IDAPA 58 – DEPARTMENT OF ENVIRONMENTAL QUALITY

58.01.13 – RULES FOR ORE PROCESSING BY CYANIDATION

DOCKET NO. 58-0113-2502

NOTICE OF RULEMAKING – PROPOSED RULE

AUTHORITY: In compliance with Section 67-5221(1), Idaho Code, notice is hereby given that this agency has initiated proposed rulemaking. This rulemaking action is authorized by Sections 39-105, 39-107, and 39-118A, Idaho Code.

PUBLIC HEARING SCHEDULE: Public hearing(s) concerning this rulemaking will be scheduled if requested in writing by twenty-five (25) persons, a political subdivision, or an agency, not later than September 16, 2026.

The hearing site(s) will be accessible to persons with disabilities. Requests for accommodation must be made not later than five (5) days prior to the hearing, to the agency address below.

DESCRIPTIVE SUMMARY: The following is a nontechnical explanation of the substance and purpose of the proposed rulemaking:

This rulemaking was initiated to address public comments on the alignment of Agency rules with the new requirements of Section 39-118A, Idaho Code, as mandated by the 2025 Senate Bill 1170. The proposed rule addresses new public comments, and comments that were received under a previous docket (58-0113-2501), but were not addressed due to the narrow scope of that docket.

FEE SUMMARY: The following is a specific description of the fee or charge imposed or increased: Not applicable.

FISCAL IMPACT: The following is a specific description, if applicable, of any negative fiscal impact on the state general fund greater than ten thousand dollars ($10,000) during the fiscal year resulting from this rulemaking:

Not applicable.

IDAHO CODE SECTION 39-107D STATEMENT: This rule proposes to regulate an activity that is not regulated by the federal government and has previously been approved as meeting the requirements of Section 39-107D, Idaho Code, in Omnibus Rule Docket No. 58-0000-2000F (negotiated under Docket No. 58-0113-1901).

NEGOTIATED RULEMAKING: Pursuant to Section 67-5220(1), Idaho Code, negotiated rulemaking was conducted. The Notice of Intent to Promulgate Rules – Negotiated Rulemaking was published in the December 3, 2025, Idaho Administrative Bulletin, Volume 25-12 page 90. One scoping meeting and four public meetings were held during the negotiated rulemaking process.

DEQ formatted the draft for publication as a proposed rule and is now seeking public comment. The negotiated rulemaking record, which includes the negotiated rule drafts, documents distributed during the negotiated rulemaking process, and the negotiated rulemaking summary, is available at Cyanidation: Docket No. 58-0113-2502 | Idaho Department of Environmental Quality.

INCORPORATION BY REFERENCE: Not applicable.

ASSISTANCE ON TECHNICAL QUESTIONS: For assistance on questions concerning this proposed rulemaking, contact Adam McMahon at Adam.McMahon@deq.idaho.gov or (208) 373-0450.

SUBMISSION OF WRITTEN COMMENTS: Anyone may submit written comments regarding this proposed rule. The Department will consider all written comments received on or before September 23, 2026. Submit written comments to the undersigned:

Dated this 2nd day of September, 2026.

Diane Cutler
Rules and Planning Analyst
Department of Environmental Quality
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THE FOLLOWING IS THE PROPOSED TEXT OF DOCKET NO. 58-0113-2502
(Only Those Sections With Amendments Are Shown.)

58.01.13 – RULES FOR ORE PROCESSING BY CYANIDATION

004. – 005~~5~~6. (RESERVED)

~~006. CONFIDENTIALITY OF RECORDS.~~
~~Information obtained by the Department under these rules is subject to public disclosure pursuant to the provisions of Title 74, Chapter 1, Idaho Code, and IDAPA 58.01.21, "Rules Governing the Protection and Disclosure of Records in the Possession of the Idaho Department of Environmental Quality."~~ ~~(3-24-22)~~

007. DEFINITIONS.
The terms "Application," "As-built Submittal," "Component or Phase," "Controls," "Cyanidation," "Cyanidation Facility," "Cyanidation Pollutants," "Issued for Construction (IFC) Data Package," "Major Modification or Material Modification," ~~and~~ "Permit," "Procedural Completeness," and "Technical Completeness" are defined in Section 39-118A, Idaho Code. The terms "Department," "Director," "Person," and "Waters" are defined in Section 39-103, Idaho Code. The term "ground-water" is defined in Section 39-121, Idaho Code. The terms "Beneficial Use" and "Best Management Practices (BMPs)" are defined in IDAPA 58.01.02. ~~(7-1-26)~~( )

01. Containment. Any structure, liner, pad, equipment, device, procedure, or system utilized to prevent discharge of cyanidation pollutants into the environment. ( )

0~~1~~2. Degradation. When referring to surface water, "degradation" has the meaning provided in IDAPA 58.01.02, Section 010. When referring to ground-water, "degradation" has the meaning provided in IDAPA 58.01.11, Section 007. ~~(7-1-26)~~( )

0~~2~~3. Discharge. When used without qualification, any spilling, leaking, emitting, escaping, leaching, or disposing of a cyanidation pollutant into waters. (7-1-26)

0~~3~~4. Idaho Pollutant Discharge Elimination System (IPDES) Permit. A permit issued by the Department for the purpose of regulating discharges into surface waters. (3-24-22)

0~~4~~5. Land Application. A process or activity involving application of liquids or slurries potentially containing cyanide from the cyanidation facility to the land surface for the purpose of treatment, neutralization, disposal, or ground-water recharge. ~~(3-24-22)~~( )

0~~5~~6. Liner. A continuous layer of natural or man-made materials beneath and, if applicable, on the sides of ponds, tailings impoundments, or leach pads that restricts the downward and lateral movement of liquids. (3-24-22)

06~~7~~. **Material Stabilization**. Managing or treating spent ore, tailings or other solids and/or sludges resulting from the cyanidation process to minimize water or all other applied solutions from migrating through the material and transporting pollutants associated with the cyanidation facility to ensure that all discharges comply with all applicable standards and criteria. (3-24-22)

07~~8~~. **Neutralization or Neutralized**. Treatment of process water such that discharge or final disposal of the process water does not, or will not, violate any applicable standards and criteria. (3-24-22)

08~~9~~. **Outstanding Resource Water (ORW)**. A high-quality water, such as water of national and state parks and wildlife refuges and water of exceptional recreational or ecological significance, which has been designated by the legislature and subsequently listed in IDAPA 58.01.02. ORW constitutes an outstanding national or state resource that requires protection from point and nonpoint source activities that may lower water quality. ~~(7-1-26)~~( )

~~09~~10. **Permanent Closure**. Those activities that result in neutralization, material stabilization and decontamination of cyanidation facilities and the facilities' final reclamation. (3-24-22)

1~~0~~1. **Permanent Closure Plan**. As defined in Chapter 15, Title 47, Idaho Code, and meets the intent and purpose of Section 39-118A, Idaho Code, and all applicable rules. (7-1-26)

1~~1~~2. **Permittee**. The person in whose name a permit is issued and who is to be the principal party responsible for compliance with these rules and the conditions of a permit. (3-24-22)

1~~2~~3. **Pond**. A process component that stores, confines, or otherwise significantly impedes the horizontal and downward movement of process water. This term does not include tailings impoundments or non-earthen containers such as vats and tanks. (3-24-22)

1~~3~~4. **Post-Closure**. The period of time after completion of permanent closure when the permittee is monitoring the effectiveness of the closure activities. Post-closure lasts a minimum of twelve (12) months but may extend until the cyanidation facility is shown to be in compliance with the stated permanent closure objectives and requirements of Chapter 15, Title 47, Idaho Code, and all applicable rules. (3-24-22)

15. **Primary Containment**. Containment in direct contact with cyanidation pollutants designed to control and contain those pollutants. Primary containment includes, but is not limited to, tanks, vats, pipes, and liners. ( )

1~~4~~6. **Process Water**. Any liquid intentionally or unintentionally introduced into any portion of the cyanidation process which may contain ~~cyanide~~ cyanidation pollutants. ~~(7-1-26)~~( )

1~~5~~7. **Seasonal ~~Closure~~ Operation Suspension**. Annual cessation of operations ~~that is due to weather~~. ~~(3-24-22)~~( )

