

Letter Health Consultation

ZONOLITE/W.R. GRACE SITE

JEFFERSON, LOUISIANA

FEBRUARY 18, 2009

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Agency for Toxic Substances and Disease Registry
Division of Health Assessment and Consultation
Atlanta, Georgia 30333

Health Consultation: A Note of Explanation

An ATSDR health consultation is a verbal or written response from ATSDR to a specific request for information about health risks related to a specific site, a chemical release, or the presence of hazardous material. In order to prevent or mitigate exposures, a consultation may lead to specific actions, such as restricting use of or replacing water supplies; intensifying environmental sampling; restricting site access; or removing the contaminated material.

In addition, consultations may recommend additional public health actions, such as conducting health surveillance activities to evaluate exposure or trends in adverse health outcomes; conducting biological indicators of exposure studies to assess exposure; and providing health education for health care providers and community members. This concludes the health consultation process for this site, unless additional information is obtained by ATSDR which, in the Agency's opinion, indicates a need to revise or append the conclusions previously issued.

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LETTER HEALTH CONSULTATION

ZONOLITE/W.R. GRACE SITE

JEFFERSON, LOUISIANA

Prepared By:

Louisiana Department of Health and Hospitals
Under a cooperative agreement with the
U.S. Department of Health and Human Services
Agency for Toxic Substances and Disease Registry



State of Louisiana

Department of Health and Hospitals
Center for Environmental Health Services

January 5, 2009

Patrick Young, MS, RS
ATSDR Regional Rep., Region VI
1445 Ross Ave. 6SF-L
Dallas, Texas 75202

Dear Mr. Young:

Per your request on behalf of the Environmental Protection Agency (EPA) Region VI, this letter summarizes our preliminary recommendations, based on our review of available information for the former Zonolite /W.R. Grace site located at 4729 River Road, Jefferson, Louisiana. Sources of information included soil and dust sample data collected in November 2008 by EPA Region VI, the Agency for Toxic Substances and Disease Registry's (ATSDR) Emergency Response Coordinator's evaluation of the soil and dust data, the 2006 Texas Department of State Health Services letter to ATSDR Region VI, ATSDR's 2005 Former Zonolite /W.R. Grace health consultation, ATSDR's 2008 summary report of sites that received asbestos-containing vermiculite, and a recent conference call on which ATSDR, EPA, the Louisiana Department of Environmental Quality (LDEQ) and the Louisiana Department of Health and Hospital (LDHH) representatives participated.

Background

The Former Zonolite/W.R. Grace site located just outside the New Orleans city limits in Jefferson Parish is one of several hundred locations across the United States that received shipments of asbestos-containing vermiculite from the mine in Libby Montana. Currently, federal, state and local health and environmental agencies throughout the country are working to answer the many public health questions surrounding the sites that received asbestos-contaminated vermiculite (1).

At the Jefferson Parish site, W.R. Grace operated a vermiculite exfoliation facility from 1965 to 1989, manufacturing attic insulation that was sold under the brand name Zonolite. According to EPA documents, while operational, this facility received 148,000 tons of contaminated vermiculite from the Libby mine. Since W.R. Grace vacated the premises, other businesses have leased the facility (2). The nearest residential area lies several hundred feet to the northeast of the 2-acre site (2).

Current Property Status

The Zonolite site is currently being leased to a container company that stores cardboard boxes for packaging and shipping. Reportedly, one or two employees enter the building periodically to transport boxes offsite either manually or with a forklift (3). Concern for the building tenants arose after recent sampling revealed, according to EPA Region VI, asbestos dust levels 5 times the Libby standard (6). This prompted the EPA On-Scene Coordinator (OSC) to request an evaluation of the data by ATSDR and LDHH.

In November of 2008, dust wipe samples were collected throughout the warehouse in areas used by employees and in restricted areas. Soil was collected from grassy areas around the exterior of the warehouse. All samples were analyzed for asbestos by Lab/Cor in Portland, Oregon according to the following methods : American Society for Testing Materials (ASTM # D-5755-03) via transmission electron microscopy (TEM), California Air Resources Board via polarized light microscopy (CARB 435-PLM) and via TEM (CARB 435-TEM) (5).

Available Data and Screening Values

There are no regulatory or health based screening values for evaluating exposure to asbestos in dust or soil, and there are no reliable acceptable methods to extrapolate the levels of airborne fibers from dust or soil data. EPA Region VIII developed an interim site-specific action level for Libby, Montana based on cancer risk from lifetime exposure (70 yrs.) to indoor dust (residential scenario) of 5000 structures/cm²(s/cm²) (1). Federal regulations require soil containing 1% or more of asbestos be designated asbestos-containing material (ACM). EPA and other regulatory agencies have utilized this benchmark in the past as an action level for soil clean-up, however, it is not a health-based standard (1).

Dust and Soil Data Results

Analysis of 11 surface dust wipe samples collected from inside the building in use revealed asbestos levels ranging from non-detect (detection limit <857 s/ cm²) to 58,298 s/ cm². Polarized light microscopy (CARB 435-PLM, detection limit <0.25%) did not detect asbestos in 15 soil samples taken from the facility's exterior . Ten of these soil samples were analyzed by TEM (CARB 435-TEM) revealing an estimated asbestos content ranging from 0.000167%-0.129% (3).

