

**CASE STUDY:** PADEP ACT 2 Environmental Cleanup  
Site-Specific Standard (Benzo(a)pyrene)

**Project Description:** Brownfield Redevelopment  
Industrial Site Re-use as Apartments

**Scope of Services:** AET was contracted by a Real Estate Developer to conduct a remedial investigation and environmental contracting services at a Brownfield site (former Carpet Manufacturer and Dye House) for planned redevelopment as apartments. The approximate 2 acre site contained 3 buildings; 2 of which were to be demolished and the remaining building reused. Phase I/II Environmental Site Assessment findings confirmed the site to contain the recognized environmental conditions (RECs) listed below.

**AET's Investigative Approach/Sampling/Tools:**

- 1. Asbestos:** ACM was identified by AET's licensed asbestos building inspector and removal completed by a licensed asbestos contractor. AET also provided asbestos project monitoring services including final air clearance testing in accordance with the Philadelphia's Asbestos Control Regulations. Notification was also provided to Philadelphia's Department of Licenses & Inspections to obtain applicable building permits.
- 2. Underground Storage Tanks (USTs):** GPR/EM instrumentation was utilized to detect the exact location and size of the site UST as well as any adjacent utilities which may be impacted by the UST removal process. AET removed the UST and provided a closure report to the client. No contaminated soil was noted.
- 3. Lead:** AET's licensed lead inspector identified lead painted building components in the building to be reused prior to renovations. Lead components will be abated or stabilized in a good or in-tact condition. The demolition waste stream will be tested for proper disposal.
- 4. Hazardous Materials:** Drummed oils, open containers and universal wastes were assessed, characterized, packaged, and removed for disposal or recycling.
- 5. Contaminated Soil (Benzo(a)pyrene):** A comprehensive soil sampling program was designed/implemented incorporating 17 borings (28 soil samples) throughout the site. Results confirmed 11 of 28 samples to contain Benzo(a)pyrene levels which exceeded the PADEP Residential Statewide Health Standard Medium Specific Concentration (0.57 ppm) but were below the Soil to Groundwater Standard (46 ppm). Contamination was not localized, but was found at various site locations and at various depths.

**CONCLUSION:** The Act 2 Site-Specific Standard utilizing pathway elimination was implemented to reduce the risk to public health from Benzo(a)pyrene. Pathway elimination included the use of an asphalt cover, a perpetual care plan and a deed restriction.

**AET EXPERIENCE:** Promulgated in 1997, the PADEP's Act 2 Land Recycling Program created a legal framework for the redevelopment of old industrial sites by setting cleanup standards based on risk and providing special incentives including releasing responsible parties for liability when cleanup standards are met. Act 2 also sets deadlines for DEP actions and in some cases provides funding for environmental studies and cleanups. For this project, AET's remedial investigation began in the fall of 2012 and the PADEP approval for the completed response received in April 2013.

When you need professional industrial hygiene advice email Alan Sutherland, CIH, CHMM at [a.sutherland@aetinc.biz](mailto:a.sutherland@aetinc.biz) or call 610-891-0114. We provide nationwide services; phone consultations are free. Check out the full range of environmental contracting/consulting services on our website [www.aetinc.biz](http://www.aetinc.biz).

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