Tri–Valley CAREs

Communities Against a Radioactive Environment

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Claire Holtzapple
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Lawrence Livermore National Laboratory
P.O. Box 808, L-574
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Sent via Email

Subject: Comments of on Draft Characterization Work Plan for the Building 812 Operable Unit and the Soil Gamma Radiation Survey Work Plan

Dear Claire:

Enclosed are Tri-Valley CAREs comments that address Lawrence Livermore National Laboratory's (LLNL) Draft Building 812 Characterization Work Plan and the Soil Gamma Radiation Work Plan at LLNL Site 300. Thank you for this opportunity to comment.

Sincerely,
Marylia Kelley — Tri-Valley CAREs
Peter Strauss — PM Strauss & Associates

cc: Kathy Setian, US EPA
Jacinto Soto, DTSC
Marcus Pierce, CVRWQCB
Leslie Ferry, LLNL

Tri-Valley CAREs' general and specific comments on the Lawrence Livermore National Laboratory (LLNL) Site 300 Draft Building 812 Characterization Work Plan and the Soil Gamma Radiation Work Plan

1. Sediment

In the Draft Characterization Plan for Building 812 Operable Unit, please explain the reasoning for collecting only one sample of sediment from the pool that is primary habitat to the red-legged frog.

2. Regional Screening Levels (RSLs) and Ecological Screening Levels (ESLs)

Please provide a Table listing the RSLs and ESLs to be used in the characterization. Please explain any differences between the Modified Screening Level Risk Assessment (SLRA) and the RSLs and/or ESLs, if applicable.

3. Consistency with Modified Screening Level Risk Assessment (SLRA)

The SLRA (2.5.1.4) states the following:

Ground water COPC that exceeded MCLs and were retained for further evaluation are shown in Table 2-14. These COPCs include 1, 1-dichloroethene, nitrate, perchlorate, trichloroethene, and total uranium. Although RDX does not have an MCL, it was also retained as a COPC due to the precedent set in the Site-Wide Record of Decision where it was included because RDX is an anthropogenic substance used at Site 300 with concentrations above the detection limit. Because DOE has agreed to remediate contaminants in ground water at Site 300 to at least MCLs, the decision on ground water cleanup goals will be based on a comparison of measured ground water contaminant concentrations to total uranium MCLs and background levels, including those for total uranium, not risk-based concentrations for individual isotopes. Therefore, the radionuclide isotopes uranium-234, uranium-235, and uranium-238 were not retained for further evaluation, but rather will be considered as a component of total uranium.

None of the above-listed chemical contaminants are included in the Characterization Work Plan, except for uranium. It is not clear what decision framework was used to exclude these chemicals from consideration. If, indeed, none of the COPC chemical contaminants will be analyzed, what is the justification for dropping them? How was the decision to exclude them made? Where is it memorialized?

Also, why is the Characterization Work Plan sampling for radium-226 (Section 2.3.3.)? Radium is not listed in SLRA Table 2-6 "Analytes detected in Building 812 ground water". Please provide an explanation.

4. Background Radiation

The Soil Gamma Radiation Survey Work Plan (4.1.3) indicates that a background reference area similar to that of the remediation site will be selected at Site 300. The background site must be large enough to collect 1,000 measurements, and similar to the B-812 area in geological, biological, chemical, and radiological characteristics. This area is not yet determined.

We see this as a crucial point, and it should have been part of this Work Plan, along with an appropriate and understandable decision framework. It is not acceptable to leave this selection to a later evaluation.

While this remains unsettled, the Remedial Project Managers' minutes for April 1, 2011 (dated June 13, 2011) indicated that "Action Levels" are determined by the "number of counts that is significantly greater than background". Please explain how this will be possible if background is yet to be determined. Additionally, please define "significantly greater".

The Plan also indicates that if the initial background reference area is determined not to be adequate "by Energy Solution", then there is a possibility that multiple background reference areas will have to be surveyed. Besides lack of variability, what other attributes will be used to determine whether the reference area is adequate. Additionally, this states that either the

Kruskal-Wallis test "and/or" other statistical guidance options may be used (in the selection of background reference areas). Please provide guidance on what statistical measures will be used in the selection of background reference areas.

While we are aware that the start date for the Gamma Survey is to begin July 1, 2011, we suggest that DOE/LLNL make an independent determination of the background area.

5. Boundaries of Study Area

The Soil Gamma Radiation Survey Work Plan (3.2.4) indicates that the boundaries of the survey area may be expanded or reduced, depending on the "preliminary survey results". It is not clear how these decisions will be made and how they will be scrutinized.

Please add an explanation on how these decisions will be made. Because the Work Plan indicates a thorough evaluation, please define what is meant by "preliminary survey results".

Again, thank you for this opportunity to comment. We look forward to your responses.

Sincerely,

Marylia Kelley
Tri-Valley CAREs

Peter Strauss
PM Strauss and Associates