18. **Secondary Containment**. Containment that is designed to capture any release of cyanidation pollutants from primary containment to further control and contain those pollutants. Secondary containment includes, but is not limited to, double-walled tanks, berms, curbs, concrete slabs, vaults, sumps, and liners other than primary liners. ( )

1~~6~~9. **Sensitive Resource Aquifer**. Any aquifer or portion of an aquifer listed in IDAPA 58.01.11, Subsection 300.01. (7-1-26)

1~~7~~20. **Tailings Impoundment**. A process component that is the final depository for processed ore from the mining, milling, or chemical extraction process. (3-24-22)

~~18~~21. **Temporary ~~Closure~~ Operating Suspension**. Any cessation of operations exceeding thirty (30) days, other than seasonal or permanent closure. ~~(3-24-22)~~( )

~~19~~22. **Treatment or Treated**. Any method, technique or process, including neutralization, that changes

the physical, chemical, or biological character or composition of a waste for the purpose of disposal, or the end result of such action. (3-24-22)

~~**20. Water Balance**. An inventory and accounting process, capable of being reconciled, that integrates all potential sources of water that are entrained in the cyanidation facility or may enter into or exit from the cyanidation facility. The inventory must include the water holding capacity of specific structures within the facility that contain process water. The water balance is used to ensure that all process water and cyanidation pollutants can be contained as engineered and designed within a factor of safety as determined in the permanent closure plan. (7-1-26)~~

~~**21. Water Management Plan**. A document that describes the results of the water balance and 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. (7-1-26)~~

2~~2~~3. Weak Acid Dissociable (WAD) Cyanide. The cyanide concentration as determined by Method C, Weak Acid Dissociable Cyanide, D2036 of American Society of Testing Materials Book of Standards, "Standard Methods for the Examination of Water and Wastewater," Method 4500-CN- I, or other methods accepted by the scientific community and deemed appropriate by the Department. (3-24-22)

(BREAK IN CONTINUITY OF SECTIONS)

050. PRE-APPLICATION PROCESS AND PRELIMINARY DESIGN.

Any person who intends to apply for a permit or proposes to construct or operate a facility that is intended to contain, treat, or dispose of process water and process-contaminated water generated in ore processing operations that utilize cyanide as a primary leaching agent should contact the Department during the initial stages of site characterization to begin the permitting process. ( )

01. Cost Recovery Agreement. Prospective applicants must execute a cost recovery agreement with the Department prior to the permitting process (Section 39-118A(7), Idaho Code). The cost recovery agreement must provide for the recovery of costs incurred by the Department during the permitting process, including third-party consultant costs, as applicable (Sections 39-118A(7)(a) and 39-105(5)(c), Idaho Code). Any third-party consultant contracted to support application review (Section 39-118A(12)(a), Idaho Code) should be acceptable to the prospective applicant and the Department. ( )

0~~1~~2. Pre-application Conference. ~~Any person who intends to apply for a permit or proposes to construct or operate a facility that is intended to contain, treat, or dispose of process water and process-contaminated water generated in ore processing operations that utilize cyanide as a primary leaching agent should contact the Department during the initial stages of site characterization to schedule a pre-application conference. Once~~ Following execution of a cost recovery agreement ~~in accordance with Section 39-118A(7), Idaho Code, has been executed~~, prospective applicants ~~are encouraged to begin meeting with agents of~~ should contact the Department to schedule a preapplication conference, ideally at least one (1) year in advance of preliminary design report submittal to discuss, at a minimum, the following. ~~(7-1-26)~~( )

a. Environmental baseline data requirements; waste characterization requirements; siting requirements; operation and maintenance plans; emergency and spill response plans; quality assurance/quality control plans; required contents for permit applications; agency cyanidation facility visits. (3-24-22)

b. The proposed water quality monitoring and reporting required in Subsection 200.~~11~~08 and the monitoring well siting and construction plans required in Subsection ~~200.12~~ 050.04. The applicant is encouraged to submit a report describing the purpose, objectives, location, and proposed construction of monitoring wells to the Department for review and comment during the initial stages of site characterization. ~~(3-24-22)~~( )

c. The preliminary design report and alternative design proposals required prior to application submittal under Subsection 050.0~~2~~3. ~~(3-24-22)~~( )

d. The permitting process, application procedures, public review and comment periods, and permit schedule. (3-24-22)

e. The timing of additional pre-application meetings. The pre-application conference may trigger a period of collaborative effort between the applicant, the Department, and the Idaho Department of Lands to develop an application that complies with rule requirements and ensures the facility will not impair beneficial use of waters or degrade waters. (7-1-26)

02~~2~~3. Information Required for Preliminary Design Report. Submittal of a preliminary design report is mandatory and must include the monitoring well siting and construction plan (Subsection 050.04) if not previously submitted. Upon submittal, the preliminary design report must include ~~sufficient detail to determine~~ the following: ~~(3-24-22)~~( )

a. ~~The general framework and design criteria for the project~~A general overview of the project, including the project location, a description of the cyanidation method, proposed locations of cyanidation facilities, and final treatment or disposal of cyanidation pollutants; ~~(3-24-22)~~( )

b. How the ~~project~~ cyanidation facility will ~~address each applicable requirement in Subsection 100.03 and~~ generally incorporate design and facility requirements in Sections 200 through 205~~, or why a specific requirement in Subsection 100.03 and Sections 200 through 205 is not applicable~~; ~~(3-24-22)~~( )

c. ~~How the design criteria were identified, or the approach the applicant will use to determine~~Any additional available information informing the basis for the cyanidation facility design criteria ~~for which insufficient data is available at the time of the preliminary design~~; ~~(3-24-22)~~( )

d. How the requirements of these rules will be met in the final permit application and/or the issued for construction data package(s); and ~~(3-24-22)~~( )

e. How design, construction, operation, and closure will ensure the facility will not impair beneficial use of waters or degrade waters. (7-1-26)

04. Monitoring Well Siting and Construction Plan. The applicant is encouraged to submit a report describing the purpose, objectives, location and proposed construction of monitoring wells to the Department for review and comment during the initial stages of site characterization. If not submitted separately, a monitoring well siting and construction plan must be provided upon submittal of the preliminary design report under Subsection 050.03. ( )

a. Monitoring well siting and construction plans must provide for the following. ( )

i. A quality assurance/quality control plan for well construction. ( )

ii. A groundwater monitoring network sufficient to demonstrate groundwater flow direction underneath the cyanidation facility with a minimum of three (3) monitoring wells. ( )

b. Siting and planning for additional wells or replacement wells may be required in the permit application and final permit. Specifically, additional wells may be required for: ( )

i. Large areas with multiple potential sources for cyanidation pollutants; ( )

ii. Areas with complex geology, fractured bedrock; and ( )

iii. Areas with insufficient background hydrogeology. ( )

c. All monitoring well construction must also conform to the well construction rules listed in IDAPA 37.03.09. ( )

d. Record diagrams including well construction details, well elevation and a detailed geologic log

must be provided to the Department for each monitoring well. ( )

035. ~~Notice of~~ Preliminary Design Approval or Disapproval. Unless otherwise provided in this Subsection 050.035, the Director will notify the applicant in writing of the decision to approve or disapprove a preliminary design report within thirty (30) days after the Department receives all information required by Subsection 050.023. For alternative design proposals submitted under Section 205, the Director will notify the applicant in writing of the decision for alternative design approval or disapproval within ninety (90) days after the Department receives all information required by Section 205. The time required to review and, if appropriate, approve the preliminary design report is separate from and not included as part of the one hundred eighty (180) day period for issuing notice of rejection or notice of approval of the permit under Section 39-118A(11)(a), Idaho Code. Approval of the preliminary design report does not authorize the construction, modification, or operation of the cyanidation facility. ~~(7-1-26)~~( )

051. -- 099. (RESERVED)

100. PERMIT AND PERMIT APPLICATION.

01. Permit Required. No person may construct a new cyanidation facility prior to obtaining a permit from the Director. No person may make a major modification or material modification to a cyanidation facility prior to obtaining a modified permit for such modification pursuant to Section 750. (7-1-26)

