

Health Consultation

VERMONT MILL PROPERTIES SITE

BENNINGTON, BENNINGTON COUNTY, VERMONT

EPA FACILITY ID: VTN000105857

MARCH 24, 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
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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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HEALTH CONSULTATION

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Prepared By:

U.S. Department of Health and Human Services
Agency for Toxic Substances and Disease Registry

Background and Statement of Issues

The U.S. Environmental Protection Agency (EPA) Region I office asked the Agency for Toxic Substances and Disease Registry (ATSDR) to review and evaluate surface soil data for five stock pile sandblast grit areas at the Vermont Mill Properties Site in Bennington, Bennington County, Vermont. The purpose of this health consultation is to determine (1) whether existing levels of polychlorinated biphenyls (PCBs) in surface soil are of public health concern and (2) whether an average arsenic concentration of 10 ppm (parts per million) in surface soil in localized areas at the site would be protective of public health [1].

The Vermont Mill Properties Site includes five areas that have been used to stock pile sandblast grit. The site is currently used for a variety of industrial activities including the manufacture of Mace brand products, a clinic, a printing press, and a publishing house. The sandblast grit piles have been removed. These areas previously included picnic tables at which workers ate lunch. Picnic tables are believed to have been removed, but the areas are still used by workers wishing to take a break or view the nearby river. The site is surrounded by a chain link fence and is accessed by adults who work at the site [2]. Therefore, this health consultation addresses adult exposures to surface soil, not children's exposures.

Little is known by ATSDR about the history of the site and analysis will be restricted to the presence of arsenic and PCBs in surface soil at the five areas identified as sandblast grit stockpile areas.

This EPA request is being managed by ATSDR under the "Strike" process, which is a rapid-response, focused effort that does not include comprehensive review of the technical memorandum, site contaminants, and exposure pathways.

Discussion

In April 2008, Wilcox and Barton, a contractor for Vermont Mill Properties, Inc. working under EPA oversight, conducted sampling in the area of five former stockpiles. These areas were determined based on field observations and recollections of facility personnel and subcontractors. Discrete soil samples were collected on a 5-foot grid spacing following removal of the shallow surface layer containing visible sandblast grit. A sample was collected at all grid intersections from the 0 to 6-inch interval. At a representative number of random locations, samples were also collected from the 6 to 12-inch interval, the 12 to 18-inch interval, and/or the 18 to 24-inch interval. Samples were sent to an outside laboratory to be analyzed for polychlorinated biphenyls (PCBs) and Resource Conservation and Recovery Act (RCRA) 8 total metals [3].

Arsenic was detected in 87 out 116 soil samples and was spread fairly evenly across the five stockpile areas at concentrations that ranged from <2.6 mg/kg to 35.1 mg/kg. The arithmetic mean arsenic concentration for all samples was 6.6 mg/kg [3]. ATSDR's evaluation of whether a 10 ppm average arsenic concentration in surface soil would be protective of public health is based on a comparison of this level to health-based comparison values for adult exposures [4]. All arsenic concentrations were below non-

cancer adult comparison values. Although some samples did contain arsenic concentrations above the cancer comparison value, daily incidental ingestion of soil is not expected to be a chronic (long-term) exposure for adults who take breaks in the sandblast grit pile areas. Considering a 10 ppm average arsenic concentration in surface soil, ATSDR finds that adult exposures would not be expected to result in adverse non-cancer or cancer health effects.

PCBs were detected in twenty-five samples from a single stock pile area (SP5). The average total PCB concentration for all surface soil samples in this stock pile area was 0.82 mg/kg. PCBs were not detected in nearly all samples from the four other stock pile areas [3]. Adults who take breaks in these sandblast grit pile areas are unlikely to have any significant exposure to PCBs in soil because of their limited hand to mouth activity and the very low levels of PCBs. Adults are not at risk of harmful effects from PCBs in soil at this site.

Conclusions

On the basis of available information about the current exposure conditions at the Vermont Mill Properties site, ATSDR concludes that adult exposures to an average of 10 ppm arsenic in surface soils in localized sandblast grit areas are not expected to result in harmful health effects. Furthermore, ATSDR concludes that the levels of PCBs in surface soils at the sandblast grit pile areas do not pose a potential public health hazard to adults. Therefore, ATSDR categorizes the sandblast grit pile areas as presenting No Apparent Public Health Hazard.

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References

- 1 ATSDR Strike Team Request Form. Prepared by Gary Perlman, February 24, 2009.
- 2 Personal communication with Gary Perlman, ATSDR Region 1, March 3, 2009.
- 3 Wilcox & Barton Inc. May 7, 2008. Letter to Ms. Catherine Young, U.S. Environmental Protection Agency regarding the results of sandblast grit stockpile area evaluation at the Vermont Mill Properties Site.
- 4 Agency for Toxic Substances and Disease Registry. Toxicological profile for Arsenic. Atlanta: US Department of Health and Human Services; 2007