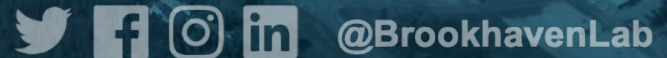




TAKE FIVE for Safety- Vermiculite Status and Update

Frank Craner

August 6, 2024



Vermiculite use in C-AD Facilities

- An AGS Department analysis completed in 1972 concluded that “Vermiculite filled bags can act as an effective fire protection or flame barrier device and recommended the use of vermiculite to “reduce the chance of flame and fire propagation from burning cable”
- Bags were placed on cable trays in various locations
- The intent was for bags to melt during a fire, which would distribute the vermiculite to “exclude air needed to propagate flame travel”.
- The exact date of installation and exact product used was not recorded.

Example bags in place



Presuming Asbestos in Vermiculite

New York State Department of Health Policy:

- According to the EPA, you should assume that vermiculite insulation contains asbestos
- Historically, the majority of the world's supply of vermiculite came from the mine located near Libby, Montana, that was closed in 1990 due to high levels of asbestos contamination.
- Since there is no mechanism to visually distinguish between vermiculite from the Libby mine versus other mines, as well as evidence of inaccuracies by methods used to rule out asbestos contamination, EPA's guidance continues to emphasize caution when a building is being remediated especially when the origin of the vermiculite material is unknown.
- Accordingly, NYS Industrial Code Rule 56 lists vermiculite as a suspect miscellaneous asbestos-containing material.

Can we measure Asbestos in Vermiculite?



Nirav R. Shah, M.D., M.P.H.
Commissar

Sun-Kyung
Executive Deputy Commissioner

June 22, 2012

(FAQ# 10 revised on August 27, 2012)

Dear Interested Party,

On April 8, 2011, a list of frequently asked questions (FAQs) regarding asbestos/fibers analysis was developed through the collaboration of the New York State Department of Health's (NYSDOH) Environmental Laboratory Approval Program (ELAP) and Bureau of Occupational Health (BOH), and the NYS Department of Labor (DOL). This FAQ was distributed to all ELAP-accredited asbestos laboratories, as well as posted on the DOL website due to a high level of interest from asbestos-related mitigation companies /consultants, training providers or other interested parties involved in the assessment, sampling and/or analysis of asbestos.

These FAQs, along with responses, were created to help clarify and interpret existing New York State guidance and regulations. However, since that time, we have received numerous inquiries regarding the State's interpretation of requirements pertaining to the testing for asbestos fibers in materials that contain vermiculite. ***This informational letter is being sent to provide additional guidance and to revise FAQ # 10 regarding the State's interpretation of standard requirements pertaining to vermiculite.***

Additional Vermiculite guidance:

Material type	Testing Requirements	Explanation
<u>Vermiculite materials used for thermal systems insulation, surfacing materials and other miscellaneous ACM</u> <i>(including but not limited to: existing or new surfacing material, plaster, pipe lagging, and sprayed-on fireproofing)</i>	NYS ELAP Certification Manual Item 198.1 (PLM Friable) may be used	Since vermiculite materials used for thermal systems insulation, surfacing materials and other miscellaneous ACM (such as existing or new surfacing material, plaster, pipe lagging, and sprayed-on fireproofing) can be more constrained than loose fill, there is less of a public health concern pertaining to airborne asbestos fibers following disturbance
<u>Vermiculite attic fill, block fill and other loose bulk vermiculite materials</u>	<i>Because there is no currently approved analytical methodology to reliably confirm vermiculite as non-asbestos containing, these materials <u>must be assumed to be contaminated with asbestos and therefore designated as ACM</u></i>	Vermiculite attic fill, block fill and other loose bulk vermiculite materials cause a greater public health concern for the disturbance and release of asbestos fibers following disturbance

HEALTH.NY.GOV
enquiries: NYSDOH
 info@ny.health.ny.gov

Vermiculite Spill Event in April, 2024

From: esierra@bnl.gov
 To: [ORPS Non-Reportable](#)
 Subject: EVENT TITLE: Vermiculite Spill Discovered in Building 912, SIGNIFICANCE CATEGORY: NR (#E-01848)
 Date: Thursday, April 25, 2024 4:53:18 PM

NR; Vermiculite Spill Discovered in Building 912

Event Categorizer: Hamilton, Clayton C

Brief Event Description:

On April 25, 2024, in Building 912, vermiculite, which is considered a potential asbestos-containing material by the US Environmental Protection Agency (EPA) and NY State Department of Health, spilled from an overhead cable tray onto the floor and equipment in a work area. This event occurred during the installation of cables. The area was designated for the installation of electrical services to an Experimental facility and was temporarily vacated during cable installation. When workers returned, they discovered the vermiculite spill. Although no direct contact with the vermiculite was reported, the event was promptly reported to C-AD ESSHQ. The affected area has been cordoned off, and work has been suspended until the cable installation is completed and the vermiculite is safely cleaned up by qualified asbestos workers. There are no injuries related to this event.

Details

Item	Value
Event Number:	E-01848
Event Date/Time:	Apr 25, 2024 11:50 AM
Mgmt Discovery Date/Time:	Apr 25, 2024 11:55 AM
Notification Date/Time:	Apr 25, 2024 12:30 PM
Categorization Date/Time:	Apr 25, 2024 1:02 PM
Facility/Building Involved:	0912
Department or Division Involved:	Collider Accelerator Dept./ALD - Nuclear & Particle Phy
Who Notified the Categorizer:	Frank Craner
Event Owner:	Craner, Francis
Point of Contact at origination organization:	Craner, Francis
Person(s) Involved:	
Event Type:	Unwanted Release

ORPS Criteria

Group	Sub-Group	Significance Category
11 - Non Reportable	11 - Non Reportable : Non Reportable : Non Reportable - Non Reportable	NR

Ed Sierra, M.S., M.Ed., M.A.
 NTS/ORPS Regulatory Compliance Officer
 Brookhaven National Laboratory
 Quality Management Office
 631-344-4080

Summary and Next Steps

- In New York State
 - Vermiculite of unknown origin is presumed to be contaminated with asbestos
 - There is no approved laboratory method to measure asbestos in loose bulk vermiculite
- Planning for removal from C-AD facilities has begun
 - Considerations that must be addressed in planning:
 - A replacement measure will likely be needed in some locations
 - All aspects of removal work must comply with significant asbestos regulatory requirements
 - Some common practices for asbestos (encapsulate it; leave it in place) do not address the problem