

BoRit Asbestos Superfund Site Community Action Group Meeting

Ambler/Upper Dublin/Whitpain Pennsylvania

Date: Wednesday April 2, 2014

Location: Upper Dublin Township Bldg- 801 Loch Alsh Ave- Fort Washington PA 19002

**Welcome & Announcements**

Call to Order by Diane Morgan at 6:40pm. March meeting notes were discussed and the following corrections were noted: new member candidate Andrew Salvadore's name spelling correction; comment by Sharon McCormick concerning scope of EPA edited. Corrections made and minutes from March meeting approved.

Gordon Chase noted that meeting minutes are not received by CAG members until several weeks after meeting. Ruth Wuenschel will improve timing of transmitting messages to CAG group.

Diane Morgan introduced Dr. James Webber of Webber Environmental Health Consulting LLC, New York.

Dr. Webber is a noted specialist in environmental consulting specifically asbestos and hazardous nanoparticles and is recognized by the NY Department of Health and awarded by the ASTM International Committee D22 on Air Quality. His work experience includes Dust Screening after 9/11 at the World Trade Center site.

**Slide Show Presentation- Dr. James Webber**

*Note: Complete Presentation Slides available at boritcag.org entitled "TASC Grant presentation by Dr. Webber on ongoing air monitoring in Ambler for asbestos 04/01/14"*

Monitoring Options for Detection of Airborne Asbestos

Dr. Webber discussed the techniques historically used around superfund sites including Real Time Monitoring, Phase Contrast Microscopy, Scanning Electron Microscopy, and Transmission Electron Microscopy.

A. Real time monitoring

- a. Began @ 1988
- b. Limited companies and specialists
- c. Limited usage as particles can be seen but not confirmed as asbestos
- d. Thin fibers difficult to detect
- e. Tendency for false positive results
- f. Method not accepted by US Government Agencies

Question: Gordon Chase: What is purpose of this method if there is so much error?

Answer: Dr. Webber: Method best used in applications where definitive or all asbestos is guaranteed and apparent.

Question: Bob Adams: Can this method be used in conjunction with another method?

Answer: Dr. Webber: Possibly, but in my opinion, the technology is not demonstrated or dependable.

Question: Gordon Chase: Is this a constant type of monitoring?

Answer: Lora Werner/Eduardo Rovira: Only real time collection that we use is dust collection with a filter system.

B. PCM Phase Contrast Light Microscopy

- a. Used for occupational monitoring since 60s
- b. All data collection used by EPA is based on PCM counts
- c. Analyzes filter at 400 x magnification
- d. Well recognized technology
- e. Disadvantages- cannot identify asbestos
- f. Disadvantages- cannot detect small fibers

C. SEM Scanning Electron Microscopy

- a. Allows resolution of fibers thinner than those detected by PCM
- b. Only elemental composition is apparent; no determination of crystalline structure
- c. Quality and type of instruments used vary by source
- d. High differences in Real Item View to Processed Image
- e. SEM not recognized in US for monitoring

D. TEM Transmission Electron Microscopy

- a. Resolves/Shows thinnest fibers
- b. Ability to characterize crystalline structure
- c. Recognized by Federal Agencies
- d. Over 75 companies provide service

Question: Gordon Chase: Are the companies private or government?

Answer: Dr. Webber: Mostly private, though I believe EPA Region 8 may have one

E. TEM Analysis Methods

- a. ISO (International Organization for Standardization) measures dimensions of fibers
- b. AHERA – (Asbestos Hazard Emergency Response Act) this Act provided response to long term exposure to asbestos, especially school aged children
- c. AHERA/PCME/BC testing targets

Comments: Dr. Webber: Fiber dimensions are the parameters to consider during asbestos risk assessment. I am not an epidemiologist, but as a scientist, length and diameter of fibers are the considered factors in evaluating the risks. Historically, prevailing opinion is that longer exposure time to asbestos is a risk factor, hence, the reason children's exposure is evaluated.

Slides provided at this time by Dr. Webber detail the hypotheses presented by various studies concerning the lengths and diameters of asbestos fibers and the conundrums presented in testing and evaluation.

F. Previous Asbestos Assessments at BoRit

- a. Phase 1 Ambient air monitoring – Chrysotile only asbestos detected
- b. Phase 2 Ambient air monitoring – Chrysotile only asbestos detected
- c. Phase 2 Activity based sampling-ABS- raked pile, park and reservoir- simulation of raking yard
- d. 4 Types of Asbestos found: Chrysotile, Amosite, Crocidolite, and Actinolite

G. Future Monitoring at BoRit

Dr. Webber notes that cross contamination between BoRit Site and Ambler Piles could affect evaluation and results.

