

Memorandum

Date 9 November 2015

To Ginny Lombardo, USEPA

cc Ellen Iorio, and Paul L'Heureux, USACE, Elaine Stanley and Dave Lederer, USEPA

From Carl Wilson, Jacobs *CW*

Subject Ambient Air Status for Manomet Station #25

- 1. Background** – Air samples are routinely collected to measure air concentrations of PCBs as outlined in the Draft Final Ambient Air Monitoring Plan for Remediation Activities. When air sampling results are greater than the established risk based goals (RBG) additional measures are required including evaluation of meteorological and operational conditions. This memo serves to document that evaluation for a single concentration greater than the RBG at 110 ng/m³ for a child receptor. On 9/23/15, air samples were collected in the Upper Harbor. One sample result at Manomet – Station #25 was 186 ng/m³.
- 2. Meteorological evaluation** - Ambient Air Temperatures for the sampling period ranged from the high 40's⁰F to the middle 60's⁰F. The prevailing winds were approximately 3mph only. Solar radiation energy peaked at 806 W/m³ with an average of approximately 504 W/m³ during the daylight hours.
- 3. Operational evaluation** – Hydraulic dredging occurred in Zone H with debris removal in Zone T. Activities were routine with the dredge moving west to east toward the shoreline. Crews had placed additional oil boom to help absorb the floating oil on the water generated by hydraulic dredging. Debris removal should not have had any impact on the Manomet sampling station as Zone T is downwind.
- 4. PETS review** – Based on the PETS output a low trigger response was identified. The exposure budget expended during the period was 103.6%. However, the cumulative exposure budget expended to date for the six year running average for the child receptor was 28.5% only. The Air Sampling Status Report from the PETS program is attached.

Follow up sampling on 10/14/15 resulted in an air concentration of 16.4 ng/m³.

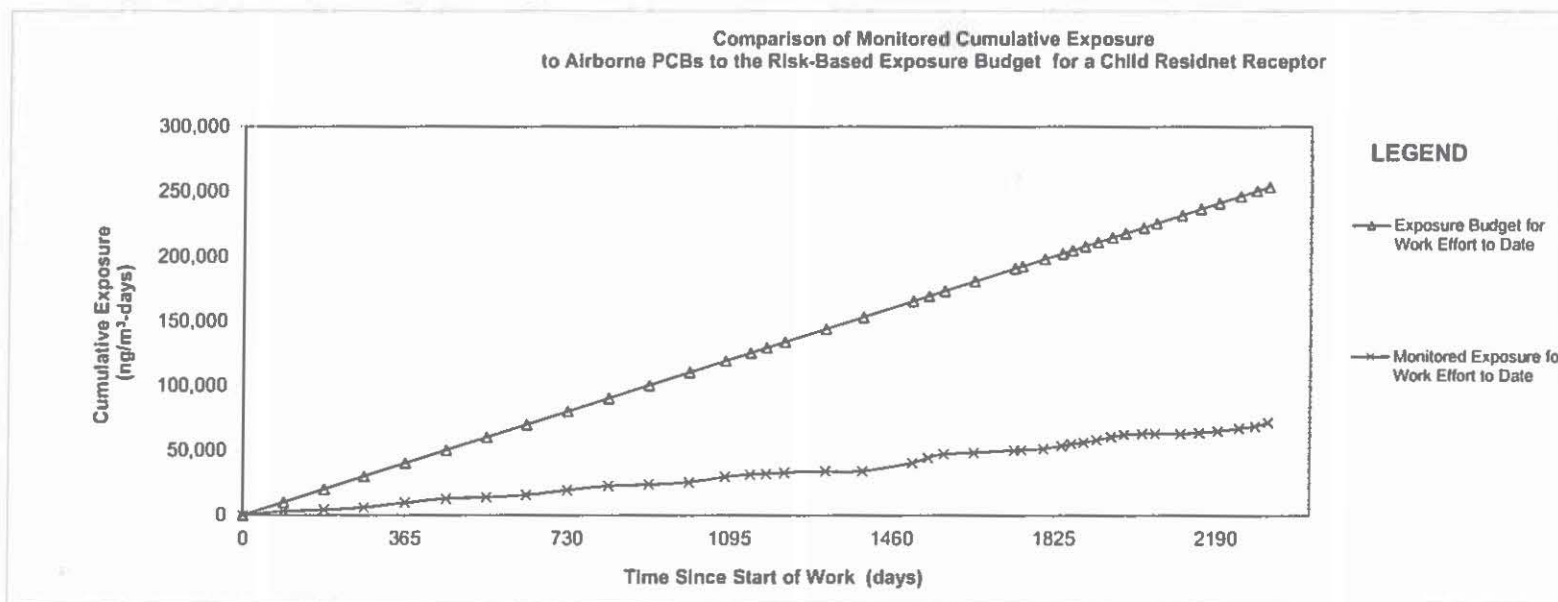
5. **Conclusions** – The measured air concentration on 9/23/15 was greater than the initial RBG trigger due to dredging of high sediment concentrations of PCBs, moderately high solar radiation and low wind speeds.

Subsequent sampling approximately two weeks later showed a substantial drop in the measured air concentration consistent with air concentrations normally observed at this station. The cumulative exposure budget (28.5%) is less than 75%, therefore no further action is required.

Air Sampling Status Report

Sample Station : 25 Manomet Street
Collection Date: 9/23/2015
Measured PCB Concentration (ng/m³): 182
Exposure Budget Expended During This Period: 103.6%
Cumulative Exposure Budget Expended to Date: 28.5%
Response Level: LOW
Response: Evaluate the Cause and Significance of the Triggering Conditions

Triggers:



Background data used was from an adjacent location, Station 46 Coffin.