock includes spoil and overburden, Mining Waste, 18 AAC 60.990(150).

<sup>73</sup> E-mail from Edmund J. Fogels, Director, ADNRR, to Elizabeth McCullough, ICF (Sept. 30, 2010).

<sup>74</sup> See SLA 2004, ch. 136, sec. 3.

<sup>75</sup> “Landfill” means an area of land, or an excavation in which solid wastes are placed for permanent disposal, and that is not an application site, injection well, reserve pit, or waste pile. Mining Waste, AAC 18 § 60.990(67). A “waste pile” means any noncontainerized accumulation of solid, nonflowing waste. Mining Waste, 18 AAC 60.990(149).

<sup>76</sup> Proof of financial responsibility, Mining Waste, 18 AAC 60.265.

<sup>77</sup> Prompt closure, Mining Waste, 18 AAC 60.245.

<sup>78</sup> Visual and air monitoring, 18 AAC 60.800 – Groundwater monitoring and corrective action, Mining Waste, 18 AAC 60.820.

<sup>79</sup> Closure demonstration and post-closure care, Mining Waste, 18 AAC 60.490(c).

<sup>80</sup> *Ibid.*

monitoring, the department can require groundwater, surface water, leachate, gas, and thermal monitoring at a mining waste facility if the department finds that monitoring is necessary to protect the public health, safety, or welfare, or the environment.<sup>81</sup>

Although the operator is required to take corrective action if problems are discovered during visual or surface water monitoring, these corrective actions are beyond the scope of the mining waste financial responsibility requirements for closure and post-closure.<sup>82</sup>

**Commented [MS7]:** And is also financially liable for the clean-up including reimbursement of any State personnel and resources used in the response.

#### 4.2.C. Required Amounts of Financial Responsibility for Waste Management and Disposal

There are no statutory limits on the amount of financial assurance that ADEC may require. The required amount of financial responsibility under the solid waste regulations is based on the estimated cost of closure and post-closure activities.<sup>83</sup> Within the application for a waste disposal permit, the applicant must include evidence of financial responsibility for closure and post-closure activities, including closure and post-closure cost estimates.<sup>84</sup> The proposed permit and supporting documents, including the proposed financial responsibility amount, are subject to a formal review and comment period.<sup>85</sup>

**Commented [MS8]:** This is the comment period on financial assurance that the EPA said it couldn't find earlier in the document.

The regulations do not discuss an operator's or the state's ability to change the financial responsibility amount subsequent to its establishment. However, under ADEC's statutes, the waste disposal permits that include financial assurance requirements can not be for any term longer than five years<sup>86</sup>. So, at a minimum, ADEC's financial assurance arrangements are revised on that frequency<sup>87</sup>. Another statute prescribes 90-day advance notice of any change in financial responsibility arrangements by a permittee, and also authorizes ADEC to revoke its acceptance under certain circumstances<sup>88</sup>.

**Commented [MS9]:** Financial assurance can be revised if there is a significant change in operations that necessitate a revision in the waste management permit.

#### 4.2.D. Mining Waste Management and Disposal Financial Responsibility Instruments

Financial responsibility "may be demonstrated by self-insurance, insurance, surety bond, corporate guarantee, letter of credit, certificate of deposit, or other proof of financial responsibility approved by the department."<sup>89</sup> However, the Act requires that "regulations adopted under this subsection must set financial tests for the acceptance of corporate guarantees and other forms of financial responsibility that the department determines would be required,"<sup>90</sup> ADEC has not yet promulgated any financial tests in its regulations, so use of corporate guaranties is not currently available. Standardized wording is not required for any of the allowable financial responsibility instruments and no financial responsibility instruments are explicitly excluded.<sup>91</sup>

<sup>81</sup> *Ibid.*

<sup>82</sup> Corrective action for problems discovered during visual and surface water monitoring or during an inspection, Mining Waste, 18 AAC 60.815(a). An operator is required to take action to correct a structural change in or damage to the facility or a monitoring device, or a violation of a permit condition, to prevent the escape of waste or leachate, and to clean up waste that was disposed of in an unauthorized manner.

<sup>83</sup> Proof of financial responsibility, Mining Waste, 18 AAC 60.265.

<sup>84</sup> Permit application, Mining Waste, 18 AAC 60.210(b).

<sup>85</sup> E-mail from Edmund J. Fogels, Director, ADNR, to Elizabeth McCullough, ICF (Sept. 30, 2010).

<sup>86</sup> AS 46.03.110(d).

<sup>87</sup> E-mail from Tom Crafford, Director, ADNR Office of Project Management and Permitting, October 8, 2012.

<sup>88</sup> AS 46.03.833.

<sup>89</sup> AS 46.03.100(f).

<sup>90</sup> *Ibid.*

<sup>91</sup> Proof of financial responsibility, Mining Waste, 18 AAC 60.265.

#### 4.2.E. Procedures for Demonstrating and Maintaining Effective Financial Responsibility for Waste Management and Disposal

Evidence of financial responsibility must be included in the mining waste disposal permit application, which must be approved by the department prior to “disposal or conduct that results in the disposal of solid or liquid waste material or heated process or cooling water into the waters or onto the land of the state.”<sup>92</sup> Financial responsibility must be maintained until the department determines that the facility does not pose a threat to public health, safety, or welfare, or the environment. Title 46 does not address whether financial responsibility may be provided incrementally. In practice, the State does not allow it.<sup>93</sup> Operators of landfills that accept more than five tons of waste per day must annually ensure that a permit application or renewal is signed and sealed by a registered engineer verifying the closure and post-closure cost estimates.<sup>94</sup>

At the end of the post-closure period,<sup>95</sup> the operator must submit a report to the department that describes site conditions and summarizes the information collected during the post-closure period.<sup>96</sup> The department will approve a request to terminate the post-closure care financial responsibility requirements if the department finds that the facility does not pose a threat to public health, safety, or welfare, or the environment.<sup>97</sup>

### 4.3. Mine Tailings Dams

#### 4.3.A. Applicability of Dam Safety Financial Responsibility

ADNR administers the Alaska Dam Safety Act of 1987, which became effective on May 31, 1989. This Act applies to privately owned and state-owned mine tailings dams.<sup>98</sup> Financial responsibility is required to ensure that reclamation is accomplished and that post-closure monitoring and maintenance are completed at mine tailings dams.<sup>99</sup> Excluded from this Act are federally owned and operated dams and dams regulated by the Federal Energy Regulatory Commission.<sup>100</sup>

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<sup>92</sup> Waste Management and Disposal Authorization, AS 46.03.100(a).

<sup>93</sup> E-mail from Edmund J. Fogels, Director, ADNR, to Elizabeth McCullough, ICF (Sept. 30, 2010).

<sup>94</sup> Permit application, Mining Waste, 18 AAC 60.210(c).

<sup>95</sup> At least 60 consecutive months immediately following the closure, Mining Waste, 18 AAC 60.490(c).

<sup>96</sup> Closure demonstration and post-closure care, Mining Waste, 18 AAC 60.490(c).

<sup>97</sup> Termination of post-closure obligations, Mining Waste, 18 AAC 60.270(c).

<sup>98</sup> Purpose, AS 46.17.010. Under this Act, “dam” includes an artificial barrier, and its appurtenant works, which may impound or divert water and which (A) has or will have an impounding capacity at maximum water storage elevation of 50 acre-feet and is at least 10 feet in height measured from the lowest point at either the upstream or downstream toe of the dam to the crest of the dam; (B) is at least 20 feet in height measured from the lowest point at either the upstream or downstream toe of the dam to the crest of the dam; or (C) poses a threat to lives and property as determined by the department after an inspection. AS 46.17.900(3).

<sup>99</sup> Dam construction, repair, or modification, 11 AAC 93.171(f)(2)(C)(ii); Dam removal or abandonment, 11 AAC 93.172(a)(6)(C).

<sup>100</sup> Other Government Agencies, AS 46.17.100(c).



Owners, other than government agencies,<sup>101</sup> seeking departmental approval to construct a new mine tailings dam, increase the size of the reservoir, raise the hazard potential classification,<sup>102</sup> or abandon<sup>103</sup> a mine tailings dam are required to demonstrate financial responsibility.<sup>104</sup> Additionally, owners of mine tailings dams that were constructed before May 31, 1987 must file an application with the department for the approval of the dam, and are therefore subject to financial responsibility requirements.<sup>105</sup>

In the Guidelines provided by ADNR, the department acknowledges that the “precedent for closing tailings dams in Alaska is extremely limited, although a number of important projects in the state will have to address this problem in the near future. [ADNR] is interested in the precedent for this activity in other areas, both in practice and in regulatory requirements.”<sup>106</sup>

#### 4.3.B. Scope of Dam Safety Financial Responsibility

A dam owner must demonstrate the financial responsibility to manage the facility during the life of the mine tailings dam.<sup>107</sup> Dams at tailings storage facilities are unique because their service lives are indefinite.<sup>108</sup> According to the “Guidelines for Cooperation with the Alaska Dam Safety Program,” which was prepared by the ADNR:

When the reservoir is full of tailings and the facility is closed, the dam must remain in place and continue to retain the substance for an indefinite period of time while withstanding the effects of surface runoff and groundwater as the system is transformed from an active, operational condition to an inactive, closed condition. . . . An appropriate bond or other form of financial assurance may be required to cover the O&M costs, regulatory inspections, and other expenses after the [tailings storage] facility is closed.<sup>109</sup>

In addition to the costs of reclaiming the site,<sup>110</sup> an applicant must demonstrate financial responsibility for post-closure monitoring, operation, maintenance, and inspection.”<sup>111</sup> Specifically, financial responsibility may be required to cover:

- Dewatering and stabilization of the reservoir
- Control of sediment transport from the reservoir area

<sup>101</sup> A government agency may demonstrate financial responsibility through taxing authority or other revenue generating ability, or by the pertinent bond, ordinance, resolution, or law as may be required to provide sufficient money to pay the costs of operating and maintaining the dam in a safe condition and in compliance with applicable requirements from this Act. Dam construction, repair, or modification, 11 AAC 93.171(f)(2)(C)(i).

<sup>102</sup> In order to determine design, operation, inspection, maintenance, emergency action, and reporting criteria, the department will periodically review and classify each artificial barrier’s potential danger to life or property, and will assign the barrier a hazard potential classification. 11 AAC 93.157(a).

<sup>103</sup> When the life of a dam approaches the end of its usefulness, the facility is closed. In some cases, closure involves removing the dam and in other cases abandonment is appropriate. When a dam is abandoned, the dam remains intact and under state jurisdiction indefinitely. A mine tailings dam is a special situation for which abandonment is the ultimate fate of the dam from the beginning. Guidelines at 13-2.

<sup>104</sup> Dam construction, repair, or modification, 11 AAC 93.171(f)(2)(C); Dam removal or abandonment, 11 AAC 93.172(a)(6)(C).

<sup>105</sup> Approval Required, AS 46.17.040(b).

<sup>106</sup> Tailings Storage Facilities, Guidelines at 13-4.

<sup>107</sup> Proposed Financial Demonstration, Guidelines at 5-7.

<sup>108</sup> Tailings Storage Facilities, Guidelines at 13-3.

<sup>109</sup> Tailings Storage Facilities, Guidelines at 13-3, 13-5.

<sup>110</sup> Dam construction, repair, or modification, 11 AAC 93.171(f)(2)(C)(ii).

<sup>111</sup> Dam removal or abandonment, 11 AAC 93.172(6)(C).

- Erosion control
- Consolidation of dam and tailings
- Evaluation of stability and hydrology of final configuration of the dam<sup>112</sup>
- Routine safety inspections and maintenance of the dam
- Maintenance of operating valves, gates, or other equipment<sup>113</sup>

Although the dam safety regulations require that financial responsibility be demonstrated for reclamation, “the closure of a tailings dam is typically included in a mine reclamation plan” and would therefore be covered under reclamation financial responsibility requirements.<sup>114</sup>

#### 4.3.C. Required Amount of Financial Responsibility for Dam Safety

The financial responsibility amount must be adequate to cover the costs of performing reclamation and post-closure monitoring, operation, maintenance, and inspections.<sup>115</sup> EPA found very little guidance provided by the regulations or Guidelines on the specifics of calculating required amounts of financial responsibility.

#### 4.3.D. Dam Safety Financial Responsibility Instruments

Proof of financial responsibility must be demonstrated through “a performance bond or other financial assurance.”<sup>116</sup> Standardized wording is not required and no financial responsibility instrument is explicitly excluded.<sup>117</sup>

#### 4.3.E. Procedures for Demonstrating and Maintaining Effective Financial Responsibility for Dam Safety

Before construction, repair or modification of a dam the owner must apply to the department for a certificate of approval. The first step in this application process is the submission of an initial application package<sup>118</sup>. Among other required maps and plans, the applicant must propose a method for demonstrating financial responsibility.<sup>119</sup> After the applicant receives approval of the preliminary design package and the proposed method for demonstrating financial responsibility, the applicant must submit a Final Construction Package, which must include the approved demonstration of financial responsibility.<sup>120</sup>

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<sup>112</sup> Dam removal or abandonment, 11 AAC 93.172.

<sup>113</sup> Operation and maintenance manuals, 11 AAC 93.197.

<sup>114</sup> Tailings Storage Facilities, Guidelines at 13-3.

<sup>115</sup> Dam construction, repair, or modification, 11 AAC 93.171(f)(2)(C)(ii); Dam removal or abandonment, 11 AAC 93.172(a)(6)(C).

<sup>116</sup> Dam construction, repair, or modification, AAC 11 § 93.171(f)(2)(C)(ii); Dam removal or abandonment, 11 AAC 93.172(a)(6)(C).

<sup>117</sup> Dam construction, repair, or modification, 11 AAC 93.171(f)(2)(C)(ii); Dam removal or abandonment, 11 AAC 93.172(a)(6)(C). However, according to the ADNR, financial responsibility for dam safety is generally secured by the same financial instrument as the reclamation and mining waste management and disposal requirements; and therefore, the instruments allowable under those two programs also generally apply to the dam safety financial responsibility requirements. E-mail from Edmund J. Fogels, Director, ADNR, to Elizabeth McCullough, ICF (Sept. 30, 2010).

<sup>118</sup> 11 AAC 93171(a)(1) and (f)(1).

<sup>119</sup> 11AAC 93171(f)(2)(C).

<sup>120</sup> 11 AAC 93171(f)(4)(f).

According to the Guidelines:

After a period of time, a dam may require remedial efforts for a number of reasons, including deterioration, damage, or hazard potential classification change (which could affect the design basis). In some cases, typically for older dams, the need for remediation may be due to an inadequate design aspect that is discovered and determined to represent a sufficient risk to justify remedial action. . . . At this point, the regulatory life of the dam may loop back to [an application for] a Certificate of Approval to Modify, or Repair a Dam.<sup>121</sup>

If this loop includes a modification that leads to an increase in the hazard potential classification, then financial responsibility will be re-evaluated and potentially altered.<sup>122</sup>

Finally, financial responsibility must be demonstrated, and will consequently be re-evaluated, before the department will approve an application for abandonment of the dam.<sup>123</sup> When applying for a certificate for approval to abandon the mine tailings dam, the owner must enter into a written agreement to release, apply, or transfer or other financial responsibility approved by the department at the time of construction, repair, or modification.<sup>124</sup> Additionally, the written agreement must outline the management of the financial instrument during the life of the project and after closure when the funds are utilized, including long-term responsibilities.<sup>125</sup> Neither the regulations nor the Guidelines provide any additional information about the department's release of or access to the financial responsibility.

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<sup>121</sup> Remediation, Guidelines at 4-6.

<sup>122</sup> In order to determine design, operation, inspection, maintenance, emergency action, and reporting criteria, the department will periodically review and classify each artificial barrier's potential danger to life or property, and will assign the barrier a hazard potential classification. 11 AAC 93157(a).

<sup>123</sup> 11 AAC 93172(a)(6)(C).

<sup>124</sup> 11 AAC 93172(a)(10).

<sup>125</sup> Tailings Storage Facilities, Guidelines at 13-5.

