

Termination of DSCSOC Activities at the UCD/DOE LEHR Superfund Site

Prepared by

Julie Roth, Former Executive Director of DSCSOC and

G. Fred Lee, PhD, BCEE, F.ASCE, Former TAG Technical Advisor to DSCSOC

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In March 2010 Davis South Campus Superfund Oversight Committee (DSCSOC) terminated its representation of the public's interests through the Technical Assistance Grant (TAG) program in the matter of the University of California Davis (UCD) US Department of Energy (DOE) LEHR national Superfund site on the UCD campus. For the past 15 years, DSCSOC served as an active, diligent, and reasoned advocate for the public in its review of the adequacy of the investigation and remediation being undertaken at the LEHR site. During those 15 years, DSCSOC enjoyed a cooperative and supportive relationship with the US EPA sponsors of the TAG. However, in the winter/ spring of 2010, the US EPA Region 9 Community Involvement staff (D. Cooper) imposed conditions on renewal of the Technical Assistance Grant (TAG) that made it impossible for DSCSOC to apply for renewal of support to continue its activities.

As the last TAG contract period funds became exhausted, DSCSOC proposed to the US EPA that the US EPA provide a three-year extension of the contract to cover DSCSOC's continued participation in the LEHR site investigation/remediation process through the signing of the Record of Decision (ROD) for the LEHR site remediation. That requested extension, for \$44,000 over 33 months, was less than that allowed under TAG support, but would have been sufficient to enable DSCSOC to continue to be an active participant in LEHR site Remediation Program Managers' (RPM) meetings, provide comments on issues of concern for providing public health and environmental protection in LEHR site investigation and remediation, review draft and final UCD and DOE reports, and participate in public meetings on site activities. It also would have enabled the continued posting of the results of DSCSOC's activities, and maintenance of, the DSCSOC website [<http://www.gfredlee.com/DSCSOC/DSCSOC.htm>].

With the same level of reasonable estimation of anticipated activities to be conducted under the TAG contract as it had provided with previous proposals for its TAG extension and renewal, and with record of 15 years of performance as a TAG recipient, DSCSOC submitted its proposed approach for a three-year contract renewal proposal in which we proposed to follow the approach approved by the US EPA in the spring 2009 for renewal of the previous TAG. The US EPA Region 9 Community Involvement officer for the LEHR site responded by rejecting the DSCSOC proposed approach for renewal of the TAG as inadequate, and required that a complete detailed proposal be submitted imposing impossible conditions for the TAG renewal that DSCSOC identify the specific future activities that would be covered under the contract and delineate the amounts of time that would be spent of each of the tentatively scheduled UCD/US EPA/RPM activities. It was clear that such specificity could not be reliably provided since the future RPM activities had not yet been defined in the detail needed for DSCSOC to incorporate this information into its renewal application. Not only was it not possible to reliably provide the detail being newly required by the US EPA, but also incorporating such speculative detail of tasks, scopes of work, and time expenditures in the contract would not have been good-faith representation of the public interests. It could commit DSCSOC to undertake specific activities that could subsequently be revealed to not be cost-effective in representing the public's interests,

and also could constrain and prevent DSCSOC from undertaking presently unforeseen work that should be conducted in the interest of the public.

Given the obstruction to what should have been routine contract extension placed by the US EPA Region 9 Community Involvement staff in its specious demands for speculative detail, in the winter of 2010 DSCSOC found that it had no choice but to terminate its activities at LEHR; it was impossible, and indeed would have been irresponsible, to provide the required “details” of the specific future DSCSOC activities.

DSCSOC’s decision to terminate its activities at the LEHR Superfund site was also influenced by the significant delays, obstruction, and inattentiveness to the timely processing of the renewal of the previous TAG by the US EPA Region 9 Community Involvement officer. For more than six months the US EPA Region 9 Community Involvement officer for the LEHR site failed to act on repeated requests submitted by DSCSOC for renewal TAG information. During that period DSCSOC was repeatedly informed by the US EPA Community Involvement officer for the LEHR site that the TAG would be renewed but that he had not had time to process the application. While with that assurance DSCSOC continued its efforts in anticipation of forthcoming budget to cover them, after six months of being disregarded by the US EPA Community Involvement officer, DSCSOC notified the US EPA and the RPMs that under those conditions – of having no TAG renewal support and those responsible “not having time” to act on the matter – DSCSOC was terminating its activities at the LEHR Superfund site. Shortly thereafter DSCSOC received notice that the renewal of the TAG support had been awarded. However, the conditions of the renewal required that a considerable part of the renewal funds had to be used to pay for time that DSCSOC had devoted to LEHR activities during the six months that the US EPA Community Involvement officer indicated that the TAG would be renewed but did not act on the renewal. The DSCSOC activities during that period were at the same level as they had been during the previous 14 years of the contract.