02. Permit Application. The owner or proposed operator of a cyanidation facility or the owner's or operator's authorized representative must~~:~~ make an application to the Director in writing in a format as agreed to by the Department and the applicant. ~~(3-24-22)~~( )

~~**a.** Make application to the Director in writing and in a manner or form prescribed herein; and (3-24-22)~~

~~**b.** Provide five (5) paper copies of the application to the Director, unless otherwise agreed to by the Department and the applicant. (3-24-22)~~

03. Contents of Application. A permit application ~~and its contents~~ will be used to determine if an applicant can locate, construct, operate, maintain, close, and monitor the proposed cyanidation facility in conformance with Section 39-118A, Idaho Code, and ~~these and other~~ applicable rules including, ~~but not limited to,~~ IDAPA 58.01.02, ~~IDAPA 58.01.08,~~ and IDAPA 58.01.11. The application should also discuss other rules that apply including IDAPA 58.01.05, ~~IDAPA 58.01.06, IDAPA 58.01.11,~~ and IDAPA 58.01.25, and other permits needed for the proposed cyanidation facility. The application must ~~include the information required by Section 39-118A(8), Idaho Code, and in this subsection,~~ be in sufficient detail to allow the Director to determine if the application is procedurally and technically complete as defined in Section 39-118A(1)(o), Idaho Code, and is in compliance with Sections 200 through 205 as applicable, and Section 39-118A(8), Idaho Code. The application must contain the following information. ~~(7-1-26)~~( )

a. Name, location, and mailing address of the cyanidation facility. (3-24-22)

b. Name, mailing address, and phone number of the applicant, and a registered agent. (3-24-22)

c. Land ownership status of the cyanidation facility (federal, state, private, or public). (3-24-22)

d. Name, mailing address, and phone number of the applicant's construction and operations manager. (3-24-22)

e. The legal structure (corporation, partnership, etc.) and residence of the applicant. (3-24-22)

f. The legal description, to the quarter-quarter section, of the location of the proposed cyanidation facility. (3-24-22)

g. Evidence the applicant is authorized by the Secretary of State to conduct business in the State of

Idaho. (3-24-22)

h. A general description of the ~~operational plans for the~~ cyanidation facility from construction through permanent closure. This description must include any proposed phases for construction, operations, and permanent closure. ~~(3-24-22)~~( )

i. The design maximum daily throughput of ore through the cyanidation facility and the total projected volume of material to be processed during the life of the operation. (3-24-22)

j. Cyanidation facility layouts including water management systems designed to segregate storm water from process water. (3-24-22)

~~**k.** A geotechnical evaluation of all process water and process chemical containment systems within the proposed cyanidation facility.~~ ~~(3-24-22)~~

~~**l**~~**k.** A preconstruction topographic site map or aerial photos extending at least one (1) mile beyond the outer limits of the cyanidation facility, identifying and showing the location and extent of the following features: (3-24-22)

i. All wells, perennial and intermittent springs, adit discharges, wetlands, surface waters, and irrigation ditches that may be affected by the cyanidation facility; (3-24-22)

~~ii. All process water supply source(s);~~ ~~(3-24-22)~~

ii~~i~~. All public and private drinking water supply source(s) within at least one (1) mile of the cyanidation facility; (3-24-22)

iv~~i~~i. ~~Identified~~Mapped floodplain area~~s (shown on USGS sectional Quadrangle maps)~~ of the 100-year flood that intersects the cyanidation facility boundary; ~~(3-24-22)~~( )

iv. All service roads and public roads; (3-24-22)

v~~i~~. All buildings and structures within half (1/2) a mile of the cyanidation facility; (3-24-22)

vi~~i~~. All outstanding resource waters and sensitive resource aquifers within one (1) mile of the cyanidation facility; and (3-24-22)

vii~~i~~. All Clean Water Act Section 303(d) listed streams, and their listed impairments, within ~~ten~~ one (1~~0~~) mile~~s~~ of the ~~site boundary that may be affected by the~~ cyanidation facility. ~~(3-24-22)~~( )

~~**m**~~**l.** To the extent such information is available, a description and location of underground mine workings and adits and a description of the structural geology that may influence ground-water flow and direction. ~~(3-24-22)~~( )

~~**n**~~**m.** A description and siting diagram of the proposed land application site, including monitoring 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. ~~(3-24-22)~~( )

~~**o.** Siting diagram for land application sites, monitoring wells, lysimeters, surface or ground water discharge sites, or surface water monitoring locations.~~ ~~(3-24-22)~~

~~**p.** A description of measures to protect wildlife that may be affected by the facility.~~ ~~(3-24-22)~~

~~**q**~~**n.** Proposed post-construction topographic maps. (3-24-22)

~~r~~0. Proposed ~~E~~engineering plans and specifications for all components or phases of the cyanidation facility must be submitted to the Department for review and approval. Preliminary designs for components or phases of the cyanidation facility may be submitted as part of the permit application 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~~ be sealed, signed, and dated by and Idaho-licensed professional engineer per Section 54-1215(3)(b), Idaho Code. These plans and specifications must, at a minimum, include all of the following information applicable to the proposed facility. ~~(7-1-26)~~( )

i. Designs sufficient to demonstrate the facility's ability to meet applicable criteria in Sections 200 through 204. (7-1-26)

ii. Any alternative design ~~approved~~ as agreed to by the Department under Section 205. ~~(3-24-22)~~( )

~~iii. The water balance, ore flow, and processing calculations demonstrating the logic behind sizing of facilities.~~ ~~(3-24-22)~~

i~~v~~ii. ~~The~~A general ore processing overview ~~and analyses of chemical compatibility of containment materials with process chemicals and wastes, including a chemical mass balance at inputs and outputs from the cyanidation facility~~, including methods and process components used for beneficiation, and a process flow diagram of the ore processing circuit(s), detoxification, and process water storage components. ~~(3-24-22)~~( )

iv. ~~Geotechnical data and analyses demonstrating the logic for plans and specifications of foundation materials and placement~~Baseline geotechnical report demonstrating site suitability for construction of selected cyanidation facilities. ~~(3-24-22)~~( )

v~~i~~. Requirements for site preparation. (3-24-22)

~~vii. Pumping and dewatering requirements.~~ ~~(3-24-22)~~

vi~~i~~i. Procedures for materials selection, including classifying or modifying, if necessary, and placement for backfill~~ing~~, bedding, and other structural and containment protecting materials in and around foundation areas, pads, ponds, and tailings impoundments or other containment structures. ~~(3-24-22)~~( )

~~ix. Criteria for caps and covers used as source control measures.~~ ~~(3-24-22)~~

~~x~~vii. Criteria for ensuring stability of embankments for pads, ponds and tailings impoundments. (3-24-22)

~~xi. Procedures to classify and modify, if necessary, excavated fill, bedding and cover materials for buildings, pads, ponds, and tailings impoundments.~~ ~~(3-24-22)~~

~~xii~~viii. ~~Plumbing~~Plan views and cross-section drawings of piping and conveyance ~~schematics and component specifications~~ systems between cyanidation facility components. ~~(3-24-22)~~( )

~~xiii~~ix. Plan views and cross-section drawings of cyanidation facility components, including ore processing buildings for secondary containment, leach pads, permanent heaps, ~~vats,~~ process water storage ponds, tailings impoundments, and spent ore disposal areas that contain cyanidation pollutants. ~~(3-24-22)~~( )

x~~iv~~. Leak detection and collection system plans and specifications 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 backup system, triggers for containment repairs, replacement or other contingency mitigation, frequency of monitoring, and monitoring parameters~~ and logic behind monitoring, operation, and maintenance plans. ~~(3-24-22)~~( )

x~~v~~i. Provisions to protect containment systems from heavy equipment, fires, earthquakes, and other natural phenomena. (3-24-22)

x~~vi~~ii. Quality assurance/quality control procedures for construction of cyanidation facilities. ~~(3-24-22)~~( )

x~~vii~~iii. The ~~identity~~ role and qualifications of the person(s) directly responsible for supervising construction and quality assurance/quality control. ~~(3-24-22)~~( )