### 5. Appendix – Table of Alaska Mine Bond Amounts

In its comments to EPA Alaska provided the following summary of financial assurance amounts for current mining operations<sup>126</sup>:

**Commented [MS10]:** Table updated with 2016 numbers.

<i>Operation</i>	<i>Total Bond (\$ Millions)</i>
Greens Creek Mine	<del>\$30.5</del> <u>68.9</u>
Red Dog Mine	<del>\$305.0</del> <u>423.6</u>
Fort Knox (& True North) Mine	<del>\$68.3</del> <u>99.2</u>
Kensington Mine	<del>\$7.4</del> <u>28.7</u>
Rock Creek Mine	<del>\$20.3</del>
Pogo Mine	<del>\$44.4</del> <u>57.1</u>
Nixon Fork Mine	<del>\$6.0</del>
<b>TOTAL</b>	<del>\$481.9</del> <u>683.5</u>

**Commented [MS11]:** Inactive and reclaimed by owner. Some of bond has been released, rest will be soon. Company took care of its obligation without the state having to step in and use the bond

**Commented [MS12]:** Currently in temporary closure with an approved plan. Bond has not been called, company is taking care of its obligation.

**Commented [MS13]:** Total excludes Rock Creek

<sup>126</sup> E-mail from Edmund J. Fogels, Director, ADNR, to Elizabeth McCullough, ICF (Sept. 30, 2010), updated in comments from Tom Crafford, Director, ADNR Office of Project Management and Permitting, July 13, 2012.

JEFF BINGAMAN, New Mexico, Chairman

10. Laura Skaer (American Exploration &amp; Mining Association) – SENT AFTER JUNE 9 MEETING

RON WYDEN, Oregon  
 TIM JOHNSON, South Dakota  
 MARY L. LANDRIEU, Louisiana  
 MARIA CANTWELL, Washington  
 BERNARD SANDERS, Vermont  
 DEBBIE STARENOW, Michigan  
 MARK UDALL, Colorado  
 JEANNE SHAHEEN, New Hampshire  
 AL FRANKEN, Minnesota  
 JOE MANCHIN, III, West Virginia  
 CHRISTOPHER A. COONS, Delaware

RICHARD BURR, North Carolina  
 JOHN BARRASSO, Wyoming  
 JAMES E. RISCH, Idaho  
 MIKE LEE, Utah  
 RAND PAUL, Kentucky  
 DANIEL COATS, Indiana  
 ROB PORTMAN, Ohio  
 JOHN HOEVEN, North Dakota  
 BOB COOKER, Tennessee

## United States Senate

COMMITTEE ON  
 ENERGY AND NATURAL RESOURCES

WASHINGTON, DC 20510-6150

ENERGY.SENATE.GOV

ROBERT M. SIMON, STAFF DIRECTOR  
 SAM E. FOWLER, CHIEF COUNSEL  
 McKel CAMPBELL, REPUBLICAN STAFF DIRECTOR  
 KAREN K. BELLUPS, REPUBLICAN CHIEF COUNSEL

March 8, 2011

The Honorable Ken Salazar  
 Secretary  
 U.S. Department of Interior  
 1849 C Street, N.W.  
 Washington, DC 20240

The Honorable Tom Vilsack  
 Secretary  
 U.S. Department of Agriculture  
 1400 Independence Ave., S.W.  
 Washington, DC 20250

Dear Secretaries Salazar and Vilsack:

I write to seek your perspectives on actions being taken by the Environmental Protection Agency (EPA) related to financial assurance requirements, including bonds, for hardrock mines in the United States. On federal lands, your agencies have statutory responsibility for the development and administration of such requirements under authorities that include the Federal Land Policy and Management Act (FLPMA) for the Bureau of Land Management (BLM) and the Organic Act for the U.S. Forest Service (USFS).<sup>1</sup> In addition to BLM and USFS financial assurance requirements, states have generally promulgated analogous standards for hardrock mines on non-federal lands.

Environmental organizations sued EPA in March 2008 to compel the agency to promulgate and implement certain financial assurance requirements under Sec.108(b) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).<sup>2</sup> In February 2009, the U.S. Federal District Court for the Northern District of California ordered EPA to identify and publish notice of those classes of facilities that may be subject to future financial assurance requirements under CERCLA Sec.108(b). In July 2009, EPA identified the hardrock mining industry as the first class of facilities for which it would impose such requirements.<sup>3</sup>

Despite the maturity and effectiveness of existing financial assurance programs implemented by your agencies and the states, EPA is considering new regulations that may unnecessarily duplicate or preempt them. I believe EPA erred when it identified classes of hardrock mining facilities without considering these existing programs and hastily concluded that new regulations were warranted without studying the facts. EPA officials have claimed that their involvement will “help ensure that owners and operators of the facilities, not taxpayers, foot the bill for environmental cleanup.”<sup>4</sup> However, as Ranking Member of the Energy and Natural Resources Committee – which has jurisdiction over the BLM and USFS – it is clear to me that this task has been, and continues to be, the responsibility of the BLM, USFS, and the states for hardrock mines.

The BLM and USFS have required financial assurances for hardrock mines on federal lands since 1981 and 1974, respectively. Both agencies annually re-assess the sufficiency of existing financial assurances, presumably ensuring that the most modern regime is in place for hardrock mines on federal

<sup>1</sup> Implementing regulations at 43 C.F.R. Part 3809 and 36 C.F.R. Part 228A, respectively.

<sup>2</sup> *Sierra Club v. Johnson*, No. C 08-01409 WHA (March 12, 2008).

<sup>3</sup> 74 Fed. Reg. 37, 213 (July 28, 2009).

<sup>4</sup> December 6, 2010 EPA press release: <http://yosemite.epa.gov/opa/admpress.nsf/0/BAD9A932029FD368852577F10058E761>.



land. Those same operations benefit from the BLM and USFS' capacity to account for regional and project-specific differences. This capacity is particularly important since, for example, a hardrock mine in the Nevada desert is very different from one in the Alaska Arctic.

Moreover, even within a particular region, there can be substantial differences in the environmental conditions and reclamation requirements from mine to mine. Accounting for these differences is essential to developing an effective reclamation plan and appropriately calculating any financial assurance requirements associated with it. This point was underscored by a Congressionally-initiated report from the National Research Council (NRC) in 1999, which found that, “[s]imple ‘one-size-fits-all’ solutions are impractical because mining confronts too great an assortment of site-specific technical, environmental, and social conditions.”<sup>5</sup>

Importantly, the NRC report also found that “the overall structure of the federal and state laws and regulations that provide mining-related environmental protection is complicated but *generally effective*” and that “improvements in implementation of *existing* regulations present the greatest opportunity for improving environmental protection.”<sup>6</sup> Subsequent to publication of this report, the BLM and USFS undertook a comprehensive update of their hardrock mining regulations, including those related to financial assurance requirements, in 2001 and 2004, respectively.

In light of the statutory authorities and years of experience that the BLM and USFS already hold, I am seeking your perspectives on whether EPA's actions to require financial assurances under CERCLA Sec.108(b) for hardrock mines are warranted. Thus, I respectfully request detailed answers to the following questions:

1. Has your agency received any information from EPA indicating that it intends to pursue a ‘one-size-fits-all’ approach under CERCLA Sec.108(b) for hardrock mining? If so, what information has been provided and has your agency expressed any concerns with this approach?
2. Has your agency received any information from EPA regarding how legacy (pre-1990) hardrock mining (or processing) sites listed on the CERCLA National Priorities List (NPL) impacted their identification of the industry as posing a high risk under CERCLA Sec.108(b)? If so, what information has been provided and has your agency expressed any concerns with this approach?
3. Has your agency received any information from EPA indicating that it intends to link the cost of remediating legacy (pre-1990) hardrock mining (or processing) sites to the calculation of future financial assurance requirements that may be imposed under CERCLA Sec.108(b)? If so, what information has been provided and has your agency expressed any concerns with this approach?
4. Please provide a description of how your agency currently calculates financial assurance requirements applicable to hardrock mines on federal lands.
5. Can your agency approve a plan of operations that poses a high risk of unnecessary or undue degradation of public lands? How would your agency typically respond to a plan of operations that it believed posed a high risk of unnecessary or undue degradation of public lands?
6. Does your agency have the authority to impose financial assurance requirements for post-mining, long-term monitoring, maintenance and treatment operations?

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<sup>5</sup> *Hardrock Mining on Federal Lands*, National Research Council, National Academy Press, 1999 at p. 90.

<sup>6</sup> *Id.* at p. 90-91 (emphasis added).



7. How many hardrock mining and beneficiation<sup>7</sup> plans of operation has your agency approved since 1990?
  - a. How many of those sites are, or have been, placed on the CERCLA NPL?
  - b. How many of those sites placed on the CERCLA NPL involve(d) a responsible party that pays (paid) for the cost of short-term removals or long-term remediation, either in part or in whole? What is the aggregate dollar amount spent by these responsible parties? What is the aggregate dollar amount spent by the federal (or state) government?
8. Does your agency coordinate – or has it coordinated in the past – with states to develop financial assurance requirements for hardrock mines on non-federal lands? If so, please describe this coordination.
9. Please provide all documents, records, papers, reports, agreements, notes, correspondence, presentations, analyses, comments, and any other materials generated by your agency as part of an inter- or intra-agency process associated with the EPA’s CERCLA Sec.108(b) rulemaking.<sup>8</sup>

I believe that EPA plays a critical role in protecting the environment, but it is important to ensure that such protection is achieved by competent administration of sufficient authorities and not by burying projects in duplicative and expensive regulatory programs that restrict their ability to come to fruition. I believe that EPA’s intrusion into financial assurance requirements for hardrock mines, where your agencies have implemented robust programs, is unnecessary and will result only in duplication, inordinate costs and potential closures.

As you are well aware, the governance of mining operations must balance robust environmental protections with the need for job-creating projects that increase our resource security, bolster our economic well-being, and utilize modern techniques that minimize impacts. The burdens imposed on these projects must also reflect the fact that mining is a globally competitive industry with major U.S. strategic interests at stake.

I thank you for your attention to this matter and look forward to your prompt reply.

Sincerely,

  
Lisa A. Murkowski

cc: EPA Administrator Lisa Jackson

<sup>7</sup> As defined at 40 C.F.R. 261.4(b)(7).

<sup>8</sup> 74 Fed. Reg. 37, 213.





## United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Washington, D.C. 20240  
<http://www.blm.gov>

**JUN 21 2011**

The Honorable Lisa Murkowski  
Ranking Member, Committee on  
Energy and Natural Resources  
United States Senate  
Washington, DC 20510

Dear Senator Murkowski:

Thank you for your letter of March 8, 2011, and your interest in the important issue of financial assurance requirements for hardrock mines in the United States.

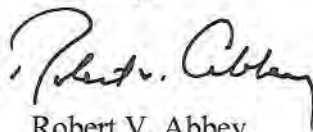
As you point out, the Bureau of Land Management (BLM) has statutory responsibilities and existing regulatory requirements that provide for financial assurances on hardrock mining operations on public lands. The BLM promulgated regulations in 2001 that broadened bonding protections by requiring full reclamation bonding for all mining activity above casual use. These changes, coupled with changes in mining practices, have alleviated the problems related to remediation that occurred under earlier authorities and requirements for mining activity subject to BLM's bonding requirements.

On July 28, 2009, the Environmental Protection Agency (EPA) published a priority notice identifying classes of facilities in the hard rock mining industry as those for which EPA would first develop financial responsibility requirements under section 108(b) of CERCLA (*see* 74 Fed. Reg. 37,213 (July 28, 2009)). This notice followed a February 25, 2009 U.S. District Court order (later amended) to identify and publish the notice (*see Sierra Club v. Johnson*, No. C 08-01409 WHA, 2009 U.S. Dist. LEXIS 14819 (N.D. Cal. Feb. 25, 2009)). The EPA has been coordinating with the BLM as it develops the rule in order to ensure that both agencies appropriately implement their statutory authorities while demonstrating good government. This includes protecting the public interest in ensuring that taxpayers do not bear the cost of addressing releases of hazardous substances and that the Federal government provides a streamlined set of requirements for those developing hardrock mineral resources. We are continuing to work with the EPA toward this end.

To the extent several of your questions are directed at the content of deliberative interagency communications in an ongoing rulemaking, they raise important confidentiality concerns for the Executive Branch. Enclosed are answers to your questions as they pertain to the BLM. We defer further questions on the timing and content of the rule to the EPA.

Please do not hesitate to share any thoughts you have on this issue with me.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert V. Abbey". The signature is written in a cursive style with a large initial "R".

Robert V. Abbey  
Director

Enclosure

## Responses to Questions:

- 1. Has your agency received any information from EPA indicating that it intends to pursue a 'one size-fits-all' approach under CERCLA Sec. 108(b) for hardrock mining? If so, what information has been provided and has your agency expressed any concerns with this approach?**

The BLM understands that the EPA is working to develop regulatory requirements under section 108(b) of CERCLA. The BLM and the EPA have discussed approaches to establishing financial assurances during meetings and follow-up teleconferences.

The BLM has provided expertise based on its experience over the past 30 years regulating hardrock mining operations on the public lands. The BLM has also provided EPA with information associated with the current BLM regulations.

- 2. Has your agency received any information from EPA regarding how legacy (pre-1990) hardrock mining (or processing) sites listed on the CERCLA National Priorities List (NPL) impacted their identification of the industry as posing a high risk under CERCLA Sec.108(b)? If so, what information has been provided and has your agency expressed any concerns with this approach?**

EPA's priority notice of action published in the Federal Register on July 28, 2009, 74 Fed. Reg. 37,213 (July 28, 2009), described eight factors it considered in identifying hardrock mining under section 108(b) of CERCLA. One of the eight factors considered by EPA was the number of mine sites on the CERCLA site inventory (including both National Priority List sites as well as non-NPL sites). The BLM has provided EPA with information on the way mining and reclamation practices have evolved from past practices.

- 3. Has your agency received any information from EPA indicating that it intends to link the cost of remediating legacy (pre-1990) hardrock mining (or processing) sites to the calculation of future financial assurance requirements that may be imposed under CERCLA Sec.108(b)? If so, what information has been provided and has your agency expressed any concerns with this approach?**

The EPA has indicated that it has not yet determined the methodology by which the proposed rule will identify the amount of financial assurance required. The BLM has provided EPA with information regarding modern mining practices.

- 4. Please provide a description of how your agency currently calculates financial assurance requirements applicable to hardrock mines on federal lands.**

In 2001, the BLM made substantial changes to its surface management regulations that strengthened bonding requirements. Currently, the BLM requires financial assurances for all surface disturbance above casual use in an amount sufficient to cover the costs of hiring a third-party contractor to fully reclaim the disturbance authorized under the Notice or Plan of Operations. Operators are not allowed to begin any surface disturbance guaranteed by the financial guarantee until the BLM has accepted and obligated the bond.

The BLM reviews reclamation cost estimates every three years (every year if the operation is bonded incrementally) and requires the operator to increase bond coverage, if necessary.



The BLM holds \$1.7 billion in financial assurances.

The BLM considers the following costs when calculating the amount of the required financial assurance:

- All costs of complying with the reclamation performance standards in 43 C.F.R. § 3809.420, including compliance with Federal and State environmental protection laws, and any additional reclamation and closure requirements identified in the accepted Notice or approved Plan of Operations;
  - All relevant operation, maintenance, and administrative costs for reclamation;
  - Costs associated with using offsite equipment as if the project area was vacated, as well as associated mobilization and demobilization costs;
  - When applicable, all interim maintenance costs required to keep the area of operation in compliance with applicable safety and environmental requirements while reclamation contracts are developed and executed;
  - Construction and maintenance costs of any long-term treatment facilities or post-closure structures and/or activities required;
  - Labor costs, based on federal regulations; and
  - Costs of complying with all other performance standards in 43 CFR §3809.420.
- 5. Can your agency approve a plan of operations that poses a high risk of unnecessary or undue degradation of public lands? How would your agency typically respond to a plan of operations that it believed posed a high risk of unnecessary or undue degradation of public lands?**

The Federal Land Policy and Management Act requires the BLM to prevent unnecessary or undue degradation (UUD) of the public lands. 43 U.S.C. § 1732(b). Under the BLM's surface management regulations, the BLM will disapprove a Plan of Operations if the proposed operations would result in UUD. 43 C.F.R. § §3809.411(d)(3)(iii). If the BLM receives a proposed Plan of Operations that would likely result in UUD, then BLM would require the operator to modify its proposed plan. Should the operator fail to make the required modifications, the BLM would not approve the plan.

