



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION 4**

**61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960**

November 4, 2010

**4SD-SSB**

**MEMORANDUM**

**SUBJECT:** Zonolite Road Vermiculite Site, Atlanta, Dekalb County, Georgia

**FROM:** Tim Frederick, Life Scientist  
Technical Services Section  
Superfund Division

**TO:** Terry Stilman, On-Scene Coordinator  
Emergency Response Section  
Superfund Division

**THRU:** Glenn Adams, Chief  
Technical Services Section  
Superfund Division

A handwritten signature in black ink, appearing to be "H. Adams".

TSS has reviewed the available data collected and reported in the Final Draft Human Health Risk Assessment (HHRA Report) and subsequent information for GAO 140 (Zonolite Rd. Vermiculite Site, Atlanta, Dekalb County, Ga.). The purpose of this review was to provide recommendations to the Emergency Response Section.

**HHRA Report**

The HHRA has determined that the risks associated with airborne asbestos are minimal under current site conditions. All soil data were reported to be either non-detect or trace (present but below levels that can be quantified) except for two samples that reported low percentage levels of Libby amphibole asbestos (0.5% and 0.75%). These concentrations were both in an area west of the former exfoliation facility that appears to be an artificially raised plateau.

Activity-based air samples (ABS) were also collected. ABS techniques seek to mimic aggressive disturbance of soil to determine the concentrations of asbestos that could become airborne through typical use of the site. Of the four activity-based samples collected, three did not detect any asbestos. The only detection in an activity-based air sample was at the detection limit of the analytical technique and was also located identified in the plateau area. In addition, vermiculite

was reportedly observed below land surface in the plateau area though the nature and extent of the material was not determined.

Additional evaluation of the subsurface of this area was suggested in the conclusion of the HHRA report.

### **Asbestos Technical Review Workgroup Site Visit**

A site visit was conducted on October 20, 2010 with invited members of EPA's national Asbestos Technical Review Workgroup in attendance. The group included members from Region 8 familiar with Libby, MT vermiculite, members of the Emergency Response Team (ERT) familiar with sampling efforts at sites that received vermiculite from Libby, and On-Scene Coordinators (OSCs) from other Regions that are familiar with the investigation of the Libby "sister sites." The draft data, historical information, and known current site uses were presented to the team. Included in the input provided by the visiting group was a recommendation to conduct visual confirmation of the presence/absence of vermiculite below land surface in the soil plateau and surrounding areas.

### **Investigation of Soil Pile Plateau Site Visit**

EPA Region 4 and contractor personnel visited the site again on November 12, 2010. The purpose of the visit was to dig into the plateau and other areas on the site to confirm the presence/absence of vermiculite beneath the ground surface. Test holes were dug in several areas of the plateau and selected other areas of the site. In each of the test holes dug in the plateau, vermiculite was observed within 6-12" below the land surface. Vermiculite was not observed in any of the test holes dug on other areas of the site. Based on these findings, it appears that vermiculite is present below the land surface in the artificial plateau area. The area where vermiculite is present below land surface is roughly estimated to an area of 100' x 150'. Depth of the built-up plateau area ranges from between 0'-6' above the natural grade.

### **Recommendations**

The HHRA Report determined that risks are minimal at the Zonolite Road Vermiculite Site under current site conditions. However, quantities of vermiculite have been visually identified beneath the land surface in the plateau area.

EPA's *Framework for Investigating Asbestos-Contaminated Superfund Sites* (EPA 2008) provides a step-wise process for evaluating risks associated with asbestos. Step 1 asks "Does (did) the site use asbestos or materials contaminated with asbestos?" The Zonolite Road vermiculite site is known to have used vermiculite from Libby, MT that is contaminated with a distinct form of asbestos. The "Libby amphibole" form of asbestos has been identified in environmental samples collected at the site.

Step 2 of the Framework process asks "has there been (or is there a threat of) a release to the environment." Identification of the Libby amphibole in environmental samples and the visual presence of vermiculite beneath the land surface in the plateau area is evidence that a release has occurred.

Step 3 of the Framework process asks “Is human exposure likely under current or future site conditions?” The HHRA Report indicates that current exposure/risks are minimal. However, the vermiculite present in the plateau area could result in exposure/unacceptable risks if it is disturbed in the future.

Based on affirmative responses to any of these three questions, the Framework allows EPA the flexibility to take an action rather than conduct additional sampling. An action appears to be warranted at the Zonolite Road Vermiculite Site based upon the known presence of Libby amphibole asbestos and the visual presence of vermiculite beneath the land surface in the plateau. Actions can include removal of the material, the creation of land use restrictions, or other activities that will limit future exposure to the material.

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If you have any questions regarding this review, you can contact me at 404-562-8598 or [frederick.tim@epa.gov](mailto:frederick.tim@epa.gov).

References: EPA 2008. *Framework for Investigating Asbestos-Contaminated Superfund Sites*. OSWER Directive #9200.0-68. September 2008. (<http://go.usa.gov/CVS>).