~~s~~**p.** Proposed ~~O~~operation and maintenance plans ~~that include all of the following:~~as required by Subsections 200.07 through 200.10. ~~(7-1-26)~~( )

~~i. Maintenance plans, including routine service procedures for containment systems, process chemical storage, and disposal of contaminated water or soils.~~ ~~(7-1-26)~~

~~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 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 changes in the project through construction, operation, maintenance, and permanent closure, including modifications to the cyanidation facility.~~ ~~(7-1-26)~~

~~iii. A proposed water quality monitoring plan.~~ ~~(3-24-22)~~

~~iv. An emergency and spill response plan that describes procedures and methods to be implemented for the abatement and clean up of any cyanidation pollutant that may be discharged from the cyanidation facility.~~ ~~(7-1-26)~~

~~v. A seasonal/temporary closure plan, if applicable, that describes the procedures, methods, and schedule to be implemented for the treatment and disposal of process water and cyanidation pollutants, the control of drainage from the cyanidation facility during the period of closure, the control of drainage from the surrounding area, and the secure storage of process chemicals.~~ ~~(7-1-26)~~

~~t. The permanent closure plan must be the same as the plan submitted to the Idaho Department of Lands pursuant to the Idaho Mind Land Reclamation Act, Chapter 15, Title 47, Idaho Code, and the rules promulgated thereunder.~~ ~~(3-24-22)~~

~~u~~**q.** Characterization and predicted concentrations of cyanidation pollutants contained in or released from the cyanidation facility, including the potential for the cyanidation pollutants to ~~cause degradation of waters~~ impair beneficial use or degrade waters. Pollutants may be characterized and predicted concentrations may be identified by facility component or ore processing circuit within the same containment, as appropriate, for pollutants with potential to impair beneficial use or degrade waters. ~~(7-1-26)~~( )

~~**101. -- 199. (RESERVED)**~~

101. ISSUED FOR CONSTRUCTION DATA PACKAGE.

01. Issued for Construction Requirements. An IFC data package must be submitted to the Department for review and approval prior to construction of any cyanidation facility component or phase (Section 39-118A(18), Idaho Code). The IFC data package may be submitted with a permit application or following permit issuance as a permit condition per Section 39-118A(18), Idaho Code. An IFC data package must contain plans and specifications for actual construction of a cyanidation facility consistent with the criteria for the IFC data package and other supporting documents that are sealed, signed, and dated by an Idaho-licensed professional engineer per Section 54-1215(3)(b), Idaho Code. All construction must be in compliance with Section 39-118A(17), Idaho Code. The IFC data package must include, at a minimum, the following information (Section 39-118A(1)(k), Idaho Code). ( )

a. A final report documenting the basis of the design. ( )

b. IFC specifications, including any storage features or secondary containments, as applicable, including final chemical compatibility of containment materials with process chemicals and wastes. ( )

c. IFC drawings depicting facility layout and typical sections, primary containment and secondary containment and location of primary containment within secondary containment. ( )

d. Final capacity calculations for primary and secondary containment. For primary within secondary containment, such as vats, tanks, or other beneficiation components, primary capacity information must be sufficient to demonstrate necessary secondary containment capacity as required by Section 203. ( )

e. Final load validation, including supporting geotechnical data and analysis demonstrating the logic for plans and specifications of foundation materials and placement, including information required by Sections 200 through 205, if applicable. ( )

f. Manufacturer's specifications for materials and equipment necessary to meet the requirements of Sections 200 through 205. ( )

g. The identity of the person(s) selected to be directly responsible for supervising construction and quality assurance/quality control. ( )

h. A quality assurance/quality control plan for the construction of containment systems that provides a process for documenting owner acceptance of all underlying components of the containment system prior to construction of the overlying components. ( )

i. Requirements for site preparation. ( )

j. Operation and maintenance plans as required by Subsection 200.10 and revised for IFC, as applicable. ( )

102. AS-BUILT SUBMITTAL.

01. As-built Requirements. An as-built submittal is required to be submitted to the Department for review and approval following completing construction of a cyanidation facility component or phase. The as-built submittal must depict that actual construction of the cyanidation facility component or phase does not deviate from the plans and specifications approved in the permit and IFC data package (Section 39-118A(19), Idaho Code). An as-built submittal must be sealed, signed, and dated by an Idaho-licensed professional engineer and be consistent with the criteria for as-built documentation and other supporting documents, including: ( )

a. As-built drawings; and ( )

b. Quality assurance/quality control documentation demonstrating that the constructed cyanidation facility, including controls, substantially conforms to the final permit and issued for construction data package, as applicable. ( )

103 – 199. (RESERVED)

200. ~~REQUIREMENTS FOR WATER QUALITY PROTECTION~~CYANIDATION FACILITY REQUIREMENTS.
The following design and performance standards are intended as the minimum criteria for protection of public health and waters. These standards apply to all facilities unless the Department determines that other site-specific criteria, including an alternative design approved under Section 205, are appropriate to protect water quality and the public health. (3-24-22)

01. Professional Engineer. Plans and specifications for construction, alteration or expansion of any cyanidation facility 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. (3-24-22)

~~02. Plans and Specifications. An issued for construction data package must be submitted to and approved by the Department before construction 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).~~ ~~(7-1-26)~~

~~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 must be submitted to the Department with the plans and specifications required in Subsection 200.02 before construction may begin.~~ ~~(3-24-22)~~

042. Siting and Preparation. All cyanidation facilities ~~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 cyanidation 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-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, top-soil, 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. ~~(3-24-22)~~( )

053. Process Water Storage Sizing Criteria. ~~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.~~ Any cyanidation facility component that contains or conveys process water or cyanidation pollutants and is exposed to the atmosphere, including, but not limited to~~Each~~ ponds, tailings impoundments, ~~and~~ or ditches, ~~containing process water~~ must be designed to maintain a minimum two (2) foot freeboard during storage or conveyance of the design climatic event~~s~~ plus the maximum expected normal operating ~~levels~~ volume. The maximum expected normal operating volume must be calculated with a water balance that includes all sources of water that may enter or exit the cyanidation facility. The design climatic event is the volume of run-on and run-off water associated with a 24-hour storm 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. 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 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 water balance~~ any process water or cyanidation pollutant contaminated water must be described in the water management ~~strategy~~ plan. Each structure that impounds process cyanidation pollutant water or ~~process~~ cyanidation pollutant contaminated water must include a means of passing excess water unless otherwise approved by the Department. ~~(3-24-22)~~( )

064. Minimum ~~Plans and Specifications~~ Design Criteria. Unless the Department approves an alternative design under Section 205, the plans and specifications for any portion of a cyanidation facility that will contain process water must satisfy the applicable general design criteria in Subsection 200.064 and the design criteria in Sections 201 through 204 for the type of facility receiving process water. These provisions establish minimum cyanidation pollutant control technologies and define the site and operating conditions that must be evaluated. ~~(7-1-26)~~( )

a. Cyanidation facility design must: (3-24-22)

i. Minimize releases of cyanidation pollutants into ground-water or subsurface migration pathways so that any release will not cause unauthorized degradation of waters. ~~(7-1-26)~~( )

ii. Preclude any differential movement or shifting of the subgrade, soil layer, liner or contained material that endangers containment integrity as a result of the proposed range of operating conditions for each component and anticipated seismic activity at the site. (3-24-22)

iii. Include additional containment of process water, as requested by the Department, in areas where ground-water is considered to be near the surface. Ground-water is considered to be near the surface if: ~~(3-24-22)~~( )

(1) The depth from the surface to ground-water is less than one hundred (100) feet and the top one hundred (100) feet of the existing formation has a hydraulic conductivity greater than 10^{-5} cm/sec; ~~(3-24-22)~~( )

(2) Open fractured or faulted geologic conditions exist in the bedrock from the surface to the ground-water; or ~~(3-24-22)~~( )

(3) There is an inability to document that all borings beneath the cyanidation facility have been adequately abandoned. (3-24-22)

iv. Not locate new process component containing process water within one thousand (1,000) feet of any dwelling that is occupied at least part of the year and not owned by the permittee. This does not apply to modifications at a facility that predates such a dwelling. (3-24-22)

v. Include measures for preventing wildlife and livestock contact with process water having a WAD cyanide concentration in liquid fraction exceeding fifty (50) mg/L. The Department may require additional measures if wildlife mortality is observed. ~~(3-24-22)~~( )