**6. Does your agency have the authority to impose financial assurance requirements for post-mining, long-term monitoring, maintenance and treatment operations?**

The regulations at 43 C.F.R. § 3809.552(c) allow BLM to require an operator to establish a trust fund or other funding mechanism to ensure the continuation of any long-term, post-mining treatment or maintenance requirements. When the BLM District or Field Manager determines a need for a long-term funding mechanism, based on specific long-term corrective actions, the operator must establish an acceptable trust fund or other funding mechanism that is 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 projected to be needed

after mine closure. As with other financial guarantees, the long-term trust fund assures the performance of the operator's obligations, and is only used if the operator defaults.

**7. How many hardrock mining and beneficiation plans of operation has your agency approved since 1990?**

There have been 659 plans of operations authorized by BLM's Mining Law Administration Program since 1990.

**a. How many of those sites are, or have been, placed on the CERCLA NPL?**

There have been no sites on which a mining plan of operations was approved since 1990 that have been placed on the CERCLA NPL.

**b. How many of those sites placed on the CERCLA NPL involve(d) a responsible party that pays (paid) for the cost of short-term removals or long-term remediation, either in part or in whole? What is the aggregate dollar amount spent by these responsible parties? What is the aggregate dollar amount spent by the federal (or state) government?**

There are no such sites.

**8. Does your agency coordinate – or has it coordinated in the past – with states to develop financial assurance requirements for hardrock mines on non-federal lands? If so, please describe this coordination.**

Requiring financial assurances for hardrock mines on non-federal lands is generally outside of the BLM's authority. Exceptions to this general rule include: operations on certain split-estate lands where the surface estate is patented, but the locatable mineral estate remains under Federal ownership (such as lands patented under the Stock Raising Homestead Act), and lands that remain subject to Federal regulation even after patenting (such as lands patented in the California Desert Conservation Area).

In these instances, as with the regulation of hardrock mining on Federal lands, the BLM has authority to enter into agreements with states to allow for joint Federal and State administration and enforcement of mining operations, including financial guarantees. 43 C.F.R. § 3809.200. Alternatively, the Federal-State agreement may provide for deferral of BLM's surface management responsibilities to the State, rather than administering the operation jointly.

If the Federal-State agreement covers financial guarantees, an operator may use a single financial instrument to meet both Federal and State financial guarantee requirements. The BLM and the State must concur on the amount of the financial guarantee, which must be

calculated based on completion of all applicable Federal and State reclamation requirements for the entire operation. To be held as a single financial guarantee, any financial instrument(s) used for the financial guarantee must be acceptable to the BLM under 43 C.F.R. § 3809.555 or § 3809.571.

9. **Please provide all documents, records, papers, reports, agreements, notes, correspondence, presentations, analyses, comments, and any other materials generated by your agency as part of an inter- or intra-agency process associated with the EPA's CERCLA Sec.108(b) rulemaking.**

This request for documents prepared as part of an ongoing rulemaking process for which no draft rule has yet been proposed implicates important confidentiality interests for the Executive Branch. In order to provide information, we have attached a copy of Instruction Memorandum 2006-135, detailing the BLM's latest requirements for the review and acceptance of reclamation cost estimates. We are happy to provide a briefing or additional material on the BLM's program as well as to participate in a multi-agency briefing with the EPA and the Forest Service if that is preferred.



*Index of documents responsive to the March 8, 2011, request from Senator Murkowski for documents related to the actions being taken by the Environmental Protection Agency related to financial assurance requirements, including bonds, for hardrock mines in the United States*

**Volume: 00026366\_Murkowski\_001**

Document Name	Pages	Document Date	Document Type	Document Title
I BLM-WDC-B03-00001-000001	14	20060410	OTH	Instruction Memorandum (IM) 2006-135, Reclamation Cost Estimates for Notices and Plans of Operations

**Total Pages: 14**



# United States Department of the Interior

OFFICE OF THE SECRETARY  
Washington, D.C. 20240

June 17, 2011

## Technical Instructions/Information

This production CD is labeled “00026366\_Murkowski\_001” and contains 1 document consisting of 14 pages.

All images on the CD are in a multi-page PDF format. PDF files can be opened with Adobe Reader.

On the CD-ROM there is a copy of the index for the volume. The following fields are included on the index: document name, page count, document date, document type, document title, and request number.

The format of the date field is the four-digit year, two-digit month and two-digit date (YYYYMMDD). If any part of the date is illegible or unknown, there is an X as a placeholder for the digit.

The index lists the abbreviations for the document types. A list of the abbreviations is as follows:

AGN = Agenda	MOU = Memorandum of Understanding
ANL = Analysis	MTG = Meeting/Minutes
APR = Appraisal	NTE = Notes
ART = Article - News	NTI = Notice
AUD = Audit	OTH = Other
BRF = Briefing Paper	PRO = Proposal
CAL = Calendar	REC = Receipt
CON = Contract	REG = Regulation
COO = Court Decision/Opinion/Order	RPT = Report
COR = Correspondence (Memo)	STA = Statue
DEC = Declaration	STM = Statement
EML = E-mail	SUB = Subpoena
GRT = Grant	TES = Testimony
LEA = Lease	TRA = Transcript
MAP = Map	TVO = Travel Voucher/Order

U.S. DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

Print Page

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Washington, D. C. 20240  
<http://www.blm.gov>

April 10, 2006

In Reply Refer To:  
3809 (320) P

EMS TRANSMISSION 04/20/2006  
Instruction Memorandum No. 2006-135  
Expires: 09/30/2007

To: All Field Officials  
From: Assistant Director, Minerals, Realty and Resource Protection  
Subject: Reclamation Cost Estimates for Notices and Plans of Operations

**Program Area:** Mining Law Administration, Surface Management

**Purpose:** The purpose of this Instruction Memorandum (IM) is to provide policy guidance for the review and acceptance of reclamation cost estimates for Notices and Plans of Operations under the 43 CFR 3809, Surface Management Regulations.

**Policy/Action:** The operator must provide the responsible Field Office with an acceptable estimate of the reclamation costs for all proposed Notices and Plans of Operations. The operator's estimate of the cost to reclaim the operations must meet the requirements of 43 CFR 3809.552(a) and 3809.554(a), and must be acceptable to BLM as required by 43 CFR 3809.554(b). When the Field Manager requires a trust fund or other funding mechanism under 43 CFR 3809.552(c) to guarantee post-mining obligations, the operator must also provide the Field Office with a cost estimate for the monitoring, construction, operation, maintenance, replacement and other activities for the required facilities, treatment or other needs documented in the Plan of Operations.

Based on a review of the reclamation cost estimate, the Field Manager must provide the operator with a written decision as to the amount of the required financial guarantee. Operations may not commence until the operator has received written notification that BLM accepted and obligated the operator's financial guarantee, and the complete Notice is accepted or Plan of Operations approved by the Field Manager.

Specific policy and procedural guidance for reviewing and accepting an operator's reclamation cost estimate are given in Attachment 1 - *Guidelines for Reviewing Reclamation Cost Estimates* attached hereto.

**Time Frame:** This IM is effective immediately and will be in effect unless formally modified.

**Budget Impacts:** There will be a budget impact, but there is no estimate at this time.

**Background:** The revised Surface Management Regulations became effective on January 20, 2001, with subsequent amendments that took effect through December 31, 2001. The final regulations require all Notices and Plans of Operations to post full-cost financial guarantees in an amount sufficient to allow BLM to contract with a third party to reclaim the operations according to 43 CFR 3809.552(a). The final regulations also require an operator to establish a trust fund or other funding mechanism available to the BLM to ensure the continuation of any long-term, post-reclamation treatment or maintenance requirements identified in the decision document for the operation.

**Manual/Handbook Sections Impacted:** Bureau Manual Section 3809 - This guidance will be included in the 3809 Surface Management Manual and Handbook that are now being prepared.

**Coordination:** The policies and procedures found in this IM were developed with input from the Office of the Solicitor, and BLM State and Field Offices.

**Contact:** If you have any questions concerning this IM, please contact T. Scott Murrellwright at 202-785-6568 or Paul McNutt at 775-861-6604.

Signed by:  
Thomas P. Lonnie  
Assistant Director  
Minerals, Realty and Resource Protection

Authenticated by:  
Robert M. Williams  
Division of IRM Governance, WO-560

1 Attachment  
1 - *Guidelines for Reviewing Reclamation Cost Estimates* (13 pp)

last updated: 10-21-2009

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## Guidelines for Reviewing Reclamation Cost Estimates

### BLM's Review Responsibilities

New or Modified Operation - When submitting a new Notice or Plan of Operations the operator must provide BLM with a reclamation cost estimate that meets the requirements of 43 CFR 3809.552(a) and 3809.554(a), and must be acceptable to BLM as required by 43 CFR 3809.554(b). Where an existing Notice or Plan of Operations is proposed to be modified, the operator must provide the Field Office with an estimate of the reclamation costs for all components of the existing and proposed operation that will be effected by the modification.

BLM will review the operator's reclamation cost estimate to determine if the operator has identified and incorporated all applicable reclamation and administrative costs (identified below). In performing the review of the operator's reclamation cost estimate, the responsible Field Office will notify the operator, in writing, of any deficiencies or additional information needed in order for BLM to complete the review. It is not BLM's responsibility to calculate the reclamation cost for an operator, but the Field Office, at the Field Manager's discretion, may assist the operator in identifying costs to be included in the estimate and in developing the cost estimate.

Reclamation Cost Estimate for Part of an Operation - Where the Field Manager authorizes an operator to provide BLM with a financial guarantee under 43 CFR 3809.553 that covers a part of the operation ("phased financial guarantee") the operator must prepare a reclamation cost estimate for the part of the operation to be covered by the partial financial guarantee. The reclamation cost estimate for part of the operation must conform to the same standards as the reclamation cost estimate for the entire operation. In addition to the reclamation cost estimate for a part of the operation, the operator must also prepare a separate reclamation cost estimate for all operations proposed in the Plan of Operations on public lands. The Field Manager's decision on the amount of the required financial guarantee will identify both the total and partial cost estimates. The amount of the required financial guarantee will be based on the reclamation cost estimate for the part of the operation where the authorized incremental operations are to occur.

Long-Term Funding Mechanisms - When a trust fund or other funding mechanism is required under 43 CFR 3809.552(c), the operator must provide the Field Office with a cost estimate for the monitoring, construction, operation, maintenance, replacement and other activities for the required facilities, treatment or other needs documented in the Plan of Operations. The operator's estimate must project when the cost obligations will occur. For reoccurring costs, such as maintenance of a water treatment facility, the frequency, timing and duration of the obligation should be estimated for each cost component. The operator's cost estimate prepared for long-term obligations to be covered under 43 CFR 3809.552(c) should be documented separate from the reclamation cost estimate [43 CFR 3809.554(a)]. The cost estimates for the long-term post-reclamation obligations must be reviewed by the Field Manager in the same manner and with the same degree of care that is used in estimating traditional financial guarantees for reclamation obligations.

**ATTACHMENT 1-1**

**Periodic Review** - It is BLM's responsibility to conduct a periodic review of the reclamation cost estimate. As required by 43 CFR 3809.552(b) and 3809.553(b), BLM must ensure the amount of the required financial guarantee for ongoing operations continues to meet the requirements of the regulations and all reclamation requirements in the accepted Notice or approved Plan of Operations. Unless the operator is proposing a modification to the Notice or Plan, the existing reclamation cost estimate does not reflect authorized operations, or additional information is needed, BLM's review will consist of a complete evaluation and update of the operator's reclamation cost estimate on file. Where additional information is necessary to complete the review or a revised reclamation cost estimate is required, the Field Manager will direct the operator to provide that information.

### **Reclamation Cost Estimate Assumptions and Conditions**

The reclamation cost estimate must be based on the following assumptions and conditions:

- The estimate must cover all relevant operation, maintenance and administrative costs for all reclamation identified in the filed Notice or approved Plan of Operations [43 CFR 3809.301(b), 3809.401(d) and 3809.552(a)].
- Costs must be estimated as if BLM were hiring a third party contractor to perform all required reclamation [43 CFR 3809.552(a)].
- Costs must include the use of off-site equipment as if the project area was vacated, and the estimate must include all associated mobilization and demobilization costs [43 CFR 3809.554(a)].
- The estimate must include, when applicable, all interim maintenance required to keep the area of operation in compliance with applicable safety and environmental requirements while reclamation contracts are developed and executed [43 CFR 3809.552(a)].
- The estimate must cover costs to construct and maintain any long-term treatment facilities or post-closure structures required by the filed Notice or approved Plan of Operations [43 CFR 3809.552(a)].
- Where applicable, labor costs must be based on federally mandated labor rates, as required by the Davis-Bacon Act and the Federal Acquisition Regulations (FAR) for contracts over \$2,000. If the reclamation and cost estimate is solely for the dismantling, demolition, or removal of improvements, then contracting is under the Service Contract Act and Davis-Bacon wage rates do not apply. If construction, alteration or repair of the improvements is contemplated, even if it is under a separate contract, then the Davis-Bacon wages apply. ([www.access.gpo.gov/davisbacon](http://www.access.gpo.gov/davisbacon)).

**ATTACHMENT 1-2**



Maximum Reclamation Cost - The reclamation cost estimate must reflect the maximum cost of reclamation for the proposed disturbance to be covered by the financial guarantee. The point of maximum reclamation costs is often when there is the greatest area of disturbance, greatest volume of materials needing special handling, or some other factor or combination of factors escalating the cost to reclaim. The maximum cost of reclamation is generally not at the end of the project life.

Unless the Field Manager authorizes a phased financial guarantee under 43 CFR 3809.553, the financial guarantee is for the entire life of the mine. In reviewing the operator's estimate, the BLM must make sure the reclamation cost estimate for a life-of-mine financial guarantee reflects the maximum reclamation obligation.

Inflation - Inflation can, over time, become a significant factor in the amount of the required financial guarantee. This is an especially important concern where the potential exists for a substantial time interval between the BLM's review of the reclamation cost estimate and the potential collection and use of a forfeited financial guarantee. To minimize the potential impact inflation can have on the amount of the financial guarantee needed to cover the current reclamation cost the Field Office must review on a periodic basis the reclamation cost estimates for all ongoing operations as addressed in this IM. The maximum allowable time period between reviews is discussed below (Periodic Review).

#### Reclamation, Closure, Mitigation and Monitoring

The reclamation operating and maintenance (O&M) costs reflect the direct current costs of reclamation based on the reclamation and closure measures in the Notice or approved Plan of Operations. Reclamation and closure tasks typically fall into the following categories:

- Interim Operation and Maintenance – If an operator abruptly ceases operations, immediate site operation and maintenance may be required by a third party to maintain the area of operation in compliance with applicable safety and environmental requirements. There is no preset time period for the care and maintenance of a site prior to the start of reclamation; much depends on BLM's ability to access the financial guarantee, especially in bankruptcy cases. It is a good rule-of-thumb to allow for a minimum of six months of interim O&M by a contractor. Large operations or project areas with limited seasonal access may warrant a longer time period.
- Hazardous Materials – This may include the cost of decontaminating, neutralizing, disposing, treating or isolating hazardous materials used, produced, or stored on the site. The estimated cost for handling hazardous materials should assume, unless otherwise documented, that the material is properly stored and labeled.

ATTACHMNT 1-3



If upon site inspection, it is determined the operator is using, producing or storing material on site that could be hazardous, e.g. unlabeled barrels, and the BLM is unsuccessful in getting the operator to properly manage those materials (operator has failed to comply with a noncompliance order), the reclamation cost estimate must be updated to reflect the higher cost of disposing of such material. This distinction is important as the disposal of properly managed hazardous materials may be a fraction of the disposal cost for materials that are not properly stored and identified.

