Perpetua Resources Corp.
405 S. 8th Street, Ste 201
Boise, ID 83702
Tel: 208.901.3060
www.perpetuaresources.com

July 23, 2025

Diane Cutler
Department of Environmental Quality
1410 N. Hilton St.,
Boise, ID 83706
Diane.Cutler@deq.idaho.gov

Subject: Cyanidation Rule Public Comment: Docket No. 58-0113-2501

Ms. Cutler,

Thank you for the opportunity to comment on the temporary/proposed cyanidation rules IDAPA 58-0113-2501. Senate bill 1170 (S1170), passed by the Idaho Legislature in 2025 and signed by the Governor on March 31, 2025, significantly revised the regulatory framework for permitting cyanidation facilities under Idaho Code *39-118A*.

Key policy objectives underlying the statutory revisions were:

(1) to clarify standards and timing requirements under the cyanidation statute and rules,
(2) to clarify and streamline the Department of Environmental Quality's (DEQ) permitting process (including the application procedures and application review requirements, which had proven to be unwieldy under the original statute and rules),
(3) to align facility design standards with current and modern industry standards, and
(4) to eliminate redundancies and inefficiencies both within the cyanidation permitting framework itself and between the cyanidation program and other Idaho or federal regulations around standards and timing.

Before providing its specific comments on the proposed temporary and new rules, Perpetua would like to emphasis three overarching points that have guided its review of the DEQ's proposed rules and our specific comments detailed below:

Scope of Secondary Containment – The temporary and proposed rules should be further revised to reflect changes made in Idaho Code 39-118A that narrow the scope of cyanidation permitting design and review requirements to primary and secondary containment and the prevention of degradation of waters of the state. Under the revised statute, the permit review and facility design requirements are limited to the *secondary containment* of cyanidation pollutants in process equipment, tanks, and piping, and to primary *and*

secondary liners associated with leach pads, tailings storage facilities. (*See Idaho Code 39-118A(1)(o) and subsections*).

Application Information versus Issued for Construction Data – One of the key elements of S1170 was to improve the permitting process by recognizing that it is appropriate for DEQ to include Issued For Construction (IFC) data package requirements as a permit condition to be satisfied before construction commences rather than requiring such detailed IFC information in the permit application, when such information generally is not available as part of typical project design and development.

While the proposed temporary rules provide some detail on the requirements for Procedural and Technical completeness, the rules should differentiate the IFC data package from the information required for application review. Therefore, Section 200 of the proposed rules should be expanded (1) to clearly identify elements to be included in the IFC data package requirements, and in turn incorporated into permit conditions, and (2) to make it clear that that these IFC requirements are distinct from the requirements in Section 100 submittals that must be included in permit applications needed for DEQ to conduct its procedural and technical completeness reviews. (*See* Idaho Code 39-118A(8)(c)).

Duplication of Other Permits – Another key purpose of S1170 was to avoid duplicative reviews because of other permitting by generally prohibiting the inclusion of matters governed by other permits in any cyanidation permit application requirements. The proposed rule should be made consistent with the revised statute and only require data, analysis, specifications, and design information for the cyanide permit and to establish only those cyanidation permit obligations that will not be addressed by other state and federal permits (which would be a direct conflict with 39-118A(10)(a)).

To further the thematic points summarized above, Perpetua submits the following detailed comments to the text of the proposed rules, with a particular emphasis on ensuring a clear and streamlined application process that does not duplicate other regulatory requirements and providing clarity to the application and design requirements.

In the table below, black text without italics represents references to the rules as proposed by DEQ, and red/underlined text and blue strikethroughs represent our proposed changes (additions and subtractions, respectively). Explanations for our comments and citations to the statue are shown in black italics.

