

**United States Environmental Protection Agency**  
**Region III**  
**POLLUTION REPORT**

**Date:** Friday, September 24, 2010

**From:** Jack Kelly

**Subject:** Powhatan Mining Company

6721 Windsor Mill Road, Woodlawn, MD

Latitude: 39.3250000

Longitude: -76.7358000

<b>POLREP No.:</b>	8	<b>Site #:</b>	A3NA
<b>Reporting Period:</b>	9/14/10 - 9/24/10	<b>D.O. #:</b>	
<b>Start Date:</b>	8/16/2010	<b>Response Authority:</b>	CERCLA
<b>Mob Date:</b>	8/15/2010	<b>Response Type:</b>	Time-Critical
<b>Demob Date:</b>		<b>NPL Status:</b>	Non NPL
<b>Completion Date:</b>		<b>Incident Category:</b>	Removal Action
<b>CERCLIS ID #:</b>	MDN000306665	<b>Contract #</b>	
<b>RCRIS ID #:</b>			

#### **Site Description**

The Powhatan Mining Company site is the location of a former asbestos processing facility. The mill operated from approximately 1920 to 1980 primarily processing anthophyllite asbestos. Asbestos ore for the mill was mined in Maryland until about the 1940s and later brought in from several States including California, Georgia and Alabama. The site is bordered on all sides by residential properties and the residential yards to the southwest lie within feet of the former processing facility and in the path of site runoff. In 2006, the property to the east of the former mill was subdivided into residential lots for new home construction. From 2006 to 2008, the residential lots were cleared and graded and retention ponds were installed. Development ceased after only two homes were constructed.

The former processing facility is a multi-story building with a loading area on the northeast end (cement block portion) and a processing area at the southwest end (rusty metal portion). The asbestos fiber extraction process took place inside the building complex. Asbestos ore was reportedly received and first dried in the cement block portion of the complex. Further processing of the rock ore is believed to have occurred in the metal portion of the facility, a multi-level, timber-framed structure with stone foundation and corrugated metal siding. In the milling operation believed used at this facility, the asbestos ore was first crushed to a normal, even size and then dried. Fiber extraction then occurred through a series of crushing operations, each followed by vacuum aspiration of the ore running on a vibrating screen. On the screen, the fibers were released from the ore and collected into a vacuum system. Fibers recovered from consecutive vibrating screens were brought to cyclone separators, and the air filtered to remove the finer, suspended fibers.

The property was brought to EPA's attention by the Maryland Dept of the Environment. After an initial assessment, a non-emergency Removal Action primarily intended to secure building openings was initiated by the OSC in a Special Bulletin dated August 11, 2009. More recent sampling data and conditions warranted a time-critical action. A time-critical Action Memorandum for the site, concurred on by HQ, was signed on June 8, 2010. In addition, a memorandum authorizing demolition and compensation to the property owner was approved by the Region and HQ on this date.

EPA will be conducting removal activities at the site in order to deconstruct the facility and remove/cover soil which may pose a threat to public health and/or the environment. During activities which will cause significant disturbance of interior dust or outdoor soils, samples will be collected from personal sampling devices on cleanup personnel to determine if proper levels of protection are being used at the site. Additional air samples will be collected along the perimeter of the site to confirm that engineering controls are protective of the surrounding community.

#### **Current Activities**

The owner's personal items not specified as waste continue to be decontaminated and saved. The two conex boxes onsite are currently retaining some of the owner's decontaminated personal belongings. Items not identified for return will be bagged and shipped offsite for proper disposal.

Sampling plans were developed for soils and suspect materials on the property. A laboratory was acquired for the offsite analysis of these samples. Sampling has been completed for the building footprint, tiling in the rear, and waste held in the shed area. Soil and debris samples were collected from trash bags contained in the shed behind the facility and under the conveyor belt connecting the shed to the sheet metal portion of the structure. Suspect asbestos tiling and soils in the proposed footprint of the new garage and alongside the rear of the owner's living quarters have also been sampled and analyzed to determine potential asbestos concentration. Analytical results were received and interpreted for some of the bulk samples collected from the aforementioned sampling activities. All of the aforementioned sampling activities will help determine remediation methods, waste disposal requirements as well as engineering, administrative, and personal protective equipment controls for the public and workers.

Microvac dust samples had been collected from different substrates removed from the asbestos processing facility during the cleaning method to test decontamination efficiency. Samples were taken immediately before and after the cleaning process. Each material type (rubber, plastic, metal, etc.) had been sampled to ensure the cleaning method was effective on the surfaces of different substrates. The results of the pilot run were received and interpreted and found to be satisfactory (less than 50,000 structures/cm<sup>2</sup>) and would subsequently be able to be placed in a municipal landfill. The limits are based on the Millete and Hays publication on microvac dust sampling (1994) and the World Trade Center Cleanup benchmarks (2005).

Another round of microvac dust samples were collected from items after the cleaning process on personal items. When the analytical results become available, they will be compared with benchmarks set forth in the World Trade Center Cleanup Benchmarks (2005) or less than 5,000 structures/cm<sup>2</sup>.

Perimeter and personnel monitoring were conducted during decontamination of the owner's personal property to establish representative sampling data of the task and ensure engineering, administrative, and personal protective equipment controls are satisfactory. Once analytical results are received they will be interpreted and compared to pertinent occupational exposure limits and ambient/perimeter targets. Personal and ambient exposure data has been within the acceptable limits in the past sampling events (decon set up) and engineering, administrative, and personal protective equipment are considered satisfactory.

A sampling plan is currently being drafted to determine asbestos concentration in soils across from Emmanuel Ct in Parcel 304 east of the site. This will help determine what if any remediation measures need to occur prior to building in the residential lots. A geoprobe will be used to collect soil samples. Bores will be advanced up to 12-13 feet below grade.

The OSC delivered all necessary forms and plats to the Baltimore County Zoning Office for the variance application. The owner will await a hearing date; EPA will participate.

Several ERRS personnel, Weston Inc Mioskie and OSC Ham attended a one day training session by the MDE Asbestos Program.

The OSC conferred with EMSL Analytical Inc on several sampling and analytical issues.

The OSC and ERRS RM discussed DBA rate issues with the Dept of Labor.

### **Planned Removal Actions**

EPA is conducting removal activities at the site in order to remove the facility and soil which may pose a threat to public health and/or the environment. During any activities which will cause significant disturbance of dust in the interior of the structure, especially when activities change and become more aggressive, air samples will periodically be collected from site personnel to determine if proper levels of protection are being utilized at the site. Air samples will be collected along the perimeter of the site to confirm that engineering controls are protective of the surrounding community.

### **Next Steps**

EPA Region 03 to discuss asbestos remediation measures of personal items with Region 08 (Libby, Montana) to ensure that the most cost effective and efficient approach is implemented. The discussion will also include target cleanup levels (5,000 structures/cm<sup>2</sup>.)

Continue to evaluate the cleaning method employed to decontaminate items. Additional items will be sampled at a rate determined by the OSC.

Develop a field sampling plan for residential plots across from the site (Parcel 304), per historic aerial

photos, to determine potential extent of asbestos contamination.

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