~~vi. Implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process water and cyanidation pollutants.~~ ~~(7-1-26)~~

~~vii. Include a quality assurance/quality control plan for the construction of containment systems that provides a process for documenting owner acceptance of all underlying components of the containment system prior to construction of the overlying components.~~ ~~(3-24-22)~~

b. Liner systems must: (3-24-22)

i. Have a structurally stable subgrade for the overlying components and contained material. The subgrade ~~should~~ must be constructed to resist consolidation, excessive differential settlement that compromises liner performance, and uplift resulting from pressures inside or outside the containment unit to prevent distortion of overlying components. ~~(3-24-22)~~( )

ii. Have a smooth rolled and compacted soil layer, or equivalent layer approved by the Department, in intimate contact with the overlying geomembrane liner with the following characteristics: (3-24-22)

(1) A minimum thickness of twenty-four (24) inches compacted to ninety-five percent (95%) of maximum dry density according to Standard Proctor Test ASTM D698 or Modified Proctor Test ASTM D1557; (3-24-22)

(2) Soil placed in a minimum of four (4) lifts that each have a compacted thickness of six (6) inches and a hydraulic conductivity less than or equal to 10^{-6} cm/sec; (3-24-22)

(3) An uppermost lift of soil that does not contain particles in excess of point seven five (0.75) inches (nineteen (19) mm) in largest dimension unless larger particles are consistent with the manufacturer's specifications for the overlying liner and approved by the Department; (3-24-22)

(4) No putrescible, frozen, or other deleterious materials. (3-24-22)

(5) No angular, sharp material regardless of diameter; and (3-24-22)

(6) Soil placed within two percent (2%) of optimum moisture content to achieve the specified compaction and hydraulic conductivity. (3-24-22)

iii. Include the following if an equivalent layer replacing the soil layer described in Subsection 200.0~~6~~4.b.ii. is proposed: ~~(3-24-22)~~( )

(1) A layer that is not a geomembrane and has a liquid flow rate no greater than that of twenty-four (24) inches of compact soil with a hydraulic conductivity less than or equal to 10^{-6} cm/sec; (3-24-22)

(2) Materials with appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste, process water, or process-contaminated water to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation; (3-24-22)

(3) ~~Materials that provide appropriate shear resistance of the upper and lower component interface to prevent sliding of the upper component including on slopes~~Anchorage or materials that provide appropriate shear resistance to prevent sliding of overlying materials. Anchorage, whether in a trench or by mechanical means, must be capable of resisting tensile forces from liner self-weight, cover soil, liquids, wind uplift, and thermal movement; ~~(3-24-22)~~( )

(4) Certification from an Idaho licensed professional engineer that the liquid flow rate per unit area through the equivalent layer is no greater than the liquid flow rate through two (2) feet of compacted soil with a hydraulic conductivity less than or equal to 10^{-6} cm/sec, considering the maximum hydraulic head anticipated on the liner system and the thickness of the equivalent layer replacing the two (2) feet of compacted soil; and (3-24-22)

(5) Plans and specifications for an equivalent layer that substantially reflect the manufacturer's specifications and standards for construction, operation and maintenance unless otherwise approved by the Department. (3-24-22)

iv. Include geomembrane liners consisting of high-density polyethylene, linear low-density polyethylene, or equivalent, rated as having a resistance to the passage of process water equal to or less than a hydraulic conductivity of 10^{-11} cm/sec. Each geomembrane liner will be constructed of materials with appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation and permanent closure. ~~(3-24-22)~~( )

v. Be constructed according to manufacturer's standards, or Department-approved design standards, and protect against damage from cracking, sun exposure, ice, frost penetration or heaving, wildlife, wildfires, and damage that may be caused by personnel or equipment operating in or around these facilities. (3-24-22)

vi. Have an appropriate coefficient of friction against sliding plus a factor of safety for each interface constructed on a slope. (3-24-22)

vii. Have minimum factors of safety, and the logic behind their selection, for the stability of the earthworks and the lining systems. (3-24-22)

viii. Include redundant systems for failures in primary power or pumping systems. (3-24-22)

ix. Have liner material that meets the manufacturer's quality assurance/quality control performance specifications. (3-24-22)

0~~7~~5. **Process Buildings, Process Chemical Storage Containment Areas and General Facility Criteria**. Storage, handling and use of all ~~process chemicals, process wastes, process water~~ process solutions and solutions containing 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~~ piping for evacuation of collection sumps, triggering systems for sump

evacuation, and monitoring and reporting requirements and~~, where appropriate,~~ provide for: ~~(7-1-26)~~( )

a. Structural integrity of the foundation, walls and roof for process~~ and process chemical storage~~ buildings; ~~(3-24-22)~~( )

b. Restriction of public access; (3-24-22)

~~**c.** Protection of wildlife; (3-24-22)~~

~~**d**~~**c.** Internal sumps~~ and spill cleanup plans~~; ~~(3-24-22)~~( )

~~**e**~~**d.** Grouted and sealed concrete stemmed walls and floors in the process buildings~~ and process chemical storage and containment facilities~~ where concrete is providing secondary containment; and ~~(3-24-22)~~( )

~~**f.** Vapor barriers and frost protection; (3-24-22)~~

~~**g.** Segregation of process chemicals according to compatibility; (3-24-22)~~

~~**h.** Communication systems; (3-24-22)~~

~~**i**~~**e.** Fire suppression systems, internal and external~~; and~~, as required by local ordinances. ~~(3-24-22)~~( )

~~**j.** Quality assurance/quality control for construction activities and construction materials. (3-24-22)~~

~~**08. Cap and Cover Criteria.** Caps and covers used as source control measures for facilities must be designed and constructed to minimize the interaction of meteoric waters, surface waters, and ground waters with wastes containing cyanidation pollutants that are likely to be mobilized and discharged to waters. Caps and covers designed for permanent closure must demonstrate permanence applicable to the permittee's designed and approved permanent closure plan. (7-1-26)~~

0~~9~~6. **~~Plumbing~~ Piping and Conveyance Criteria**.~~ Plumbing~~ Piping and conveyance systems between cyanidation facility components must: ~~(3-24-22)~~( )

a. Be structurally sound and chemically compatible with the materials being conveyed; (3-24-22)

b. Provide adequate primary and secondary containment; and (3-24-22)

c. Be protected against heat, cold, mechanical failures, impacts, fires, and other factors that may cause breakage and result in unauthorized discharges to the environment. ~~(3-24-22)~~( )

~~10~~07. **Operation and Maintenance Plans**. Operation and maintenance plans must be submitted to the Department for review and approval. Operation and maintenance plans must include, but are not limited to:(3-24-22)

a. ~~An overall plan that includes techniques for evaluating the integrity and performance of all containment systems~~An operation and maintenance plan for containment systems, including leak detection and collection, which includes techniques for evaluating the integrity and performance, a schedule for inspections, routine service procedures, and specific actions that will mitigate compromised performance or damage; ~~(3-24-22)~~( )

b. ~~Schedule for inspections of all containment systems;~~An emergency and spill response plan that describes procedures and methods to be implemented for the abatement and cleanup of any cyanidation pollutant that may be discharged from the cyanidation facility, including disposal of contaminated water or soils. ~~(3-24-22)~~( )

c. ~~Schedule for inspections on piping and conveyance systems that carry process water;~~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 as required by Subsection 200.05 and demonstrate that all process water and cyanidation pollutants can be contained as engineered and designed with a factor of safety. If applicable, the plan must include 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 through construction, operation, maintenance, and permanent closure, including modifications to the cyanidation facility. ~~(3-24-22)~~( )

d. ~~Response plans that detail specific actions that will result in mitigation of compromised or damaged containment systems; and~~A permanent closure plan that is the same as the plan submitted to the Idaho Department of Lands pursuant to the Idaho Mined Land Reclamation Act, Chapter 15, Title 47, Idaho Code, and the rules promulgated thereunder. ~~(3-24-22)~~( )

