December 10th, 2019 Negotiated Rulemaking – Ore Processing by Cyanidation; Docket No. 58-0113-1901

Dear Ms. Wilson:

Thank you for the opportunity to submit comments following IDEQ’s December 10th, 2019, negotiated rulemaking for ore processing by cyanidation.

Since 1973, the Idaho Conservation League (“ICL”) has been Idaho’s leading voice for clean water, clean air, and wilderness – values that are the foundation for Idaho’s extraordinary quality of life. As a 501(c)(3) nonprofit organization, ICL works to protect these values through public education, outreach, advocacy, and policy development. ICL is Idaho's largest state-based conservation organization and represents over 30,000 supporters, many of whom have a deep personal interest in protecting Idaho’s water quality, aquatic species, and human health.

Our comments are provided following this letter. We appreciate the opportunity to provide comments on this matter and share our perspective. Please contact me at (208) 345-6933 x23 or awalkins@idahoconservation.org if you have any questions regarding our comments or if we can provide you with any additional information on this matter. Thank you for your time and consideration.

Sincerely,

Austin Walkins
Senior Conservation Associate
Wildlife Protections

IDEQ is electing to use 50 mg/L WAD as the standard for wildlife protection because it is considered an international standard. Under this justification, IDEQ must incorporate all aspects of the international standards into this rule. In addition to the 50mg/L numeric criteria, the International Cyanide Management Code\footnote{Available online: www.cyanidecode.org} (Cyanide Code) also includes matters such as training staff, QA/QC, water balance contingency, monitoring regimes, real-time WAD cyanide measures, management contingencies in place, etc. In order to be effective, the Cyanide Code should be incorporated in its entirety; anything less would be ineffective at adequately protecting wildlife.

Further, IDEQ adds that they “may require additional measures if wildlife mortality is observed.” Section 4.4 of the Cyanide Code explicitly requires facilities to “[I]mplement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.”\footnote{See Id.} These requirements are not contingent upon observing wildlife mortality because the general presumption is that wildlife mortality will occur. We remind IDEQ that industry standards call for netting over process ponds rather than fencing to provide protections for bats and birds; tailings impoundments cannot be effectively netted. Further, numerous studies have expounded upon the difficulties of appropriately monitoring and quantifying the impacts to wildlife at cyanidation facilities (e.g. - Donato et al., 2007; Donator et al., 2017). Given the explicit requirement in the Cyanide Code, and peer-reviewed studies indicating the difficulties associated with monitoring, it is inappropriate for IDEQ to rely on reactive policies to wildlife deaths. Instead, these rules should be proactive in requiring wildlife interactions and cyanide monitoring protocols, such as those implemented in Australia as a leading practice (Griffiths, 2014a; M.E. Smith et al., 2008; G.B. Smith et al., 2008; Adams et al., 2008; Smith et al., 2010; Donato and Smith, 2007).

Management measures, in addition to specific WAD Cyanide Thresholds are critically important. These should include closely monitoring inflow into all process wastewater ponds to identify whether spikes in concentrations occur and to implement specific measures to respond immediately to any of these events.

According to Dr. David Donato\footnote{Dr. Donato is Principal of Donato Environmental Services (DES) and has 25 years’ experience consulting to industry on a wide range of environmental management issues. Donato is widely regarded by industry peers as an expert in matters of wildlife toxicology and ecology associated with mine tailings impoundments and industry risks. Dr. Donato, an accredited environmental auditor (ISO 19011), and an accredited Lead Auditor with the International Cyanide Management Code, has focused on environmental toxicological risks and Code compliance in industry in Australia, USA, Africa and New Zealand. Over the last 20 years David has published relevant papers on cyanide code management, environmental auditing, toxicology, mine wastewater management, threatened species management, as well as more widely on ecology. Through DES, Donato has produced about 100 consult reports and presented at numerous international conferences.}, an expert in matters of wildlife toxicology and ecology associated with mine tailings impoundments and industry risks, there are four industry Best Management Practices he recommends for cyanide processing:

1. Install Auto Free CN analysers on the tank immediately after the dosage tank, auto FCN analyzer installed on the last CIL tank and the desired set point (in free CN) automates the dosage rate in the dosed tank. QA and QC performed by manual 4-hourly titration of tanks to check on auto analyzer.
2. AutoWAD analyzer sampling and recording every 15 mins on the last CIL tank or thickened underflow if one installed. This represents the Tailings Storage Facility (TSF) spigot sample.

3. If the autoWAD analyzer reaches 45 mg/l (a management trigger value) then they implement their controls.

4. Controls can be
   a. Reduce CN addition by changing dosage tank set point
   b. Introduce the TSF return water back into the discharge stream (diluting effect)
   c. Hydrogen peroxide polishing of TSF return water tan is introduced back into the discharge stream (improved diluting effect)
   d. Turn on cyanide destruction circuit if one exists

ICL recommends that IDEQ adopt these four management practices for cyanide processing facilities, placing an emphasis on management practice as opposed to regulatory stipulations. We also recommend incorporating an SO2/INCO cyanide destruct system to help achieve the recommended 45mg/L management trigger value.

200.04.b.ii – Subbase Layers or Performance Based Equivalent

The construction standards for cyanidation facilities must be commensurate to the risk they present. We believe the requirements of §200.04.b.ii are appropriately set given the environmental risk these facilities present. Further, IDEQ is obligated by statute to set rules and regulations based upon the best available science. Idaho Code 39-107(D). During the last rulemaking, IDEQ staff indicated that their review of scientific literature supports these requirements as written. Thus, in accordance with Idaho statute and the best professional judgement of IDEQ staff, we support the requirements as written in this section.
References


