

September 16, 2011

For Discussion Purposes

Mr. David Cates  
Oklahoma Department of Environmental Quality  
707 North Robinson  
Oklahoma City, OK 73101

Re: Cimarron Environmental Response Trust  
Response to DEQ Preliminary Comments on Evaluation of Potential Alternative  
Groundwater Remediation Technologies – For Discussion Purposes

Dear Mr. Cates:

Environmental Properties Management LLC (EPM) responds herein to the following preliminary DEQ comments on the Evaluation of Potential Alternative Groundwater Remediation Technologies (EPAGRT) submitted to DEQ and NRC on June 30, 2011.

*DEQ Comment 1: On page III-2: 3<sup>rd</sup> paragraph: referring to request for termination of the site for unrestricted future use from DEQ – We would require a notice to the deed indicating a risk based closure had been performed.*

EPM Response: EPM will file the requested deed notice prior to requesting termination of the site. EPM will request that DEQ either provide the language for the deed notice or approve language proposed by EPM prior to filing the notice.

*DEQ Comment 2: For the uranium extraction wells: Would reinjection of some treated water or alternating the pumping of extraction wells need to be considered in the remediation so drained soils in the cones of depression get flushed and are not left out of the cleanup process. Otherwise rebound of uranium concentrations could occur after the pumps are turned off.*

EPM Response: Alternatives 2 and 3 involve extraction of groundwater from the Western Upland, U-Pond #1, and U-Pond #2 areas. For these alternatives, EPM believes periodic extraction would be needed to allow groundwater elevations to return to static conditions to ensure that soils in the cones of depression are flushed. However, because fracture flow may be the predominant pathway for groundwater movement in these areas, it is impractical to attempt to predict the time required for return to static conditions and how this relates to the flushing of the sandstone matrix between fractures.

Alternatives 4 through 7 do not involve groundwater extraction in these three areas. Rather, treated water is injected via numerous injection wells in these three areas. The injection of treated water will raise groundwater elevations in the area around these injection wells, flushing

the entire saturated thickness of the fractured sandstone in these areas. EPM believes this is will be more effective at removing COCs from these areas.

*DEQ Comment 3: On page IV-4: A synthetic liner may be required for the impoundment depending on the classification of the water to be discharged. We need to check with DEQ WQD on this.*

EPM Response: Acknowledged. Installation of a synthetic liner may increase the cost of construction of the impoundments, but the cost impact would impact all alternatives equally, so the evaluation of alternatives would not be impacted by this requirement.

*DEQ Comment 4: On page IV-7 at the bottom of the page: UIC permits are obtained through DEQ not OWRB.*

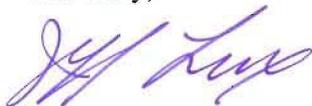
EPM Response: Acknowledged.

*DEQ Comment 5: On page IV-9 G.1: What is meant by recharge in the discussion of the time for uranium extraction duration? Is related to item 2 above?*

EPM Response: Recharge refers to the injection of treated water rather versus extraction of residual groundwater. For the purpose of scheduling, EPM asserted that, under Alternative 2, EPM would be able to maximize the extraction of groundwater from all areas, including from fractures in the Western Upland, U-Pond #1, and U-Pond #2 areas, and achieve removal of uranium within three years. Alternative 5 involves injection of treated water into the Western Upland, U-Pond #1, and U-Pond #2 areas, which would then discharge into the Western Alluvium, and uranium would then be recovered from the Western Alluvium. EPM estimated that this would require additional time relative to Alternative 2.

These estimates were based on estimated pumping rates, distribution coefficients, and pore volumes of water in each area. More detailed evaluation will be required in the remedial design.

Sincerely,



Jeff Lux, P.E.  
Project Manager, Cimarron Environmental Response Trust

Cc: Ken Kalman, NRC