~~**e.** Response plans that detail specific thresholds identified under Section 39-118A(9), Idaho Code, the locations and frequency at which the thresholds will be monitored, and actions that will result in mitigation of an exceedance of any threshold.~~ ~~(7-1-26)~~

~~11~~08. **Water Quality Monitoring and Reporting**. The water quality monitoring plan submitted with the application must be reviewed and~~, if appropriate,~~ approved by the Department. The approved water quality monitoring plan must comply with Section 39-118A(9), Idaho Code, and: ~~(7-1-26)~~( )

a. Provide for physical, chemical and biological monitoring, including measurements of surface water flow, wildlife and bird mortality, and aquatic indicator species in potentially affected surface and ground-water, as appropriate; ~~(3-24-22)~~( )

b. Provide for sampling locations and frequency; (3-24-22)

c. Provide an assessment of the existing surface and ground-water conditions prior to construction of the proposed cyanidation facility; ~~(3-24-22)~~( )

d. Be site specific and dependent on location, design and operation of the cyanidation facilities included in the overall operating plan; (3-24-22)

e. Provide analytical methods and method detection limits for chemical analysis used in the determination of water quality; (3-24-22)

f. Provide a quality assurance quality control plan for data collection and analysis; (3-24-22)

g. Provide for appropriate and timely analytical data analyses including evaluations of water quality and quantity trends; (3-24-22)

h. Provide an annual environmental monitoring and data analysis report of water quality and quantity trends; (3-24-22)

i. Provide for the reporting and re-sampling of monitoring locations where detectable and statistically significant changes in water quality are found. The permittee must propose a statistical method to determine the significance of the changes in water quality; ~~and~~ ~~(3-24-22)~~( )

j. Provide response actions or mitigation measures for the exceedance of any threshold concentrations or water quality compliance criteria established under Section 39-118A(9), Idaho Code; and ( )

~~j~~**k.** Provide for anticipated changes or modifications to monitoring plans, which may be the result of a phased approach to cyanidation facility construction, operations and permanent closure. (3-24-22)

~~**12. Monitoring Wells Siting and Construction Plans**. The applicant is encouraged to submit a report describing the purpose, objectives, location and proposed construction of monitoring wells to the Department for review and comment during the initial stages of site characterization. A monitoring well siting and construction plan must be provided upon submittal of the preliminary design report under Subsection 050.02.~~ ~~(3-24-22)~~

~~a. Monitoring well siting and construction plans must provide for the following.~~ ~~(3-24-22)~~

~~i. A quality assurance/quality control plan for well construction.~~ ~~(3-24-22)~~

~~ii. A minimum of three (3) monitoring wells with one (1) located up gradient and two (2) located down gradient of primary components of the cyanidation facility to determine ground water flow direction.~~ ~~(3-24-22)~~

~~b. Siting and planning for additional wells or replacement wells may be required in the permit application and final permit. Specifically, additional wells may be required for:~~ ~~(3-24-22)~~

~~i. Large areas with multiple potential sources for cyanidation pollutants;~~ ~~(7-1-26)~~

~~ii. Areas with complex geology, fractured bedrock; and~~ ~~(3-24-22)~~

~~iii. Areas with insufficient background hydrogeology.~~ ~~(3-24-22)~~

~~c. All monitoring well construction must also conform to the well construction rules listed in IDAPA 37.03.09.~~ ~~(7-1-26)~~

~~d. Record diagrams including well construction details, well elevation and a detailed geologic log must be provided to the Department for each monitoring well.~~ ~~(3-24-22)~~

~~13~~09. **Land Application**. Plans and specifications must include: (3-24-22)

a. An operation and maintenance plan including: (3-24-22)

i. Water balance for the land application site; (3-24-22)

ii. Pretreatment requirements and procedures; (3-24-22)

iii. Operating season for land application; (3-24-22)

iv. Seasonal closeout procedures; (3-24-22)

v. Special soils or vegetative amendments; (3-24-22)

vi. Storm water run-on/run-off controls; (3-24-22)

vii. Best management practices for all areas impacted by the land application system; and (3-24-22)

viii. A topographic map of the land application site and adjacent affected areas, of sufficient scale to facilitate site-specific analysis of soils, vegetation, surface water, and ground-water; ~~(3-24-22)~~( )

b. Chemical, physical, and volumetric characteristics of the material to be land applied; (3-24-22)

c. A complete description of the chemical and physical characteristics of the soils and applicable geology of the land application site; (3-24-22)

d. Methods of process water treatment, distribution and disposal; (3-24-22)

e. Hydraulic loading capacity of the soils; (3-24-22)

f. Constituent loading capacity of the site; (3-24-22)

g. Attenuation capacity of the vegetative covers and soils; (3-24-22)

h. Evapotranspiration capacity of the site; (3-24-22)

i. Testing and analytical procedures for water quality and soils samples prior to, during, and following the land application process; (3-24-22)

j. Trend analysis of the constituent loading in the affected soils, vegetation, and water quality of the affected surface or ground-water systems; ~~(3-24-22)~~( )

k. Reporting requirements including both frequency and form; and (3-24-22)

l. Standby power and pumps sufficient to maintain all treatment and distribution works. (3-24-22)

~~14~~10. **Temporary ~~or~~ and Seasonal ~~Closure~~ Operating Suspension**. Plans for ~~T~~temporary and seasonal ~~closure plans~~ operating suspension for the ~~entire~~ cyanidation facility must be submitted by an applicant ~~to the~~ for Department ~~for~~ review and approval ~~prior to issuance of a final permit~~. Seasonal plans are only required for cyanidation facilities planning seasonal operating suspension. Temporary and seasonal ~~closure~~ operating suspension plans may, subject to Department approval pursuant to Section 750, be modified to provide for changes in operating conditions of the facilities and must incorporate a water management plan for the period of inactivity as well as during shut down and reactivation. Plans must describe the procedures, methods, and schedule to be implemented for the treatment and disposal of process water and cyanidation pollutants, the control of drainage from the cyanidation facility, the control of drainage from the surrounding area, and the secure storage of process chemicals during the period of operating suspension. ~~(3-24-22)~~( )

a. Prior to seasonal ~~closure~~ or temporary operating suspension, process buildings, process chemical storage, process water ponds, tailings impoundments, spent ore disposal areas and other ancillary cyanidation facilities must be stabilized and/or conditioned to prevent any emergency or unauthorized discharges to surface or ground-water. ~~(3-24-22)~~( )

b. Subsequent to seasonal ~~closure~~ or temporary operating suspension, process buildings, process chemical storage, process water ponds, tailings impoundments, spent ore disposal areas and other ancillary facilities must be maintained to prevent any emergency or unauthorized discharges to surface or ground-water. Cyanidation facilities must be conditioned and maintained to provide: ~~(3-24-22)~~( )

i. Material stabilization for all solids affected by process waters; (3-24-22)

ii. Optimum freeboard in all ponds, as dictated by the water management plan; (3-24-22)

iii. Fully functional power and pumping systems that are ready for use; both power and pumps are to incorporate redundant systems to allow for failure of either power or a pumping system. A failed power supply or pump is not an acceptable reason for an unauthorized discharge; (3-24-22)

iv. Protection of ~~all~~ containment; and ~~(3-24-22)~~( )

v. Sufficient availability of qualified staff to restrict public access, fully implement the water quality monitoring plan, and initiate the emergency and spill response plan. (3-24-22)

~~15~~11. **Employee Education Program**. Operators and staff of facilities must be properly oriented and trained to operate, maintain, and protect containment systems; waste disposal and discharge systems; and to implement monitoring and emergency and spill response plans. ~~An applicant must submit an employee orientation and continuing training plan to the Department for review prior to issuance of a final permit. The plan must provide the format and contents for training, the general qualifications of the person(s) responsible for training and testing, and the person(s) or positions who must receive such training~~ A permittee must develop and implement an employee orientation and continuing training plan and provide it to the Department upon request. ~~(3-24-22)~~( )

201. DESIGN CRITERIA FOR LEACH PADS AND OTHER NON-IMPOUNDING SURFACES THAT CONTAIN AND PROMOTE HORIZONTAL FLOW OF PROCESS WATER.
Plans and specification for leach pads and other nonimpounding surfaces that temporarily contain, not impound, process water and promote the horizontal flow of process water must provide for all of the following. (3-24-22)