As documented in reports on the DSCSOC website, there remain important issues in the development of the remainder of the site investigation, and especially of the remediation, approaches that are to be developed, into which the public should have input. First and foremost among these issues is the fact that the current US EPA Superfund and state of California hazardous chemical site remediation regulations do not ensure full protection of public health and environmental quality. The current regulations are based on legislation that is often a compromise among competing interests including full protection, cost for investigation and remediation, and political considerations. Discussion of these issues is presented in some of the papers listed below. These issues are not widely discussed by the regulatory community or those being regulated, as they make the expedient “remediation” of sites more cumbersome. DSCSOC has brought these issues to the public’s understanding, and could have continued to do so with continued TAG support. Other issues in which the public potentially affected by the LEHR site should have the opportunity to be involved with sound technical review and input include:

- reviewing the ongoing site characterization program with particular reference to identifying and monitoring for unknown/unrecognized pollutants at the LEHR site,
- reviewing the development of a groundwater remediation plan and its implementation for chloroform-polluted groundwater,

- reviewing the development of a groundwater remediation plan and its implementation for chromium-polluted groundwater,
- reviewing the development of a remediation plan for contaminated soil to ensure that soils and site remediation do not lead to increased stormwater pollution of Putah Creek by LEHR site stormwater runoff,
- reviewing the development of an investigation plan for characterization of the UCD landfills as a source of pollution,
- reviewing the development of a remediation plan for the three UCD landfills to provide a high degree of reliability for stopping current groundwater pollution and for maintaining the integrity of the landfill containment system for as long as the wastes in the landfills are a threat,
- reviewing the development of a stormwater runoff control plan to control mercury derived from CERCLA areas of the site with particular emphasis on developing fully functional BMPs to control mercury in the stormwater runoff to meet CVRWQCB water quality standards/objectives in the stormwater discharge to Putah Creek,
- reviewing and reporting on the adequacy of groundwater and surface water monitoring programs and reports including providing recommendations on how the monitoring should be conducted to more adequately define the pollution of the LEHR site groundwater and surface water.

Based on the experience of the past 15 years, there are issues within each of the areas named, as well as others that come to light, in which it is important for the public to have access to independent, high-quality technical input on their behalf – input of the level and type that DCSOC has been providing – as the development of the UCD ROD for the site progresses. Further, there will be need for this level of public input after the signing of the ROD, during the ROD implementation phase, to ensure to the extent possible with the level of TAG support provided that public health and environmental protection is achieved at the LEHR site. Without this level of independent review, the problems of the type that DCSOC has detected and worked to remedy at the LEHR site could continue to occur at the UCD/DOE LEHR national Superfund site on the UCD campus. Some of the DCSOC contributions to improving LEHR site investigation and remediation include:

- causing ATSDR/US EPA to develop a program to investigate the impact of LEHR site stormwater runoff on Putah Creek fish, and the public health implications of the consumption of fish from impacted areas of Putah Creek,
- causing the Central Valley Regional Water Quality Control Board to list Putah Creek as a Clean Water Act Section 303(d) “impaired” waterbody due to excessive mercury concentrations in some Putah Creek fish,
- highlighting and discussing repeated failures of the RPM to require that UCD contractors use adequate analytical methods for determination of mercury in LEHR site stormwater runoff that violates the NPDES permit for mercury discharges to Putah Creek,
- discussing the need for, and failure of, those who manage lands next to Putah Creek, such as UCD and the city of Davis Department of Parks, to post signs along Putah Creek as suggested by ATSDR, CA Department of Health and OEHHA to warn those who eat some types of fish from the creek that the concentrations of mercury in the fish can be a threat to human health,

