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OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

MARY FALLIN
Governor

August 31, 2016

Jeff Lux, Senior Project Manager
Environmental Properties Management LLC
615 N. Hudson, Suite 200
Oklahoma City, OK 73102

Subject: Distribution Coefficient Determination for the Cimarron Trust Site
NRC License No. SNM-928, Docket No. 70-295

Dear Mr. Lux:

Thank you for the letter report "Distribution Coefficient Determination for the Cimarron Trust Site" dated July 12, 2016, which summarized and included a 2002 report by Hazen Research, Inc. (Hazen) and the 2006 Conceptual Site Model (Revision 01) by ENSR. Thank you also for our follow-up conversations August 22 and August 23, 2016 and follow-up emails dated August 22, 2016, with historic "background" Uranium values, and August 23, 2016, with further discussion.

Missing 2006 Calculations: In 2006, ENSR contracted elution testing to Hazen and analysis of the collected samples to General Engineering Laboratories, LLC (GEL). ENSR (2006) provided Hazen's (2006) report, and summarized Distribution Coefficient (Kd) estimates for the different soil types. You confirmed the documentation of GEL's analytical results and ENSR's calculations are unavailable, although the Kd estimates appear reasonable.

2016 Kd Evaluation Spreadsheet: This shows total Uranium activity in groundwater correlates poorly with the activity in adjacent soil samples. The activity ratios (soil / ground water) are estimates of Kd and vary over two orders of magnitude. This shows other factors beyond the simple sorption/desorption equilibrium model may apply. You showed Uranium activity already in the soil may be one such factor. We do not see this as a reason not to proceed.

At this juncture, we concur that the best predictor of ground-water cleanup progress will be the evaluation of the monitoring results once the proposed remediation system is installed and operating. No response to this letter is required at this time. If you have questions or comments, please contact me by email at j.paul.davis@deq.ok.gov, or by telephone at 405-702-5132.

Sincerely,

J Paul Davis
Environmental Programs Specialist
Land Protection Division

- c. Ken Kalman, USNRC
Gerald Schlapper, USNRC Region IV
Pam Dizikes, Office of General Counsel