01. Minimal Hydraulic Head. Process water is limited to twelve (12) inches or less hydraulic head pressure on the liner systems. (3-24-22)

02. Engineered Liner System. In addition to meeting the general liner requirements in Subsection 200.0~~6~~4.b., the engineered liner system plans and specifications are to provide for geomembrane liners with a minimum thickness of eighty (80) milli-inches (two point zero (2.0) mm) or equivalent liners approved by the Department. ~~(3-24-22)~~( )

a. If leach pads or other non-impounding surfaces are located above areas where ground-water is considered near the surface pursuant to Subsection 200.0~~6~~4.a.iii., the Department may require a liner system with a higher level of engineered containment. ~~(3-24-22)~~( )

b. When a material or system that provides hydraulic relief is installed, beneath a single liner, including, but not limited to, sand, French drains and geotextiles, regardless of the intent of its design, it is to function as a leak detection system and include a means for recovering process water. (3-24-22)

c. Depending on the methods and materials used for their construction, the Department may require all open channels that routinely transport process water to be traced by a leak detection system. (3-24-22)

03. Ore Loading Procedures. Procedures for loading ore onto the leach pads that minimize tensile stresses in the containment liners that may result in failure of the liners. (3-24-22)

04. Monitoring. Monitoring points that will provide for early detection of any discharge. (3-24-22)

05. Process Water Containment. Where appropriate, process water containment calculations at the leach pad perimeter ~~should~~ must include the potential for drainage constrictions, including constrictions due to talus or washouts at the ore pile toe. Ore pile setbacks from the leach pad perimeter ~~should~~ must be calculated based on local climatic conditions, ore properties, and site-specific operating conditions. Solution collection ditches in which the liner is contiguous with the leach pad may be used to satisfy perimeter containment requirements. ~~(3-24-22)~~( )

202. DESIGN CRITERIA FOR PROCESS PONDS.

01. Engineered Liner System. In addition to meeting the general liner requirements in Subsection 200.0~~6~~4.b., the engineered liner system plans and specifications must provide for all of the following. ~~(3-24-22)~~( )

a. Lower geomembrane liners with a minimum thickness of eighty (80) milli-inches (two point zero (2.0) mm) or equivalent liners approved by the Department. (3-24-22)

b. Leak detection and collection system that provides material between the lower geomembrane liner and the upper liner system to collect, transport and remove all process water that passes through the upper liner at such a rate as to prevent hydraulic head from developing on the lower geomembrane liner to the level at which it may be reasonably expected to result in leaks through the lower liner system. (3-24-22)

c. Upper geomembrane liners with a minimum thickness of eighty (80) milli-inches (two point zero (2.0) mm) or equivalent liners approved by the Department. (3-24-22)

d. Routines and schedules for the evaluation of the efficiency and effectiveness of the removal of process water from the leak collection system. The properly working system will continually relieve head pressures on the lower geomembrane liner. (3-24-22)

e. Monitoring points that will provide for early detection of any discharge. (3-24-22)

f. Specific triggers for maintenance routines to address inadequate performance of liner systems. (3-24-22)

g. Specific operation and maintenance procedures to address inadequate performance of containment or leak detection and collection systems. (3-24-22)

02. Temporary Containment. Ponds for temporary containment of excess quantities of process water as a result of storm events may be constructed with a single liner if approved by the Department. (3-24-22)

(BREAK IN CONTINUITY OF SECTIONS)

204. DESIGN CRITERIA FOR TAILINGS IMPOUNDMENTS.

01. Engineered Liner System. In addition to meeting the general liner requirements in Subsection 200.0~~6~~4.b., the engineered liner system plans and specifications must provide for the following. ~~(3-24-22)~~( )

a. Geomembrane liners with a minimum thickness of sixty (60) milli-inches (one point five (1.5) mm) or equivalent liners approved by the Department. (3-24-22)

b. A system to limit hydraulic head over the geomembrane liner that preserves the integrity and long-term performance of the liner system and includes the following: (3-24-22)

i. A system to reduce excess pore pressure within the tailings; and (3-24-22)

ii. A plan for managing the depth, area, and volume of process water occurring above the tailings surface and in direct contact with the liner, including thresholds and contingency measures to manage excess accumulation of process water in the facility. (3-24-22)

c. Monitoring points that will provide for early detection of discharges of cyanidation pollutants. (7-1-26)

02. Enhanced Containment Criteria. An enhanced 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: (3-24-22)

a. The anticipated characteristics of the material to be deposited; (3-24-22)

b. The characteristics of the soil and geology of the site; (3-24-22)

c. The methods employed and degree to which the hydraulic head on the liner is minimized; (3-24-22)

d. The extent of and methods used for material stabilization and recycling or neutralization of process water; (3-24-22)

e. Area and volume of process water; (3-24-22)

f. The depth from the surface to all ground-water; ~~(3-24-22)~~( )

g. The methods employed in depositing the impounded material; and (3-24-22)

h. The proximity to surface water and the ground-water interactions with surface water. ~~(3-24-22)~~( )

03. Tailings Treatment. Tailings impoundments are restricted to a maximum of fifty (50) mg/L WAD cyanide concentration in the liquid fraction unless otherwise approved by the Department. (3-24-22)

205. ALTERNATIVE PLANS AND SPECIFICATIONS FOR FACILITIES THAT CONTAIN PROCESS WATER.
An applicant may propose an alternative to the requirements identified in Subsection 200.0~~6~~4, Sections 201, 202, 203, or 204 based on site-specific conditions and best management practices to protect water quality ~~and human health~~. All other requirements in Section 200 apply to alternative design proposals. ~~(3-24-22)~~( )

01. Alternative Design Proposal. The applicant must demonstrate that the alternative design will protect water quality and ~~human health~~ by confirming that the alternative to the minimum design criteria is appropriate based on the WAD cyanide concentration and chemical characteristics of materials contained; the physical characteristics of the materials contained; site-specific soil, geology, hydrology, and hydrogeology characteristics; degree to which hydraulic head on the liner is minimized; area and volume of the facility; depth to ground-water; methods employed in depositing the impounded material; potential for leaks and impacts to water quality; and risk ~~to human health and~~ of discharge to the environment. The alternative design must provide an evaluation based on site-specific data, supported by best available science, and consistent with best management practices demonstrating that process water and ~~process~~ cyanidation pollutant contaminated water are safely contained, ~~and~~ controlled, or treated as necessary to ~~protect public safety and~~ prevent discharge to the environment, prevent impairment of beneficial uses, prevent unauthorized degradation of waters, and achieve all applicable water quality and ground-water quality standards. The alternative design must include all applicable elements listed below. ~~(3-24-22)~~( )

a. A hydrogeology assessment of site characteristics including depth to ground-water; distance to surface water; hydrogeology and stratigraphy of the site; ground-water and surface water interaction; and the quality, characteristics and existing and future beneficial uses of ground-water and surface water that may be potentially affected by the facility. ~~(3-24-22)~~( )

b. An engineering assessment detailing the design of each component of the containment system, including type and thickness of each component of the liner system; types of materials to be used and methods of placement of those materials; structures, devices and techniques for controlling drainage and minimizing solution loss; and method to control internal hydraulic head. (3-24-22)

c. A water quality assessment providing an analysis of potential for the facility to cause degradation of waters including the effect of ground-water and surface water interactions, the potential for process water to reach waters, and the potential impact of process water on waters. ~~(3-24-22)~~( )

02. Preliminary Design Submittal. Alternative design proposals must be provided to the Department upon submittal of the preliminary design report required in Section 0~~5~~30. ~~(3-24-22)~~( )

03. Department Review. In evaluating alternative design proposals, the Department will consider the WAD cyanide concentration and other materials contained in facilities receiving process water, site hydrogeology, advances in liner technology, alternative designs implemented at other facilities receiving process water, and other site-specific factors in determining if an alternative is appropriate to protect water quality and the public health. (3-24-22)

