

**Technical Review Workgroup for Metals and Asbestos
Lead Committee Annual Report:
Accomplishments and Activities for Calendar Year 2018**

Members

Region 1

Mary Ballew
Courtney Carroll

Office of Research and Development

Kirk Scheckel
Jim Brown

Region 2

Mark Maddaloni
Julie McPherson

**Office of Superfund Remediation and Technology
Innovation (OSRTI)**

Michele Burgess (co-chair)

Region 3

Dawn Ioven
Linda Watson

Utah Department of Environmental Quality

Scott Everett

Region 4

Kevin Koporec

**Agency for Toxic Substances and Disease Registry
(ATSDR)**

Deborah Burgin
Steve Jones

Region 5

Andrew Podowski
Keith Fusinski

Region 6

Ghassan Khoury

Region 7

Todd Phillips (co-chair)

Region 8

Charles Partridge

Region 9

Sophia Serda

Region 10

Marc Stifelman (co-chair)

TRW Lead Committee Accomplishments of 2018

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

1. **Recommended Updates to the Integrated Exposure Uptake Biokinetic Model:** The Lead Committee responded to external peer review comments and delivered the recommendation memoranda for updates to the IEUBK model to OSRTI management.
2. **Guidance for *In Vitro* Bioavailability Sampling:** Continued development of this guidance with the TRW Bioavailability Committee. This supplemental guidance is intended for risk assessors and risk managers who are not familiar with IVBA sampling.
3. **Residential Lead-Contaminated Sites Handbook:** The Handbook is in development. The Lead Committee anticipates reviewing the updated version as an ongoing project.
4. **IEUBK Model Evaluation and Transfer Plasma Lead to Urine Variable (TPLUR):** The Lead Committee continues evaluation of the IEUBK model.

Communication, Training, and Outreach

1. **Hotline:** The TRW Lead Committee responds to questions from inquiries made either by telephone to the TRW Lead Committee hotline (toll-free 1-866-282-8622) or via pbhelp@epa.gov. The TRW Lead Committee responded to 49 requests for assistance in 2018: 20 requests were from state and federal agencies; two were from outside the US; and the remaining 27 requests were from other sources (public, non-governmental organizations, and engineering and consulting firms). Most of the requests pertained to the IEUBK model, exposure scenarios, screening levels/policy, or guidance-related questions.
2. **Presentations/Training:** In addition to the training video that the TRW Lead Committee is developing to support assessments involving less than full time exposures, TRW Lead Committee members presented at a conference and training meeting in 2018.
 - a. Michele Burgess presented “Lead Updates” to the Removal and Special Teams Managers meeting on July 31st.
 - b. Charles Partridge presented “Challenging Contaminants in Superfund” at the National Association of Remedial Project Managers meeting May 2018.
3. **Website:** 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 asbestos, metals and bioavailability of soil and soil-like (e.g., floodplains) contaminants at affected sites nationwide.

5. **Lead Committee Biennial Meeting:** Held November 2018 at the U.S. EPA Office of Research and Development, Gulf Ecology Division. Gulf Breeze Research Lab in Florida.

Coordination/Support with States, Regions, EPA Program Offices, and Other Federal Agencies

1. **Region 3:** Discussed Lower Darby Creek Site regarding the use of 5 µg/dL as a target blood lead level as a basis to cleanup residential yards. The TRW acknowledged that the target blood lead level is within the acceptable 2 – 8 µg/dL that is cited in the 2016 OLEM Directive 9200.2-167, “Updated Scientific Considerations for Lead in Soil Cleanups”.
2. **Region 4:** Discussed the Horton Iron Site (non-residential exposure scenarios) and Southside Chattanooga (soil screening level and target blood lead).
3. **Region 8:** Discussed Bonita Peak (acute exposure risk calculations), Colorado Smelter (dust sampling issues), and Eagle Mine (M_{SD}, sampling depth, and sieving).
4. **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:
 - a. The TRW Lead Committee commented on an ORD and Region 7 research proposal evaluating IEUBK model performance with data from the Omaha Lead Site.
 - b. TRW Lead Committee is coordinating with Sustainable and Healthy Communities (SHC) and ORD on a soil-dust ingestion research proposal.
 - c. The TRW Lead Committee is also coordinating with ORD to evaluate the performance of the All Ages Lead Model (AALM).

Coordination with Other Nongovernment Groups

1. None

TRW Lead Committee Plans for 2019

1. **IEUBK Model Updates:** Several of the IEUBK default variables have been evaluated and peer reviewed. They are the following: Bioavailability, Diet, Breathing Rate, Soil/Dust Ingestion Rate, Water Consumption and Water Lead Concentration. Due to the changes in some of the more influential default variables, the IEUBK Model is undergoing performance evaluation. The evaluation of the Bioavailability default variable did not result in a change. The default Bioavailability support document peer review report will be released in FY19 3rd Quarter.
2. **IEUBK User Guide Revisions:** The User Guide will be updated to reflect the changes in the IEUBK default variables.
3. **Training:** The third IEUBK training video will be finalized in 2019. This video demonstrates how to run the model and assess risk in intermittent exposure scenarios (e.g., trespasser).
4. **Urban Lead Exposure Recommendations:** Lead contamination in urban areas can present unacceptable risks to residents. The TRW has drafted recommendations for Superfund Lead Risk Assessment in Urban Areas. The TRW will incorporate the National Academy of Sciences recommendations documented in the “Investigative Strategies for Lead-Source Attribution at Superfund Sites Associated with Mining Activities” Consensus Study Report.
5. **Indoor Sampling and Cleanup Guidance:** The TRW will draft guidance based on case studies regarding the sampling and cleaning of indoor lead contamination from soil.
6. **Supplemental Guidance on Interpreting Intermittent Exposure Scenarios:** This guidance will focus on the use of the All Ages Lead Model for evaluating intermittent exposures to children and adults.
7. **Training Opportunities for 2019.** Identify training opportunities to support and update Regions on recent developments regarding application of bioavailability to site characterization and risk assessment.
8. **Archive of Site-Specific Lead Risk Assessments.** Develop an information archive of site-specific lead risk assessments that have been conducted in support of remedial investigations.
9. **Publication.** Publish a Rapid Communication, “Estimates of Urinary Blood Lead Clearance and its Relationship to Glomerular Filtration Rate Based on a Large Population Survey. Environ. Health Perspect.
10. **TRW Committee Business**
 - a. **Biennial Meeting.** Plan Biennial Meeting for October/November 2020.
 - b. **Annual Report.** Develop the Calendar Year 2019 Lead Committee Annual Report.