Technical Review Workgroup for Metals and Asbestos
Lead Committee Annual Report:
Accomplishments and Activities for Calendar Year 2016

Members

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Technical Review Workgroup: Lead Committee Accomplishments of Calendar Year 2016

Reports and Guidance Development on Lead Risk Assessment (completed and active projects)

1. ***Mass of Soil in House Dust (M_{SD}) Proposal:*** The TRW Lead Committee continues to evaluate the mass transfer of soil to dust (M_{SD}) variable in the Integrated Exposure Uptake Biokinetic (IEUBK) Model to incorporate contamination from beyond the residential property line (e.g., community-wide) into risk calculations as well as the partitioning of soil and dust ingestion rate.

2. ***OLEM Interim Human Health Risk Assessment Strategy for Lead:*** the TRW Lead Committee supported OLEM in developing the OLEM Directive 9200.2-167, December 22, 2016, *Updated Scientific Considerations for Lada in Soil Cleanups*. This work includes the proposed updates to IEUBK model variables and supporting the communication of the status of the interim strategy.

3. ***Estimation of Soil and Dust Ingestion Rates for U.S. Children:*** the TRW Lead Committee reviewed the currently available data on soil and dust ingestion by children and developed a recommendation memo for an update to the IEUBK model. The TRW Lead Committee has shared information with the EPA's National Center for Environmental Assessment (NCEA) efforts to evaluate and update this variable and is awaiting a response.

4. ***Sieving Recommendations:*** the TRW Lead Committee provided recommended soil-dust particle sizes for risk assessments involving incidental exposures to soil and dust based on new information related to adherence of particles to a child's hands.

5. ***Short Term Exposure Recommendations for Lead Sites:*** the TRW Lead Committee provided recommendations for assessing short-term exposures that do not meet the minimum exposure frequency and duration for the IEUBK model or the Adult Lead Methodology (ALM).

6. ***Update to the Adult Lead Methodology (ALM) and IEUBK Maternal Blood Lead Variable:*** the TRW Lead Committee completed its analysis of the most recent Centers for Disease Control and Prevention (CDC) National Health and Nutrition Examination Survey (NHANES) data and is recommending updated inputs to the maternal blood lead variables in the IEUBK model and the ALM.

7. ***Recommendations for Using Blood Lead Data at Superfund Sites and RCRA Corrective Action Facilities:*** the TRW Lead Committee developed recommendations to clarify the role of blood lead (PbB) data in Superfund lead risk assessments. This document provides the technical basis for appropriate uses of PbB data from various opportunistic monitoring programs and from specifically designed surveys at Superfund sites or Resource Conservation and Recovery Act (RCRA) corrective action facilities.

Communication, Training, and Outreach

1. ***Hotline:*** Responded to 66 requests for assistance in 2016. Of these, 48 requests were from state and federal agencies, 3 came from outside the US (Thailand, Netherlands, and Australia), and the remaining 15 requests were from other sources (public, non-governmental organizations, and engineering and consulting firms). The majority of the requests pertained to the IEUBK model, exposure, screening levels/policy, or guidance-related questions.

2. ***Presentations/Training:*** TRW Lead Committee members presented at two conference and training meetings in 2016. These are listed in the table below:

Meeting/Presentation/ Training	Location	Dates	TRW Member(s)	Title of Presentation
ASTSWMO Annual Meeting	Detroit, MI	8/5/2016	Stalcup/Burgess	OSRTI Soil Interim Draft Lead Strategy
National Academy of Sciences	Washington, DC	11/21/2016	Burgess	Sources of Lead Contamination at or near Superfund Sites

3. ***Website:*** This website has been migrated to one-EPA format. The TRW continues to support the incorporation of materials as appropriate.

4. ***Charter:*** Revised the TRW Charter to better develop, maintain, and promote consistent application of the best available science in the field of human health risk assessments and methods for assessing human health risk posed by lead at contaminated sites.

5. ***Lead Committee Annual Meeting:*** Held October 2016 in Arlington, VA.

Coordination with Regions, EPA Program Offices, and Other Federal Agencies

Region 5: The TRW Lead Committee supported Region 5 water program for the Flint water assessment and in discussions related to the East Chicago Indiana public housing site. This support included supporting IEUBK model simulations.

Region 7: The TRW Lead Committee supported Region 7 in assessing potential youth (5 to 18 years of age) exposures at the Southwest Jefferson County Superfund Site in Jefferson County, Missouri. This support included All Ages Lead Model simulations for 2-week camper exposures.

Region 8: The TRW Lead Committee supported Region 8 in assessing mine waste (overburden) at the California Gulch Superfund Site with very low bioavailability and indoor sampling issues related to the Pueblo Colorado site. This support included IEUBK model simulations.

Office of Research and Development (ORD): The TRW Lead Committee is engaged in several efforts that are coordinated with ORD. These efforts are described below:

- The TRW Lead Committee in conjunction with ORD and Region 7 Superfund program is interested in evaluating IEUBK model performance at low soil lead concentrations in conjunction with lead in dust and exterior paint.

- TRW Lead Committee is coordinating with ORD on a soil-dust ingestion research proposal as well as with EPA's NCEA efforts to update the recommended soil-dust ingestion rate in the Exposure Factors Handbook.

- The TRW Lead Committee is also coordinating with ORD to evaluate the performance of the all ages lead model (AALM). This includes development of a beta test version and data sharing as part of that beta test.

Office of Pollution Prevention and Toxics (OPPT): The TRW Lead Committee is also coordinating with OPPT to evaluate the performance of the AALM. This effort includes harmonizing the Advanced Continuous Simulation Language (ACSL) version of the AALM with the FORTRAN version of the AALM.

Office of Water: The TRW Lead Committee supported Office of Water in developing its household action level (now the single source notification level) for lead in drinking water at the tap. The TRW Lead Committee recommended appropriate inputs for Office of Water's probabilistic assessment. This included supporting IEUBK model simulations. TRW Lead Committee provided comments on a November 2016 draft report titled "*Proposed Modeling Approaches for Informing a Single Sample Notification Level for Lead in Drinking Water*." https://www.epa.gov/dwstandardsregulations/lead-modeling-peer-review

ATSDR: The TRW Lead Committee is also coordinating with ATSDR to develop the AALM. ATSDR shared a subset of the CDC/ATSDR Chicago surveillance data to assist with validation of the model for young children.

Initial Data for National Academy of Science (NAS) Study: The TRW Lead Committee supported data collection for the National Academy of Science (NAS) study, identified and submitted nominations for committee members, and will participate in public committee meetings.

Coordination with Other Nongovernment Groups

- None