- Water Treatment – All necessary construction and maintenance water treatment costs needed to ensure that mine discharge or drainage will meet relevant standards must be identified in the reclamation cost estimate. The cost of long term, post-reclamation operation, maintenance, and replacement requirements may be addressed in a trust fund established under 43 CFR 3809.552(c).
- Mine Facilities – The demolition, removal and disposal of all mine facilities, immobile equipment and material from the project area must be accounted for in the reclamation cost estimate. Disposal costs for those facilities which have been approved in writing by the BLM for post-reclamation BLM use may be excluded from the reclamation cost estimate. No salvage value for structures, equipment or materials is allowed in the reclamation cost estimate.

Operable mobile equipment, e.g. trucks, dozers, etc., may be excluded from the cost estimate. If upon site inspection, it is determined the mobile equipment is inoperable and the BLM is unsuccessful in getting the operator to repair or remove the inoperable equipment from the project area (operator has failed to comply with a noncompliance order), the cost of removing and disposing of that equipment must be included in the reclamation cost estimate.

- Earthwork – Earthwork includes, but is not limited to, the cost of hauling, placement, regrading and backfilling to reclaim mine disturbances, including roads that have not been specifically identified and approved to remain open.
- Drill Hole Plugging – The cost of plugging, capping, and isolation of drill holes, including exploration, production and monitoring holes, must be addressed in the reclamation cost estimate. Specifically, care needs to be taken in determining plugging costs based upon whether drill holes encounter water, water under artesian pressure, or dry holes. Proposed plugging must meet all applicable Federal and State requirements.

Where the operator is proposing drilling, the reclamation cost estimate must include, at a minimum, the estimated cost of plugging the maximum number of drill holes that may be open at one time, or the number of drill holes at a particular phase of the exploration program. The reclamation cost estimate must never be less than the cost of plugging one drill hole for each drill rig that will be working in the project area.

**ATTACHMENT 1-4**

Where the submitted Notice or approved Plan of Operations calls for drill holes to be plugged, but doesn't specifically require the drill holes be plugged before the drill rig has been moved from the drill pad, the reclamation cost estimate must include the plugging cost for all drill holes identified in the Notice or Plan of Operations. For all drill holes, and water, monitoring and piezometer wells scheduled to be left open, the estimated plugging cost must be included in the reclamation cost estimate. Where the approved Plan of Operations proposes mining through an area where drilling is to occur and the cost of the post-mining reclamation is included in the reclamation cost estimate, the cost estimate for plugging those drill holes is not needed.

If the State Director determines the State's plugging and financial guarantee requirements related to drill hole plugging accomplishes the same level of protection as this policy, the Field Manager may base the estimated plugging costs on the State requirements.

- Revegetation – The reclamation cost estimate must include the cost of obtaining the seed mix specified in the reclamation plan and the cost of soil preparation, such as ripping or harrowing; soil amendments, such as mulching or fertilizer; application of the seed mix; noxious weed control; and placement of tree and shrub seedlings, if required. The cost for hauling and placement of growth medium, if not addressed under earthwork, must be included.
- Mitigation – Mitigation may include avoiding, minimizing, rectifying and reducing or eliminating the impact, or compensating for the impact. The cost of any deferred mitigation the Field Office is requiring the operator to perform must be included in the reclamation cost estimate. For example, if the operator is required to develop five acres of wetlands to compensate for disturbance elsewhere on the project area, until that wetland development is completed the reclamation cost estimate must include the cost of that mitigation.
- Post-Reclamation Costs – The cost of meeting any long-term construction, operation, maintenance, or replacement of any treatment facilities and infrastructure, which are not addressed in a trust fund established by 43 CFR 3809.552(c), must be included in the reclamation cost estimate.

In estimating the cost to perform these reclamation, closure, mitigation and monitoring tasks, the operator's estimate must identify the current O&M costs relating to reclamation including:

ATTACHMENT 1-5

- Equipment rental or acquisition costs,
- Equipment operation costs,
- Equipment maintenance costs,
- Cost of operating supplies,
- Labor costs for operations, maintenance and supervision,
- Site maintenance including roads, infrastructure, power lines, fences and monitoring facilities,
- Reclamation materials acquisition costs, and
- Mobilization and demobilization costs.

All line items contained in an acceptable reclamation cost estimate are not to be considered spending constraints should a financial guarantee be forfeited. The line items listed are solely for the purpose of arriving at a total financial guarantee amount. This total amount may be spent however the BLM deems necessary to implement the reclamation plan. Care should be exercised so that decisions on the amount of the financial guarantee correctly reflect this policy.

Information sources that may be useful in conducting a cost analysis include: applicable parts of the Office of Surface Mining's Handbook for Calculation of Reclamation Bond Amounts (<http://www.wrcc.osmre.gov/>), BLM's Solid Minerals Reclamation Handbook H-3042-1, the Caterpillar Performance Handbook, Western Mine Engineering, Inc. (use for operator estimates only-does not consider third party contract estimates), R.S. Means Site Work Cost Data, Dataquest (equipment operating and owning costs), Rental Rate Blue Book for Construction Equipment, and Skills & Knowledge of Cost Engineering. The user of these references needs to be cognizant of how the data may be applied. The reclamation cost estimate must reflect BLM's cost to contract to have the work performed; owner/operator cost data does not reflect BLM's contracting cost.

### **BLM Administrative Costs**

The Field Office must ensure the cost of reclamation is estimated as if BLM were hiring a contractor to perform all required reclamation. This will include costs that the operator does not normally encounter. The BLM reviewer needs to pay particular attention to costing standards that are based, in part, on the Federal Acquisition Regulations. The responsible BLM specialist should coordinate with their State Office procurement analyst concerning current labor wages, contracting requirements, and advice on various types of contracts, contract language, and administration.

This guidance contains suggested percentages for some of these administrative costs. Unless otherwise noted, these percentages should be treated as rules-of-thumb and not as precise amounts specified by regulation or law. Figures or percentages, other than those listed below, should be included in a calculation if they are explicitly addressed in a Federal-State agreement regarding the financial guarantee and/or are required by Federal or State law.

**ATTACHMENT 1-6**

Unless otherwise noted, the administrative cost categories identified below should be included in the reclamation cost estimate.

- Engineering, Design and Construction (ED&C) Plan - An ED&C plan provides the details needed for contracting the reclamation construction work. Where appropriate, the reclamation cost estimate should reflect the costs to prepare such a plan. Should the operator fail to reclaim, the BLM may need to undertake a number of tasks including:
  - Preparation of maps and plans to show the extent of required reclamation.
  - Survey of topsoil and growth medium stockpiles to determine amount of material available.
  - Sampling and analysis of waste rock, tails, heap material, surface and ground water, etc.
  - Sampling and analysis of topsoil, growth medium and waste piles to determine whether special handling or treatment is necessary.
  - Evaluation of structures to determine requirements for demolition and removal.
  - Evaluation of storm water facilities and process solutions or water impoundments to determine if treatment, clean out, or other improvements are necessary.
  - Preparation of a supplemental environmental analysis or site studies before reclamation may commence.

Reported costs for preparation of this data collection, analysis and planning have ranged from 2 to 20 percent of the estimated reclamation O&M costs. The actual cost will depend to a great extent on the specifics, including reclamation complexities, of the proposed operation. The amount or percentage you apply should be based on available data within your State. Absent specific local or State data, we recommend the ED&C costs be estimated as 4 to 8 percent of the estimated reclamation O&M costs.

Inclusion of a line item for the development of an ED&C plan may not, however, be necessary for all operations. Specifically, small operations, such as notice-level operations, may not require the inclusion of funds to collect, analyze and develop the detailed engineering information; reclamation contracting and construction may be able to proceed without developing an ED&C plan.

- Contingency – Contingency allowance is for cost overruns that regularly occur but cannot be ascertained when an operation is being reviewed. Contingency costs generally reflect the level of detail and completeness of the cost estimate, as well as the level of uncertainty in the assumptions used for the reclamation cost estimate. With the development of an ED&C plan many of the unforeseen circumstances and costs are identified. Contingency costs do not, however, include changes in the scope or unforeseeable or unanticipated events such as earthquakes, labor strikes or floods.

ATTACHMENT I-7



Federal and State agencies that routinely prepare construction cost estimates apply contingencies, ranging from 3 to 45 percent of the O&M costs. The amount or percentage required should be based on available reclamation or construction contract information within your State. Absent reliable local or State information, we recommend the inclusion of a contingency of 4 to 10 percent of the estimated reclamation O&M costs. Where State law specifies an amount, use that figure.

Where the proposed operation involves a relatively small, uncomplicated reclamation effort, and development of an ED&C plan is not anticipated, there may not be a need to include a contingency line item. It is advisable to ensure a contingency is included for operations with estimated reclamation O&M costs over \$100,000. As with an ED&C plan, reclamation cost estimates for notice-level operations may not require the inclusion of a contingency allowance.

- Contractor Profit – Government contracts generally include a contractor profit over and above the estimated reclamation O&M costs. Reported prime contractor's profits and overheads on existing contracts cover a wide range of values (10 to 35 percent). For financial guarantees we recommend 10 percent of the estimated O&M costs. Where State or local contract information suggests a different amount or where State law specifies an amount, use that figure. Inclusion of a line item for prime contractor's profit may not be required if the operator incorporates the prime contractor's profit into the O&M estimate. In such cases, the operator's reclamation O&M estimate must document the inclusion of the prime contractor's profit.
- Liability Insurance - The contractor's liability insurance premium must be included in the reclamation cost estimate. If the liability insurance is included in the reclamation O&M estimate, this needs to be documented. The contractor's liability insurance premium should be estimated as 1.5 percent of the estimated labor costs for the project and included in the reclamation cost estimate.
- Payment and Performance Bonds - Payment of premiums for both a performance bond and a payment bond as required by the Miller Act, with estimated contract costs over \$100,000, must be included in the reclamation cost estimate. A set amount equal to 3 percent of the estimated O&M costs should be used to calculate the payment of premiums for both a performance bond and a payment bond.
- BLM Contract Administration - BLM's labor and operations costs for the Field and State Offices to administer the contract must be included in the financial guarantee. Reported contract administration costs range from 2 to 25 percent. We estimate BLM's contract administration and inspection cost for reclamation contracts as 6 to 10 percent of the estimated O&M costs, depending on the size and complexity of the proposed operation. The actual cost will depend to a great extent on the specifics of the proposed operation, including reclamation complexities.

ATTACHMENT 1-8

Where data is available, the State or Field Office should review their records to determine appropriate costs. Generally the larger the amount of the financial guarantee the lower the percentage needed for contract administration.

- **BLM Indirect Costs** - BLM's indirect costs for contract administration must be included in the amount of the required financial guarantee. The indirect cost rate is a fixed 21 percent of the estimated BLM contract administration cost; therefore the indirect costs may range from 1.26 to 2.1 percent of O&M costs (21% of the 6 - 10% contract administration costs).

If BLM is required to administer a reclamation contract under a forfeited financial guarantee, these indirect cost funds are to remain within the State where the reclamation work will be done. The funds will be available to pay for within-State indirect costs (building rental, telephone, etc.) associated with the project and any project support needed from other offices such as the Denver Service Center contract officers or inspectors.

In reviewing the operator's reclamation cost estimate, the Field Office may need to determine what administrative costs the operator has included with their reclamation O&M costs. For example, operator's labor cost estimates may include base pay, payroll loading, overhead and profit. A typical dozer operator rate in Idaho, in 2002, was \$37.59 to \$40.25 per hour. This rate included the base pay plus 14.6 percent payroll loading, 10 percent overhead, and 6 percent profit. To avoid overlooking or double counting any of the identified administrative costs, e.g. contractor profit, the operator must document what administrative costs are included in their labor costs or other O&M costs. This may be done by itemizing the cost estimates or by providing BLM with a signed statement that identifies the specific administrative costs that are included in their estimated O&M costs.

### **Reclamation Cost Estimating Tools**

Individual BLM State Offices or Field Offices may develop their own tools to support the reclamation cost estimating process. Summary sheets, checklists, and cost models may be available to assist the operator in developing the reclamation cost estimate.

Standardized reclamation cost estimating processes, that include standardized unit costs, schedules, spreadsheets and models, are useful tools that provide simplified, efficient, defensible and consistent means of estimating reclamation costs for both Notices and Plans of Operations. Where appropriate, BLM State and Field Offices are encouraged to develop processes based on standardized unit costs to facilitate the review and approval of the operator's reclamation cost estimate. A process that uses standardized costs may be developed, based on local and/or regional costs, to reclaim typical activities, features and facilities (roads, drill pads, drill-holes, trenches, pits, structures, site stabilization, revegetation, etc.) for specific kinds of terrain (topography).

**ATTACHMENT 1-9**



Where a standardized reclamation cost estimating process is used, the amount of a financial guarantee must be sufficient to meet the requirements of 43 CFR 3809.552(a) and 3809.554(a). The assumptions used in developing the cost inputs must be consistent with both State and Federal regulations and laws. Determining consistency with State and Federal regulations and laws goes beyond the applicable environmental requirements. The assumptions used must also be consistent with applicable contracting requirements, such as Federal Acquisition Regulations. For example, under Federal contracting we cannot require an operator to work double shifts. As such, the reclamation cost estimate should not be based on the assumption that the reclamation contractor will conduct the work using a double shift.

### Periodic Review

The BLM Field Office must provide a periodic review of reclamation cost estimates for ongoing operations and issue a determination as to the amount of the required financial guarantee. Based on a complete evaluation and update of the reclamation cost estimate, the periodic review must ensure the current amount of the financial guarantee continues to meet the requirements of 43 CFR 3809.552(a), 3809.552(c) and 3809.554(a).

The following establishes the maximum time the BLM may allow to elapse between reviews. The BLM has the authority to require a more frequent review of the reclamation cost estimate at the discretion of the Field Manager.

- Reclamation cost estimates for Notice operations must be reviewed every 2 years at time of the Notice extension under 43 CFR 3809.333.
- Reclamation cost estimates for Plans of Operations must be reviewed at least every 3 years.
- Where the BLM has an agreement under 43 CFR 3809.200 with the State that requires a review more frequent than every 2 years for Notices or every 3 years for Plans of Operations, reviews must be conducted in conformance with that agreement.
- Where the Notice or Plan of Operations is modified, a review must be conducted at the time of modification. The reclamation cost estimate review must focus on how the modification affects the existing cost estimate on file. Unless the proposed modification necessitates a complete review, the entire current reclamation cost estimate does not need to be reviewed. However, a review that covers a portion of the reclamation cost estimate on file for the modified Notice or Plan does not substitute for the required 2-year review for a Notice or 3-year review for a Plan of Operations.

**ATTACHMENT 1-10**

- Where the financial guarantee is for a part of the operation, as provided under 43 CFR 3809.553, BLM must review the reclamation cost estimate annually [43 CFR 3809.553(b)]. The Field Office will evaluate and update the reclamation cost estimate for each increment of the operations. In addition to the annual review requirement for the phased financial guarantee coverage, the Field Office must also review the reclamation cost estimate for the entire Notice every 2 years or entire Plan of Operations every 3 years as required above.
- The Field Office must conduct, at least every 3 years, a thorough review of the cost estimates and other assumptions used in determining the amount of funds needed in the long-term funding mechanism required under 43 CFR 3809.552(c). The Field Office must also monitor the growth of all trust funds. At least once a year the responsible Field Office must review the financial statements to ensure growth of the fund is keeping pace with the assumptions used to determine the amount needed in the fund.

### **Review Results and Decisions**

The Field Manager must issue a decision that establishes the amount of the required financial guarantee. The decision must be provided to the operator following the completion of the review of the reclamation cost estimate with a copy provided to the BLM office responsible for adjudication of the financial guarantee.

**Acceptable Review Results** - When the Field Office has received an estimate that is acceptable, the Field Manager must provide the operator with a written decision as to the amount of the required financial guarantee. The decision must state: 1) the amount of the financial guarantee to be provided (\$0.50 or more rounded up to the nearest whole dollar and less than \$0.50 rounded down to the nearest whole dollar), and 2) the types of financial instruments that are acceptable to the BLM. The Field Manager's decision must also state that an operator may not begin operations under a new or modified Notice or Plan of Operations without first providing BLM with an acceptable financial guarantee that meets the requirements of 43 CFR 3809.551 thru 3809.572; no activity greater than casual use is authorized until the BLM has accepted and obligated the operator's financial guarantee.

