

The Technical Review Workgroup for Metals and Asbestos

Asbestos Committee Annual Report: Accomplishments and Activities for Calendar Year 2012

Members

Region 1

Margaret McDonough

Region 2

Mark Maddaloni

Charles Nace (outgoing co-chair)

Region 3

Jack Kelly

Region 4

Tim Frederick

Nardina Turner (incoming co-chair)

Region 5

Sonia Vega

Region 6

Anna Milburn

Region 7

Dave Williams

Region 8

David Berry

Mary Goldade

Wendy O'Brien

Region 9

Gerald Hiatt

Daniel Stralka

Region 10

Jed Januch

Julie Wroble (co-chair)

ATSDR

Jill Dyken

Mark Johnson

OSWER

Stiven Foster

Les Szabo (SEE Program)

OECA

Ann Strickland

OEM

Eugene Lee

Terry Smith

OCSPP

Tom Simons

ORD

William M. Barrett, Jr.

OSRTI

Helen Dawson (Advisor)

Michele Burgess (outgoing co-chair)

Danielle DeVoney (incoming co-chair)

Edward Gilbert

TRW Asbestos Committee Accomplishments

Reports and Guidance Development on Asbestos Site Characterization and Risk Assessment

1) PROJECTS TO IMPROVE THE ANALYSIS OF ASBESTOS IN SOIL AND AIR:

A) National Analytical Services:

- Drafted streamlined Statement of Work (SOW) templates for the laboratory analysis of asbestos for use by the Regions and individual site teams.
- Solicited input on the national SOW from asbestos analytical laboratories through formal requests for information (RFI).
- Participated in ad hoc workgroup on Libby and Libby-related sites' laboratory selection criteria, including evaluation of potential conflicts of interest and compilation of existing audit information.
- Tasked Quality Assurance Technical Support contractor to develop data validation guidance for the SOW and reviewed draft document.

B) National Asbestos Data Entry Sheets (NADES):

- Posted updated NADES for transmission electron microscopy (TEM, v12l), polarized light microscopy (PLM, v8), and phase contrast microscopy (PCM, v3) to the Internet for evaluation and to ensure consistency.
- Supported discussions and implementation of NADES data conversion to SCRIBE.
- Coordinated with the National Asbestos Data Management effort.
- Identified elements and data management issues for National Database and electronic data deliverable (EDD).
- Responded to suggestions to update the NADES for TEM, PLM, and PCM. NADES was also part of the RFI for the SOW for laboratory analysis of asbestos.

C) Method Comparison Study: Research conducted to compare current analytical methods for asbestos on air filters to better support exposure assessment at Superfund sites.

- Initiated preparation of the final report, through securing contract support, reviewing preliminary results and coordinating on report format and content.
- First draft manuscript was reviewed and feedback provided.

D) Fluidized Bed Asbestos Sampler (FBAS) Development: FBAS is being developed for the analysis of low-level asbestos in soils. The primary objective is to provide a method with significantly lower detection levels for asbestos in soils compared to currently available methods.

- Scientists from Regions 8 and 10 continued development of this analytical method.
- A manuscript describing method development and initial validation has been developed by the primary researchers, reviewed by the TRW members and submitted to Journal of Environmental Monitoring.
- Sample preparation and analysis for Performance Evaluation (PE) of the FBAS method was completed. The PE included soils spiked with various forms of asbestos.

