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Addendum to Laboratory for Energy-Related Health Research Federal Facility, University of California at Davis, Five-Year Review Report, dated September 15, 2016

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UNITED STATES DEPARTMENT OF ENERGY Office of Legacy Management 1000 Independence Avenue, SW Washington, DC 20585

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A Five-Year Review addendum is generally completed for remedies where the protectiveness determination is deferred until further information is obtained. This addendum provides documentation of progress since the September 15, 2016, Five-Year Review report and revises the protectiveness statement to indicate that the subject remedy is protective of human health and the environment, as discussed below.

The First Five-Year Review report for the Laboratory for Energy-Related Health Research (LEHR) Federal Facility, which is part of the LEHR/Old Campus Landfill Superfund site at the University of California, Davis and is also referred to as the U.S. Department of Energy (DOE) Areas of LEHR, was signed by Scott Surovchak, LEHR site manager, DOE Office of Legacy Management, on September 15, 2016. The protectiveness statement in the Five-Year Review report was as follows:

Immediate threats at the site have been addressed, and the remedy is protective of human health and the environment in terms of direct soil exposure, potential groundwater impact from soil contaminants, and ecological risk. On the basis of the preliminary vapor-intrusion evaluation conducted for this Five-Year Review, a protectiveness determination for this exposure pathway cannot be made without further data evaluation and possible collection and evaluation of soil-gas data from certain locations within the DOE Areas. It is expected that this vapor-intrusion evaluation will be completed by September 30, 2017, at which time a protectiveness determination will be made via an addendum to this Five-Year Review, anticipated to be completed by February 28, 2018.

In a September 30, 2016, letter from Angeles Herrera, assistant director of the Region 9 Federal Facilities and Site Cleanup Branch, to Scott Surovchak, DOE LEHR site manager, the U.S. Environmental Protection Agency (EPA) indicated that "a protectiveness determination cannot be made until additional date [*sic*] is collect to fully evaluate [the vapor-intrusion] pathway."

This addendum addresses the Protectiveness Statement for the DOE Areas of LEHR, as updated to incorporate the results of the vapor-intrusion evaluation. Completion of the vapor-intrusion evaluation and, therefore, of this addendum was delayed several months past the anticipated dates provided in the Five-Year Review report, primarily because of the need to refine sampling and analytic procedures and conduct resampling to obtain accurate quantification of certain vapor-forming chemicals at two locations (see attachment).

Progress Since the Five-Year Review Completion Date

In response to the findings of the Five-Year Review, DOE undertook the following actions:

- Development of a work plan for collecting and evaluating soil-gas data to inform the protectiveness determination for the vapor-intrusion (VI) pathway.
- Implementation of the VI work plan and preparation of the *Vapor Intrusion Evaluation Report for the Former Laboratory for Energy-Related Health Research Federal Facility, University of California, Davis* (VI Evaluation Report), which is included as an attachment to this addendum. As presented in the VI Evaluation Report, the data collected for this evaluation were adequate to conclude that vapor-forming chemicals in the DOE Areas of LEHR do not present an unacceptable risk under current or potential future land-use scenarios. Therefore, the remedy for the DOE Areas at LEHR is protective in terms of the vapor intrusion exposure pathway. The EPA and California EPA agencies (Department of Toxic Substances Control and Central Valley Regional Water Quality Control Board) concurred with this protectiveness determination.

Issues and Recommendations

No new issues or recommendations have been identified since the completion of the Five-Year Review.

Protectiveness Statement

Based on new information and/or actions taken since the Five-Year Review completion date, the protectiveness statement for the DOE Areas of LEHR is revised as follows:

The remedy at the DOE Areas of LEHR is protective of human health and the environment.

Next Five-Year Review

The next five-year review will be completed on September 15, 2021, five years after the signature of the last five-year review report.

Jeffrey Murl

Date 07/26/2018

Jeffrey Murl LEHR Site Manager DOE Office of Legacy Management

Attachment: Vapor Intrusion Evaluation Report for the Former Laboratory for Energy-Related Health Research Federal Facility, University of California, Davis (DOE 2018)