Rule Section	New Rule Text and Proposed Changes
001.01.	**01. Scope and Intent.** These rules establish the procedures and requirements for the issuance and maintenance of a permit to construct, operate and close a cyanidation facility. The provisions of these rules also establish requirements for water quality that address performance, construction, operation and closure of any cyanidation facility. These rules are intended to ensure that cyanide-containing materials, including spent ore, tailings, and process water, generated

Rule Section	New Rule Text and Proposed Changes
	in cyanidation, and cyanidation pollutants are safely contained, controlled, and treated by having adequate containment through the use of liners, barriers, structures, or other measures to prevent discharge of cyanidation pollutants into the environment so that they do not impair beneficial use of waters or degrade waters. *This change will clarify the intent of 39-118A. (1)(o).*
007.14.	**14. Process Water**. Any liquid intentionally or unintentionally introduced into any portion of the cyanidation process which may contain~~. Such liquid may contain cyanide or other minerals, meteoric water, ground or surface water, elements and compounds added to the process solutions for leaching or the general beneficiation of ore, or hazardous materials that result from the combination of these materials.~~ cyanide pollutants. *To match 39-118A (1)(g)*
007.20	Delete this rule to align with *39-118A*(1)(o)(i)-(ii).
007.21.	**21. Water Management Plan.** A document that describes the ~~results of the water balance~~ approach to preventing unwanted water ingress or accumulation, and describes the methods that will be used to ensure that cyanidation pollutants are not discharged from a cyanidation facility into waters unless permitted or otherwise approved by the Department. *In accordance with 39-118A(1)(o) and subsections*.
050.01.a.	a. ~~Environmental baseline data requirements; w~~Waste characterization requirements; siting requirements; operation and maintenance plans; ~~emergency and spill response plans;~~ quality assurance/quality control plans not required by other regulatory programs; required contents for permit applications; agency cyanidation facility visits. *Due to 39-118A(10)(a).*
050.01.b.	Delete rule due to *39-118A*(10)(a)
100.03.k.	**k.** A geotechnical evaluation of the subgrade upon which ~~all process water and process chemical~~ containment ~~systems~~ within the proposed cyanidation facility will be placed. *To meet the intent of 39-118A(1)(o)(i), (1)(o)(ii) and (1)(k).*
100.03.l.i.	Delete rule due to *39-118A*(10)(a).
100.03.l.iii.	Delete rule due to *39-118A*(10)(a).

Rule Section	New Rule Text and Proposed Changes
100.03.l.iv.	iv. Identified floodplain within the facility layout areas ~~(shown on USGS sectional Quadrangle maps);~~ *Consistent with 39-118A(10)(a) and modern surveying and mapping practices.*
100.03.l.v.	Delete rule due to *39-118A*(10)(a)
100.03.l.vi.	Delete rule due to *39-118A*(10)(a)
100.03.l.vii.	Delete rule due to *39-118A*(10)(a)
100.03.l.viii.	Delete rule due to *39-118A*(10)(a)
100.03.n.	**n.** A description and siting diagram of proposed land application sites. The description must include a potentiometric map, surface and subsurface soil characteristics, geology, hydrogeology and ground water quality. The description of these characteristics must be sufficient to determine anticipated impacts to the affected soils, associated vadose zone as well as anticipated changes in geochemistry that may affect surface and ground water quality. *Text added to replace 100.03.o for land application only.*
100.03.o.	Delete rule due to *39-118A*(10)(a)
100.03.p.	Delete rule due to *39-118A*(10)(a)
100.03.r.	**r.** Preliminary e~~E~~ngineering plans and specifications for primary and secondary containment subject to this Rule for ~~all~~ those components or phases of the cyanidation facility for which a permit is being sought. ~~must be submitted to the Department for review and approval. Preliminary designs for future components or phases of the cyanidation facility may be submittedas part of the permit application, provided that, pursuant to Section 39- 118A(18), Idaho Code, Department review and approval of the issued for construction data package is required before construction of those components or phases may begin. All cyanidation facility engineering plans and specifications must bear the imprint of an Idaho licensed professional engineer that is both signed and dated by the engineer. These plans and specifications must, at a minimum, include all of the following information applicable to the proposed facility.~~ *Per 39-118A(8)(c).*
100.03.r.i.	i. Designs sufficient to demonstrate the facility's ability to meet applicable criteria in Sections 200 through 204. *Per 39-118A(8)(c).*

