

**The Technical Review Workgroup for Metals and Asbestos (TRW)
Lead Committee Annual Report:
Accomplishments and Activities for Calendar Year 2014**

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TRW Lead Committee Accomplishments of Calendar Year 2014

Reports and Guidance Development on Lead Risk Assessment

1. **Office of Solid Waste and Emergency Response (OSWER) Desk Statement on Status of Superfund Soil Lead Policy:** Supported the development of analyses, briefings, and outreach materials related to the U.S. Centers for Disease Control and Prevention (CDC) recommendations for blood lead reference value. The proposed strategy and materials are in review by Office of Superfund Remediation and Technology Innovation (OSRTI) management.
2. **Blood Lead Screening Recommendations:** Developed a recommendation for appropriate uses of blood lead data at Superfund Sites. Currently being reviewed by OSRTI management. The final document will be posted the TRW Lead website.
3. **Residential Lead Sites Handbook:** Continued discussion and updates based on feedback from Agency for Toxic Substances and Disease Registry (ATSDR), Regions, and program offices.
4. **Mass Fraction of Soil in Indoor Dust (MSD):** Evaluated and developed a report on the existing data from Bunker Hill site. The policy decision is being discussed.
5. **Particle Size and Sieving Analysis:** Prepared an updated recommendation based on literature search and analysis on the particle size fraction that adheres to a child's hands. The draft recommendation went through external peer review and the revised version is in review by OSRTI management. The final document will be posted the TRW Lead website.
6. **Urban Gardening Subcommittee:** Developed an addendum (based on additional literature that was recently published) to the original document was drafted by the Committee. This was reviewed and posted to the TRW Lead website.
7. **Urban Lead Sampling:** Initiated preliminary discussion of sources of urban lead and environmental sampling.
8. **Phosphate Amendment:** A manuscript was published, and a Frequently Asked Question (FAQ) was developed in conjunction with the Bioavailability Committee. The FAQ is in review by OSRTI management. The final document will be posted on the TRW Lead website.
9. **ATSDR-EPA Lead Strategy & Pilot Study Subcommittee:** Continued coordination with ATSDR and Regions on collaborative approach to lead sites.
10. **Integrated Exposure Uptake Biokinetic Model for Lead in Children (IEUBK model) Variable Review:** Recommended updates exposure variables (*i.e.*, ventilation rate, dietary lead exposure, water lead concentration, water consumption, and bioavailability) in the IEUBK model based on literature review. The draft recommendation went through external peer review and the revised versions are in review by OSRTI management.

11. **Age Range in the IEUBK model:** Recommended changes to the default age range in the IEUBK model. Currently in review by OSRTI management. The final document will be posted to the TRW Lead website.
12. **Maternal Blood Lead Concentration:** Recommended updates, based on most recent NHANES data, to the default maternal blood lead variable in the IEUBK model. Materials are under review by OSRTI management. The final document will be posted to the TRW Lead website.
13. **All-Ages Lead Model (AALM):** Participated in discussions of the AALM and coordinated a beta test of the model within the TRW and ATSDR. TRW members and others from the scientific community presented a poster on AALM progress at the Society of Toxicology (SOT) Annual Meeting.
14. **Short-term and Acute Exposures to Lead:** Recommended updates to the guidance concerning risk assessments involving short term exposures to lead. Currently in review by OSRTI management. The final document will be posted to the TRW Lead website.
15. **Final Draft Bioaccessibility Sampling Guidance:** Collaboration between the joint TRW Lead-Bioavailability Subcommittee working group developed a guidance for collection and handling of soil to be used for site-specific *in vitro* lead bioaccessibility assessments. Final document is to be posted to the TRW Bioavailability website.
16. **Soil Ingestion Rate:** Completed literature review, and continued discussion on updating the recommended default soil ingestion rate in the IEUBK model. This involves representatives from the Office of Children's Health Protection (OCHP) and the Office of Research and Development.
17. **Soil Mass Calculator:** Began development of a soil mass calculator for use in assessments. This takes into account soil type, sieve size, and planned analyses to estimate the mass of soil that is needed.

Communication, Training, and Outreach

1. **Hotline:** Responded to 59 requests for assistance in Calendar Year 2014. Of these calls, approximately 55% requests were from state and federal agencies and the remainder from other sources (public, non-governmental organizations, and engineering and consulting firms). Four requests were from outside the U.S. (Australia, U.K. and France). Approximately half of the requests concerned the IEUBK model, the AALM, or the Adult Lead Methodology. Of the remainder, the majority of the requests pertained to exposure, screening levels/policy, or guidance-related questions.
2. **Presentations/Training:** The TRW Lead Committee provided input and review of the development of a video of the IEUBK Model for training purposes. The first video will be released in 2015. Additional videos are in development. TRW members participated in Clu-In webinars; SOT conference in Phoenix, AZ; Chicago Soil in the City Conference; National Association of Remedial Project Managers (NARPM) conference; and the Association for the Environmental Health and Sciences (AEHS) Foundation conference.

TRW members participated in an information exchange and provided training on the IEUBK model with China in June.

3. **Website:** TRW Lead Committee website was updated as necessary.
4. **Lead Committee Annual Meeting:** Held October 27 – October 30, 2014 at the Gulf Breeze Research Laboratory in Gulf Breeze, Fl. Members of the Lead and Bioavailability Committees will meet to work on projects and plan activities for 2015.

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

Region 2: Corrective Measures Study (CMS) of the DuPont Pompton Lakes Site. Provided technical support on risk calculations involving intermittent (recreational) exposures.

Region 3: J.T. Lewis site. Provided site consultation for a site in Philadelphia related to blood lead studies, determining sources of lead, and other sampling and analysis issues. Also, provided a list of experts who could participate in a workshop on assessing and mitigating urban lead exposures.

Region 5: California Site. Responded to questions concerning site risk assessments for dust lead exposure in an urban environment.

Region 8: Pueblo, CO site (site proposed to NPL). Provided information on blood lead sampling, timing of sampling, and interpretation of blood lead data.

Region 9: Eureka, NV removal site. Reviewed an Engineering Evaluation/Cost Analysis (EE/CA) and provided recommendations on intermittent exposure calculations for recreational exposures.

Agency for Toxic Substances and Disease Registry (ATSDR): Coordinated with ATSDR to align the response to the CDC blood lead reference value. Also, continued discussions to coordinate an EPA-ATSDR beta test of the most recent version of the AALM.

Coordination with Other Nongovernment Groups

1. **TerraGraphics:** The Committee is working with TerraGraphics to explore M_{SD} and in coordination with Region 10 on soil-dust ingestion rates based on exposure and blood lead data from Bunker Hill/Coeur d'Alene Basin.
2. **National Resource Defense Council (NRDC):** Participated in an information exchange and provided training on the IEUBK model with Chinese delegates (in conjunction with the NRDC).
3. **Children's Health Protection Advisory Committee (CHPAC):** Supported collaborative efforts to update the Lead Strategy based upon comments from the CHPAC to the EPA Administrator.

4. ***Global Alliance of Health and Pollution (GAHP)***: Provided technical support to discussion of remedial technologies to members of the international community responsible for developing strategies to managed lead in soil in foreign countries.