UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 10

IDAHO OPERATIONS OFFICE

950 West Bannock, Suite 900

Boise, Idaho 83702

July 1, 2019

Eric Wilson
Bureau Chief, Resource Protection and Assistance
Idaho Department of Lands
300 N. 6th St, Suite 103
Boise, ID 83702

Re: Rulemaking for IDAPA 20.03.02; Rules Governing Exploration, Surface Mining, and Closure of Cyanidation Facilities; Docket No. 20-0302-1901; EPA comment submittal #2

Dear Mr. Wilson:

This letter transmits comments and recommendations from the U.S. Environmental Protection Agency Region 10 on Idaho's proposed changes to its rules governing reclamation plans and financial assurance for mining operations. Attached to this letter is a table that includes our detailed comments on the proposed rule. Our comments apply to Draft Rule Text No. 4, dated May 29, 2019 and Draft Temporary Rule Text No. 2 dated June 26, 2019. Due to our limited availability to review the Draft Temporary Rule within the requested timeframe, some of our comments may pertain to text that has been revised. However, please consider the substance of any of our recommendations applicable to the current Draft Temporary Rule Text No. 2 as well.

We appreciate the opportunity to provide input and participate in the negotiated rule process. We would be happy to discuss our comments with you further, so please let us know if you have questions. We may submit additional comments as the rule progresses.

Please contact me at mcgrath.patricia@epa.gov or (206) 553-6113 or Lynne Hood at hood.lynne@epa.gov or (208) 378-5757 should you have questions or wish to discuss our comments.

Sincerely,

Lynne A. Hood for

Patty McGrath
Mining Advisor

Enclosure

EPA Comments and Recommendations on
Proposed Changes to Idaho Rules Governing Mined Land Reclamation
IDAPA 20.02.03 (Docket No. 20-0302-1901)
May 29th Draft Rule Text and June 26th Draft Temporary Rule

Comments Date: June 28, 2019

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	General	Reclamation Plan & Permanent Closure Plan Consistency. There are areas throughout the rules where requirements are different for cyanidation facilities vs. mining operations that do not use cyanide. We understand that these differences are a result of past rulemakings that were specific to cyanidation facilities. However, IDL now has an opportunity to establish consistent reclamation and financial assurance requirements for mining operations regardless of whether cyanide is being used. While presence of cyanide requires managment measures to protect water quality, mining operations that do not use cyanide also require effective water management and reclamation due to the use of other process chemicals, residuals from explosives, acid rock drainage, and metal leaching. Consistent requirements would result in a more streamlined rule. Consistent requirements would also assist operators and regulators that review these plans. Currently it appears that mining operations that use cyanide would need to submit two plans - a permanent closure plan for aspects of the operation that use cyanide (e.g., tailings ponds, contact water management ponds) and a reclamation plan for aspects that don't (e.g., waste rock disposal facilities, adits, open pits). While these could be included in one plan that covers both (and we recommend that the rule spell this out), the administration of these plans under the current version of the proposed rule are different in several areas (see comments below on procedures for plan amendment and financial assurance review). We recommend that requirements for reclamation plans and permanent closure plans be consistent to the extent possible so that a single reclamation and closure plan can be developed for a mining operation that is subject to a consistent set of procedures for development of the cost estimate, plan amendment, and financial assurance review.
	General	Water Quality & Water Management. We support the inclusion of predicted water quality impacts and geochemistry characterization as part of the reclamation plan and cost estimate package for financial assurance. House Bill 141 included a general provision requiring foreseeable impacts to water quality from mining operations.[1] We support the State of Idaho for acknowledging the need to identify costs and

[1] State of Idaho. HB 141. Section 6, 47-1506, vii.