Rule Section	New Rule Text and Proposed Changes
100.03.r.iii.	iii. The water balance, ore flow, and processing calculations sufficient to demonstrate~~ing~~ the logic behind sizing of ~~facilities~~containment regulated under this Rule, as applicable. *In accordance with 39-118A(1)(o)(i).*
100.03.r.iv.	iv. The general ore processing overview and ~~analyses~~ assessment of chemical compatibility of applicable containment materials with process chemicals and wastes, including containment for TSFs, ponds, and leach pads~~ a chemical mass balance at inputs and outputs from the cyanidation facility~~. *Due to 39-118A(1)(o)(i)-(ii).*
100.03.r.v.	Delete this rule to be consistent with *39-118A*(8)(c) and *39-118A*(1)(k). *Move to Rule 200 as an IFC requirement.*
100.03.r.vi.	Delete this rule due to *39-118A*(1)(o)(i)-(ii).
100.03.r.vii.	Delete this rule due to *39-118A*(1)(o)(i)-(ii).
100.03.r.viii.	Delete this rule to be consistent with *39-118A*(8)(c) and *39-118A*(1)(k). *Move to Rule 200 as an IFC requirement.*
100.03.r.ix.	Delete this rule to be consistent with *39-118A*8)(c) and *39-118A*(1)(k). *Move to Rule 200 as an IFC requirement.*
100.03.r.x.	Delete this rule to be consistent with *39-118A*(8)(c) and *39-118A*(1)(k). *Move to Rule 200 as an IFC requirement.*
100.03.r.xi.	Delete this rule to be consistent with *39-118A*(8)(c) and *39-118A*(1)(k). *Move to Rule 200 as an IFC requirement.*
100.03.r.xii.	xii. Delete this rule due to the definitions in *39-118A(1)(o)(i)-(ii).*
100.03.r.xiii.	xiii. Plan views and cross-section drawings of leach pads, permanent heaps, ~~vats,~~ process water storage ponds, tailings impoundments, and spent ore disposal areas. *To meet the intent of 39-118A(1)(o)(ii)*
100.03.r.xiv.	xiv. When such systems are required, ~~t~~leak detection and collection system plans and specifications for tailings storage facilities, leach pads, or ponds including, but not limited to, schematics and narratives describing liner and geotextile material specifications, sump~~ing~~ capacity and layout, location of monitoring port(s), monitoring port components, construction operation and maintenance procedures for monitoring ports and pumping systems, including

Rule Section	New Rule Text and Proposed Changes
	backup system, triggers for containment repairs, replacement or other contingency mitigation, frequency of monitoring, and monitoring parameters. *Consistent with 39-118A(1)(o) and possibly move detailed requirements to Rule 200 due to 39-118A(8)(c)*
100.03.r.xvi.	xvi. Quality assurance/quality control procedures for construction of primary and secondary containment systems to which this Rule is appliable. *Due to 39-118A(1)(o)(i)-(ii).*
100.03.r.xvii.	Delete this rule to comply with *39-118A*(8)(c).
100.03.s.	**s.** Preliminary ~~O~~operation and maintenance plans that include all of the following: *Per 39-118A(8)(c)*
100.03.s.i.	i. Maintenance plans, including routine service procedures for secondary containment systems to which this Rule is applicable ~~process chemical storage and disposal of contaminated water or soils~~. *To be consistent with 39-118A(1)(o)(i)-(ii), 39-118A(10)(a).*
100.03.s.ii.	ii. A water management plan that provides for handling and containment of process water including the methods to manage ~~and/or treat all~~ process water and cyanidation pollutants, run-off or run-on water, emergency releases, and excess water due to flood, rain, snowmelt, or other similar events. The plan must include the basis for the designed containment volumes subject to this Rule and estimations of the need for and operation of a land application site, injection wells, infiltration galleries or leach fields~~, or the need for an IPDES permit~~. The permittee will update the plan on a regular basis to reflect the reconciliation of the water balance, ~~water balance~~containment capacity changes ~~in the project~~ through construction, operation, maintenance, and permanent closure, including modifications to the cyanidation facility. *Due to 39-118A(8)I and 39-118A(1)(o)(i).*
100.03.s.iii.	Delete this rule due to *39-118A*(8)(c).
100.03.s.iv.	Delete this rule due to *39-118A*(8)(c).
100.03.u.	**u.** Characterization of cyanidation pollutants contained in or released from the cyanidation facility~~including the potential for the cyanidation pollutants to cause degradation of waters~~. *To meet the intent of 39-118A(1)(o), 39-118A(10)(a).*

