Letter Health Consultation

Naturally Occurring Asbestos (NOA) Issues

WESTVILLE NOA

CATONSVILLE, BALTIMORE COUNTY, MARYLAND

OCTOBER 6, 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.

You May Contact ATSDR TOLL FREE at
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LETTER HEALTH CONSULTATION

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Prepared By:

Site and Radiological Assessment Branch
Division of Health Assessment and Consultation
U.S. Department of Health and Human Services
Agency for Toxic Substances and Disease Registry

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October 6, 2009

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RE: Naturally Occurring Asbestos Issues

Dear Sir or Madam:

I am writing as a representative of the Agency for Toxic Substances and Disease Registry (ATSDR), an advisory federal public health agency. ATSDR is tasked with providing information to prevent and reduce community exposures to hazardous substances in the environment. For the past several months, ATSDR has been following the Rolling Road site in Catonsville, where naturally occurring asbestos (NOA) was found to be present in dust and released to the surrounding neighborhood.

Thank you for the proactive steps your agencies took in Fall 2008 to respond to resident concerns about the NOA. The frequently asked questions document you developed contained useful and accurate information on steps homeowners could take to minimize potential exposures to dust and asbestos. Also, releases of dust and asbestos from the site appear to have been minimized following the implementation and enforcement of a dust mitigation plan. These measures were protective public health actions and will greatly reduce the chances anyone is adversely affected by the NOA release.

The US Geological Survey (USGS) has documented 22 asbestos occurrences, former mines, or former prospects in Maryland[1]. Geologic maps from the late 1960s show that ultramafic rock bodies (the type of rock in which asbestos is most often found) are present throughout certain areas of the state[2]. Therefore, NOA could be present in other locations in Maryland. I'm writing to share ATSDR's perspective on NOA issues, in the hopes that concerns about exposure at other sites can be reduced in the future. The following are some suggestions:

- We encourage the state and/or county to develop and implement regulations to prevent release of asbestos from NOA-containing sites. Property records should note verified presence of NOA, such as those occurrences documented by the USGS. In addition, county geological maps should be updated and reviewed to document locations of rock types that could host NOA. Any soil-disturbing activities on those locations should be subject to dust control and air monitoring regulations, perhaps modeled after those developed in Fairfax County, Virginia[3] or El Dorado County, California[4].

- Even with the best preventive measures, some releases of NOA from these sites could occur, and nearby residents could be exposed. NOA could also be present in the general area from historical or other ongoing activities. While short term exposures are generally not expected to significantly increase the theoretical risk of cancer, it is important for residents to properly clean up dust that could contain NOA and to continue cleaning at regular intervals. Otherwise, they could be continually exposed to asbestos re-suspended by household activities, increasing the long-term risk of cancer or other disease.

- In situations with suspected NOA releases, ATSDR recommends regular cleaning with wet methods, high efficiency particulate air (HEPA) vacuuming, and/or steam cleaning. For regular cleaning of rooms that don't have lots of dust, the exposure would most likely not be greatly above what people might breathe in a typical urban environment, and no special protection is needed. However, cleaning very dusty rooms could result in greater exposure, and using some respiratory protection might be desired for the initial cleaning in those situations. Recommended protection is a half face, dual cartridge respirator with HEPA cartridges (color coded purple or a N-100, P-100 or R-100 NIOSH rating). N-95 dust masks are not recommended – they will merely filter out the larger particles and let in the tiny asbestos particles.

- Although professional air testing of homes is available, we question its utility for NOA situations. For example, the Asbestos Hazard and Emergency Response Act (AHERA)

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[1] Van Gosen BS. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Natural Asbestos Occurrences in the Eastern United States. U.S. Geological Survey Open-File Report 2005-1189. Version 2.0, posted March 2006. Available at: http://pubs.usgs.gov/of/2005/1189/.

[2] Maryland Geological Survey. Geologic Map of Maryland (1968). Available at: http://www.mgs.md.gov/esic/geo/index.html.

[3] Fairfax County Health Department. Naturally Occurring Asbestos Documents. Available from: http://www.fairfaxcounty.gov/hd/asb/downloads.htm.

[4] El Dorado County Department of Environmental Management. El Dorado County AQMD Fugitive Dust and Asbestos Rules. Available at http://www.edcgov.us//emd/apcd/construction_dust_rules.html

methods appear to be commonly used, but the AHERA clearance level is not health-based, and the sensitivity of the method is not great enough to make conclusions about long-term risk. If air sampling results are collected, they can be compared to the health-based benchmark concentration for residential re-occupancy developed by the Environmental Protection Agency Region 2, and partner agencies, in the wake of the World Trade Center disaster[5]. This value, 0.0009 phase contrast microscopy equivalent structures per cubic centimeter of air, represents an excess cancer risk of no more than 1 in 10,000 for a 30-year continuous exposure. If a home was found to contain asbestos in excess of this value, we would recommend further cleaning (which has been shown to reduce asbestos levels over time). However, regardless of sampling results, we would recommend regular cleaning to ensure potential exposures are minimized.

In summary, NOA can pose a potential health threat if it is not properly managed and addressed, but with careful planning and awareness, exposures and risk to communities can be minimized.

Thank you for your time in considering this information. I should also note, NOA issues extend far beyond Maryland and ATSDR is working towards providing similar information to other localities where NOA may be an issue—I would appreciate any feedback from you on whether this information is helpful and how it could be improved. Feel free to call me at (770) 488-0768 if you have any questions or would like additional information.

Sincerely,

Jill J. Dyken, PhD, PE
Environmental Health Scientist
Division of Health Assessment and Consultation

cc:
Lorraine Anderson, Maryland Department of the Environment
Lorie Baker, U.S. Environmental Protection Agency
Jack Kelly, U.S. Environmental Protection Agency
William Clarke, Baltimore County Department of Environmental Protection and Resource Management

[5] Contaminants of Potential Concern (COPC) Committee of the World Trade Center Indoor Air Task Force Working Group. World Trade Center indoor environment assessment: selecting contaminants of potential concern and setting health-based benchmarks. Contributors from U.S. Environmental Protection Agency, New York City Department of Public Health and Mental Hygiene, Agency for Toxic Substances and Disease Registry, New York State Department of Health, and Occupational Safety and Health Administration. May 2003