Following the periodic review for an ongoing operation, the Field Manager will make a determination as to the amount of the required financial guarantee. If there is a change in the required amount of the financial guarantee or the review was conducted at the request of the operator, the Field Manager must issue a decision as to the amount of the required financial guarantee. For ongoing operations under an existing Notice and Plan, the decision must state: 1) the amount of the required financial guarantee, 2) any change (increase or decrease) in the amount of the required financial guarantee, 3) that the operator has 60 days from receipt of the decision to submit an acceptable financial guarantee if the amount has increased, and 4) that failure to provide an acceptable financial guarantee within the specified timeframe will result in an enforcement action against the operator for failure to maintain an acceptable financial guarantee.

**ATTACHMENT I-11**

For a Notice extension under 43 CFR 3809.333, where the amount of the required financial guarantee has increased, the decision must also state: 1) that the Notice is conditionally extended subject to meeting the financial guarantee requirements, 2) that failure to provide an acceptable financial guarantee within 60 days will result in the Notice expiring immediately upon conclusion of the timeframe, and 3) that upon expiration of the Notice, all activities, other than reclamation, are unauthorized and must cease.

Unacceptable Review Results - If the Field Office finds the operator has incorrectly calculated operating and maintenance costs, or finds that the estimate is based on out-of-date cost data that does not reflect the actual cost of reclamation, then the estimate will not be accepted. When an estimate is not acceptable, the Field Manager must notify the operator, in writing, of its unacceptability, and identify the deficiencies or errors that led to that conclusion. The BLM must advise the operator to incorporate the administrative costs outlined above if they are not included in the estimate.

Where the reclamation cost estimate for a new Notice is not acceptable to the BLM, the Notice will not be considered complete as required under 43 CFR 3809.301.

Additional Information - For ongoing operations, where the Field Office lacks the information necessary to determine the adequacy of the existing reclamation cost estimate, the Field Manager must notify the operator of the deficiencies or errors and include a due date when the information or revised reclamation cost estimate must be submitted. Failure to provide the required information within the specified timeframe will result in an enforcement action against the operator for failure to maintain an acceptable financial guarantee.

For Notices to be extended under 43 CFR 3809.333, where the Field Office lacks the information necessary to determine the adequacy of the existing reclamation cost estimate, the Field Manager must issue a decision giving the operator 30 days from receipt to provide all of the requested information. The Notice will be conditionally extended pending Field Office receipt of the required information. Failure to provide the required information within the 30-day period will result in the Notice expiring.

Appeal of Review Decisions - Decisions relating to the acceptability or unacceptability of a financial guarantee are subject to appeal under the provisions of 43 CFR 3809.800. Any adversely affected party may elect to seek a State Director Review (SDR) under 43 CFR 3809.800(a) or appeal directly to the Office of Hearings and Appeals (OHA) under 43 CFR 3809.801.

ATTACHMENT 1-12

Appeal to OHA of a Field Manager's decision must be filed in the office that issued the decision. The Field Office then forwards the Notice of Appeal to OHA. Appeals must be filed by the appellant with the office that issued the decision within 30 days of receipt of the decision. Request for an SDR are filed with the office of the State Director within 30 days of the Field Manager's decision. If the review and evaluation of the financial guarantee and/or financial instrument was conducted by the State Office, a request for State Director review under 43 CFR 3809.806 may not be accepted.

Decrease the Amount - Where the existing amount of the financial guarantee exceeds the Field Manager's determination as to the amount of the required financial guarantee, the operator may request BLM decrease the amount of the required financial guarantee. Any request by the operator for a reduction in the amount of the financial guarantee must be made to the BLM office responsible for adjudicating the financial guarantee.

**ATTACHMENT 1-13**





*Give to Colia*

United States Department of Agriculture

JUL 20 2011

Office of the Secretary  
Washington, D.C. 20250

The Honorable Lisa Murkowski  
Committee on Energy and Natural Resources  
United States Senate  
304 Dirksen Senate Office Building  
Washington, D.C. 20510

Dear Senator Murkowski:

Thank you for your letter of March 8, 2011, regarding actions being taken by the United States Environmental Protection Agency (EPA) related to financial assurance requirements, including bonds, for hardrock mines in the United States. I apologize for the delayed response.

On July 28, 2009, EPA published a priority notice identifying classes of facilities in the hard rock mining industry as those for which EPA would first develop financial responsibility requirements under section 108(b) of CERCLA (*see* 74 Federal Register 37,213 (July 28, 2009)). This notice followed a February 25, 2009, U.S. District Court order (later amended) to identify and publish the notice (*see Sierra Club v. Johnson*, No. C 08-01409 WHA, 2009 U.S. Dist. LEXIS 14819 (N.D. Cal. February 25, 2009)).

USDA's Forest Service has existing requirements that provide for financial assurances on hardrock mining operations on National Forest System lands. The EPA has been working with the Forest Service as it develops the rule in order to ensure that both agencies appropriately implement their statutory authorities. This includes protecting the public interest in ensuring that taxpayers do not bear the cost of addressing releases of hazardous substances and that the Federal government provides a streamlined set of requirements for those developing hardrock mineral resources. The Forest Service is continuing to work with the EPA towards this end.

To the extent several of your questions are directed at the content of deliberative interagency communications in an ongoing rulemaking, they raise important confidentiality concerns for the Executive Branch. Enclosed are answers to your questions as they pertain to the Forest Service. I defer further questions on the timing and content of the rule to the EPA.

Again, thank you for writing.

Sincerely,

Thomas J. Vilsack  
Secretary

Enclosure

## Enclosure

### **Responses to Questions regarding Actions being taken by the Environmental Protection Agency (EPA) related to financial assurance requirements, including bonds, for hardrock mines in the United States.**

- 1. Has your agency received any information from EPA indicating that it intends to pursue a “one-size-fits-all” approach under CERCLA Sec. 108(b) for hardrock mining? If so, what information has been provided and has your agency expressed any concerns with this approach?**

The Forest Service understands that the EPA is working to develop regulatory requirements under CERCLA § 108(b). The Forest Service and EPA have discussed approaches to establishing financial assurances during meetings and follow-up teleconferences. The Forest Service has provided expertise based on its experience regulating hardrock mining operations on the public lands. The Forest Service has also provided EPA with information associated with the current Forest Service regulations.

- 2. Has your agency received any information from EPA regarding how legacy (pre-1990) hardrock mining (or processing) sites listed on the CERCLA National Priorities List (NPL) impacted their identification of the industry as posing a high risk under CERCLA Sec. 108(b)? If so, what information has been provided and has your agency expressed any concerns with this approach?**

EPA’s priority notice of action published in the Federal Register on July 28, 2009, 74 Fed. Reg. 37,213 (July 28, 2009), described eight factors it considered in identifying hardrock mining under CERCLA § 108(b). One of the eight factors considered by EPA was the number of mine sites on the CERCLA site inventory (including both National Priority List (NPL) sites as well as non-NPL sites). The Forest Service has provided EPA with information on the way mining and reclamation practices have evolved from past practices.

- 3. Has your agency received any information from EPA indicating that it intends to link the cost of remediating legacy (pre-1990) hardrock mining (or processing) sites to the calculation of future financial assurance requirements that may be imposed under CERCLA Sec. 108(b)? If so, what information has been provided and has your agency expressed any concerns with this approach?**

The EPA has indicated that it has not yet determined the methodology by which the proposed rule will identify the amount of financial assurance required. The Forest Service has provided EPA with information regarding modern mining practices and Forest Service methodology for establishing financial assurances.



**4. Please provide a description of how your agency currently calculates financial assurance requirements applicable to hardrock mines on federal lands.**

The Forest Service process for calculating financial assurance for hardrock mines is described in its Training Guide for Reclamation Bond Estimation and Administration For Mineral Plans of Operation authorized and administered under 36 CFR 228A; USDA – Forest Service, April 2004. The aforementioned Training Guide emphasizes the following for financial assurance estimation:

- Estimates should be made by experienced personnel;
- Estimates should assume that all equipment, supplies and work will be provided under federal contract;
- Unit costs for labor, equipment or materials should be made or verified on a site by site basis;
- Estimates should include direct and indirect costs;
- Direct costs should include interim operation and maintenance, hazmat testing and removal, water treatment, demolition and disposal of facilities, earthwork, erosion control, revegetation, cost of required mitigation, and long-term operation, maintenance and monitoring;
- Indirect costs should include redesign, mobilization/demobilization, contractor costs, agency project management, contingencies and inflation; and
- Estimates should be reviewed periodically to ensure they are adequate.

**5. Can your agency approve a plan of operations that poses a high risk of unnecessary or undue degradation of public lands? How would your agency typically respond to a plan of operations that it believed posed a high risk of unnecessary or undue degradation of public lands?**

The term “unnecessary and undue degradation” of public lands is derived from the Federal Land Policy and Management Act. The term "unnecessary and undue degradation" is also defined in the Bureau of Land Management’s (BLM) hardrock regulations and, therefore, only applicable to BLM-managed lands. Regulations at 36 CFR 228A direct the Forest Service to require and approve plans of operation (Plans) for activities that may result in “significant disturbance of surface resources” in order to “minimize adverse environmental impacts” and reclaim surface disturbance.

The Forest Service works with proponents at the project design stage to develop any changes or additions deemed necessary to comply with our regulatory requirements for environmental protection and to mitigate adverse environmental effects. Additionally, we incorporate appropriate monitoring and inspection into plan approvals to ensure mitigation is achieving the intended result and/or provide information to develop an adaptive management strategy.

**6. Does your agency have the authority to impose financial assurance requirements for post-mining, long-term monitoring, maintenance and treatment operations?**

Although not explicitly stated in our hardrock bonding regulation at 36 CFR 228.13, the Forest Service interprets our role as having the authority to impose financial assurance requirements for post-mining long-term monitoring, maintenance and treatment operations. We are working to clarify our internal guidance to apply an appropriate discount to long-term/perpetual financial assurance calculations; the consideration of uncertainty and risk in both water modeling and financial assurance calculations; and the types of financial instruments the Forest Service may accept for long-term reclamation obligations.

**7. How many hardrock mining and beneficiation plans of operation has your agency approved since 1990?**

- a. How many of those sites are, or have been, placed on the CERCLA NPL?
- b. How many of those sites placed on the CERCLA NPL involve(d) a responsible party that pays (paid) for the cost of short-term removals or long-term remediation, either in part or in whole? What is the aggregate dollar amount spent by these responsible parties? What is the aggregate dollar amount spent by the federal (or state) government?

The total number of hardrock mines permitted since 1990 is 2,685; no sites have been placed on the CERCLA NPL list.

**8. Does your agency coordinate – or has it coordinated in the past – with states to develop financial assurance requirements for hardrock mines on non-federal lands? If so, please describe this coordination.**

The Forest Service has and continues to coordinate with States to develop financial assurance requirements when dealing with individual sites involving both National Forest System lands and non-federal lands expressly for the purpose of avoiding duplicate bonding of operators. This coordination typically takes the form of agreements describing how financial assurance will be estimated, what financial assurance (bond) instruments are acceptable, who holds the instruments, and how the penal sum of these instruments are to be allocated in the event of operator default.

**9. Please provide all documents, records, papers, reports, agreements, notes, correspondence, presentation, analyses, comments, and any other materials generated by your agency as part of an inter- or intra-agency process associated with the EPA's CERCLA Sec. 108(b) rulemaking.**

This request for documents prepared as part of an ongoing rulemaking process for which no draft rule has yet been proposed implicates important confidentiality interests for the Executive Branch. We are happy to provide a briefing or additional material on the Forest Service's program as well as to participate in a multi-agency briefing with the EPA and the BLM if that is preferred.



*Sent via email*

July 7, 2016

Ms. Lanelle Wiggins  
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**Re: CERCLA 108(b) Financial Responsibility for the Hardrock Mining Industry  
SBREFA Pre-panel Outreach Comments**

Dear Ms. Wiggins and Barr:

**I. EPA Must Provide Key Information – EPA has Prematurely Convened the SBAR Panel**

I very much appreciate the opportunity to participate as a Small Entity Representative (“SER”) on the Environmental Protection Agency’s (“EPA’s”) Small Business Advocacy Review (“SBAR”) Panel. It is my understanding that the purpose of the SBAR Panel is to give Small Entities a specific and meaningful role during the rulemaking process as required under the Regulatory Flexibility Act as amended by the Small Business Regulatory Enforcement Fairness Act (“RFA/SBREFA”), for any rule that “...will have a significant economic impact on a substantial number of small entities.” Based on the generic information EPA has provided to date on its proposed CERCLA 108(b) financial assurance program for the hardrock mining industry, (“Proposed Rule”) there can be no doubt that the Proposed Rule will have serious impacts on Small Entities including small junior mining companies like Pershing Gold – as well as on large mining companies.

I stand ready and willing to participate in good faith as a SER in the SBAR Panel. However, it is presently very difficult if not impossible to fulfill my SER responsibilities as defined under SBREFA because EPA has not provided essential information about its Proposed Rule to allow me or the other SERs to make a complete assessment of the impact it will have on small entities.

Although I appreciated receiving the numerous state summaries and the information from the Federal Land Management Agencies (“FLMA”) that EPA provided to the SERs on June 28<sup>th</sup>, most of the documents were drafts and all of them were written more than several years ago. (Some date back to 2010.) When I requested final documents in my June 30<sup>th</sup> email to EPA addressed to Ms. Lanelle Wiggins, she replied on July 1<sup>st</sup> that the agency did not intend to update or finalize any of these documents. The SERs need to see final, updated documents. It is inappropriate for the SERs to base our analysis on draft documents — just as it would be wrong for EPA to propose a rule on the basis of draft and out of date documents. In fact, I believe that a rule that is based on out of date, draft documents may be unlawful because it would not comply with the Federal Data Quality Act and EPA’s Information Quality Guidelines, which require information disseminated to the public be accurate and reliable. EPA cannot meet this standard using out of date, draft documents.





The 2010 BLM document provided on June 28<sup>th</sup> entitled “Working Draft for Review 10/13/2010, Summary of Bureau of Land Management Financial Responsibility Requirements Applicable to Classes of Hardrock Facilities” has raised an additional concern that the group of SERs that EPA selected for the SBAR Panel may not be congruent with the scope of the Proposed Rule. This 2010 document describes three sectors of hardrock mineral facilities that are the subject of CERCLA 108(b): 1) leasable hardrock minerals; 2) hardrock mining activities in the National Wilderness Protection Areas; and 3) locatable mineral facilities. EPA needs to ensure that the SERs convened for the SBAR panel represent all three sectors. Based on my knowledge of the mining industry, it appears that the SERs may not include representatives from the leasable hardrock mineral sector or those conducting mineral activities within National Wilderness Protection Areas. These mineral sectors need to be represented. It would be inappropriate for EPA to conduct the SBAR Panel without including at least one SER from all three sectors subject to the Proposed Rule.

Moreover, EPA must also provide detailed information about the existing regulatory processes and financial requirements in place for leasable hardrock minerals and hardrock mining activities in the National Wilderness Protection areas. The summary of these programs described in the above-cited 2010 document is insufficient.<sup>1</sup> The SERs need more information from the BLM about these programs – similar to the detailed presentations provided during the June 16 meeting pertaining to locatable minerals.

EPA has prematurely initiated the SBAR Panel process. EPA needs to delay the SBAR Panel process until it can provide the SERs with the information listed in Table 1 in order for us to be in a position to develop specific comments as we committed to do when we volunteered to be SERs.

First and foremost, EPA must provide the model it plans to use to calculate CERCLA 108(b) financial responsibility. Without having detailed information about this model, it is simply impossible to understand and comment upon the relationship between the Proposed Rule and the existing FLMA and state financial assurance programs. The June 28, 2016 draft deliberative document the EPA provided entitled “Mining Practices Currently Under Consideration for the Formula” does not satisfy the request to provide the model. The June 28<sup>th</sup> document is merely a short list of some engineering controls that are commonly used at modern, fully-regulated mines – but by no means is a complete list of the engineering controls used to protect the environment and prevent releases of hazardous substances. Moreover, this list provides no information on how these controls will be used as inputs to the model. EPA cannot use the June 28 list as a proxy to fulfill the SER’s request for the model.