- discussing inadequacies in the monitoring of Putah Creek to evaluate the impact of pollutants derived from the LEHR site in the UCD Campus wastewater discharges to the creek that violate the CVRWQCB discharge permit for the wastewater discharges to the creek,
- defining the role of LEHR site stormwater runoff mercury in excessive bioaccumulation of mercury of Putah Creek fish that causes a human health threat to those who use Putah Creek fish as a source of food,
- better defining the constituents of concern (CEC) in the LEHR site groundwater,
- discussing problems caused by developing a stormwater runoff channel through the top of LEHR site landfill number 3 that exposed PCBs and other UCD wastes to stormwater runoff in the channel that is discharged to Putah Creek,
- discussing inadequacies in stormwater runoff monitoring from LEHR and recommending a modified monitoring approach based on US EPA guidance to more reliably assess the impact of LEHR site stormwater runoff-associated pollutants on Putah Creek water quality,
- discussing the error made by the RPMs in developing a LEHR site assessment for ecological impacts through the use of co-occurrence-based sediment quality criteria,
- discussing errors made by ATSDR in conducting a LEHR site public health assessment,
- discussing errors made year after year in UCD contractors' annual monitoring reports, and the failure of the RPMs to require correction of those errors prior to acceptance of the reports by the RPMs and the placement of these reports in public libraries for public review,
- discussing the unreliable reporting of the efficacy of the UCD and DOE BMPs installed at the LEHR site in preventing discharges of mercury above the CVRWQCB discharge limit and deficiencies in the BMPs installed by UCD to control mercury in stormwater runoff from the LEHR site,
- discussing inadequacies in groundwater monitoring and modeling at the LEHR site,
- discussing the failure of UCD to develop a LEHR site landfill groundwater monitoring program that will adequately define the pollution of groundwaters by each of the UCD landfills,
- discussing inadequacies in the design and operation of the UCD groundwater extraction and treatment system that led to the failure of this system that caused it to have to be abandoned due to plugging of the aquifer near the recharge well,
- causing the investigation of the old UCD wastewater treatment plant pollution of groundwater,
- discussing ramifications of the approach followed by the UCD administration for managing campus wastes by burial in shallow pits (called landfills) that were known since the 1950s to lead to groundwater pollution. While that approach saved UCD some waste disposal costs at the time of disposal, it is now costing the CA taxpayers many tens of millions of dollars in LEHR site remediation,
- discussing that the UCD administration has in the past and continues today to approach campus waste management by doing the least amount that the regulatory agency staff will allow, rather taking a proactive approach to protect public health and the environment in management of UCD campus wastes,

- developing professional papers that have been published in national journals on inadequate superfund site investigations and remediation that were based in part on the situation at the LEHR site,
- making presentations at US EPA national TAG meetings on improving the reliability of Superfund site investigations,
- developing and maintaining the DSCSOC website.

The mishandling of the DSCSOC TAG renewal by the US EPA Region 9 Community Involvement staff should be reviewed by US EPA management in Region 9 and Washington, D.C. headquarters so policies and procedures can be developed to prevent these types of problems from occurring in the future at other Superfund sites. This mismanagement has cost the people affected by and concerned about the investigation and remediation of the LEHR Superfund site their voice in the process. Unless these problems are remedied, the public will stand to be denied the informed independent technical review and voice in the Superfund process that the TAG was established to provide.

List of Professional Papers on Superfund Site Investigation/Remediation

Lee, G. F., and Jones-Lee, A., "Issues in Monitoring Hazardous Chemicals in Stormwater Runoff/Discharges from Superfund and Other Hazardous Chemical Sites," *Journ. Remediation* 20(2):115-127 Spring (2010).

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Lee, G. F. and Jones-Lee, A., "Improving Public Health and Environmental Protection Resulting from Superfund Site Investigation/Remediation," *Remediation* 14(2):33-53, Spring (2004).

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Lee, G.F., and Jones-Lee, A., "Occurrence of Public Health and Environmental Hazards and Potential Remediation of Arsenic-Containing Soils, Sediments, Surface Water and Groundwater at the Lava Cap Mine NPL Superfund Site in Nevada County, California," *Proc. Fifth International Conference on Arsenic Exposure and Health Effects*, San Diego, CA, July 2002, Society for Environmental Geochemistry and Health, Elsevier Science, Inc., pp. 79-91 (2003).

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Lee, G. F. and Jones-Lee, A., "Does Meeting Cleanup Standards Mean Protection of Public Health and the Environment?," IN: *Superfund XV Conference Proc., Hazardous Materials Control Resources Institute, Rockville, MD*, pp. 531-540 (1994).
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<http://www.gfredlee.com/HazChemSites/lead.pdf>

Lee, G. F. and Jones, R. A., "Redevelopment of Remediated Superfund Sites: Problems with Current Approaches in Providing Long-Term Public Health Protection," *Proc. Environmental Engineering 1991 Specialty Conference, ASCE, New York*, pp. 505-510, July (1991).
<http://www.gfredlee.com/HazChemSites/remsprfd.htm>

Lee, G.F. and Jones, R.A., "A Risk Assessment Approach for Evaluating the Environmental Significance of Chemical Contaminants in Solid Wastes," IN: *Environmental Risk Analysis for Chemicals, Van Nostrand, New York*, pp. 529-549 (1982).
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Lee, G.F. and Jones, R.A., "Application of Site-Specific Hazard Assessment Testing to Solid Wastes," IN: *Hazardous Solid Waste Testing, ASTM STP 760, American Society for Testing and Materials*, pp. 331-344 (1981).
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