- E) Releasable Asbestos Field Sampler (RAFS) Verification Test and Report Review: RAFS was developed as a potential screening tool to measure the releasability of asbestos from soils on site, improving the Agency's ability to assess site contamination and the potential for exposure from asbestos in site soils.
- Reviewed draft final report of the RAFS verification test and provided comments to Ramona Darlington (Battelle).
 - Initiated preparation of the final report for the RAFS, through securing contract support, reviewing preliminary results and coordinating on report format and content. (Draft report is currently under review.)
- F) Low Magnification Analysis of Air Filters: Current practice for sample analysis is to use the high magnification option for the TEM analytical method. Examining filters under high magnification requires much more time to reach risk-based DQOs and is expensive. The expense often results in fewer samples being collected and analyzed at a site. Additionally, since a smaller portion of the filter is viewed under high magnification there is generally a high proportion of non-detects which complicates statistical analysis of the data. Examination of filters at low magnification increases analytical sensitivity, improving the data quality by providing more robust data for exposure assessment.
- Developed draft recommendations regarding low magnification PCMe analysis and exposure point concentration (EPC) statistics for low-level fiber counts.
 - Obtained input from laboratories regarding the use of the low magnification option for TEM analysis.
 - Prepared revised language for the SOW.
- G) ASTM Method Development:
- Commented on ASTM soil method (which was finalized by ASTM).
- 2) **RISK ASSESSMENT SUPPORT**: The TRW continues to develop guidance, provides clarification on existing guidance, provides support to regional risk assessors with site-specific questions, and works collaboratively to ensure consistency across asbestos-contaminated sites nationally. The following projects were undertaken to support work being conducted in the regions.
- A) Indoor Sampling Recommendations Addendum to Framework: This task is being done to develop recommendations on the preferred approach for indoor sampling at asbestos sites.
- Developed draft recommendations on sampling for asbestos in indoor environments as an addendum to the Framework (OSWER, 2008).
- B) CB-UCL Software review: Region 8 developed this software tool to generate the upper confidence limit on the mean for asbestos data sets. Evaluation of this tool by the TRW was requested by Region 8.
- Commented on Region 8 UCL White Paper and software.
 - Solicited expert review of the CB-UCL tool from SRC on the software tool and from Neptune on the statistics underlying the software.

3) OTHER TRW ACTIVITIES:

- A) TRW members provided technical assistance to FFRO for DOE Program level discussions regarding AACM and NESHAPs compliance (Hanford, Paducah):
- Reviewed the Hanford demolition activities to determine whether there was a release to the environment.
 - Conducted a site visit at Hanford in coordination with John Pavitt (Region 10 NESHAPs expert) and provided training to Hanford staff and their contractors on EPA regulations and practices relating to asbestos.
 - Reviewed the basis for the NESHAPs waiver request at Paducah; also provided information on NESHAP compliance during demolition and the potential for releases to the environment.
- B) Model Agreement and Order on Consent (AOC) for Vermiculite Ore Sites:
- Commented on OEM's model AOC.
 - Provided draft text for site work, based on the OSWER Framework.
 - Provided technical comments on appropriate site sampling and analytical methods.
 - Provided feedback on definition of asbestos for Superfund sites.
- C) Presentation at Removal Managers' Meeting:
- Provided ongoing support for the Vermiculite Ore Site Assessment Committee including support for Removal Manager's Meeting.
- D) End of Fiscal Year (EOFY) Report on Vermiculite Assessment Strategy:
- Commented on OEM's EOFY report.
- E) Field Operations/Health and Safety Projects:
- Supported discussions regarding training and best practices for ABS and other actions at asbestos sites and decontamination issues.
 - Health and safety issues were a focus of this year's Annual Meeting with invited guests from various agencies presenting information and responding to questions raised by members.
- F) One EPA Asbestos Website:
- Assisted with the incorporation of the existing TRW website materials into the one-EPA format.
 - Provided comments and feedback on the initial One-EPA asbestos web-content.
 - Established a subcommittee to review and restructure the One-EPA Web Design for addressing asbestos at Superfund sites.

Communication, Training, and Outreach

Hotline: The TRW Asbestos Committee responds to questions from inquiries made either by telephone to the TRW Asbestos Committee hotline (toll-free 1-866-282-8622) or email (asbestoshelp@epa.gov). The TRW Asbestos Committee responded to 17 requests for assistance in 2012. Of these calls, approximately two-thirds were from state or federal agencies. The remaining calls were from other sources (public, non-governmental organizations, and engineering and consulting firms). Common issues included questions related to asbestos analysis, methods, and sampling.

Presentations/Training: TRW Asbestos Committee members presented at a number of conferences and training meetings in 2012. These are listed in the table below.