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		secure funds for water management needs, including water treatment. These provisions help protect the State and tax payers from liability associated with water management for mining operations where operators go bankrupt or otherwise do not conduct adequate reclamation and closure. Water treatment is often the largest reclamation cost at mine operations (refer to USFS bond guide and Figure 1 for a comparison of physical reclamation and water treatment costs[2]). Including water quality in the rule is critical to support the State's intention and provide clear direction for mining operators to develop, and the Department to obtain, financial assurance for these costs. The purpose of the proposed rule is to more accurately reflect current industry and regulatory practice[3]. Current regulatory practice is to include water managment and treatment in reclamation and closure plans and financial assurance requirements. This is consistently required for mining operations by Federal land management agencies (BLM, US Forest Service) and many states (Alaska, Montana, New Mexico, Nevada, and others)
	General	Phased Bonding and Maximum Reclamation Costs. We recommend that the proposed rule clarify information regarding the bonding periods for mine operations. Financial assurance can be established for phases of the operation or for the life of mine. The rule discusses the ability to conduct phased bonding for cyanidation facilities (Section 121); however, it is unclear if phased bonding would be available to all operators. We recommend that the rule clarify if phased bonding would or would not be accepted for all mine operations. When calculating the period for financial assurance (phased or life of mine), we recommend estimated costs for the maximum reclamation liability[4] that would occur during the period of financial assurance. This should include items such as: the largest volume or exposure of materials, largest volume of and

[2] USFS. 2004. Training Guide for Reclamation Bond Estimation and Administration. Page 16 and Page 18 Figure 1: Comparison of physical reclamation and perpetual water treatment costs for select mines.
[3] HB141 Statement of Purpose
[4] Department of Interior. 2019. Reclamation Performance Bonds. https://www.idl.idaho.gov/rulemaking/20.03.02-2019/research/OSM_2017_Performance-Bonds.pdf

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		greatest distance that materials would be moved in backfilling/regrading. In addition, for phased bonding we recommend more frequent reviews of the financial assurance such as annually[5] to ensure that funds are sufficient for that period.
	General	Interim Management Plan. The proposed rule does not address plans or requirements for interim management during temporary closure. We recommend that requirement for interim managment plan be included. For example, see the following requirements from BLM regulations: **43 CFR 3809.401** (b) Your plan of operations must contain… (5) *Interim management plan.* A plan to manage the project area during periods of temporary closure (including periods of seasonal closure) to prevent unnecessary or undue degradation. The interim management plan must include, where applicable, the following: (i) Measures to stabilize excavations and workings; (ii) Measures to isolate or control toxic or deleterious materials (See also the requirements in §3809.420(c)(12)(vii).); (iii) Provisions for the storage or removal of equipment, supplies and structures; (iv) Measures to maintain the project area in a safe and clean condition; (v) Plans for monitoring site conditions during periods of non-operation; and (vi) A schedule of anticipated periods of temporary closure during which you would implement the interim management plan, including provisions for notifying BLM of unplanned or extended temporary closures. **43 CFR 3809.420** (c)(12) Leaching operations and impoundments…. (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….
2	001.05.b.iv.	Existing operating underground mines. The proposed rule is not applicable to "Underground mines that existed prior to July 1, 2019 and have not expanded their surface disturbance by 50% or more after that date". We recommend that IDL reconsider this provision. We believe that operating underground mines, regardless of when they were constructed or expanded should have an up-to-date reclamation plan and financial assurance. The proposed rule could consider offering a time period for existing operations to come into compliance.

[5] Bureau of Land Management. 2005. BLM Nevada 3809 Reclamation Bonding Guidelines.

