

Award Winning Development of a "Brownfield" site



Adaptive reuse, the rehabilitation and renovation of existing structures for new uses, is the cornerstone of inner city revitalization programs. One such project is the adaptive reuse of the former inner city manufacturing complex of Borg Warner, now owned by the York County Industrial Development Corporation (YCIDC). Built in the 1907 and vacant since the mid-1970s, this York City complex encompasses 6.2 acres. Completed in late 1995, the complex houses office and light manufacturing space. We conducted a Phase I Environmental Site Assessment for the YCIDC.

From the early 1900s until it was vacated, the complex housed a major manufacturer of heating and air conditioning equipment. Operations included forging, permit casting, grinding, plating, painting, and assembly. The Phase I Environmental Site Assessment included historical use characterization, interviews with former owners and regulatory agencies, and a site walk-through. The results of the Phase I assessment indicated that a Phase II investigation was warranted.

The Phase II investigation involved conducting approximately 15 soil borings inside the facility, 35 borings on adjacent storage yard areas, sampling of the soils, evaluation of several drums and underground storage tanks, and inspection of suspected asbestos-containing pipe wrap

and roofing felts. Primary concerns focused on heavy metals contamination of soils in the complex. Upon receipt of analytical results, a report was prepared presenting these findings and providing a cost estimate for anticipated remedial efforts.

During design, surveys showed the presence of lead-based paint on some surfaces in the buildings being restored. Since the waste created by the dry removal of lead-paint is hazardous, we reduced the weight of the paint waste and the cost for disposal by using crushed walnut shells instead of sand as an abrasive in the removal process.

Subsequently, contract documents were prepared for the removal and disposal of asbestos-containing materials and lead-based paint, as well as in-place closure of one 500-gallon (estimated) and two 22,000-gallon (estimated) underground storage tanks. We also provided field oversight during closure.

Guidance was provided to in-house design and project architectural staff and the client on various regulatory compliance issues. Various remedial options were negotiated with the Pennsylvania Department of Environmental Protection and the U.S. Environmental Protection Agency to facilitate permit approval for the rehabilitation of this old industrial site.