

MEMORANDUM REGARDING LIVERMORE LAB MAIN SITE PIPELINE EXTENSION WORK PLAN

Date: June 18, 2012

To: U.S. Dept. of Energy National Nuclear Security Administration, Livermore Lab, U.S. Environmental Protection Agency, CA Dept. of Toxic Substances Control and the Regional Water Quality Control Board

From: Marylia Kelley, Tri-Valley CAREs

RE: Follow up re: select LLNL Main Site cleanup issues from the Thursday, June 14, 2012 TAG meeting

1. Tri-Valley CAREs requests that LLNL write a "Dear neighbor" letter that comports with Appendix F of the Addendum to RD1, TFA Arroyo Seco Pipeline Extension.

As noted at the meeting, the May 4 letter does not meet the language of Appendix F. It does not specify a dust control liaison, nor does it suggest that community members should inform the liaison if they see visible dust, nor does it say that the community liaison will respond to dust complaints within 48 hours and prepare documentation, nor does it infer that community members might have dust complaints or sightings to report to anyone. All of these things should be incorporated into a letter that fully complies with Section F-2 Dust Control Measures, paragraph 1, page F-1.

Tri-Valley CAREs reiterates its request that the compliant letter be circulated for outside (e.g. agency) scrutiny and that it be done as soon as possible, as construction activities have begun. At the meeting, David Cooper, U.S. EPA agreed to be a POC for this. We note this for completeness and with appreciation, but not to preclude any other agency personnel from also requesting a pre-publication copy.

We request a quick response from LLNL or the LSO with a time line for getting the letter in the mail (first class postage, not bulk).

2. Tri-Valley CAREs requests consideration of either (a) lowering the dust concentration threshold for the vendor to notify LLNL personnel and/or (b) lowering the concentration threshold for vendor action.

Specifically, we note that the capability of the ADR-1200S allows for real-time/continuous monitoring of airborne particulates in the range of 0.1 to 10 microns down to 1 microgram per cubic meter. Further, it can read every second.

Tri-Valley CAREs' reading of Appendix F is that the action level will be set at 50 micrograms (i.e., 0.05 milligrams of PM10) for a 15 minute average. If this is exceeded, the action required is for the vendor to stop momentarily to apply dust suppression and then resume operations. Work

will be looked at again if the downwind levels then continue at more than 50 micrograms ABOVE the upwind monitor reading. Further, it is only if the downwind monitor reads 150 micrograms above the upwind monitor that work will be stopped and activities re-evaluated. That part of Appendix F then gets a little vague as it also states that should PM10 levels CONTINUE to exceed 150 micrograms per cubic meter work will be stopped. (Note: The wording may be less than clear to a vendor about when to actually cease activities. Additionally, exactly when and under what circumstances the vendor is to notify LLNL regarding each of these levels is less than clear.)

Whether the limits in Appendix F are stringent or merely average for sites with no potential plutonium in soils was broached by LLNL at the meeting. The State of CA has a 50 microgram per cubic meter-limit for PM10 using a 24-hour average, and a much lower (20 microgram) annual average. The EPA has a standard that allows a 150 microgram hit only one time per year, and that standard uses a 24-hour average. The World Health Organization has a 50 microgram standard for PM10 (like CA) and a 25 microgram standard for PM2.5. This is intended as background information and is not an exhaustive list of standards.

The point that Tri-Valley CAREs makes is that the equipment allows for NOTIFICATION (buzzing, beeping, whatever) at a more stringent concentration level than is listed in Appendix F, i.e., at 25 micrograms per cubic meter. As noted at the meeting, Tri-Valley CAREs requests that LLNL, LSO and the regulators consider afresh whether there should be notification and action at a more stringent standard than those listed in Appendix F. The more stringent standard may be for vendor notification of LLNL (which we found hazy in Appendix F in any event) and/or it may be for action by the vendor, including the point at which the vendor stops work and re-evaluates what to do next (also a bit hazy in Appendix F).

Moreover, Tri-Valley CAREs visited the construction site both before and following the meeting on Thursday and found that the vendor was employing 2 air monitors, one upwind and one downwind, when Appendix F states that up to 4 may be used. The vendor is not out of compliance, as the language in Appendix F is tentative and not declarative or prescriptive. However, Tri-Valley CAREs further recommends that the full number of dust monitors outlined in Appendix F (i.e. four) be employed at the site. At a minimum, we believe that three are required, one upwind, one downwind and one mobile dust monitor that travels with the work.

Specifically, regarding dust monitors and wind direction(s), we note that while there is a dominant summer pattern, on many days and times of day the wind blows in all directions. Therefore, the question of knowing which is the upwind monitor and which is the downwind monitor is not as straightforward as it might seem at first blush. What is true on Monday may not be true on Tuesday. And, what is true in the AM may be reversed fully or partially in the PM. This leads us to recommend that the two "outer" dust monitors (i.e., the upwind and the downwind) be accompanied by wind monitors that show wind speed and direction both and have recording/readout capability so someone can see what it read 5 minutes ago (or whatever).

Here, we note that the little yellow plastic wind monitor in the pocket of the vendor (that he said we could buy for about \$95) did not appear to have the full directional or recording capabilities needed. Moreover, we recommend three wind monitors, not one (at the upwind monitor, at the downwind monitor and in the pocket of the vendor.)

(Further, this basic fact of wind direction variability also supports the recommendation that a mobile 3rd dust monitor at the worksite should be required.)

These capabilities would support our recommendation that the work plan be revised to specify the following in addition to the momentary stop work at 50 micrograms: Work stops if any of the three dust monitors (upwind/downwind/mobile worksite) exceed 150 micrograms per cubic meter, using the 15-minute average. After stopping, if the upwind monitor is less than 150 micrograms per cubic meter, but the downwind exceeds that limit, in addition to work stoppage, the vendor must notify LLNL and the regulators, plus do dust suppression if the construction contribution is more than 25 micrograms per cubic meter. This would be measured as the difference between the mobile worksite dust monitor and the upwind reference monitor. The goal here is to not stop work if there is a big gust that blows dirt off the field, but to stop work if the worksite is contributing to the dust. We are open to other formulations, but we note once again that Appendix F is vague, insufficiently prescriptive and does not fully utilize the capabilities of the dust monitors.

Tri-Valley CAREs also requests that this reconsideration be done ASAP due to the fact that construction activities have begun. And, we would like to be updated regarding any changes.

Tri-Valley CAREs reincorporates its request for air monitoring of radionuclides during the construction phase of the project. We further note that as LLNL and LSO are NOT presently taking this step, zero dust must be the standard in order to ensure worker and nearby resident's health and safety.

Please call or email me if you have any questions about this memo. Thank you for your consideration.

– Marylia Kelley