

Superfund Technical Review Workgroup (TRW) – Asbestos Committee 2025 Accomplishments

The Technical Review Workgroup Asbestos Committee (TRW-Asbestos Committee) has made significant advances in the areas of training, procedures, sampling and analytical methods to improve the quality of site characterizations and risk assessments at asbestos-contaminated sites.

The Charter for the Superfund TRW was updated in January 2025 to clarify roles, responsibilities, and operating principles.

Technical Support

One of the fundamental roles and responsibilities of the TRW-Asbestos Committee is to provide technical support to state, federal, tribal, non-governmental and international groups regarding asbestos assessment. The TRW-Asbestos Committee members are technically diverse, experienced and highly trained professionals in chemistry, toxicology, sampling, analysis and human health risk assessment, and provide expert assistance in complex site assessment scenarios.

The TRW-Asbestos Committee consulted on three asbestos-contaminated sites in Regions 3, 5 and 6:

- **Region 3:** Asbestos work practices were reviewed with the On-Scene Coordinator (OSC) assigned to the Peck Iron & Metal Superfund site in Portsmouth, VA. An abandoned roll-off container filled with asbestos containing material (ACM) was found by the Remedial Program. The Removal Program is addressing this and other containers through an Action Memorandum. Discussions covered sampling strategy, analysis, and activities to transfer the ACM to a new container for disposal.
- **Region 5:** Assisted with a removal site evaluation (RSE) at the Morton Street Warehouse site in Evansville, IN. The site is 11 acres in size and consists of a former warehouse originally built in the early 1900s that burned down in 2022. The RSE consisted of bulk material sampling to assess the presence of ACM and to determine whether the ACM poses a threat to human health and the environment. Approximately 20 bulk samples of roofing material, insulation, floor tiles, and mortar were taken and confirmed the presence of friable ACM. The data were used to support an action memorandum to request funding for time critical removal action (TCRA).
- **Region 6:** Consulted on the Eagle Picher Superfund site in Socorro, NM. Discussion included the development of an air clearance value, considering future use scenarios at the source area, before creating a work plan. Nine members of the TRW-Asbestos Committee participated in a site consultation call with the New Mexico Environment Department (NMED) and the Region 6 Remedial Project Manager (RPM).

Members of the TRW-Asbestos Committee also provided support to researchers from the University of Auckland in New Zealand in analyzing and interpreting erionite-Na results by X-ray diffraction (XRD) and scanning electron microscopy (SEM)/energy dispersive spectroscopy (EDS) as well as interpreting sample analysis results generated in a fluidized bed asbestos segregator (FBAS). Assistance was also

provided for a study regarding the use of automated SEM analysis of elongated mineral particles (EMPs) with emphasis on erionite. A TRW-Asbestos Committee member was a co-author on a publication entitled “A novel approach for quantifying elongated airborne mineral particles (EMPs) using an automated scanning electron microscope (SEM)” published in *Atmospheric Environment* in May 2025.

The TRW-Asbestos Committee responded to nine hotline (asbestoshelp@epa.gov) requests for assistance in 2025. Five requests were from EPA regional offices, one request was from a state agency, and three requests were from private citizens. Common issues in the requests included questions related to perimeter air monitoring/sampling and activity-based sampling (ABS).

Communication, Training and Outreach

In April 2025, the TRW-Asbestos Committee conducted training on the updated 2021 Asbestos Framework that included information on asbestos interpretations, morphology and the Framework process, asbestos sampling, analysis and risk assessment recommendations, a case study, an ABS video and an asbestos analytical methods video. The training presentation includes embedded narration and was presented via CLU-IN on April 15 and 16, 2025, with live question and answer (Q&A) breaks that were staffed by nine members of the TRW-Asbestos Committee. 198 participants attended the two-day training. All training materials are available on the CLU-IN webpage (https://www.clu-in.org/conf/tio/Asbestos-Framework_041625/).

In November 2025, members of the TRW-Asbestos Committee provided the 16-hour Occupational Safety and Health Administration (OSHA) Health and Safety course on asbestos in Region 1. Members of the TRW-Asbestos Committee also began developing a refresher for this course. These courses are designed to meet OSHA requirements for training but also focus on the types of sites that EPA typically encounters.

An asbestos laboratory workshop was also hosted and attended by TRW-Asbestos Committee members at the Region 10 laboratory in September 2025. The workshop is a two-day session that provides an overview of asbestos analysis methods and instrumentation, including hands-on sample preparation and analysis.

The TRW-Asbestos Committee continues working on updating the National Asbestos Data Entry Sheet (NADES) tools to improve record-keeping and consistency of data use. A draft version of the SEM NADES spreadsheet was developed in 2025. The SEM NADES was used to support the University of Auckland Erionite research.

Research Projects

The TRW-Asbestos Committee has undertaken studies of asbestos analytical and sampling methods to determine which methods are most accurate. An overview of these efforts for 2025 is provided below.

- **Air Analytical Methods Comparison Research**: The TRW-Asbestos Committee developed a draft internal memorandum discussing the findings of the Asbestos Air Analytical Methods Comparison Study. The memorandum discusses the decision to pursue additional data analysis rather than finalize a 2013 draft report submitted by the research contractor. The

memorandum describes subsequent tasks performed by the TRW-Asbestos Committee to verify and organize the laboratory results, as well as completion of a new statistical analysis specifically focused on comparing common methods to the Phase Contract Microscopy (PCM) method used in developing toxicity values for asbestos.

- Refinement of Analytical Preparation Methods for Asbestos in Soil: Work on a regional applied research effort (RARE) project¹ focused on improving reproducibility and representativeness of asbestos in soil continued in 2025. Five replicate samples comprised of 100-increments each were collected using Incremental Sampling Methodology (ISM) techniques from three asbestos-contaminated sites. Performance evaluation samples with two asbestos types at two concentrations were prepared. All samples were evaluated side by side using two standard asbestos analytical methods, FBAS preparation followed by transmission electron microscopy (TEM) analysis, and *ex situ* child's play scenario/ABS followed by TEM analysis. Data have been received from labs and are being analyzed. Results from this study were presented at the American Society for Testing and Materials (ASTM) Rook Asbestos Conference in August 2025 by a member of the TRW-Asbestos Committee.

Technical Review Workgroup for Metals and Asbestos Asbestos Committee

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¹ RARE funding was provided in 2018-2019 to support this project. Ongoing work is being done by individual staff.