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3 - 7	010	Definition of Mining Operations. The proposed rule includes requirements for reclamation plans and financial assurances for "mining operations". We recommend including a definition of "mining operation" to clarify that it includes areas and operations connected to mining operations such as ore processing, process water management facilities, and waste management facilities. For example, as written, it is not clear that the rule would apply to ore processing facilities and tailings facilities that are located away from the mining sites. Some ore processing facilities process ores that are transported from separate multiple mining sites. It is not clear that such processing facilities and their waste management sites would be covered by the rule. We recommend that the definition of mining operations include language to clarify that it covers all facilities and activities "in connection with" mining and processing. This is similar to BLM's definition of operations.
7, 8	010.17. and 010.24	Process Waters and Water Balance Definitions. The definition of "Process Waters", as currently written, applies only to cyanidation facilities. The definition of "Water Balance", states that it must include "water holding capacity of specific structures within the facility that contain process or storm water". Limiting the "Process Waters" definition to only include cyanide facilities, limits the water balance requirements related to process water to these same facilities. However, water the comes into contact with non-cyanide wastes (waste rock and tailings from non-cyanide facilities) may contain quantities of chemicals used in processing, leached metals, and explosives residuals that would warrant containment, management, and treatment. We recommend that the definitions of Process Waters and Water Balance be broadened to include any waters that come into contact with mined materials (e.g., water from open pits, underground mines, waste rock seepage and runoff) and with processed materials (e.g., tailings process water and seepage, water management ponds from non-cyanidation facilities as well as from cyanidation facilities). In addition, we recommend that the Water Balance definition also include consideration of precipitation and evaporation and that it account for a reasonable range of climate extremes (wet and dry years).
12	070.03	Application Map Requirements. Application package map requirements for hard rock mining facilities are the same as map requirements for aggregate materials (069.04). Part 069.04.f. requires maps to show "The currently planned location and configuration of pits, overburden piles, crusher reject materials, topsoil storage, wash plant ponds and sediment ponds that will be utilized;"

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		Additional map requirements are warranted for hardrock mine facilities since these facilities have some different components and waste storage facilities that should be included on maps. In addition to the list of items required for maps of aggregate material mines, we recommend that the following items be included in maps of mining operations – the location and configuration of: underground mine adits and other openings; waste rock disposal facilities; tailings disposal facilities; and, water managment features including surface water diversions, water management ponds, water treatment facilities, and outfalls.
12	070.04.a.	Reclamation Plans Requirements, Tailings Terminology. The proposed rules require that reclamation plans include "A description of the planned reclamation of tailings or sediment ponds;" This sentence seems to apply only to tailings stored in ponds. We recommend that this language be revised to include other tailings techniques, such as filtered tailings. For example, the language could be revised to read "A description of the planned reclamation of tailings disposal facilities…."
12	070.04.b	Reclamation Plan Requirements, Third Party. Part b. states "An estimate of total reclamation cost to be used in establishing bond amount. The cost estimate should include the approximate cost of grading, revegetation, equipment mobilization, labor, and other pertinent costs. (11-1-89)" We recommend that the reclamation plan cost requirements be consistent with the requirements for permanent closure plans (071.02.ii) that costs assume reclamation and closure activities would be completed by a third party whose services are contracted by the Board.
12-13	070.04.	Reclamation Plan Requirements. We recommend that the following additional items be included in the part 070.04 list of information to include in reclamation plans: - A description of the planned reclamation for waste rock disposal facilities. We recommend this since the current requirements do not appear to apply to waste rock. However, improperly closed waste rock facilities can result in adverse impacts due to stability issues and, for some mining operations, acid generation and metal leaching. - A description of how open pits will be secured to eliminate hazards to human health and wildlife. We note that there is a safety requirement for underground mines that we recommend also apply to open pits. - A description of planned reclamation for process water ponds. - Removal or stabilization of buildings, structures, and support facilities