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200.01.	**01. Professional Engineer**. Plans and specifications for construction, alteration or expansion of ~~cyanidation facility any~~ secondary containment components ~~of a cyanidation facility~~ subject to this Rule must be prepared by or under the supervision of an Idaho licensed professional engineer and bear the imprint of the engineer's seal. Construction must be observed by an Idaho licensed professional engineer or a person under the supervision of an Idaho licensed professional engineer. *In accordance with 39-118A(8)(c).*
200.02.	**02. Plans and Specifications**. An issued for construction data package must include Engineer-stamped plan views and cross-section drawings of the components or phases of the leach pads, permanent heaps, process water storage ponds, tailings impoundments, spent ore disposal areas, leak detection and collection systems, and process facility secondary containment that are proposed for construction. These plans and specifications must be submitted to and approved by the Department before construction of those components or phases may begin (Section *39-118A*(18)(b), Idaho Code). All construction must be in compliance with Section *39-118A*(17), Idaho Code. Within thirty (30) days of the completion of such construction, an as-built submittal must be submitted to the Department (Section 39- 118A(19), Idaho Code) for the completed components or phases. *In accordance with 39-118A(8)(c) and 39-118A(11)(b).*
200.03.	**03. Manufacturer's Specifications**. Manufacturer's specifications for materials and equipment necessary to meet the requirements of Subsection 100.03.r. and Sections 200 through 205 for containment of process water to which this rule is applicable must be submitted to the Department with the plans and specifications required in Subsection 200.02 before construction of a component or phase may begin. *To be consistent with 39-118A(1)(o)(i)-(ii) and 39-118A(11)(b)* and should apply only to IFC.
200.04.	**04. Site~~ing and~~ Preparation**. All cyanidation facility secondary containment subject to this Rule ~~ies including, but not limited to, the process building, laboratories, process chemical storage and containment facilities, plumbing fixtures that support process water, untreated or treated process water ponds, tailings impoundments, ore stock piles, and spent ore disposal areas~~ must be appropriately sited and prepared for construction. ~~Siting criteria must ensure that, at a minimum, the facilities are structurally sound and that containment systems can be adequately protected against factors such as wild fires, floods, land slides, storm water run-on, erosion, migrating stream channels, high ground~~

Rule Section	New Rule Text and Proposed Changes
	~~water table, equipment operation, subsidence of underground workings, public access and public activities.~~ All sites must be ~~properly prepared prior to construction of foundations and facilities. Vegetation, roots, brush, large woody debris and other deleterious materials, topsoil, historic foundations and plumbing, or other materials that may adversely affect appropriate construction and long term stability, must be removed from the footprint of the cyanidation facility unless~~ approved by the Department. *According to **39-118A**(1)(f). Struck text refers to items that are set as an early design consideration, not IFC.*
200.05.	**05. Process Water Storage Sizing Criteria**. To the extent the sizing of those aspects, facilities, or components is regulated in this Rule and accomplished using the water balance, ~~All~~ aspects of the cyanidation facility that entrain, ~~utilize,~~ treat, discharge, ~~pump, convey,~~ or otherwise contain process water, treated process water, or run-off water from any portion of the cyanidation facility must be included in the water balance. Each pond, tailings impoundment, and ditch containing process water must be designed to maintain a minimum two (2) foot freeboard during storage or conveyance of the design climatic events plus maximum expected normal operating levels. Curbed or bunded process water secondary containment areas must have the capacity to store at least 110% of the volume of the largest tank served by the secondary containment. Leach pad design must provide containment of the maximum expected operating flows plus storm flows from the design climatic event. At a minimum, a cyanidation facility must be designed to contain the maximum expected normal operating ~~water balance~~ volume and the volume of run-on and run-off water associated with a climatic event that has a one percent (1%) annual exceedance probability. Snowmelt events will be considered in determining the maximum flow volume during the design climatic event. Contingency plans for managing excesses of all water included as a part of the primary containment water balance must be described in the water management ~~strategy~~plan. Each structure that impounds process water or process-contaminated water must include a means of passing excess water unless otherwise approved by the Department. *To be consistent with 39-118A(1)(o)(i)-(ii) and move to IFC.*
200.06.b.iii.(3)	(3) Materials or anchoring techniques that provide appropriate shear resistance, as applicable, of the upper and lower component interface, or mechanical anchoring of the liner materials, to prevent sliding of the upper component including on slopes; *To be consistent with 39-118A(1)(o).*

