

Date Thu, 06 Apr 2000 151852 -0600
From Meredith Brown racer@lanl.gov
Subject- Green Alert- Suspect Vermiculite

Title- Green Alert- Suspect Vermiculite Hazards Identified

Date April 5, 2000 Identifier 2000-RFO-KH-0002

Lessons Learned Statement- Hazard identification is one of the core functions of the Integrated Safety Management System and encourages employees to have a questioning attitude. It was just this questioning attitude and attention to safety that allowed an employee to catch a potential problem with a seemingly benign product.

Discussion of Activities- Recently, a Rocky Flats Closure Project employee identified an issue regarding the use of certain types of vermiculite which could contain a carcinogen. The building Industrial Hygienist (IH) identified two unlabeled secondary bags of product and two bags from Grace & Co. in their original containers labeled as Zonolite vermiculite. Grace & Co. has provided three Material Safety Data Sheets (MSDS) on vermiculite. The product is normally poured from an approximately 20 pound bag into a small container and placed in a glovebox for use.

Analysis- Each MSDS contained different information with regard to constituents of the product. One MSDS on Zonolite indicates an ingredient of crystalline silica, a listed carcinogen. Another MSDS indicates a trace amount of tremolite (a form of asbestos). The third MSDS does not list crystalline silica or tremolite and indicates "NO" for carcinogenicity under the National Toxicity Program, the International Agency on Research on Cancer, and the Occupational Safety and Health Act. The IH also spoke with a representative from Grace & Co. The representative stated that Grace originally received vermiculite from Montana and South Carolina. The Montana source has been eliminated due to the presence of crystalline silica or tremolite. Building personnel were informed that it was unlikely that any personnel exposures would have occurred based on low concentration, if any, of crystalline silica or tremolite and the nature of use of the product. As a result of the analysis, a conservative decision was made to dispose of the "suspect" vermiculite in the building and purchase new product with known contents.

Recommended Actions- Other Sites should check to see what types of vermiculite they are using, and take appropriate actions to protect their workers.

PRIORITY DESCRIPTOR Green Alert

WORK/FUNCTION Material Handling, General Occupational Safety and Health

HAZARDS Personal Injury/Exposure, Hazardous Material

FUNCTIONAL CATEGORY Good Work Practice LL-00-057.GP

ISM CORE FUNCTION Analyze Hazards, Feedback and Improvement

ORIGINATOR Rocky Flats Environmental Technology Site

CONTACT Jim McLaughlin, Kaiser-Hill Lessons Learned, 303-966-3471 or

james.mclaughlin@rfets.gov

AUTHORIZED DERIVATIVE CLASSIFIER Kenneth E. Green
REVIEWING OFFICIAL Kenneth E. Green
KEYWORDS vermiculite, crystalline silica, MSDS, carcinogen