

Tri-Valley CAREs

Communities Against a Radioactive Environment

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July 15, 2016

Claire Holtzapple
Federal Project Director
Livermore Environmental Programs
LLNL, PO Box 808, L-574
Livermore, CA 94551

Re: Tri-Valley CAREs Review and Comment on the Draft Work Plan for Characterization of Background Concentrations of Metals and Uranium, Thorium, and Radium Isotopes in Surface and Subsurface Soils at Lawrence Livermore National Laboratory Site 300

Dear Claire:

Thank you for providing Tri-Valley CAREs with a copy of this draft document following the TAG meeting at LLNL and for offering TVC this opportunity to review and comment by July 15, 2016. Please find our comments and recommendations, below.

1. TVC suggests either providing a definition of the term “pristine” (e.g., see “pristine” on page 2, and “inferred to be pristine” on page 5) or removing the word from this document. Absent an explanation, it is not clear how the word “pristine” applies to an area within Site 300 after decades of open-air explosive testing. How is “pristine” verified in this context? Stating that the area chosen for sampling is the portion of Site 300 most likely to be “unaffected by programmatic activities and possess[ing] similar soil and geologic properties to the Building 812 area [and Buildings 851 and 865]” provides a sufficient and, we believe, more precise explanation for why this area was chosen.
2. The Site 300 climate is classified as a semi-arid (see page 4). TVC recommends that it be classified as mediterranean because Livermore and Tracy have mesothermal climates and the average annual temperatures do not exceed 18 degrees Celsius.
3. TVC asks that the next iteration of the plan contain an explanation of how the Visual Sample Plan (VSP) software mentioned on page 6 selects sampling locations.
4. TVC recommends that a chart or table clearly stating the background values presented in the Site 300 Site-Wide Remedial Investigation Report and updated in the Site-Wide Feasibility Study be included as references.

5. Follow-on activities and results derived from the sampling plan must be memorialized more formally than solely by being “discussed with the regulatory agencies” (page 3) and “reported at RPM meetings” (page 16). TVC recommends that a more formal and transparent mechanism for transmitting follow-on activities and results be developed and stated in the next iteration of the plan.
6. TVC notes that the Quality Assurance Project Plan (page 3 and throughout) is dated 1999. The QAPP may need to be updated if there are new or modified “best practices” that can be incorporated. We understand that the QAPP may be undergoing such a review. If completed before the final plan is published, TVC recommends that it be included.
7. The draft plan states: “Surface water flowing locally in channels after rainfall events quickly infiltrates in the ground after traveling short distances” (page 4). There is no reference, however. One should be provided.
8. The draft plan states: “The maximum muster distance” for explosive test debris is 4,000 feet. No reference is given and one should be provided. Further, the size of the particles considered in making that calculation should be discussed. TVC recommends a fuller explanation that includes (for example) finely divided uranium-238 particles - including submicron particles - that were produced by these open-air blasts and are likely to have traveled the greatest distances.
9. The draft plan describes in detail the procedures to be used when soil is “uncontaminated” (for example regarding borehole soils on page 9). There is not a parallel level of detail describing procedures to be used if samples are found to be contaminated. TVC recommends that a fuller description of contingency procedures be included.
10. The draft plan’s notation regarding the presence of radioactivity and/or hazardous material (on page 15) states that the material will be “submitted to the LLNL RHWMM for disposal...” The procedure is not clear. Please state if a Waste Accumulation Area will be utilized for these materials or whether some other operation is planned.
11. TVC recommends that the plan add a description of the Reporting Limits (RL) that includes a comparison with the detection limits.

Please don’t hesitate to contact us if you have any questions or want clarification regarding any of our comments or recommendations. Tri-Valley CAREs looks forward to DOE/LLNL’s response to our comments. Again, thank you for this opportunity.

Sincerely,

Marylia Kelley, executive director

and

Vivian Connolly, environmental science summer intern