Question: Peter Lowry: The site has changed since Phase 1 and Phase 2, considering the diversity now of the Site, and now multiple Sites, have we statistically taken enough samples?-

Answer: Dr. Webber: Samples are often a snapshot of time, can't really determine a "good" number of samples. Likely, EPA has determined the appropriate number of samples needed based on past experience.

Question: Jennifer Zega: How long do airborne particles stay airborne given wind patterns?

Answer: Dr. Webber: The further away you go, fibers will drop off exponentially and dispersion will be high.

Ruth Wuenschel/Lora Werner offered topographical map of area to Jennifer

Question: Sal Boccuti: The Ambler Piles are not being monitored.

Answer: Dr. Webber: The Ambler site is close and a confounding factor to monitoring BoRit

Question: Sharon McCormick: What is the potential for synergy between the sites?

Answer: Dr. Webber: I don't know exactly.

Discussion ensued concerning the conundrum of the mixing of the sites and whether testing at BoRit is misleading or insufficient given the Ambler Piles location.

H. Conclusion: TEM is the Method of Choice

I. Testing Costs Per Sample

- a. AHERA- \$60-90 @ 12 hour turnaround OR \$35-70 @ 5 day turnaround

b. ISO- \$175- 400 @ 12 hour turnaround OR \$135-250 5 day turnaround

Question: Gordon Chase: EPA will complete BoRit and Ambler Piles and will not return for 5 years for review. There is no plan in place for monitoring for ambient air during that time. *To Dr. Webber-* If you were the Mayor of Ambler and want to ensure monitoring, what is an actionable program, a reasonable request for us to make?

Answer: Dr. Webber: This is beyond my expertise, I cannot answer that. My only suggestion would be TEM and perhaps working with EPA on this

Question: Gordon Chase: Looking at Costs for testing, what is a reasonable protocol for testing? What would be a saturation point for how much or how many times to test?

Answer: Dr. Webber: I would recommend talking to an Aerosol Expert

Question: Gordon Chase: Why not every few months take a filter and get it analyzed?

Answer: Dr. Webber: Filter testing can be used for AHERA and ISO method and filter piece can be saved for later for what other improvements in testing come along

Question: Jennifer Zega: How long do filters collect?

Answer: Dr. Webber: They collect a few hours to 12 hours or longer- possibly intermittent; too lengthy of a collection time may cause junk to collect as well.

Discussion ensued concerning the baselines used by EPA for testing; Data and sampling traces back to 2004/2005 but site has changed over the years. Piles have been covered, soil moved, roads created, and new stone and soil brought in. CAG members suggested that testing keep up with years of changes in the site and possibly improvements in testing. EPA members confirm that protocol is being followed in testing and procedures are followed and consistent with current environmental testing policies.

Question: Diane Morgan: Is it reasonable to request an aerosol specialist for further testing?

Answer: Dr. Webber: That sounds like a reasonable request.

Question: Ruth Wuenschel: Given the data, is the context of results and numbers something you've seen compared to other work you do?

Answer: Dr. Webber: This is comparable to other sites I've seen

### **Reservoir Status and Next Steps: Eduardo Rovira**

Eduardo Rovira presented a slide show highlighting the latest Reservoir status:

#### A. Dewatering Pond at Site

- a. As of 3/14 22.4 Million Gallons pumped
- b. Volume remaining to pump- 8 million gallons
- c. Filters are issue/ clogging with silt

#### B. Sampling of Sediment

- a. 3/31 - 6 locations sampled using a hand auger to a depth of 4 feet
- b. Awaiting results
- c. Native clay apparent under 6-12 inches of muck
- d. ACM seems only along berm
- e. Sample size 6-18" and 24-36" sent for complete analysis

C. 3/25/14 Air Sampling

D. 3/27/14 Workers Sampling

E. 4/1/14: Both Workers and Air Sampling

Question: Gordon Chase: Now that tiles are exposed, plan to remove them?

Answer: Eduardo Rovira: Large Pieces have been removed; others will be covered in place.

F. Water on Site

- a. Terracotta pipe uncovered with clean running water.

Discussion ensued concerning location and speculation of water source. CAG members suggest Rose Valley area or Maple Ave area or Loch Alsh reservoir.

### **Next Steps & Old/New Business**

Diane Morgan called for vote for test grant for Air Monitoring expert. Motion approved.

Ruth Wuenschel addressed payment issue for website. Bob Adams confirmed that a friend of the CAG group from the University of Pennsylvania has granted funding for the website.

Ruth Wuenschel offered EPA distribute CAG data to local businesses via email distribution; private residences are not available for mass email from EPA.

Sal Boccuti confirmed that 2 seats are open as "Citizen at Large"; only one resume has been requested from Andrew Salvatore. Next meeting will require a vote for the seat. Resumes from interested participants should be sent to Sal in preparation of next meeting in June 2014.

Lora Werner confirmed MAY 2, 2014 as next HERS WORKGROUP meeting date.

Meeting adjourned at 9:10pm.

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