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<sup>1</sup> As discussed below, there are several errors in the discussion of the locatable minerals program presented in the 2010 BLM summary. There may be similar errors in the discussions pertaining to leasable hardrock minerals and hardrock mining activities in the National Wilderness Protection areas, which highlights the need for more information including updated and finalized documents.



<b>Table 1</b>
<b>Essential Information Required for the SERs to Provide Meaningful Comments to the SBAR Panel on the Proposed CERCLA 108(b) Rule</b>
<ol style="list-style-type: none"> <li>1. The model EPA will use to calculate CERCLA 108(b) financial responsibility</li> <li>2. The cost data, engineering data, and underlying formulas that the model will use or otherwise inform the model;               <ol style="list-style-type: none"> <li>a. Where did EPA obtain the costs and data?</li> <li>b. Is EPA using costs from Superfund cleanup of pre-regulated mines?</li> </ol> </li> <li>3. How is the HAA determined?               <ol style="list-style-type: none"> <li>a. Justify the proposed fixed amount when each mine site is unique?</li> </ol> </li> <li>4. How is the NRD percentage determined?               <ol style="list-style-type: none"> <li>a. Justify the proposed fixed amount when each mine site is unique?</li> </ol> </li> <li>5. List the BMPs being considered for model inputs to determine credit reductions in the amount of required financial assurance.</li> <li>6. List the engineering controls being considered for model inputs to determine credit reductions in the amount of required financial assurance.</li> <li>7. List the site features used as model inputs</li> <li>8. Clarify when in the mining life cycle the CERCLA 108(b) financial responsibility instrument has to be provided               <ol style="list-style-type: none"> <li>a. Does it need to be provided before operations begin?</li> </ol> </li> <li>9. Is the amount of required financial assurance negotiable or appealable?</li> <li>10. When could a CERCLA 108(b) financial assurance instrument be released?               <ol style="list-style-type: none"> <li>a. Can there be partial release?</li> <li>b. How long will it take after a facility closes to release the instrument?</li> </ol> </li> <li>11. Provide the financial assurance capacity study including information on who prepared the study               <ol style="list-style-type: none"> <li>a. Did the study evaluate collateral requirements</li> <li>b. What will EPA do if this study reveals that the financial assurance and insurance industries are unwilling or unable to provide financial assurance instruments pursuant to the Proposed Rule</li> <li>c. Did this study include a credit rating survey for the range of entities, including small businesses, which will be subject to the Proposed Rule. If so, please provide.</li> </ol> </li> <li>12. Demonstrate that the Proposed Rule does not duplicate the existing financial assurance requirements under federal and state laws and regulations.               <ol style="list-style-type: none"> <li>a. Identify with specificity any perceived gaps in the existing federal and state regulatory and financial assurance programs for hardrock mining that need to be filled with the Proposed Rule.</li> <li>b. Demonstrate that EPA is the right entity – rather than the Federal Land Management Agencies and the state agencies to fill those gaps.</li> <li>c. Show that the EPA has the necessary expertise to address any gaps or to administer the Proposed Program.</li> </ol> </li> </ol>



## II. Historical Overview – There is No Regulatory Void that Needs to Be Filled

Prior to developing the Proposed Rule, it is essential that EPA consider the historical context of the regulatory and financial assurance requirements for hardrock mines in 1980 when Congress enacted CERCLA and established the CERCLA 108(b) financial assurance requirement. At that time, there were few comprehensive financial assurance requirements in either state or federal regulations. Although the US Forest Service's ("USFS") 36 CFR Part 228 Subpart A surface management regulations included financial assurance requirements. However because these regulations became effective in 1974, they were fairly new and therefore largely untested. The Bureau of Land Management's ("BLM's") 43 CFR 3809 surface management regulations for locatable minerals were not yet in effect – they became effective on January 1, 1981. In 1980, most state regulations had very limited – if any – financial assurance requirements. For example, Nevada's reclamation regulations, NAC 519A became effective in 1990. Given the lack of financial assurance requirements for hardrock mines in 1980, there was a regulatory void, which Congress directed EPA to fill when it enacted CERCLA 108(b). Had EPA acted in a timely manner to conduct rulemaking in response to the CERCLA 108(b) directive, we wouldn't be having this discussion today. However, that's not what happened.

Fast-forward 36 years to 2016 and the state and federal regulatory and financial assurance landscapes are very different than in 1980. Today, there is no regulatory void. To the contrary, as we heard on June 16, both BLM and USFS have effective and comprehensive financial assurance requirements that extend far beyond reclamation (i.e., earthworks and revegetation) and can include long-term financial assurance for sites where warranted. Similarly, the presentations from Nevada, Utah, New Mexico, and South Dakota provided ample evidence of the robust financial assurance programs established through one or more state regulatory programs in each state.

In light of the existing federal and state financial assurance programs, EPA's Proposed Rule is both anachronistic and redundant. BLM, USFS, and the states have filled the regulatory void with comprehensive programs. Indeed we heard from BLM that the agency holds \$2.9 billion in reclamation bonds to cover the agency's costs to reclaim the active mines on BLM-administered lands. The many ways in which a new EPA financial assurance program would be duplicative, redundant, and therefore harmful to small entities is discussed in more detail below.

Recognizing that EPA must finally respond to the 36-year old directive to evaluate a financial assurance program for hard rock mining, EPA must tailor its response to fit current circumstances. Rather than build a new and duplicative financial assurance requirement out of whole cloth, as if it were still 1980, EPA must take a much more surgical approach and evaluate whether there are any gaps in the existing federal and state financial assurances that need to be filled. Secondly, EPA should evaluate the regulatory agency or agencies best suited to fill any identified gaps. The financial assurance programs that BLM, USFS, and the four western states described on June 16 clearly demonstrated that these agencies have the necessary expertise to administer their programs, and by analogy, respond to any identified gaps. These presentations also proved that financial assurance must be established on a site-by-site, project-by-project basis. A one-size-fits all, standardized bond amount – like that being considered by EPA – is completely inappropriate.





### **III. The Four Requested SER Advice and Recommendation Elements**

According to the June 9, 2016 pre-panel outreach materials EPA circulated to the SERs, “the RFA tasks the Panel with reviewing the material the Agency has available concerning the rulemaking, and collecting advice and recommendations from small entity representatives (SERs) on issues related to the following four elements:

1. Who are the small entities to which the proposed rule will apply?
2. What are the anticipated reporting, recordkeeping, and other compliance requirements of the upcoming proposed rule?
3. Are there any existing federal rules that may duplicate, overlap, or conflict with the regulation?
4. Are there any significant regulatory alternatives that could minimize the impact on small entities?

The remainder of this letter responds specifically to these four questions.

#### **A. Who are the small entities to which the proposed rule will apply?**

The answer to this question is highly dependent upon whether the model to determine financial assurance requirements under the Proposed Rule gives adequate credit for existing requirements under federal and state financial assurance rules so that no or little additional financial assurance is required. However, because EPA has not provided the information in Table 1, especially details about the model it will use to determine financial assurance requirements under the Proposed Rule, it is impossible to determine how or whether the Proposed Rule will affect small entities – as well as the rest of the mining industry.

As enumerated above, EPA is requesting information from the SERs on “existing federal rules that may duplicate, overlap, or conflict with the regulation.” On June 16, EPA received detailed information from BLM, USFS, and four western states documenting that there are already comprehensive federal and state financial assurance requirements in place. Thus there is considerable potential for EPA’s Proposed Rule to duplicate, overlap, and conflict with the existing requirements, which would be extremely problematic for small entities.

Ideally, EPA’s evaluation of the existing federal and state financial assurance will find that these existing financial assurance requirements are sufficient to substantially reduce or even completely eliminate the application of the Proposed Rule, in which case the Proposed Rule would have a fairly small or even negligible impact on small entities operating on BLM- or USFS- administered federal lands and/or located in Nevada and other states that already have a comprehensive financial assurance program in place. Unfortunately the example mines EPA provided on Slides No. 27 and 28 in its June 9<sup>th</sup> presentation raises serious concerns that EPA has not recognized the scope of the existing financial assurance programs and intends to advance a Proposed Rule that will have a very onerous impact on small entities.

Additionally, EPA cannot complete the study that is underway to assess the capacity of third-party markets to underwrite financial responsibility instruments required by the CERCLA 108(b) rulemaking without first knowing the universe of small entities that will be affected by the Proposed Rule. Small entities that do not currently have a revenue stream from a producing mine



will have substantially different ability to qualify for commercially available financial assurance instruments than other small entities with revenue sources. The draft study, which is examining both the current state and future outlook of the markets for financial responsibility instruments based on publically available and attributable data (from the US Treasury, GAO, Standard & Poor's, industry, and non-profit institutions), will not provide meaningful information about all small entities, some of whom do not have a Standard & Poor's credit rating.

During the June 9 conference call/meeting, EPA presented an example of the required financial assurance for a small mine and for two large mines. The statistics for the small mine – particularly the size of the open pit – compared to the other mine features (including having < 1,500 employees and producing \$1 billion in revenue) would be more appropriately described as an imaginary mine rather than an example. Additionally, as discussed above, the credit rating scores shown for this company would not be applicable to some small entities. The resulting analysis is useless because EPA's envisioned financial assurance program does not fit the facts. Without the right facts, EPA will design a saddle for a Unicorn.

The outlandish parameters listed for the imaginary small mine "example" underscore EPA's lack of experience with or understanding of the hardrock mining sector – both big and small entities. Given EPA's obvious lack of expertise, the agency cannot and should not proceed with the Proposed Rulemaking. The task of determining, collecting, and enforcing financial assurance requirements should remain with BLM, USFS, and state regulatory agencies.

Using the imaginary small mine as an example, EPA's projected financial assurance requirement of \$75 million would mean most small entities could never develop this mine in the first place. For mines that are already in production, the imposition of a new annual cost ranging from \$4 million to \$28 million could make the mine uneconomic and force it to close prematurely. Most mines – small or large – have narrow profit margins. Adding a new multi-million dollar financial assurance requirement would put some mines and mining companies out of business.

**B. What are the anticipated reporting, recordkeeping, and other compliance requirements of the upcoming proposed rule?**

It is impossible to answer this question at this time. As discussed throughout this letter, EPA has not provided sufficient information about the model and the model inputs to assess the reporting, recordkeeping and compliance requirements associated with the Proposed Rule.

**C. Are there any existing federal rules that may duplicate, overlap or conflict with the regulation?**

Based on the June 16 presentations made by BLM, USFS, Nevada, Utah, New Mexico, and South Dakota, it should be abundantly obvious to EPA that comprehensive and effective financial assurance programs are already in place on both the federal and state levels. There can be no doubt whatsoever that the Proposed Rule will duplicate, overlap, and conflict with these existing regulations.

EPA appears to hold the position that somehow the existing federal and state financial assurance programs deal solely with traditional reclamation and mine closure activities (e.g., recontouring



and revegetating disturbed areas.) This position is incorrect. The existing regulatory requirements for hardrock mining go far beyond reclamation and closure and include many provisions designed to protect the environment. Consequently, they include measures to prevent releases of contaminants from operating and closed mines that would come under the CERCLA 107 hazardous substances definition.

The following is a detailed discussion of BLM's 43 CFR 3809 surface management regulations for hardrock mining ("3809 Regulations") to underscore the point that modern mining regulations focus on preventing environmental degradation, including the release of hazardous substances. As explained by Mr. Adam Merrill of BLM on June 16, the stated purpose of the 3809 Regulations is to: "Prevent unnecessary or undue degradation ("UUD") of public lands by operations authorized by the mining laws." 43 CFR § 3809.1(a). It is important to note that the 3809 Regulations include a broad definition of reclamation at 43 CFR § 3809.5 that goes far beyond earthworks and revegetation and clearly includes measures to prevent post-mining releases of hazardous substances:

*"Reclamation* means taking measures required by this subpart following disturbance of public lands caused by operations to meet applicable performance standards and achieve conditions required by BLM at the conclusion of operations...Components of reclamation include, where applicable:

- (1) Isolation, control, or removal of acid-forming, toxic, or deleterious substances;**
- (2) Regrading and reshaping to conform with adjacent landforms, facilitate revegetation, control drainage, and minimize erosion;
- (3) Rehabilitation of fisheries or wildlife habitat;
- (4) Placement of growth medium and establishment of self-sustaining revegetation;
- (5) Removal or stabilization of buildings, structures, or other support facilities;
- (6) Plugging of drill holes and closure of underground workings; and**
- (7) Providing for post-mining monitoring, maintenance, or treatment."**

The reclamation components shown in bold above are designed to prevent releases of hazardous substances such as processing chemicals and reagents, acid mine drainage, metal-bearing leachates, and petroleum products when mining is completed. Item No. 7 authorizes BLM to require long-term, post-mining financial assurance for monitoring, maintenance, and treatment such as water-quality treatment.

In order for BLM to deem a Plan of Operations technically complete, the operator must satisfy provide a reclamation plan consistent with the requirements in 43 CFR § 3809.401(b)(3) which include measures to prevent the release of hazardous substances including procedures for drill hole plugging; plans to isolate and control acid-forming, toxic, or deleterious materials; and post-closure management, which can include long-term financial assurance.



Plans of Operations must also include a detailed monitoring plan per 43 CFR § 3809.401(b)(4):

“A proposed plan for monitoring the effect of your operations. You must design monitoring plans to meet the following objectives: To demonstrate compliance with the approved plan of operations and other Federal or State environmental laws and regulations, to provide early detection of potential problems, and to supply information that will assist in directing corrective actions should they become necessary. Where applicable, you must include in monitoring plans details on type and location of monitoring devices, sampling parameters and frequency, analytical methods, reporting procedures, and procedures to respond to adverse monitoring results. Monitoring plans may incorporate existing State or other Federal monitoring requirements to avoid duplication. Examples of monitoring programs which may be necessary include surface- and ground-water quality and quantity, air quality, revegetation, stability, noise levels, and wildlife mortality.”

The objective of such monitoring plans under the 3809 Regulations is to provide early detection of any environmental issues, including a release of potential contaminants to surface water or groundwater or to the air. These monitoring provisions in the 3809 Regulations clearly address the potential release of a hazardous substance both during and after mining.

The 3809 Regulations also require Plans of Operations to include an Interim Management Plan per 43 CFR § 3809.401(b)(5) to address site management in the event of a temporary shut down. An Interim Management plan requires operators to provide plans for isolating or controlling toxic or deleterious materials during temporary closure periods. This is another component of the 3809 Regulations that prevent the release of hazardous substances.

The environmental performance standards at 43 CFR § 3809.420 establish several additional requirements that prevent the release of hazardous substances. First, 43 CFR § 3809.420(a)(6) requires compliance with other state and federal laws. This means that all mining operations on BLM-administered lands must comply with the provisions of the Clean Water Act, the Clean Air Act, the Resource Conservation and Recovery Act (“RCRA”), and all other pertinent federal laws. This requirement that mines must comply with other federal environmental protection laws is very important in the context of the Proposed Rule because it means there can be no unauthorized releases of contaminants or hazardous substances to surface water, ground water, or to the air.

Secondly, the 43 CFR § 3809.420 environmental performance standards specifically reference several federal environmental laws. 43 CFR § 3809.420(b)(4) requires compliance with the Clean Air Act. 43 CFR § 3809.420(b)(5) requires compliance with the Federal Water Pollution Control Act. 43 CFR § 3809.420(b)(6) requires compliance with RCRA:

“(6) *Solid wastes.* All operators shall comply with applicable Federal and state standards for the disposal and treatment of solid wastes, including regulations issued pursuant to the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.* ). All garbage, refuse or waste shall either be removed from the affected lands or disposed of or treated to minimize, so far as is practicable, its impact on the lands.”



This specific reference to RCRA means that mining operations must comply with all applicable aspects of RCRA Subtitles C and D. In this manner, the 3809 Regulations already explicitly govern the potential release of hazardous substances associated with solid waste handling at mine sites by requiring compliance with RCRA.