04. Cost Recovery Agreement. As provided in Section 39-118A(7), Idaho Code, the applicant must enter into an agreement with the Department for actual costs incurred to process an alternative design proposal under this subsection. The Department may utilize a third-party to support Department review of the alternative design proposal. (7-1-26)

206. – 499. (RESERVED)

500. PERMIT CONDITIONS.
The following conditions apply to and must be specified in all permits: (3-24-22)

01. Compliance Required. The applicant or permittee must comply with all conditions of the permit. Issuance or possession of a permit issued according to these rules does not relieve the applicant or permittee of the responsibility to comply with all other applicable local, state, and federal laws. (3-24-22)

02. Construction. Construction of individual components of a cyanidation facility may commence upon approval by the Department of the issued for construction data package per Sections 39-118A(13)(c)(i) and 39-118A(18), Idaho Code, for that component, and approval by the Department of any other preconstruction permit conditions. ~~(7-1-26)~~( )

03. As-built Submittal. An as-built submittal must be submitted by the permittee to the Director within thirty (30) days after the completion of the construction of each component or phase of a cyanidation facility as approved by the Department (Section 39-118A(19), Idaho Code). ~~The as-built submittal must include all the information required by Section 39-118A(1)(b), Idaho Code.~~ The Department will review the as-built submittal to verify that the facility was constructed in compliance with and does not deviate from the approved issued for construction data package. If the Department determines that the facility was not constructed in compliance with or deviates from the approved issued for construction data package, the Department will provide the permittee written notice of necessary corrective actions within thirty (30) days of receipt of an as-built submittal. In the event the Department provides such written notice, operation of the facility may not begin until the Department inspects and provides written approval of the corrective actions. Operation of the facility may begin if the Department does not deliver to the permittee such written notice within thirty (30) days of receipt of an as-built submittal. ~~(7-1-26)~~( )

04. Duty to Provide Information. The permittee must furnish to the Director, within a reasonable or specified time, any information, including copies of records required by the permit or other applicable rules, that the Director may request to determine whether cause exists for modifying or revoking the permit or to determine compliance with the permit or other applicable rules. (3-24-22)

05. ~~Notifications~~Operations. After initial construction ~~and seasonal and/or temporary closure~~, the permittee must, within thirty (30) days, provide written notice to the Director of the permittee's intentions to commence ~~or restart~~ operations. At least thirty (30) days prior to completion of operations, ~~and/or temporary or seasonal operations,~~ the permittee must notify the Director of the permittee's intentions to ~~temporarily, seasonally or~~ permanently close operations. Notification must provide sufficient time for the Director to provide pre-operational or post-operational inspections, as necessary. ~~(3-24-22)~~( )

06. Entry and Access. The permittee must allow the Director, or a designee obligated by agreement with the Director to comply with the confidentiality provisions of Section 39-111, Idaho Code, to: (3-24-22)

a. Enter at reasonable times upon the premises of a permitted cyanidation facility or where records required by a permit are kept; (3-24-22)

b. Have access to and copy at reasonable times any records that must be kept under the conditions of the permit; (3-24-22)

c. Inspect at reasonable times any cyanidation facility, equipment, practice, or operation permitted or required by the permit; and (3-24-22)

d. Sample or monitor at reasonable times, substance(s) or parameter(s) directly related to permit or regulation compliance. (3-24-22)

07. Reporting. It is the permittee's responsibility to report to the Director: (3-24-22)

a. Orally, as soon as possible but no later than twenty-four (24) hours from the time the permittee knows or should reasonably know of any noncompliance that may ~~endanger the public health or the environment~~ result in a discharge to the environment or impair beneficial uses or degrade waters. ~~(3-24-22)~~( )

b. In writing, within five (5) working days from the time a permittee knows or should reasonably know of any event that may be or that may result in a violation of these rules, or IDAPA 58.01.02, or IDAPA 58.01.11. This report must contain: (7-1-26)

i. A description of the event and its cause; if the cause is not known, steps taken to investigate and determine the cause; (3-24-22)

ii. The period of the event including, to the extent possible, the individual(s) involved in the incident(s) and the time(s) and date(s) of the incidents; (3-24-22)

iii. Measures taken to mitigate or eliminate the event ~~and protect the public health~~; and ~~(3-24-22)~~( )

iv. Steps taken to prevent recurrence of the event; (3-24-22)

c. In writing, confirmation of any conditions that may result in violation of any permit condition; and (3-24-22)

d. In writing, when the permittee knows or should reasonably know of relevant facts not submitted or incorrect information submitted in a permit application or any report or notice to the Director or the Department. Those facts or the correct information must be included as a part of this report. (3-24-22)

08. Discharge Response. If an unauthorized discharge occurs the permittee must implement the Department approved emergency and spill response plan. (3-24-22)

09. Temporary ~~or~~ and Seasonal ~~Closure Plans~~ Operating Suspension. ~~Prior to temporary or seasonal closure, the permittee must submit a temporary or seasonal closure plan to the Director for approval. The plan must describe the procedures, methods, and schedule to be implemented for the treatment and disposal of process water and cyanidation pollutants, the control of drainage from the cyanidation facility, the control of drainage from the surrounding area, and the secure storage of chemicals during the period of closure. Within thirty (30) days of receiving the plan, the Director will approve and/or suggest modifications necessary to protect waters~~ Within thirty (30) days of initiating temporary or seasonal operation suspension, the permittee must notify the Director. The permittee must ensure that ~~closure~~ operating suspension complies with ~~an~~ the approved plan. The approved plan must be implemented before the permittee completes temporary or seasonal ~~closure~~ operating suspension. At least thirty (30) days prior to initiating operations following temporary or seasonal operating suspension, the permittee must notify the Director. ~~Facilities~~ Operations may not be temporarily or seasonally ~~closed~~ suspended for ~~a period~~ longer than two (2) years unless approved by the Director. ~~(7-1-26)~~( )

10. Begin Construction. A permit will be deemed void if the permittee fails to begin construction of a cyanidation facility within two (2) years of the effective date of the permit unless the permittee requests and receives an extension (Section 39-118A(16)(a), Idaho Code). (7-1-26)

11. Permanent Closure. The permanent closure plan, as approved by the Idaho Department of Lands, will be incorporated by reference into the Department-issued permit as a permit condition and will be enforceable as such. (3-24-22)

501. COMPLETION OF PERMANENT CLOSURE.

01. Implementation of a Permanent Closure Plan. Unless otherwise specified in the approved permanent closure plan, the permittee must begin implementation of the approved permanent closure plan: (3-24-22)

a. Within two (2) years of the final addition of cyanide to the ore processing circuit; or (3-24-22)

b. If the product recovery phase of the cyanidation facility has been suspended for a period of more than two (2) years. (3-24-22)

02. Submittal of a Permanent Closure Report. The permittee must submit a permanent closure report to the Department for review and approval. A permanent closure report must be of sufficient detail for the directors of the Department and the Idaho Department of Lands to issue a determination that permanent closure, as defined in Section 007, has been achieved. The permanent closure report must address: (3-24-22)

a. The effectiveness of material stabilization; (3-24-22)

b. The effectiveness of the water management plan and adequacy of the monitoring plan; (3-24-22)

c. The final configuration of the cyanidation facility and its operational/closure status; (3-24-22)

d. The post-closure operation, maintenance, and monitoring requirements, and the estimated reasonable cost to complete those activities; (3-24-22)

e. The operational/closure status of any land application site of the cyanidation facility; (3-24-22)

f. Source control systems that have been constructed or implemented to eliminate, mitigate, or contain short and long-term discharge of cyanidation pollutants from the cyanidation facility, unless otherwise permitted; ~~(7-1-26)~~( )

g. The short and long-term water quality trends in surface and ground-water through the statistical analyses of the existing monitoring data collected pursuant to the ore processing by cyanidation permit; ~~(3-24-22)~~( )

h. Ownership and responsibility for the cyanidation facility during the defined post-closure period; (3-24-22)

i. The future beneficial uses of the land, surface and ground-waters in and adjacent to the closed facilities; and ~~(3-24-22)~~( )

j. How the permanent closure of the cyanidation facility complies with the Resource Conservation and Recovery Act, Hazardous Waste Management Act, Solid Waste Management Act, and appropriate rules. (3-24-22)