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Public Comment and Analysis
Lawrence Livermore National Laboratory Draft Revised RCRA Hazardous Waste Permit

Submitted to

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Department of Toxic Substances Control

Submitted by

Tri-Valley CAREs

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Tri-Valley CAREs (TVC) is a non-profit organization founded in 1983 by Livermore, California area residents to research and conduct public education and advocacy regarding the potential environmental, health, and proliferation impacts of the Department of Energy's (DOE) Lawrence Livermore National Laboratory (LLNL or Livermore Lab). Tri-Valley CAREs mission includes promoting "forthright communication and democratic decision making in public policy on nuclear weapons and related environmental issues, local, nationally and globally." Thus, monitoring, commenting on and ensuring public participation in the permitting and management of hazardous and mixed radioactive waste at LLNL - a U.S. nuclear weapons research and design facility - is well within our mission.

On behalf of our 6,000+ members, Tri-Valley CAREs submits the following comments on the Draft Revised RCRA Hazardous Waste Facility Permit LLNL, the Addendum to Previously Adopted Negative Declaration under the California Environmental Quality Act (CEQA) and the Supplemental Analysis of the 2010 Health Risk Assessment for Hazardous Waste Treatment and Storage Facilities, LLNL, Livermore.

Tri-Valley CAREs has been engaged and concerned with regulating the Lab's hazardous waste management since the first permit was issued in 1999. The organization was the appealing party to the initial Draft Permit Renewal that was issued in 2015 and has stayed engaged throughout the petition to Review process.

While the issues on appeal have narrowed, the scope of the Revised Draft Permit Renewal has remained the same. It will continue to allow LLNL to store a maximum of 913,270 gallons of liquid and solid hazardous waste in 12 container storage units. The permit will also allow LLNL to store and treat 45,000 gallons per day of hazardous waste in one treatment and storage unit, in association with three miscellaneous treatment units, and treat from 0.23 short tons per day to 600 short tons per year in the remaining six miscellaneous units. The hazardous waste management units are located in Area 625 and in the Decontamination and Waste Treatment Facility (DWTF). All waste management units in these areas can also be used to store and treat hazardous wastes that may potentially have a radiological component.

The DTSC permit now regulates the microencapsulation unit which was left out of the previous draft. Tri-Valley CAREs acknowledges that in response to its appeal and petition for review, the DTSC has significantly improved its analysis in the permit renewal and its associated documents. The issues on the revised permit are significantly narrowed in comparison to the initial permit, and our comments/ questions are limited to the following:

Comment 1 - The revised permit is said to include the following general conditions: “DTSC’s authority to revoke or suspend the permit or suspend the facility operation for cause; a limitation of liability clause for the State of California/ DTSC; and a severability clause.” It would be useful for the public to understand the DTSC’s interpretation of what might constitute “cause.” Is this general condition the same for all DTSC regulated facilities, or is this condition different for LLNL?

Comment 2 - The permit allows LLNL to store 913,270 gallons of hazardous waste. However, it was stated that this cap does not include the waste stored in 90-day waste accumulation areas. Why not? I request that DTSC include the hazardous waste stored in the 90-day waste accumulation areas in the total cap.

Comment 3 - Why are the 90-day hazardous waste accumulation areas not included in the DTSC’s authority when they contain hazardous waste that should be regulated? Can the DTSC explain to the public in the permit the regulations that will govern the waste as it sits in these “waste parking lots” for 90 days to ensure that the public is safe?

Comment 4 - At what point are the hazardous wastes accumulated in the waste accumulation areas reported to DTSC? How does DTSC plan to ensure compliance?

Comment 5 - The permit notes that there are nine “closure units” in the LLNL areas 612 and 614 that the Lab will transform into new “90-day Waste Generator Accumulation Units.” Will these nine new waste accumulation areas be added to existing waste accumulation units, or are some of the existing 90-day waste generation units being closed? How many waste accumulation units will there be at LLNL?

Comment 6 - Page 6 of the “Health Risk Assessment” (HRA) supplement (created by LLNL) states that the “Macroencapsulation Unit” has no emission, since the treatment operations consist

of sealing a container of waste either by welding a polyethylene lid to the body of a container.” What about welding fumes from melting the lid?

Comment 7 - The Health Risk Assessment air analysis did not use the new housing (constructed in the last 5 years) located on Flurry Drive near Vasco Rd. and Brisa St. as a specific point to analyze health impacts. Can DTSC explain why? As high density housing moves closer and closer to the Northern boundary of LLNL (and closer to the Hazardous Waste Treatment Facility) over the next decade, will the DTSC review the air impact analysis to take into account these newly affected populations?

Comment 8 - According to the Health Risk Assessment, “To determine risk in this Supplemental Analysis, rather than using the SCREEN3 air quality dispersion model, LLNL used the U.S. EPA preferred air dispersion model, AERMOD, based on site-specific terrain and land-cover data, and three years of on-site meteorological data. Consequently, from the AERMOD model results, LLNL found much lower concentration numbers for both on- and off-site receptors, compared to concentrations found in 2010 using the SCREEN3 estimating tool.” Page 7 of HRA. Why not include that data from both models? It is now comparing apples and oranges. It is acknowledged that if the SCREEN3 estimating tool was utilized using the data from the current estimated emissions, the results would have been higher than in 2010, but we do not know how much higher.

Comment 9 - The Health Risk Assessment acknowledged that LLNL’s waste treatment facilities will deal with at least 176 “new or rare chemicals” that have “little to no research regarding toxicity that is available to the public.” It goes on to acknowledge that some of these chemicals “interact with the carbon filter differently than others, giving the possibility of a higher percent released.” The HRA then summarily concludes that any health risk posed by these novel chemicals should fall within the “conservative” analysis provided by the Lab in regards to known chemicals of concern (COC). This approach is presumptive and dangerous and I request that the DTSC require the Lab to do the research necessary to understand the health impacts of every one of these “new and rare” COC’s to the extent necessary to analyze the impact of Hazardous Waste Treatment Facility (HWTf) operations with these chemicals, rather than rely on extrapolation. Any COC that does not have been studied enough to analyze its particular health impacts should not be treated at the LLNL Hazardous Waste Treatment Facility.

Comment 10 - The Health Risk Assessment states that, “LLNL did not examine possible synergistic chemical effects in estimating risk, because very limited information is available for that analysis.” If the synergistic chemical effects are unknown then the COC’s should not be comingled and should not be treated together. Additionally, the DTSC should require LLNL to conduct studies of the synergistic health effects that the COC’s it utilizes in its work may cause before providing a permit to treat those COC’s that may comeingle in the environment upon release from LLNL’s Hazardous Waste Treatment Facility stacks.

Comment 11 - More detail as to the health impacts of an accident or intentional act at the DWTF would be useful to the public. Especially analysis that included the impact that could result from dispersal of the 176 novel and rare COC’s and the potential for synergistic effects that compound the health impacts.

In conclusion, Tri-Valley CAREs and its members appreciate the opportunity to comment on the LLNL hazardous waste permit. LLNL is a federal Superfund site with a history of leaks, spills and accidents with hazardous materials. LLNL's record of environmental pollution and its continuing activities to develop new and modified nuclear weapons require DTSC to regulate LLNL to the maximum extent provided by law.

Thank you for your consideration.

Sincerely,

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