

KENNECOTT BINGHAM CANYON MINE AND WATER COLLECTION SYSTEM CONTINGENCY AND CORRECTIVE ACTION PLAN

INTRODUCTION

This plan describes the contingency responses, procedures and corrective actions that Kennecott Utah Copper LLC (KUC) will follow, if triggered, under the Bingham Canyon Mine and Water Collection System Groundwater Discharge Permit.

CONTINGENCY PLAN

The Contingency Plan describes response actions which will be undertaken if an out of compliance status occurs for a compliance monitoring well.

Compliance Wells

In the event that the compliance limit is exceeded in a compliance monitoring well for two or more consecutive samples for a given parameter, the following steps will be taken:

- a. KUC shall take reasonable and practical interim measures to stop the source and minimize the spread of any contaminants. These actions may include the following:
 - Pumping the well at a steady flow for an extended period of time (pumping back) to determine whether there is any positive or negative impact on the water quality of the well.
 - Installation of piezometer(s) (if applicable) to measure the hydraulic performance of the cut-off walls, drain systems, and other control structures.
 - Drill a larger well or additional pump back wells, trenching with the addition of slurry or liners, excavating and pumping, or other actions if groundwater contamination is documented and persists.
 - Other alternative remedial options which implement newer technologies or better address the source of the impact.
- b. Investigate the source, nature, extent, and potential dispersion of contamination.
- c. Submit a Source Assessment and Compliance Schedule in accordance with the

requirements of the ground water discharge permit.

CONTAMINATION INVESTIGATION

The Director shall evaluate the effectiveness of all Source Assessment and Compliance Schedule measures for compliance monitoring wells. If the Director determines that these efforts are not effectively addressing detected and or potential ground water contamination, KUC shall be notified and requested to submit a Source Contamination Investigation Plan. The Contaminant Investigation will conform to the requirements of UCA R317-6-6.15 D and may include an endangerment assessment. The endangerment assessment will be completed in the event that Alternate Corrective Action Concentration Limits or other standards are proposed.

The endangerment assessment will consider potential human and ecological receptors in evaluating potential adverse effects of the release. More specifically, the endangerment assessment will address:

- Potential routes of exposure and contaminant concentrations.
- Potential effects of the contaminant on humans (e.g. toxicity).
- Human populations at risk.
- Potential or actual adverse effects on affected plants, animals, ecosystems, and other natural resources.
- Potential or actual adverse effects on future uses of groundwater.

The endangerment assessment will take into consideration any down-gradient water users and supply wells within a two mile radius down and cross-gradient of the facility.

CORRECTIVE ACTION PLAN

If the Contamination Investigation identifies a potential risk that requires groundwater remediation, KUC will conduct a feasibility evaluation to examine the various options available for a formal Corrective Action Plan. The feasibility evaluation may include:

- Evaluating passive management or monitoring to assess whether natural processes reduce the contamination to levels below the permitted levels.

APPENDIX C

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- Assessing the feasibility and effectiveness of extracting and treating groundwater using wells or drains.
- Examining the feasibility and effectiveness of isolating the contaminated groundwater by slurry walls, grout curtains, sheet piles, and/or capping.
- Evaluating in-situ chemical neutralization options.
- Petitioning the Water Quality Board for an Alternate Corrective Action Concentration Limits consistent with the potential risks identified.

Corrective Action Plans will be written in accordance with UCA R317-6-6.15 D and submitted for approval to the Division of Water Quality upon completion of the Contaminant Investigation.