

APPENDIX A

**AGENCY COMMENTS ON DRAFT ENVIRONMENTAL ASSESSMENT
AND USNRC RESPONSES**

Commenting Agency	Comment	USNRC Response
<p>Wyoming DEQ, Comment Letter dated April 4, 2005</p> <p>Comment 1A</p>	<p>“Because the primary organic contaminant at the catchment site is kerosene, the soil excavation under and around the catchment basin will use the WDEQ soil clean up standard for total petroleum hydrocarbons, diesel range organic compounds (TPH-DRO) of 2,300 mg/kg. This standard is explained in the WDEQ’s Voluntary Remediation Program (VRP) Fact Sheet #12.”</p>	<p>The USNRC concurs with this comment, and the prescribed soil cleanup standard is already included in the EA.</p>
<p>Comment 1B</p>	<p>“The draft EA states that once the soil is removed, the excavation will be filled with clean soil from the site. We ask that Kennecott perform confirmatory soil sampling of the excavation prior to backfilling. VRP Fact Sheet #10 provides Wyoming’s guidance on confirmation sampling.”</p>	<p>Verification sampling procedures were included in Kennecott’s original license amendment request dated May 12, 2004. These procedures include collecting composite samples in each 10-meter grid surveyed on excavation floors and walls. Samples will be analyzed for DRO, total extractable hydrocarbons, oil range hydrocarbons and radium-226. The EA has been revised to include a discussion of the verification procedures.</p>

<p>Comment 2</p>	<p>“Because the contaminated soil and groundwater from the catchment basin area will be placed into the tailings impoundment, we believe that the groundwater monitoring, which is performed as part of the on-going corrective action, should include analyses for the additional contaminants identified at the catchment basin. In case of another liner failure, this will provide a relatively quick way to determine if contamination is leaving the impoundment”</p>	<p>The USNRC disagrees with this comment. Organic contaminant concentrations are quite low in groundwater and only a total of 9 soil samples exceed the soil cleanup standard of the hundreds of samples collected. Considering the size of the existing tailings impoundment (60 acres) organic contaminants would not likely be detected in ground-water monitoring wells due to low input concentrations and dilution. Therefore, the USNRC is not requiring Kennecott to sample for organics in the tailings impoundment wells, at this time.</p>
<p>Comment 3A</p>	<p>“In Table 2 of the draft EA, there are a couple of errors that need to be corrected. The groundwater protection standard for DRO and GRO is 10 mg/l <i>only</i> when benzene and naphthalene are not present in concentrations above their respective groundwater standards. Benzene (EPA MCL = 5.0 µg/l) is considered the main “risk driver” for GRO and naphthalene is the main driver for DRO. Therefore, benzene needs to be added to the list of analytes for this site in order to evaluate the use of the 10 mg/l standard.”</p>	<p>Benzene has not historically appeared in the ground-water analyses provided by Kennecott; therefore, the USNRC considers the GRO, 10 mg/l ground-water protection standard to be applicable. In addition, Naphthalene and DRO are both currently listed in the proposed ground-water protection standards.</p>
<p>Comment 3B</p>	<p>The standard for naphthalene in the VRP is 1.5 mg/l (VRP Fact Sheet #12), the standard for LAUST sites is 1.3 mg/l. The VRP standard of 1.5 mg/l should be used. Also, please double check the standards for 1,2,4-trimethylbenzene and for 1,3,5-trimethylbenzene. We found them listed as 0.0012 mg/l in the EPA Region 3 Risk Based Concentration (RBC) tables.”</p>	<p>The USNRC concurs with the amended naphthalene standard proposed by the Wyoming DEQ and has revised the EA accordingly. A review of the EPA RBC tables indicates that the standard for 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene is 0.012 mg/l, as stated in the draft EA.</p>

<p>USFWS - E-mail dated April 11, 2005</p> <p>Comment 1</p>	<p>“Page 3 of the Draft EA states that the contaminated groundwater will be "extracted and conveyed to the lined tailings impoundment." Since the contaminated groundwater contains diesel range organics is there a potential for the surface of the tailings impoundment to have "oil" or a sheen?”</p>	<p>Because the concentrations of DRO in soils and ground water are low and the tailings impoundment is quite large, no sheen is expected on the water surface.</p>
<p>Comment 2</p>	<p>“How will the groundwater in the impoundment be remediated?”</p>	<p>Active remediation of ground water in the impoundment is not required. After contaminated ground water is extracted and transferred to the impoundment it evaporates. Any residual contamination remains in the impoundment, which is closed per an approved decommissioning plan, and transferred to the Department of Energy for long-term surveillance.</p>

<p>USFWS - Letter dated April 14, 2005</p>	<p>The draft EA should address the following issues:</p> <ul style="list-style-type: none">• the potential for migratory bird mortality in the 60-acre tailings impoundment due to exposure to oil and other contaminants; and measures to eliminate or minimize that risk;• the concentration of diesel range organics (DROs) that will be disposed of in the 60-acre tailings impoundment;• the ultimate fate of the contaminated soils and groundwater in the 60-acre impoundment.	<p>As stated in the above response to the Wyoming DEQ, most of the soils excavated and disposed of in the tailings impoundment will exhibit DRO concentrations at or below the Wyoming DEQ regulatory limit of 2,300 mg/kg. The highest value for one sample is approximately 4,900 mg/kg. Consequently, insufficient free product exists to produce a sheen or slick on the surface of the impoundment. Also, according to KUC personnel, migratory birds do not use the tailings impoundment; however, they do utilize the uranium ore pit located approximately 0.75 mile from the impoundment. The ore pit is apparently a more attractive water course than the tailings impoundment. Therefore, no impacts to migratory birds are anticipated. A discussion of migratory birds and DRO concentrations has been added to the EA.</p> <p>The ultimate fate of contaminated soils and ground water is discussed in the response to the USFWS E-mail.</p>
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