

"The underground fire was quickly extinguished and the remediation of the remainder of the landfill was completed on schedule."

Client: City of Philadelphia, PA -
Department of Finance

During the 1980s and early 1990s, a contractor used a seven-acre parcel owned by the City of Philadelphia (City) near Hog Island and Fort Mifflin Roads for temporary storage of Construction and Demolition (C&D) debris. Upon discovering that the site was being misused, the City shut down operations and put the contractor out of business. Subsurface fires had been occurring at the site since the mid-1990s, producing smoke and odors. Remediation became a high priority for the City when the condition of the site was publicized by the media.

HIGHLIGHTS:

- Site Characterization
- Underground Fire Remediation
- Temperature/Gas Survey of Subsurface
- Remedial Action Plan
- Remedial Design and Specifications
- Construction Monitoring



Urban Engineers (Urban) was retained by the City to evaluate conditions at the site and develop a remediation program to ultimately extinguish the underground fires and remove the material that potentially generated the fires. Urban's site characterization identified the types and quantities of material in the landfill and the location of the underground fire. Working closely with the Pennsylvania Department of Environmental Protection (PADEP), Urban developed cleanup cost estimates and evaluated remedial alternatives. An excavation and extinguishment method was selected for remediating the burning area. It was recommended that the

illegal C&D waste in the remainder of the site be excavated and sorted into fractions to either be recycled on-site or transported to an off-site disposal area. Urban then prepared a concept design of the selected remedial action program, prepared bid specifications, and assisted in the bidding process.

Urban provided full-time on-site monitoring of construction activities during the six-month remedial action program. Urban reviewed contractor submittals, tracked waste quantities, tested for asbestos materials, coordinated with PADEP, and approved the contractor's invoices. Weekly meetings were held between Urban, the clients, contractor, and PADEP so that issues would be addressed quickly without adversely impacting the schedule.

More than 38,000 tons of material were excavated and sorted, with 60% recycled on-site (soil, brick, and block). More than 230 trucks transported wood, tires, metal, and limited quantities of asbestos and contaminated material to off-site disposal areas. Urban prepared a final site grading plan to manage long term runoff, reduce the effects of erosion and sedimentation, and enhance site appearance.