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		- A schedule that describes the timeframe for conducting reclamation and post-closure activities. We believe that timeframe is important to inform IDL whether concurrent reclamation will occur, how long it will take to conduct reclamation at the end of mining, and how long any long-term water management and treatment will take.
12	070.04.c. and d.	Reclamation Plan Requirements, Water Quality Impacts. As discussed in our general comment above, we support inclusion of water quality impacts and water management actions, including water treatment where needed, in reclamation plans. We recommend including additional detail regarding the elements of water quality impacts and managment that are required in the reclamation plan to the rule. Additional detail will allow the operator to clearly understand expectations and proactively collect information. We recommend that additional detail include predictions for water treatment and perpetual water treatment if necessary, geochemical monitoring, permanent diversion structures and long-term maintenance.
13	070.05.a.iii	Operating Plan Requirements, Maps. Pertaining to map requirements for operating plans, Part iii. states "The planned location of pits, mineral stockpiles, overburden piles and tailings ponds for the ~~surface~~ mining operation. (3-30-06)" We have the following recommendations related to the above text to improve comprehensiveness of map requirements. - Revise "tailings ponds" to "tailings disposal facilities" or something similar since tailings are not always stored in ponds. - Add adits and underground mine openings. - Add waste rock disposal facilities. - Add water managment features including surface water diversions, water management ponds, water treatment facilities, and outfalls.
13-14	070.05	Operating Plan Requirements. We recommend that the Operating Plan requirements outlined in this section also include: water management plans including plans for water treatment; rock characterization and handling plans; quality assurance plans; spill contingency plans; monitoring plans; and, a general schedule of operations from start through closure. These are similar to operating plan requirements required by other jurisdictions, such as the BLM.

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20	090	Reclamation Plan Amendment. Part 090 describes causes and procedures for amending an approved reclamation plan. We recommend that the requirements for reclamation plans be revised to be consistent with those for permanent closure plans. See our general comment above.
24	120.01	Submittal of Financial Assurance Before Mining. The text of this section is confusing and seems to imply that operations can commence before approved financial assurance has been submitted. We recommend that text of this section be clarified and that operations not proceed until financial assurance is submitted and approved.
24 27	120.04 121.04	Indirect Costs. We offer the following recommendations related to indirect costs: - Mobilization and demobilization is not an indirect cost. We recommend that this be included in the cost estimate as a direct cost. - Indirect costs should also include a contract scope and bid contingency (see Alaska Department of Natural Resources, Mine Closure and Reclamation Cost Estimation Guidelines: Indirect Cost Categories, ADNR 2015).
25	120.06	Financial Assurance Review. Part 120.06 describes the financial assurance review requirements for reclamation plan cost estimates. It requires that operators notify the director of any increase in the acreage of affected land which will result from planned mining activities within the next year. And that a commensurate increase in the financial assurance will be required. Part 121.06. requires that financial assurance cost estimates for permanent closure plans be updated every three years and does not tie those updates to acreage changes. For example, costs may be updated due to changes in water management and treatment. We recommend that the financial assurance review requirements for mining operations be consistent regardless of whether cyanide is used or not and that requirements for three-year updates apply to all mining operations. Updates may be required more frequently per the material changes language.
34	140.03	BMPs for Water Management or Treatment. As discussed in our general comment above, we support inclusion of water managment and treatment in reclamation plans. We have the following recommendations to the text of this part. - Revise “tailings impoundment” to “tailings disposal facility” - Revise “a. Capturing water runoff at the toe of …” to also incorporate the capture of seepage. Uncaptured seepage can adversely impact groundwater and surface water.

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		- Include managment of open pit and underground mine waters. - Recommend that 03.b. be revised to simply state "Water treatment", since as written it implies that only treatment that involves adding chemicals be considered, which would not include some water treatment techniques such as reverse osmosis. - Recommend that a BMP be developed aimed at pollution prevention and source control for acid rock drainage and metal leaching. For example, BLM requires: " **43 CFR 3809.420(b)(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.
37	140.10.c.iii	BMPs Detoxification. Part iii states "Hazardous chemical residues within the tailings pond shall be detoxified or covered with an adequate thickness of non-toxic material, to the extent necessary to achieve water quality standards in adjacent surface waters. " We recommend that the text be revised to require that groundwater quality standards also be achieved.
40	155.03.	Frequency of Inspections. The proposed regulations require that cyanidation facilities be inspected at least once per year and that other mining operations be inspected at least one every five years. We recommend that more frequent inspections occur for facilities with cyanide and potential for acid

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		drainage and metal leaching. BLM inspects operations that use cyanide or other leachate or where there is significant potential for acid drainage at least 4 times per year (43 CFR 3809.600).