Conclusion and Preliminary Recommendations

The primary exposure route for asbestos is via inhalation of air or dust that contains asbestos fibers (7). Dust and soil data can provide qualitative information in determining the presence of a completed or potentially completed exposure pathway. The health effects that occur due to asbestos exposure are primarily driven by air concentration and the time of exposure. If asbestos contaminated dust or soil is not disturbed by human activity or air movement, it will not create an exposure (3).

The highest dust samples, located in the unoccupied "rear" unit of the plant, will not create an exposure provided it is not disturbed by human activity or air movement. It is unknown which areas of the plant are frequently disturbed by the employees. Also, it is not clear if the soil

contamination present creates a completed exposure pathway. Asbestos was detected in soil taken from the western part of the site in an area surrounded by a six foot high, locked, chain link fence. It is unlikely that exposure from the soil could occur unless this area were disturbed in the future (3).

ATSDR's Emergency Response Coordinator evaluated the soil and dust data in December 2008 and recommended further investigation or remediation of the Zonolite site in areas where asbestos-contaminated dust or soil could become disturbed (3).

1. Further site investigation: The current EPA-recommended strategy for assessing human exposure to asbestos from soil or dust is activity based sampling (ABS) using high end (worst case) exposure scenarios (3).
2. Remediation: Good industrial hygiene practices should be employed during remediation and aggressive confirmational air sampling should follow (3).

At the request of EPA Region VI, LDHH has reviewed the history of the Zonolite site, current uses, and available data, and we conclude the following:

- The site poses an Indeterminate Public Health Hazard to trespassers, onsite workers, and residents.
- Activity-based sampling would be required to evaluate the risk to trespassers, onsite workers, and residents who may be currently exposed to asbestos.
- Sampling and evaluation should be done as soon as possible to protect the health of those being exposed to onsite dusts and soils and resulting airborne fibers.
- Until further sampling data indicate otherwise, the site should be fenced and signs placed to prevent access to trespassers.
- Indoor air sampling is needed to evaluate risk to onsite workers and residents who are using former storage, warehousing and/or processing areas.

In the future, nearby residential properties may require evaluation to determine exposure to offsite residents. Please contact me at 504-219-4583 if you have any questions.

Sincerely,

Raoult Ratard, MD, MPH
Medical Consultant, Section of Environmental Epidemiology and Toxicology (SEET)
Louisiana Department of Health and Hospitals/Office of Public Health (LDHH/OPH)

Cc: Eric Delgado, OSC, EPA Region VI

Michael Drury, LDEQ
Glenn Cambre, LDHH/OPH
Dianne Dugas, LDHH/OPH/SEET

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REFERENCES

1. Agency for Toxic Substances and Disease Registry. Summary Report: Exposure to Asbestos-Containing Vermiculite from Libby, Montana, at 28 Processing Sites in the United States. October 29, 2008.
2. Agency for Toxic Substances and Disease Registry. Health Consultation for Former Zononlite /W.R. Grace and Company Site. September 22, 2005.
3. Email forward to Patrick Young (ATSDR Reg VI) from James Durant (ATSDR Emergency Response) dated December 18, 2008.
4. ATSDR, EPA, LDEQ, and LDHH Conference Call held on December 24, 2008 at 11:00 am.
5. Email from Patrick Young (ATSDR) to Kathleen Aubin (LDHH) dated December 18, 2008.
6. Email from Eric Delgado (EPA Region VI On-Scene Coordinator) to George Pettigrew (ATSDR Reg VI) dated December 11, 2008.
7. Agency for Toxic Substances and Disease Registry:
<http://www.atsdr.cdc.gov/csem/asbestos/exposure2.html>. Accessed on January 14, 2009.

Certification

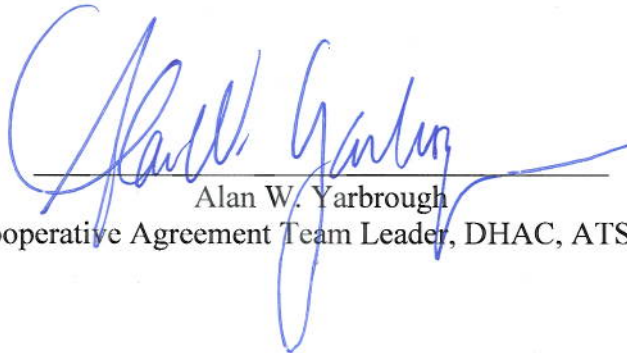
This former Zonolite/W.R. Grace facility in Jefferson Parish public health consultation was prepared by the Louisiana Department of Health and Hospitals under a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR). It is in accordance with approved methodology and procedures at the time the health consultation was begun. The editorial review was conducted by the Cooperative Agreement Partner.



Jeffrey Kellam

Technical Project Officer, Division of Health Assessment and Consultation (DHAC)

The Division of Health Assessment and Consultation, ATSDR, has reviewed this public health consultation and concurs with the findings.



Alan W. Yarbrough

Cooperative Agreement Team Leader, DHAC, ATSDR