The 43 CFR § 3809.420(b)(11) environmental performance standard includes the following very specific requirements governing acid mine drainage and metal-bearing leachates:

“(11) *Acid-forming, toxic, or other deleterious materials.* You must incorporate identification, handling, and placement of potentially acid-forming, toxic or other deleterious materials into your operations, facility design, reclamation, and environmental monitoring programs to minimize the formation and impacts of acidic, alkaline, metal-bearing, or other deleterious leachate, including the following:

(i) You must handle, place, or treat potentially acid-forming, toxic, or other deleterious materials in a manner that minimizes the likelihood of acid formation and toxic and other deleterious leachate generation (source control);

(ii) If you cannot prevent the formation of acid, toxic, or other deleterious drainage, you must minimize uncontrolled migration of leachate; and

(iii) You must capture and treat acid drainage, or other undesirable effluent, to the applicable standard if source controls and migration controls do not prove effective. You are responsible for any costs associated with water treatment or facility maintenance after project closure. Long-term, or post-mining, effluent capture and treatment are not acceptable substitutes for source and migration control, and you may rely on them only after all reasonable source and migration control methods have been employed.”

Thus, 43 CFR § 3809.420(b)(11) already explicitly governs the potential release of mine effluents containing contaminants (e.g., hazardous substances). Moreover, the 3809 Regulations require operators to provide long-term management of leachates and long-term financial assurance to cover management and treatment costs. Consequently, there is no regulatory gap that EPA needs to fill with a Proposed Rule to govern potential releases of effluents containing hazardous substances from mine sites on BLM-administered lands that are subject to the 3809 Regulations.

The 43 CFR § 3809.420(b)(12) environmental performance standard dictates that leaching operations and tailings impoundments must be designed with low-permeability liners specifically to minimize the potential for a release of hazardous substances to the environment:

“(12) *Leaching operations and impoundments.* (i) You must design, construct, and operate all leach pads, tailings impoundments, ponds, and solution-holding facilities according to standard engineering practices to achieve and maintain stability and facilitate reclamation.

(ii) You must construct a low-permeability liner or containment system that will minimize the release of leaching solutions to the environment. You must monitor





to detect potential releases of contaminants from heaps, process ponds, tailings impoundments, and other structures and remediate environmental impacts if leakage occurs.

(iii) You must design, construct, and operate cyanide or other leaching facilities and impoundments to contain precipitation from the local 100-year, 24-hour storm event in addition to the maximum process solution inventory. Your design must also include allowances for snowmelt events and draindown from heaps during power outages in the design.

(iv) You must construct a secondary containment system around vats, tanks, or recovery circuits adequate to prevent the release of toxic solutions to the environment in the event of primary containment failure.

(v) You must exclude access by the public, wildlife, or livestock to solution containment and transfer structures that contain lethal levels of cyanide or other solutions.

(vi) During closure and at final reclamation, you must detoxify leaching solutions and heaps and manage tailings or other process waste to minimize impacts to the environment from contact with toxic materials or leachate. Acceptable practices to detoxify solutions and materials include natural degradation, rinsing, chemical treatment, or equally successful alternative methods. Upon completion of reclamation, all materials and discharges must meet applicable standards.

(vii) In cases of temporary or seasonal closure, you must provide adequate maintenance, monitoring, security, and financial guarantee, and BLM may require you to detoxify process solutions.”

The Nevada regulations (NAC 445A.350 - NAC 445A.447) require the use of similar engineering controls as 43 CFR § 3809.420(b)(11) and 43 CFR § 3809.420(b)(12) to meet a zero-discharge performance standard for process solutions. These controls include liners to contain process solutions, detailed operational and post-closure performance monitoring, storm water management, process fluid management in the event of a power outage or site abandonment, and mine waste characterization to determine the potential for acid generation and metals leaching. Zero discharge is defined as: “...the standard of performance for the protection of surface waters which requires the containment of all process fluids.” (NAC 445A.385)

Thus, 43 CFR § 3809.420(b)(12) as well as the Nevada regulations already explicitly mandate the use of numerous engineering controls to minimize the potential for a release of contaminants (e.g., hazardous substances) and financial assurance to provide the necessary funds for regulators to maintain and operate these controls if necessary. Once again, there is no regulatory gap that EPA needs to fill with a Proposed Rule to govern potential releases of effluents containing hazardous substances from mine sites on BLM-administered lands that are subject to the 3809 Regulations and other mine sites on private land in Nevada subject to the NAC 445A regulations.



This level of analysis of the 3809 Regulations should have been included in the draft 2010 EPA document referenced above describing BLM's regulatory program. This draft document includes the following incorrect statements:

Page 9: "Under BLM regulations, financial responsibility does not cover potential remedial or removal actions due to pre-existing releases of CERCLA hazardous substances, or future clean-up costs" is an oversimplification. The 3809 Regulations would include financial assurance for projects in which the re-mining or clean-up of historic sites is integrated into a Plan of Operations.

Page 10: "BLM regulations do not explicitly provide for the inclusion of any contingency in the calculation of financial responsibility amount." The required financial assurance for mines on BLM-administered lands in Nevada include interim fluid management costs to provide BLM with the necessary funds to keep the pumps running to manage tailings impoundments and heap leach facilities to prevent a release of process solutions in the event of an abrupt mine closure or bankruptcy. This most certainly is a contingency-style cost that is a requirement for mines in Nevada.

Page 10: "plans are subject to a public comment period for 30 days prior to plan approval." This is a serious oversimplification. Plans of Operation are subject to a NEPA analysis – either an Environmental Assessment or an Environmental Impact Statement. The review times for a Plan of Operation are dictated by NEPA – not BLM's 3809 Regulations. NEPA review times vary depending on whether the agency has prepared an Environmental Assessment or an EIS.

It should also be noted that the underlying premise of the Nevada reclamation cost estimate presumes a contingency – that the operator has abandoned the site and that state and/or federal regulators must step in to prevent environmental harm or the release of hazardous substances through emergency interim fluid management and to close and reclaim the site. The Nevada reclamation cost estimate includes a surcharge or Indirect Cost addition of roughly 35 percent to give regulators the necessary financial resources to address the contingency of a bankrupt operator or an operator who abandons a mine site.

**D. Are there any significant regulatory alternatives that could minimize the impact on small entities?**

EPA must minimize the impact of the Proposed Rule on small entities by ensuring that it does not overlap, duplicate, or conflict with existing federal and state regulations like the 3809 Regulations and Nevada's regulatory program described above. As noted by the State of Nevada on June 16, the Nevada Division of Environmental Protection/Bureau of Mining Regulation and Reclamation ("NDEP") and FLMA in Nevada hold roughly \$2.66 billion in reclamation bonds. Clearly any duplication of that amount resulting from the Proposed Rule would have a profoundly adverse impact upon Nevada small entities – as well as the rest of the Nevada mining industry.

The only way for EPA to minimize the impact of the Proposed Rule on small entities (as well as on the entire mining industry) would be to conduct a detailed gap analysis to provide specific



information on whether there are any gaps in the existing federal and state programs. The obvious viable alternative to the Proposed Rule is to use the findings of this gap analysis to develop a surgical approach to filling any identified gaps. EPA must thoroughly evaluate and then implement this alternative.

EPA should conduct this gap analysis on a program-by-program basis. For example, given the comprehensive scope of the 3809 Regulations, EPA should be required to identify whether it has identified any specific shortcomings in the 3809 Regulations and propose targeted measures to fill the gaps. Similarly, the EPA should specify whether there are any gaps that need to be filled in each states' regulatory program.

I believe an evaluation of the State of Nevada's regulatory programs governing reclamation, mine closure, and environmental protection for operating and closed mines (e.g., NAC 519A and NAC 445A), would reveal that the Nevada program provides comprehensive environmental protection designed to prevent releases of hazardous substances both during and after mining. This evaluation would also conclude that the Nevada financial assurance requirements are based on very conservative calculations to provide state regulators with ample financial assurance in the event they must use the bond to close and reclaim a site and to provide for long-term maintenance and management.

In the event EPA identifies gaps in the FLMA or the states' regulatory programs, it should not assume that financial assurance pursuant to CERCLA 108(b) is the best way to eliminate the gaps. Given the site-specific nature of determining the proper financial assurance amount, the states and FLMA are in a superior position to develop gap-filling financial assurance mechanisms. A one-size-fits all approach will likely duplicate, overlap, and conflict with existing programs and not be the best approach.

Turning again to the Nevada program, NDEP has modified and augmented its financial assurance program a couple of time since the NAC 519A bonding regulation went into effect in 1990, demonstrating that the state – not EPA – is in the best position to enhance its bonding programs if and when circumstances demand additional financial assurance. In response to documented shortcomings in the Nevada program that were revealed when a couple of mine operators with reclamation bonds went bankrupt in the late 1990s and early 2000s, NDEP expanded the scope of its financial assurance requirements to require bonds the give state regulators immediate access to funds for emergency management and interim fluid management. As explained in detail in Parshley and Struhsacker (2008) *see* Exhibit 1, NDEP developed a number of enhancements to its bonding program including Interim Fluid Management (“IFM”) and Process Fluid Stabilization (“PFS”) cost estimating tools. NDEP, BLM, and industry representatives jointly developed the Heap Leach Draindown Estimator (“HLDE”) and the Process Fluid Cost Estimator (“PFCE”). Both NDEP and BLM in Nevada use these tools when calculating the level of financial assurance an operator must provide. The resulting modifications to the Nevada bonding program have produced comprehensive and conservative bonds that consider all likely contingencies based on agency costs to manage, close, reclaim, and maintain sites requiring government intervention.

The state's development of these gap-filling enhancements to its financial assurance



requirements vividly demonstrates why it is best to leave any adjustments or gap-filling measures in the hands of regulators with a first-hand knowledge of operations and site conditions in their states. I am confident that if a currently unanticipated event develops at a Nevada mine that points to the need for additional refinement and augmentation of financial assurance in Nevada, that NDEP would respond as it has in the past to fill in any identified gap.

#### **IV. Conclusions**

The 30-year old mandate for EPA to develop a financial assurance program pursuant to CERCLA 108(b) is an anachronism, which has been eclipsed by the passage of time and the enactment and implementation of comprehensive federal and state financial assurance programs for hardrock mining. EPA has not provided any compelling reasons demonstrating that a CERCLA 108(b) financial assurance program is justifiable in light of the comprehensive regulatory programs already in place for hardrock mines on BLM- and USFS-administered lands or for mines in Nevada and in other mining states.

It is inappropriate for EPA to proceed with the CERCLA 108(b) rulemaking without performing the detailed gap analysis described above to determine whether there are any regulatory gaps that need to be filled. This analysis will produce a viable alternative to the Proposed Rule as described in the materials EPA has provided to date and is essential to minimizing the impact of the Proposed Rule on small entities. This analysis is also necessary to satisfy EPA's obligations under the Data Quality Act and the agency's Information Quality.

I very much appreciate the opportunity to serve as a SER and to provide this information. I look forward to participating in the future SBAR Panel meeting. However, prior to holding this meeting, it is essential that EPA provide the SERs with the requested information in Table 1, updated and finalized federal and state regulatory program summaries, more information about leasable hardrock mineral regulations and financial assurance requirements, and data on operations in National Wilderness Protection Areas.

Sincerely,

/s/ Debra W. Struhsacker

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Attachment: Exhibit 1: Parshley and Struhsacker (2008)



**EXHIBIT 1**





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# THE EVOLUTION OF FEDERAL AND NEVADA STATE RECLAMATION BONDING REQUIREMENTS FOR HARDROCK EXPLORATION AND MINING PROJECTS:

*A Case History Documenting How Federal and State Regulators Used  
Existing Regulatory Authorities to Respond to Shortcomings in the  
Reclamation Bonding Program*

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## Introduction and Executive Summary

This Northwest Mining Association (NWMA) white paper documents the evolution of the federal and the Nevada state bonding requirements for hardrock exploration and mining projects. Although this white paper focuses primarily on Nevada –the state with the most exploration and mining activity on federal land and the hub of the U.S. gold mining industry – other western states have similar regulatory programs and reclamation bonding requirements for hardrock mineral activities.

Key findings in this white paper include:

- The Nevada mining industry and state and federal regulators recently worked together to update and refine bonding requirements.
  - The resulting modifications to the Nevada bonding program reflect a collaborative effort to develop comprehensive and conservative bonds that consider all likely contingencies based on agency costs to implement, manage, and complete reclamation of sites requiring governmental intervention.
- Existing federal and Nevada state laws and regulations governing hardrock exploration and mining clearly provided the necessary authority and flexibility for regulators to make changes in response to the problems encountered during agency reclamation of several bankruptcy sites.
  - Federal and Nevada regulators – with the mining industry’s full participation and concurrence – have significantly improved and expanded reclamation bonding requirements in the last few years based on the lessons learned at the bankruptcy sites.
- Existing federal and Nevada state laws and regulations include comprehensive environmental protection and reclamation bonding requirements for hardrock mines.
  - These laws and regulations already give regulators the necessary tools to protect the environment, to ensure proper reclamation, and to deal effectively with problems, gaps, or unforeseen situations should they develop in the future.
- The recent changes that federal and Nevada regulators made to the bonding program clearly demonstrate that the current federal and state regulations work well.
- The sweeping changes to the nation’s environmental and regulatory programs governing hardrock mining that are included in the House Mining Law bill (H.R. 2262) are not needed.
  - The environmental provisions in H.R. 2262 are solutions in search of a problem which seek to fix a system that is working well and does not need “fixing.”

## Historical Overview of Federal and Nevada Reclamation Bonding Programs

### The U.S. Forest Service Has Required Reclamation Bonds Since 1974

The U.S. Forest Service (USFS) has had bonding requirements for mineral projects on National Forest System lands dating back to 1974. The USFS’s bonding program is included in Section 13 of the USFS’s surface management regulations at 36 C.F.R. Part 228 Subpart A (“the 228A regulations”). In contrast to the original version of the Bureau of Land Management’s (BLM’s)

regulations, which did not require bonds for small projects, the USFS regulations have always given District Rangers the discretionary authority to require a reclamation bond for any mineral activity that requires a Plan of Operations. Therefore, since 1974 when the 228A regulations went into effect, the USFS has almost always required a bond for all exploration road building, trenching, and drilling projects and for all major mineral projects on National Forest System lands. Like the BLM bonding program described below, when calculating bonds for operations on National Forest System lands, the agency assumes it will perform the reclamation work using government contracting procedures.

#### BLM Has Required Bonds Since 1981

Since 1981, companies conducting exploration or mining activities affecting more than five acres of BLM-administered public lands have had to secure BLM's approval of a Plan of Operations that includes a Reclamation Plan and a reclamation cost estimate, and have also had to provide BLM with a reclamation bond. This bonding requirement is part of BLM's Surface Management Rules for Hardrock Minerals at 43 C.F.R. Subpart 3809 ("the 3809 regulations.") The amount of the required bond reflects the assumption that BLM – not the company – will perform the reclamation using third-party contractors in accordance with government contracting procedures. This means the reclamation cost estimate is calculated using Davis-Bacon wage rates and includes government administration fees and other charges related to BLM's management of the reclamation effort.

The original 1981 version of the 3809 regulations did not include a bonding requirement for Notice-level projects that disturbed fewer than five acres of public land. As discussed below, in 2001 BLM expanded its bonding program to include Notice-level projects.

During the early years (1981 to 1990) of the 3809 regulations and BLM's bonding program, reclamation cost estimates were typically based on a uniform reclamation cost per acre factor that was simply multiplied by the amount of surface disturbance at a site. Although this approach simplified the preparation and review of bond cost estimates, it also increased the risk of inaccurate cost estimates. In the early 1990s, reclamation plans became considerably more detailed and were designed based on site specific conditions. This produced more detailed and realistic reclamation cost estimates.

#### Nevada's State Bonding Regulations Started in 1990

Nevada's regulations for "Reclamation of Land Subject to Mining Operations or Exploration Projects" (NAC 519A) became effective in October 1990. The Nevada mining industry supported the development of these regulations and the authorizing statute (NRS 519A).

The Nevada regulations include stringent requirements for reclamation plans and reclamation bond cost estimates for projects on public, state, and private lands. Therefore, with the advent of the NAC 519A regulations, all Nevada mines and exploration projects affecting more than five acres – regardless of land status – require a reclamation bond. The Nevada Division of Environmental Protection/Bureau of Mining Regulation and Reclamation (NDEP) manages the Nevada reclamation bonding program cooperatively with BLM and the USFS under the terms of an interagency Memorandum of Understanding.

