

PCB & ASBESTOS ABATEMENT & AIR MONITORING SUMMARY
FORMER CAESAR RODNEY DORMITORY COMPLEX PROJECT,
City of Newark, DE
June 8, 2017

The following presents JMT's approach to addressing air monitoring during asbestos abatement and demolition activities at the former Rodney Dorm Complex.

Project Team – BrightFields Similar Project Experience

As indicated in our proposal, JMT has teamed up with BrightFields for the environmental remediation portions of this project. Brightfields project team includes: Engineers, Asbestos Hazard Emergency Response Act (AHERA) Inspectors, Lead Risk Assessors, Certified Hazardous Materials Managers (CHMM), Environmental Scientists and Project Managers.

With 30 years of environmental management expertise and experience, BrightFields' project team has significant experience with similar abatement and air monitoring projects. Some examples of similar projects BrightFields was involved in include PCB remediation and perimeter air monitoring at the Justison Landing Redevelopment Project at the Wilmington Riverfront, and perimeter air monitoring during redevelopment of the Hercules Golf Course into residences. These two projects consisted of large scale residential redevelopment projects where PCB contaminated soils were remediated through removal or soil blending processes. Both of these projects included the successful design and implementation of air monitoring programs and engineering controls to protect surrounding residents and onsite workers.

In addition, BrightFields was responsible for oversight and air monitoring at two large scale asbestos remediation projects; one at the University of Delaware Science and Technology (STAR) Campus (the demolition of the former Chrysler Plant) and the second, our most recent project at the Delaware Department of Transit Corporation Headquarters in Wilmington, Delaware. These projects included asbestos abatement, PCB electrical equipment removal, and demolition of the onsite buildings. BrightFields personally oversaw the abatement activities and removal of outside PCB transformers. BrightFields also successfully implemented an air monitoring program again to ensure surrounding residents, passersby, and onsite workers were protected from any dust, asbestos, lead or silica particles generated during the work.

1. PCB containing Transformer Removal and Remediation (Building Interior work)

There are a total of 12 350 kVA electrical transformers with nameplates indicating they contain polychlorinated biphenyls (PCBs) located within the enclosed shared basements of each of the three wings of the Rodney dormitory buildings and within the enclosed mechanical building just west of the former cafeteria. In order to safely remove the transformers, each unit will be removed prior to demolition of the surrounding building thereby eliminating any chance that the transformers could be damaged during the surrounding demolition process.

The transformer removal process will be completed using best management practices, which includes first removing the potential PCB oil via a closed pump and hose system. The oil will be

pumped into sealed 55 gallon drums which will then be removed from the Site by a certified waste hauler for proper disposal. Once the oil is removed, the transformer body will be removed, placed on a flatbed truck and hauled offsite for disposal at a certified facility. To address concrete in the area of the transformer that may have been exposed to PCB's (if required), the concrete will be chipped off down to a depth of approximately 2 inches. The concrete chipping process will be performed while the building is still intact, hence creating an enclosed area. In addition to the containment protection offered from the existing building structure, the area can be wet down to limit any dust that may result from the chipping process. Any resulting water would be vacuumed up using a shop vacuum and disposed of with the evacuated oil.

2. Asbestos Abatement (Building Interior work)

The Asbestos Containing Building Materials (ACBM) within the buildings will be handled using best management practices which include multiple levels of oversight and protection for surrounding residents, passersby, and site workers. The abatement process will be designed to effectively eliminate the possibility of asbestos fibers becoming airborne during building demolition by removing the materials (abating) from the buildings prior to demolition. To eliminate the possibility of ACBM becoming airborne during the interior abatement process the abatement work will be performed by a State of Delaware licensed and insured asbestos abatement contractor which includes containment with negative pressure and High Efficiency Particulate Air (HEPA) filtration.

The abatement process typically includes encapsulating or containerizing the asbestos material and then removing the contained material from the building for disposal. To ensure this process is performed in accordance with applicable EPA, OSHA and state regulations, the contractor will provide AHERA certified competent supervisors and workers to properly remove and dispose of identified asbestos-containing building materials (ACBM). A State of Delaware licensed asbestos abatement Project Monitor and EPA AHERA certified asbestos building inspector will be engaged to oversee the indoor abatement. As each interior area is abated, BrightFields will conduct asbestos clearance sampling to assure the ACBM was successfully abated within the building prior to demolition.

3. Air Monitoring Program (exterior asbestos abatement and building demolition)

The air monitoring program will be designed and implemented with the goal of monitoring and preventing respirable particulate matter (dust), asbestos, possibly lead (pending a lead-based paint assessment), and crystalline silicates from affecting surrounding residents, businesses, passersby and site workers during outdoor asbestos abatement activities (e.g. roof demolition) and building demolition. BrightFields will set up perimeter sampling pumps and perimeter dust meters prior to any outside asbestos abatement or demolition activities.

Particulate Matter (Dust) Monitoring

Perimeter dust air readings will be the first indicator of potential dust level concerns. The dust readings will be obtained using real time monitoring equipment at pre-selected locations along the perimeter of the Site. Time weighed averaged (TWA) readings will be obtained at each monitored location and if the TWA readings exceed the site specific dust threshold level, work will be stopped and corrective actions will be performed. The dust threshold exceedance will be communicated

to the person or persons overseeing the work via either real time electronic notification or if physical reading of monitors is employed, the exceedance will be observed in the field by the overseeing personnel. Corrective actions often consist of physical dust suppression efforts (water sprayer truck/mist machine, aka hurricane, etc.). The monitoring locations will be selected daily based on Site activity, wind direction, and potential receptors.

Asbestos, Lead and Silica Monitoring

Asbestos, lead (depending on the results of a lead-based paint assessment) and silica particles will also be monitored through the collection of air samples over an 8-hour TWA (workday) duration in accordance with NIOSH Method 7400, 7082, and 7500mod respectively. Asbestos, lead and silica samples will be collected daily during abatement activities and building demolition.

Samples will be collected at the same locations as the three stationary dust samplers. Each collected sample will be sent to an AIHA approved testing laboratory. The typical turnaround for the asbestos and lead samples is 24 hours and the silica samples are generally turned around in 72 hours. The daily testing results will be compared to the site specific asbestos, lead and silica EPA action level. The action levels will be set prior to beginning work using the applicable guidance for each particulate; EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulatory guidance for asbestos; EPA National Ambient Air Quality Standards (NAAQS) guidance for lead; and Occupational Health and Safety Administration (OSHA) guidance for silica.

If an exceedance of the action level is observed, work will be adjusted and the engineering controls will be rechecked (in addition to daily pre and post work checks) to ensure they are operating correctly. Once a week (typically on Fridays) Daily Perimeter Air Monitoring Reports will be provided to the City of Newark project team for each day of the previous week. These reports will include a summary of the weather conditions, dust monitoring results, asbestos monitoring results, lead monitoring results, and crystalline silica monitoring results for each day of the previous week.