March 31, 1988

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Chris Janes, Vice President and General Manager
Cyprus Thompson Creek Mining Company
P.O. Box 62
Clayton, Idaho 83227

RE: NPDES Permit Reissuance
Cyprus Thompson Creek; Permit No. ID-002540-2

Dear Mr. Janes:

The Environmental Protection Agency (EPA), Region 10, has made a final determination to reissue the enclosed National Pollutant Discharge Elimination System (NPDES) permit to the Cyprus Thompson Creek Mining Company. The final permit retains the initially proposed water quality-based toxic effluent limitations that resulted in extensive comments by the company during Public Notice of the draft permit and subsequent meetings with EPA and the Idaho Department of Health and Welfare, Division of Environmental Quality (DEQ).

In order to be responsive to the company's position a meeting was held between EPA and Cyprus representatives on February 26, 1988, to discuss the proposed toxic effluent limitations. During this meeting, possible alternatives to the permit limits were discussed such as bioassay procedures to determine acute and chronic toxicity levels or development of site specific criteria for resident biota. These alternatives were not pursued, however, as it was concluded that most concerns could be resolved if effluent limitations were recalculated deleting the 25% mixing zone criteria recommended in the Idaho Water Quality Standards and Wastewater Treatment Requirements (16 IDAPA Title I, Chapter 2 Section 01.2400, 03). It was understood, however, that EPA would require concurrence from the State in order to reconsider this mixing zone requirement. A final State certification of the proposed permit limitations, pursuant to Section 401(a)(1) of the CWA was submitted to the company on March 30, 1988. Consequently, our position on this issue will remain as supported by the initial recommendations of the DEQ Pocatello Field Office and the Record of Decision contained in the draft permit Fact Sheet, Basis for Limitations.

EPA discussions with Cyprus representatives have suggested that despite The company's objections to the water quality-based limitations, available data show that current discharges can comply with these limitations if

background levels are considered. The major issue appears to be based on possible implications of applying similar effluent limit derivation procedures to a future tailings impoundment discharge. If this is the company's primary concern it must be emphasized that this is not the discharge that has been considered in the permit reissuance, and that the basis for potential effluent limitations associated with a process tailings discharge would be addressed as an independent issue. Accordingly, concerns regarding EPA's recent anti-backsliding provisions would not be relevant in this situation, as limitations applied to the existing Thompson Creek discharge could not be correlated with a proposed discharge from a different source to a different receiving water. DEQ could provide mixing zone recommendations based on a completely unique discharge scenario and EPA would propose effluent limitations accordingly.

Following is our response to specific comments concerning EPA's rationale for water quality-based toxic limitations and use of the "Gold Book" criteria and wasteload allocation procedures applied to the Thompson Creek discharges.

The current emphasis to control toxic discharges is primarily the result of recently published NPDES permit procedures developed by EPA in accordance with the March, 1984 "Policy for Development of Water Quality-Based Permit Limitations for Toxic Pollutants". The policy requires NPDES permits to assure compliance with applicable State Water Quality Standards for toxic pollutants through derivation of effluent limitations based on toxic water quality criteria and use of biological procedures to assess toxic impacts on aquatic life.

EPA's determination of the applicable toxics criteria to be used in establishing effluent limitations for Cyprus was primarily based upon provisions of the Idaho Water Quality Standards and Wastewater Treatment Requirements (16 IDAPA, Title 1, Chapter 2). Section 01.2130 of the standards, specifies the beneficial uses for which Thompson Creek (SB-130) is to be protected. The General Water Quality Criteria (Section 01.2200, 01) prohibit man-caused point source discharges resulting in hazardous materials concentrations that adversely affect designated or protected beneficial uses of State waters. The hazardous materials definition contained in Section 01.2003, 20 states that "published guides such as EPA's Quality Criteria for Water (1976) . . . subsequent revisions, and more recent research papers, regulations and guidelines will be used in identifying individual and specific materials and in evaluating the tolerance levels of the identified materials for the beneficial uses indicated." EPA's "Quality Criteria for Water, 1986" (EPA 440/5-86-001), is the most current revision to the referenced 1976 publication and contains acute and chronic toxicity levels for metals typically associated with discharges from ore mining waste rock disposal practices. In accordance with requirements of the Idaho Water Quality Standards and EPA's 1984 policy for addressing toxic pollutants, these criteria were used to establish effluent limitations in the Cyprus Thompson Creek NPDES permit reissuance.

The methodology used for deriving specific crieria-based limitations is contained in EPA's "Technical Support Document for Water Quality-Based Toxics Control" (EPA 440/4-85-032) and the "Permit Writers Guide to Water Quality-Based Permitting for Toxic Pollutants" (EPA 440/4-85-005). Maximum

allowable discharge concentrations in the Cyprus permit have been calculated by applying these procedures to the "Gold Book" acute and chronic toxicity criteria for fresh water biota. The water quality limiting designations for Thompson Creek specified in the Idaho Water Quality Standards are for cold water biota and salmonid spawning.

Cyprus has been provided copies of the above referenced publications and discussed the effluent limitations derivation procedures with EPA staff.

The final permit incorporates minor corrections to the limitations for lead and zinc resulting from recalculations utilizing a recently established computer program based on the referenced methodology. We have also incorporated language in the permit that allows for the background concentrations to be substituted as the effluent limitation if receiving water monitoring data is submitted verifying concentrations greater than the applicable effluent limit. Under no circumstance, however, can the allowable effluent limitation exceed the promulgated technology based (BAT) limitations specified in 40 CFR Part 440. Parts II, III and IV of the permit have also been modified to incorporate regulatory language required by the Water Quality Act of 1987.

I have attempted to clarify EPA's position regarding the water quality-based toxic effluent limitations that have been retained in the final permit issuance. We recognize the efforts that Cyprus representatives have made to resolve concerns regarding the methodology employed by EPA and appreciate the specific input provided by Burt Doughty and Jamie Sturgess who have both been instrumental in maintaining the excellent environmental record of Cyprus Thompson Creek. The Company must recognize, however, that although EPA is responsible for implementing the recent initiative to address toxic pollutants in the State of Idaho, the Agency's toxics control policy and subsequent guidelines and methodologies used to derive permit limitations have emphasized the role of State Water Quality Standards as the basis for these procedures. In order for EPA to apply a more flexible, site-specific interpretation of the State's existing requirements, we must assure that a supportive State position is well documented so that resulting limitations are defensible rather than the result of arbitrary interpretation.

Sincerely,

Harold Geren, Chief
Water Permits and Compliance Branch

cc: Al Murray, IDHW-DEQ

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