#### BLM Expanded the 3809 Bonding Program in 2001

By the late 1990s, all Plans of Operations had an accompanying detailed reclamation plan and cost estimate upon which the reclamation bond was based. But exploration projects that

disturbed fewer than five acres were still operating under a Notice without a reclamation bond on BLM-administered lands.

In 1999, the National Research Council (NRC) published a study entitled “Hardrock Mining on Federal Lands.” One of the recommendations from the NRC study was that BLM should require a bond for all surface disturbing activities, including Notice-level exploration projects affecting fewer than five acres. The mining industry supported this finding and encouraged BLM to modify the 3809 regulations to expand the bonding requirements to include Notice-level exploration projects. In 2001, BLM implemented a new bonding requirement for Notice-level projects.

#### USFS Updates its Bonding Guidance in 2004

By the 21<sup>st</sup> century, the USFS, BLM and state agencies had acquired significant experience in reclaiming and closing abandoned and bankrupt mine sites. In order to document this knowledge and experience, and to ensure that reclamation bonds are adequate to fund reclamation and closure, the USFS issued a document entitled “Training Guide for Reclamation Bond Estimation and Administration” in April 2004. This Guide is designed to be used in estimating new bonds and updating existing bonds for projects on National Forest System lands.

### **Agency Reclamation of Several Bankrupt Cites Revealed the Need for Expanded Bonding Requirements**

By the late 1990s, the industry had closed a number of modern mine sites using the techniques commonly included in BLM and Nevada State reclamation plans of that era. However, NDEP and the federal land management agencies (i.e., BLM and the USFS) had closed and reclaimed only a few sites using funds from reclamation bonds.

In the late 1990s – early 2000s timeframe, historically low metal prices forced a few companies to declare bankruptcy. These bankruptcies tested the scope and efficacy of the federal and state reclamation bonding programs – programs that were supposed to provide regulators with sufficient financial resources to reclaim abandoned or bankrupt mines. However, as NDEP and the federal agencies used the reclamation bonds to close and reclaim the bankrupt sites, program-wide deficiencies and inefficiencies became readily apparent. This led to the realization that the bonds for nearly all of the bankrupt sites were inadequate for NDEP, BLM, and the USFS to implement and complete the approved reclamation plans.

The Nevada mining industry, NDEP, and federal regulators readily agreed that this situation was unacceptable and that changes in the bonding requirements were needed. Working cooperatively over the next few years, the industry and state and federal regulators identified the specific deficiencies and found solutions to address each one to ensure that adequate funding would be immediately available to state and federal agencies should any other bankruptcies occur.

This cooperative effort between the mining industry and regulatory agencies in Nevada has resulted in a program that is embraced as being fair, defensible, and accurate. All parties recognize this program may result in somewhat conservative cost estimates. However, the shared commitment to capitalize upon the lessons learned from responding to unexpected situations at the bankrupt sites and to modify the bonding program to eliminate the shortfalls that were due to these unexpected situations makes a conservative approach essential. The resulting bonding program provides comprehensive cost estimates that consider all likely contingencies.

Similar industry-agency collaboration recently occurred in Montana where the Montana Mining Association and the Montana Department of Environmental Quality worked together to update Montana's bonding requirements. This cooperative effort resulted in a bill, HB 460, which Montana Governor Brian Schweitzer recently signed into law to amend the Montana Metal Mine Reclamation statute to provide for temporary bonding in unanticipated circumstances.

### **The Cooperative Industry – Agency Review Revamped the Bonding Program to Address all Identified Shortcomings**

The following are the major issues identified during the review and revamping of the mine closure and reclamation bonding requirements. The identified shortcomings were rectified as described below:

**Identified Shortcoming: Some types of costs which would be incurred should a regulatory agency assume responsibility for closing a mine site had not been adequately anticipated or included in the previous cost estimates.** Because the agencies' and industry's experience with mine closure at that time was based on planned and orderly closure performed by the mine owner, some costs associated with government management and the timing of mine closure had not been anticipated. For example, some sites required immediate management of process solutions to ensure that the environment was protected, but the process of obtaining the money from the bonds often took several months, during which time bond funds to manage the site were not available. Other emergency funding programs were used to cover this deficiency at that time.

*Implemented Solution:* The Nevada mining industry set up and funded a program to ensure that funds would be immediately available for site management at any site declaring bankruptcy. Now all bonds calculated in the state of Nevada must include the cost for managing the site including all process fluids, for a period of six months under typical care and maintenance conditions.

**Identified Shortcoming: The hourly equipment rates used in the bond cost estimates did not reflect the agencies' costs to contract the work to third parties.** The equipment rates used in the bonds were based on a number of sources and varied widely from site to site.

*Implemented Solution:* A small working group comprised of Nevada mining industry professionals and regulators investigated a number of options to provide realistic hourly equipment rates and ultimately decided that the local equipment suppliers' monthly, single-shift rental rates were most appropriate – even though it is highly unlikely that a contractor would only work their equipment for 40 hours per week on this type of job.

**Identified Shortcoming: Some of the bonds assumed that the equipment at the site would be the same types of equipment used for reclamation.** Because some of the equipment used at mine sites is larger than the equipment a reclamation contractor would typically have available, this assumption was inappropriate and produced inaccurate reclamation cost estimates.

*Implemented Solution:* Another small working group comprised of Nevada mining industry representatives and regulators reviewed the types and sizes of equipment readily available from contractors and suppliers in Nevada and limited the equipment choices for reclamation bond costs to that equipment.



**Identified Shortcoming:** The productivity (quantity of work performed per hour) used for different equipment varied considerably in some of the bond cost estimates. Because the productivity of reclamation equipment has a direct impact on the time required to perform the reclamation activities, it also affects the cost estimate.

*Implemented Solution:* Nevada mining industry experts and the regulatory agencies determined that equipment productivities should be calculated based on accepted, published sources such as equipment manufacturers' handbooks, engineering manuals, and published construction cost databases to provide defensibility and consistency. In addition, typical correction factors were defined to ensure that the productivities represented an average range of conditions. This is believed to represent a conservative approach because the contractors typically used in the western U.S. for reclamation work have highly experienced staff.

**Identified Shortcoming:** The costs for and timing of process fluid stabilization and management were inconsistently calculated. The time required to stabilize a site for long-term passive management is directly related to the time needed to reduce the inventory of any remaining process fluids and ensure that the reclamation plan will limit the amount of water that must be managed in a passive management system. Estimating a short- and long-term water balance for a site requires a combination of science, engineering and experience. The industry has spent considerable effort globally in recent years to better understand this process for sites in closure. Most importantly, it is recognized that although common approaches can be applied, each site is different and requires detailed analysis to define the parameters that will affect closure costs.

*Implemented Solution:* Standard approaches and tools that use site specific data have been defined by federal land management agencies and state regulatory agencies along with minimum design criteria and site data required to properly estimate the time and effort required to manage any solutions remaining on-site at closure.

**Identified Shortcoming:** The estimate of both long-term site management and monitoring were not always adequate. The requirements and period required for long-term site management and monitoring are highly site-specific. However, the same approach used to bring consistency to the calculation of process fluid stabilization can be used to determine what, if any, long-term management and monitoring is required.

*Implemented Solution:* Site-specific studies and design requirements will determine the need and requirements for long-term site management and monitoring. Often, it is uncertainty that will dictate if or how much funding must be in place for long-term site management. In these cases, trust fund-type approaches are often used to ensure that there will be funding for both expected and unknown future site requirements. Monitoring requirements are typically based on the need to demonstrate stability at the site based on trends in empirical data. This will vary by site, but most regulatory agencies have guidelines for minimum requirements. Nevada's Water Pollution Control regulations allow NDEP to require a 30-year monitoring period, or longer if needed.

**Identified Shortcoming:** Some miscellaneous costs were not adequately captured in some cost estimates. The cost for removal of small infrastructure (e.g. power lines, substations, pipelines, etc.) were not included or underestimated. Other miscellaneous costs such as fence

removal or installation, hazardous waste removal, construction or removal of erosion and sediment controls were inconsistently addressed.

*Implemented Solution:* Nevada mining industry personnel and the regulatory agencies cooperatively developed a checklist of miscellaneous costs that must be considered for each site.

**Identified Shortcoming:** The cost to mobilize and demobilize (mob/demob) equipment from the sites was often excluded or inadequately estimated. The cost to move equipment to and from a site being reclaimed will be added by a contractor to the overall cost of reclamation. Although this cost primarily included the direct costs to transport equipment and materials to the site, some contractors also include other costs in this line item.

*Implemented Solution:* The specific items that should be included in the mob/demob cost were defined by a small working group and local transport companies were contacted to determine the cost incurred to transport the necessary equipment to and from the site by a third-party transporter. Other common costs such as the establishment and use of office trailers, portable power and sanitary facilities were added to Nevada reclamation bonding guidelines as separate line items.

**Identified Shortcoming:** Out of date costs were used in some bond cost estimates. Although Nevada's regulations require that bond costs be updated every three years, the hourly rates often change annually based on economic conditions. Although most annual variations are generally small, cost estimates should be based on current rates.

*Implemented Solution:* NDEP and federal regulatory agencies update equipment, labor and material rates each year and post the current rates on a public web site for use in reclamation bond cost estimates.

**RENAISSANCE**  
GOLD INC.

June 30, 2016

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*Sent via email*

**Re: Renaissance Exploration Inc. Comments and Questions regarding CERCLA 108(b) in Response to the Pre-panel Outreach Meeting of June 9<sup>th</sup>, 2016**

Dear Ms. Wiggins:

Thank you for the opportunity to represent Renaissance Exploration Inc. (RenEx) as a potential Small Entity Representative (SER) to the Small Business Advocacy Review (SBAR) Panel for the EPA rulemaking "EPA's CERCLA Section 108(b) Financial Responsibility for the Hardrock Mining Industry". My questions and comments pertain to matters discussed at the introductory meeting/conference call of June 9<sup>th</sup> and presented in your slide show entitled "(CERCLA 108(b) Financial Responsibility: Small Business Advocacy Review Pre-Panel Outreach", as revised May 24, 2016. Also, my comments reflect information contained in the FLMA and State presentations on June 16<sup>th</sup>, 2016.

As summarized in my email of July 6<sup>th</sup>, 2015, RenEx is a small mineral exploration company focusing its activities in the Great Basin region. Currently, RenEx maintains a portfolio of twelve exploration properties on federal and private lands in Nevada and in Utah. RenEx is not a mineral production company and controls no operating mines or processing facilities. The company depends entirely on funds from investors and venture partners to advance its projects and generate new prospects. Companies such as RenEx participate in the research and development part of the mining business, filling gaps in the exploration process not fully covered by the major companies. These small companies identify prospective lands and gain control of the prospects by staking claims on federal lands and by lease or purchase of private lands. The exploration companies provide value for the mine operators and investors by finding new mineral deposits that can be taken to production. RenEx and other small companies conduct exploration with expenditures in the earliest and riskiest part of a mining cycle of discovery, delineation, development, production, and closure. Any additional costs at the exploration stage can negatively impact the ability to raise funds for exploration and, therefore, the chances of discovery.

RenEx is a spin-out from the 2010 sale of AuEx Ventures, Inc. Since 2005, RenEx and AuEx have posted reclamation bonds for 23 exploration drilling projects. The agencies that administer the bonds and associated permits include the Bureau of Land Management (BLM), the US National Forest Service (USFS), and the States of Nevada (NDEP) and Utah (UDOGM). Exploration activities subject to the bonds and permits typically include the construction of drill sites, access routes, trenches, and the drill holes.



The bonds provide financial assurance for re-contouring and re-vegetating all surface disturbance resulting from drilling activities. The permits present specific requirements for the prevention of releases of hazardous substances and for the clean-up of any releases.

Most of the permits and bonds obtained by RenEx and AuEx apply to disturbances of less than five acres. Only four of the projects carried bonds for more than five acres. In these instances, the appropriate FLMA cooperated with NDEP to administer the permit and approve the bond. All of the bonds were cash bonds posted with the Nevada State Bond Pool with the exception of the bonds posted for projects on USFS land and in Utah. To-date, the agencies have closed the permits and refunded the bonds on 15 of the projects. Reduced bonds remain as assurance for re-vegetation at six projects. Two projects are still active with full bonds in-place.

I am concerned that small companies, engaged in exploration and mine development, are under-represented as SERS for the SBAR Panel. RenEx is one of many junior or micro-companies conducting exploration and/or small-scale mining in the US. The membership roster of the Geological Society of Nevada (GSN) presents a sampling of a significant part of the community engaged in exploration in Nevada and adjoining parts of the Great Basin. The GSN reports a membership of 1315 professionals, academicians, students, and other interested individuals in its 2016 membership directory. Many of the members are affiliated with the mining industry, although this is not a part of the GSN charter. My cursory inspection of the directory indicates that the membership includes representatives of 75 publicly-traded mining or exploration companies, 82 privately-owned companies, 334 consulting companies or individuals, 115 service companies, and 19 supply companies. The remainder of the membership is divided between academic, government, and association entities. At least 10 of the mining and exploration companies should be considered large companies and would not be eligible for the SBAR. Some of the private companies consist of one property and one responsible individual. Like RenEx, many of the publically-traded companies and some of the private companies control more than one exploration property. At any point in-time, only a portion of the exploration and mining companies will be actively working their properties.

I caution that I have not researched the member affiliations in-depth, but have a substantial knowledge of the membership affiliations due to my 40 year tenure in the business. Similar geologic associations reside in Denver, Salt Lake City, and Tucson. Certainly, there is some overlap with the membership of the GSN. Many of the GSN members are also members of the larger mining and engineering associations based in Denver, Spokane, and Washington, DC. The members of these organizations are among the population that could be affected by the CERCLA 108(b) rule.

Two general areas of concern exist for RenEx as a very small exploration company. The first is the extent to-which the CERCLA 108(b) rule will impact exploration activities on its early-stage projects and the second is the extent to-which the rule would deter venture partners and potential investors from investing in the projects. In the second case, the concerns are much the same as those of production-focused companies, whether small or large.

RenEx requires specific information on the following matters in-order to evaluate potential impacts to company activities on its exploration properties:

- EPA should provide, as part of the SBAR panel process, the criteria that would be used to define an "Exploration Mine", possibly under-consideration for exclusion from the CERCLA 108(b)

rulemaking. Many exploration projects are permitted for fewer than five acres of surface disturbance with State and FLMA authorities. However, more advanced exploration projects can range from five acres of surface disturbance to as many as 300 acres, mainly for drilling purposes.

- EPA should ensure that small exploration companies are adequately represented as SERS for the SBAR Panel.
- EPA should discuss what hazardous substances would be of-concern if an exploration property was subject to CERCLA 108(b) rulemaking.
- EPA should provide definitions for legacy mines and prospects and discuss how these features will be treated where they are co-located with active exploration projects. Old mining districts can be very good places to find new deposits. Restrictive CERCLA 108(b) rules could deter new investment and work in these districts possibly thwarting future opportunities to reclaim old mine sites while developing and operating new mines.
- Similar to the previous point, new exploration often occurs at the sites of modern mines in-closure or in the process of closure. In some instances, the mine operator is still the responsible party for the closure. Clarity will be needed from the EPA as to the limits of responsibilities imposed on the small exploration company regarding the financial assurance for the inactive mine.
- EPA should provide the results of studies on the availability of financial instruments for exploration projects and small mines that could be subject to the CERCLA 108(b) rule. These results must be available to the SBAR Panel and the SER's in a timely way to allow the proper evaluation of the potential financial assurance burden. Many small exploration and mining companies will not be eligible for financial instruments and will only proceed with cash bonds. This fact could significantly stifle exploration activity.

As mentioned above, the small exploration and mining companies share many of the same concerns as the other producers, small and large, where the proposed CERCLA 108(b) rule is concerned. Other SERS have discussed many key points submitted for the July 7<sup>th</sup> deadline and during the meetings of May and June. I will not recite these points here, but ask that the SBAR and EPA give due consideration to the issues that could affect the generative side of the exploration and mining business.

Sincerely,



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