



CYANIDATION PERMITTING PROCESS

Process Overview

Cyanidation is a method of extracting metals from ore using a cyanide solution. Under the “Rules for Ore Processing by Cyanidation” (IDAPA 58.01.13), ore processing facilities that use cyanide in mineral extraction processes are required to obtain a permit from the Idaho Department of Environmental Quality (DEQ) for construction, operation, and closure. DEQ reviews and approves plans and specifications for all new facilities and modifications or expansions to existing facilities. The permit ensures that process water and process-contaminated water are safely contained, controlled, and treated to protect human health and the environment.

To obtain a permit, applicants must collect baseline environmental data; design ore processing and waste storage facilities to meet rule requirements; and develop operations, maintenance, and monitoring plans. This information is submitted to DEQ as a cyanidation permit application. For technically complete applications, DEQ develops a draft permit for public review and comment. Following public review, DEQ responds to comments and publishes the final cyanidation permit.

Preapplication Process (IDAPA 58.01.13.050)

Before submitting a cyanidation permit application, prospective applicants are encouraged to meet with DEQ in a preapplication conference to discuss, at a minimum, the following:

- Environmental baseline requirements
- Water quality monitoring
- Preliminary facility designs
- Cost recovery agreement
- Permitting timelines

The preapplication conference ideally occurs one year before the applicant submits a preliminary design report (PDR). PDR submission is required. The PDR must describe how the applicant will design a facility that meets all rule requirements. DEQ reviews and either approves or denies the PDR within 30 days of receipt. PDR approval does not

authorize the construction, modification, or operation of the cyanidation facility. PDR approval is not a prerequisite for a cyanidation permit application to be submitted.

Before submitting a PDR, applicants must also enter into a cost recovery agreement with DEQ (Idaho Code § 39-118A(7)). This agreement covers the costs incurred by DEQ for application review and permitting, including review of the PDR.

Prospective applicants are encouraged to provide draft application materials for DEQ review and comment during the preapplication period. Preapplication is a collaborative process, allowing DEQ to assist the applicant with developing a cyanidation permit application that meets rule requirements. This collaboration is beneficial to permitting timelines, as deficient applications must be resubmitted completely to DEQ, which restarts the permitting process.

Permitting Process (Idaho Code § 39-118A(11))

Upon receiving an application, DEQ first conducts a procedural completeness review. Within 30 days of receipt, DEQ must determine whether the application is complete or incomplete. This threshold review does not examine the adequacy or accuracy of the application.

Incomplete Applications—For incomplete applications, DEQ specifies deficiencies and requests additional, required information. An incompleteness determination stops the permitting process. To continue, applicants must provide the missing information in a complete application and resubmit to DEQ, restarting the permitting process.

Procedurally Complete Applications—For procedurally complete applications, DEQ conducts a 60-day technical completeness review. This review determines whether the facility, as designed, operated, and monitored, meets rule requirements and protects the environment. After the review period, or within 90 days of application receipt, DEQ must determine if the application is technically complete. For technically incomplete applications, DEQ

provides the basis for that decision. As with procedurally incomplete applications, the applicant must address any deficiencies and submit additional information to make the application technically complete and to continue the permitting process.

Technically Complete Applications—For technically complete applications, DEQ prepares a draft permit and fact sheet. Within 90 days of application receipt, DEQ publishes the draft permit and fact sheet for a 60-day public comment period. DEQ develops a draft cyanidation permit in parallel with the technical completeness review to meet the required deadline. The public comment period includes a public meeting that must be held within 30 days of DEQ's public notice of a draft permit.

Following the public comment period, DEQ must make a final permit decision within 180 days of application receipt. In the final permit decision, DEQ issues a final permit with any changes and provides responses to public comments. A timeline of the permitting process is available on DEQ's cyanidation webpage.

Other Considerations

Permanent Closure Plan—The cyanidation rules require submitting a permanent closure plan (PCP) with the cyanidation permit application (IDAPA 58.01.13.100.03.t). This PCP is also submitted to the Idaho Department of Lands (IDL) and reviewed and approved by IDL concurrent with DEQ's cyanidation permitting process. The cyanidation rules require an approvable PCP to accompany the cyanidation permit application. Incomplete or deficient PCPs, as determined by IDL, also results in an incomplete or deficient cyanidation permit application. The Mined Land Reclamation provides more information on PCP requirements and IDL's review process.

Water Quality Compliance Criteria—The cyanidation rules require submission of a Water Quality Monitoring Plan (WQMP) with a permit application. In addition to providing locations and methods of water quality monitoring, the WQMP must also include compliance points with water quality compliance criteria and threshold concentrations that provide for early detection of discharges of pollutants. For many sites, threshold concentrations are existing or baseline water quality conditions, while compliance criteria are developed from Idaho surface and groundwater quality standards (IDAPA 58.01.02 and IDAPA 58.01.11). Establishing compliance criteria at sites with preexisting contamination or natural background concentrations above water quality standards can be

challenging, requiring sufficient baseline monitoring to establish statistical background concentration limits (BCLs) as compliance criteria. BCLs are only allowable for groundwater, and the applicant must also obtain a Point of Compliance (POC) determination from the DEQ Groundwater Program, per the "Ground Water Quality Rule" (IDAPA 58.01.11.401). Once DEQ issues a cyanidation permit, compliance criteria can only be changed by a major permit modification.

Financial Assurance—The cyanidation permit issued by DEQ prohibits construction and operation of the cyanidation facility until the permittee submits proof acceptable to DEQ that financial assurance for the cyanidation facility PCP plan has been approved and provided to IDL (IDAPA 58.01.13.650 and Idaho Code § 39-118A).

Cyanidation Facility Construction—Construction of the permitted cyanidation facility must begin within two years of the effective date of the cyanidation permit or the permit becomes void (Idaho Code § 39-118A(16)(a)).

Additional Cyanidation Approvals—In addition to coordinating with IDL, certain cyanidation features are subject to the Idaho Department of Water Resources Dam Safety Program, including regulations for Mine Tailings Impoundment Structures.