Meeting/Presentation/Training	Location	Dates	TRW Member	Title of Presentation
Erionite Meeting	Research Triangle Park, NC	October 2012	Jed Januch, Danielle DeVoney	New Approaches: Solid Matrix Assessment: Short Overview of fluidized bed asbestos segregator (FBAS) & erionite deposits in Oregon
IAWG Meeting	Bethesda, MD	February 2012	Dave Berry, Helen Dawson, Julie Wroble, Danielle DeVoney	Agency updates were provided on taconite in Region 5 (Phil King), Libby site cleanup, new sites of interest, NOA, fiber potency for mesothelioma (Phil Cook) and the IRIS Assessment for Libby Amphibole asbestos.
Clu-In Seminary	Online/Teleconference	August 2012	Julie Wroble	An Overview of Asbestos - Health Effects, Regulations, Sampling and Analysis, and a Case Study
Hanford Superfund Site – asbestos issues	Hanford Superfund Site	August 2012	Julie Wroble	Presented training to Hanford staff and contractors regarding health effects, asbestos regulations, sampling and analysis, and provided site examples.
Asbestos Training at Annual Meeting	Pennsylvania	October 2012	Jack Kelly	Various
Libby Action Plan Annual Meeting	Research Triangle Park, NC	December 2012	David Berry, Terry Smith, Danielle DeVoney	Low-Level Soil Method Development: Fluidized Bed (D. Berry) Comparison of Direct & Indirect Preparations and Ambient Air Collection Method Verification (D. Berry) Filter pore-size comparisons (T. Smith) Overview of the original LAP objectives, and current project structure (D. DeVoney)

Website: This website has been developed in coordination with the Agency-wide asbestos website in order to provide Superfund-specific information on asbestos. An FAQ on using tree bark to assess exposure was added, and the TRW Asbestos Committee is supporting the transition to the One-EPA Web format.

Asbestos Committee Annual Meeting: Held October 15-October 19, 2012 in Philadelphia, PA. Members of the TRW Asbestos Committee addressed ongoing projects, research needs, and planned activities for 2013.

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

Region 3: Provided technical support and review comments on soil issues near retirement home and at Powhatan Maryland.

Region 4: Provided site consultation at the Paducah Gaseous Diffusion Site (US DOE; Paducah, Kentucky) concerning NESHAP compliance during demolition and the potential for releases to the environment.

Region 5: Reviewed the Western Minerals Product Site (Minneapolis, MN) and protocol to assess exposure to asbestos indoors at the homes where cleanup occurred.

Region 6: Provided support to OSCs on vermiculite site characterization and risk management activities.

Region 8: Discussed the SAB review of Libby Amphibole RfC and IUR and RAFS Verification Test and Report Review and the Libby Action Plan Filter Verification Study. Reviewed final draft of the RAFS verification test and provided comment to Ramona Darlington (Battelle). The Asbestos Committee also discussed the potential for assessing exposure through tree bark sampling.

Region 10: Reviewed the Hanford demolition activities for the potential for releases to the environment. Presented training to Hanford staff and contractors regarding health effects, asbestos regulations, sampling and analysis, and provided site examples. Region 10 staff (Pavitt, Wroble) conducted site walkthroughs at former demolition locations and evaluated work practices and disposal methods.

Analytical Services Branch (ASB): Discussed the national service as an option for the SOW and functional guidelines for data validation.

Coordination with Other Workgroups and Nations

Australia: Provided comments on the Asbestos in Soil to Air Assessment Method (an approach for determining release ability of asbestos from soils) Western Australia soils research.

Pacific Islands: Provided recommendations on abatement of ACM and proper disposal of asbestos-contaminated waste.

Colorado Department of Public Health and Environment; Denver Department of Health: Provided feedback on the applicability of USEPA *Soil Screening Guidance for Radionuclides: User's Guide* (2000) to asbestos and suggested alternative approaches that are more appropriate for asbestos contaminated sites.

RAC-NAC Coordination: The TRW Asbestos Committee has a representative calling in for coordination. One of the big issues addressed by this group in 2012 was the elimination of resources nationally to support asbestos requests under TSCA. This group also addresses NESHAPs issues, which are increasingly overlapping with Superfund issues (*e.g.*, Hanford).