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200.06.b.vi.	vi. Where applicable, h~~H~~ave an appropriate coefficient of friction against sliding plus a factor of safety for each interface constructed on a slope or appropriate anchoring at the top of the slope. *To be consistent with 39-118A(1)(o).*
200.06.b.viii.	Delete this rule due to *39-118A*(1)(o)(i)-(ii).
200.07.	**07. Process Buildings, Process Chemical Storage Containment Areas and General Facility Criteria**. Storage, handling and use of all ~~process chemicals,~~ process wastes containing cyanide pollutants, process water, and cyanidation pollutants must be conducted within a clean, safe and secure work space to prevent unauthorized discharges to soils, ground water or surface water. The plans and specifications must ~~contain sufficient detail, including pump capacity and plumbing for evacuation of collection sumps, triggering systems for sump evacuation, and monitoring and reporting requirements and, where appropriate,~~ provide for: *To be consistent with 39-118A(1)(o)(i)-(ii).*
200.07.a.	**a.** Structural integrity of ~~the foundation, walls and roof~~ secondary containment for process ~~and process chemical storage~~ buildings; *To be consistent with 39-118A(1)(o).*
200.07.b.	**b.** Restriction of public access with gates and guards and will not require fencing; *To be consistent with 39-118A(1)(o).*
200.07.c.	**c.** Protection of wildlife with a barrier to prohibit access to ponds, but not the site or natural water bodies; *To be consistent with 39-118A(1)(o).*
200.07.d.	Delete this rule due to *39-118A*(1)(o)(i)-(ii).
200.07.e.	**e.** Grouted and sealed concrete stemmed walls and floors in the process buildings ~~and process chemical storage~~ and containment facilities; *To be consistent with* CN Rulemaking 2025*(1)(o).*
200.07.g.	Delete this rule due to *39-118A*(1)(o)(i)-(ii) and *39-118A* (10)(a).
200.07.h.	Delete this rule due to *39-118A*(1)(o)(i)-(ii).
200.07.i.	Delete this rule due to *39-118A*(1)(o)(i)-(ii).
200.07.j.	**j.** Quality assurance/quality control procedures for ~~containment~~ construction activities and construction materials for containment regulated under this Rule,

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	along with the qualifications required of the person(s) in charge of quality control for such containment. *Due to 39-118A(1)(o)(i)-(ii).*
200.09.	Delete this rule due to *39-118A*(1)(o)(i)-(ii).
200.09.a.	Delete this rule due to *39-118A*(1)(o)(i)-(ii).
200.09.b.	Delete this rule due to *39-118A*(1)(o)(i)-(ii).
200.09.c.	Delete this rule due to *39-118A*(1)(o)(i)-(ii).
200.09.a.	Delete this rule due to *39-118A*(1)(o)(i)-(ii).
200.10.a.	Delete this rule due to *39-118A*(1)(o)(i)-(ii).
200.10.b.	**b.** Schedule for inspections of all containment systems subject to the rule; *Due to 39-118A(1)(o)(i)-(ii).*
200.10.c.	Delete this rule due to *39-118A*(1)(o)(i)-(ii).
200.10.d.	**d.** Response plans that detail specific actions that will result in mitigation of compromised or damaged containment systems subject to the rule; and *Due to 39-118A(1)(o)(i)-(ii).*
200.11.d.	**d**. Be site specific and dependent on location, design and operation of the cyanidation facilities included in the overall preliminary operating plan; *38-118A(8)(c).*
200.15.	Delete this rule due to *39-118A*(10)(a).
500.10	Delete this rule, it is superseded by *39-118A*(16)(a).

Perpetua Resources appreciates IDEQ considering its comments on the temporary/proposed cyanidation rules (IDAPA 58-0113-2501). If you have any questions, please do not hesitate to reach out to me at alan.haslam@perpetua.us.

Sincerely,

Perpetua Resources

Alan D. Haslam
Vice President of Permitting