Additional Comments on ATSDR Report on UCD/DOE LEHR Superfund Health Effects

G. Fred Lee, PhD, PE, BCEE and Anne Jones-Lee PhD Advisors to DSCSOC March 2009

In accord with Superfund requirements, the Agency for Toxic Substances and Disease Registry (ATSDR) conducted a brief review of the potential public health effects associated with the wastes at the UCD/DOE LEHR Superfund site located on the University of California, Davis campus. Through the efforts of the Davis South Campus Superfund Oversight Committee (DSCSOC), ATSDR was able to get the US EPA Region 9 to support the collection of fish from Putah Creek and the analysis of fish tissue concentrations of selected hazardous chemicals, including chlorinated hydrocarbon legacy pesticides (DDT, etc.) and mercury. ATSDR (1996, 1998) presented the result of its review of fish contamination in Putah Creek.

Two sets of fish were collected for the ATSDR investigation: one in 1996, and the second in 1997. The fish sampling in 1996 was conducting when flow in Putah Creek was low; the creek was dry upstream of the discharge of the UCD campus wastewater. ATSDR reported that the edible tissue of some of the fish taken from Putah Creek near the LEHR site contained potentially hazardous concentrations of mercury. The analyses for chlorinated hydrocarbon pesticides failed to yield reliable results due to US EPA laboratory handling problems.

The second set of fish samples was collected during a period when there was water in Putah Creek over the full length of channel, from Lake Berryessa to the Yolo Bypass. Some types of fish collected throughout the channel contained excessive levels of mercury compared to human health guidelines. As with the prior fish sampling, the analyses of chlorinated hydrocarbon legacy pesticides in the fish were not reliable due to US EPA laboratory handling problems.

Lee and Jones-Lee (2008) summarized the results of the ATSDR studies on mercury-contamination of fish in Putah Creek.

In his "Comments on ATSDR's Final Public Health Assessment for the LEHR Site," Lee (2004) stated:

"In late June 2004, the ATSDR released its final Public Health Assessment for the Laboratory for Energy-Related Health Research (LEHR) Superfund site. I have reviewed this report and find that, while it is considerably improved over the draft report that DSCSOC commented on in the fall of 2003, it still is significantly deficient in properly defining a number of issues pertinent to LEHR site impacts on public health and the environment."

Since 1988, DSCSOC, through its Executive Director and/or Technical Advisor (Lee), has provided comments on the various draft and final ATSDR reports. Those comments are available on the DSCSOC website at http://www.gfredlee.com/DSCSOC/DSCSOC.htm. In its comments, DSCSOC has reported that ATSDR made an error in its public health assessment when it stated that the LEHR site was not a source of mercury that was found to have bioaccumulated to excessive levels in Putah Creek fish. As discussed in the DSCSOC comments

submitted to the RPMs and ATSDR (see below list of references), it has been clear from the stormwater runoff monitoring at the LEHR site that the concentrations of mercury runoff from the site are sufficient to contribute to the excessive bioaccumulation of mercury in Putah Creek fish. Those responsible for developing ATSDR's final draft report and final report chose to ignore the LEHR site monitoring data and our comments on them in its public health assessment of the LEHR Superfund site.

Unrelated to Lee's raising questions regarding of the adequacy of the ATSDR Public Health Assessment for the UCD/DOE LEHR Superfund Site, on March 12, 2009 the US House of Representative's Science and Technology Committee's Subcommittee on Oversight held a hearing on the Agency for Toxic Substances and Disease Registry (ATSDR). That Agency is charged:

"To serve the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and disease related exposures to toxic substances."

However, there is considerable concern that ATSDR has failed to meet that charge in some communities. Thus, an expert panel presented testimony at the hearing on deficiencies in the ATSDR Public Health Assessments at a number of Superfund sites. Information on that hearing is available at:

http://science.house.gov/press/PRArticle.aspx?NewsID=2390

http://science.house.gov/subcommittee/oversight.aspx.

The quality of the ATSDR Public Health Assessment at LEHR has been also been a problem at other Superfund sites.

It is concluded that the ATSDR Public Health Assessment for the UCD/DOE LEHR Superfund site is significantly deficient and cannot be relied upon for reliable and complete information on this issue.

References

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