Tri-Valley CAREs

Communities Against a Radioactive Environment

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Tri-Valley CAREs' Comment on the Draft Second 5-Year Review for the Superfund Cleanup at the Lawrence Livermore National Laboratory Site 300 East/West Firing Areas

Submitted to: National Nuclear Security Administration, Livermore Office Submitted on: August 29, 2024

Tri-Valley CAREs offered oral comments, and participated in discussions, on the Draft 2nd 5-Year Review during our July 23, 2024 Superfund meeting with Livermore Lab, NNSA, Region IX EPA, the Dept. of Toxic Substances Control, and Regional Water Quality Control Board. Our written comment contains additional analysis and recommendations, focused on the Pit 7 Complex and its remedy failure involving the Drainage Diversion System (DDS).

Background:

The Pit 7 Complex is a series of unlined waste pits into which "firing table" debris from Site 300 bomb tests was piled, along with additional hazardous and radioactive materials from other Livermore Lab activities. The pits have leaked uranium, tritium, perchlorate, and other contaminants into the groundwater aquifer at high concentrations.

Historically, during heavy rainfall years, the groundwater aquifer under the unlined pits rose as much as 10-feet, inundating the waste pits, mixing with the contaminants in them, and washing pollution out into a plume covering a much wider area. In 2005, Livermore Lab constructed a series of drains upstream from the pits in order to divert rainwater runoff away from the pits - aka the Drainage Diversion System, or DDS. However, during years with heavier rainfall, the DDS did not keep all water out of the pits.

In 2019, Livermore Lab outlined a workplan, in part to evaluate the performance of the DDS and the mechanisms for its failure as part of an engineering evaluation. Tri-Valley CAREs commented at the time that while this was a necessary start, the evaluation was insufficient under the Superfund law to address a remedy failure.

In the 1st 5-Year Review, Tri-Valley CAREs objected to what we saw as deficiencies in the protectiveness statement and the path forward. Therefore, in this 2024 Draft 2nd 5-Year Review, we are encouraged that a full, more detailed, Focused Feasibility Study will now be undertaken to evaluate additional remedies to prevent groundwater from rising into the waste pits. In our view, the law requires no less.

Recommendations:

- 1. The Focused Feasibility Study is slated to be completed in 2026. This opens the path to a Proposed Plan, for which a public meeting is mandatory. However, that could still be some years away. Tri-Valley CAREs recommends involving the public sooner in this process. There should be a public meeting in 2026, when the Focused Feasibility Study is completed. This will offer the public the opportunity to comment on the full array of options in the FFS, as well as the opportunity to put any additional options desired by the community on the table before the process narrows its scope and internal decisions are made.
- 2. At our meeting on July 23, 2024, it was stated that the groundwater rose again into part of the Pit 7 Complex following the recent series of atmospheric rivers. As some additional diversion measures had already been put into place (circa 2021) following the initial remedy failure, it is clear that these measures alone are neither protective nor sufficient. Therefore, it is imperative that the Focused Feasibility Study include all potential, additional remedies, including remedies that were considered but not chosen in the 2005 Pit 7 Complex Remedial Investigation/Feasibility Study, such as (a) in situ stabilization, (b) slurry walls/hydraulic barriers, and (c) landfill (waste) removal from the pits. Here it is notable that the City of Tracy submitted a comment on the original Proposed Plan recommending waste removal. At that time, Tri-Valley CAREs noted that while we appreciated the Lab's statement that some of the hazardous and radioactive materials had soaked into bedrock making removal difficult, we nonetheless recommended that some "hot spot removal" be considered. Today, the situation is at a point where we believe this question should be re-examined in light of the remedy failure. Moreover, in addition to examining the 2005 remedies not chosen, new remedies that have emerged over the last two decades should also be fully examined in the upcoming Focused Feasibility Study.
- 3. Tri-Valley CAREs recommends that this process needs to result in an amendment to the Record of Decision that includes one or more additional remedies. Anything less than such a ROD amendment we believe is insufficient.
- 4. From a community perspective, Tri-Valley CAREs would like to elevate some of the regulatory agency comments, including: (a) The Dept. of Toxics Substances Control "expressed concern regarding the containment of Pit 7 groundwater during winter storm events and that drainage diversion (the DDS) does not appear to be sufficient in redirecting surface water runoff around Pit 7," and (b) The Regional Water Quality Control Board, "Noted that issues with inundation of the pits within the Pit 7 Complex must be addressed…" and also stated that the upcoming 2026 Focused Feasibility Study is "necessary to decide on a path forward."

Thank you for the opportunity to comment on the Draft 2nd 5-Year Review. We would appreciate a written response to our comment in the Review.

For Tri-Valley CAREs,

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