

Region 3 GPRA Baseline RCRA Corrective Action Facility

ISG Tecumseh Redevelopment Inc. (Formerly: Bethlehem Steel Corp.)

1805 East 4th Street
Bethlehem, PA 18016-7699
Congressional District 15
EPA ID #: PAD990824161
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Current Progress at the Site

EPA, PADEP and Bethlehem Steel Corporation-Bethlehem Plant (BSC) formed a team in 1998 to proceed with the clean-up of the facility. The facility is subject to RCRA corrective action, however, BSC's redevelopment plans hinged on obtaining a release from liability which is available for remediation performed under the Pennsylvania Act 2 Land Recycling Program. The redevelopment plan is designed to revitalize South Bethlehem, which has been in an economic slump since BSC started downsizing in the 1970's.

In May 2003, this Bethlehem Steel site was sold to an International Steel Group (ISG) subsidiary, Tecumseh Redevelopment Corp., as part of the Bethlehem Steel bankruptcy proceedings. In May 2004, Tecumseh Redevelopment sold 1000 acres to Lehigh Valley Industrial Park, Inc. (LVIP), a local redevelopment firm and owner of several industrial parks. In July 2004, LVIP sold 32 acres in the *Saucon* area to United States Cold Storage, for refrigeration warehousing. In 2004, Tecumseh sold the *Bethlehem Works* property to BethWorks. Now, however, Tecumseh continued to own the *450-Acre* area. In 2004, a Dutch steelmaker, Mittal Steel, purchased ISG, including Tecumseh and the *450-Acre* area. In December 2007, Majestic Realty Co. and Bethlehem Commerce Center Corp. purchased the *450-Acre* area for warehousing.

The facility has been divided into 2 different areas for redevelopment; Bethlehem Works and Bethlehem Commerce Center, which includes the Coke Works, Saucon, Conectiv, East Lehigh, Easton Road Frontage, Commerce Center Boulevard, and the Greenway.

Bethlehem Works

At the 163-acre *Bethlehem Works* area, on the western side of the site, demolition of buildings and removal of some soil has been completed. EPA, PADEP, and BSC agreed on the remediation work completed. PADEP and EPA have approved the soil remediation and the groundwater investigation under the Act 2 and federal corrective action programs respectively. Current studies indicate that the small amount of residual VOC contamination in the alluvial aquifer does not impact the Lehigh River.

Building demolition and the soil investigation happened concurrently. At that time, degreasers, which may have been sources of contamination, were excavated and other soil contamination was removed (down to 2 feet) when it was found and backfilled with clean fill. The redevelopment plan calls for most of *Bethlehem Works* to be paved over, which will eliminate any avenue of exposure from soil contamination left on-site.

Bethlehem Works, currently owned by BethWorks Now, is to become the Riverfront Renaissance District. This is an \$879 million redevelopment project, expected to include a casino, multiplex movie theater, ice skating center, swimming pool facilities and other entertainment and retail establishments. A major piece of *Bethlehem Works* is the establishment of the National Museum of Industrial History, an annex to the Smithsonian Institution. The museum is expected to be housed in one of the former production buildings. Construction of a new roof for the museum was started in 2005. Casino construction began in 2007.

Bethlehem Commerce Center

Coke Works

The *Coke Works* phase of investigation and remediation encompasses the 390 acres at the southern end of the facility where the former Coke Plant was located. The *Coke Works* consists of two areas, *Coal Chemical*, where the Coke Plant was located - the most contaminated portion of *Coke Works*; and the new *BethIntermodal*, just south of *Coal Chemical*. Investigation of the soils and groundwater beneath the *Coke Works* began in March 1999.

Coal Chemical

The primary contaminants of concern at *Coal Chemical* are BTEX (benzene, toluene, ethyl benzene and xylene) and naphthalene, which are all common contaminants of the historic coke operations and by-product chemical production. Several waste disposal areas have been found, as well as widespread soil contamination. The underlying groundwater is also contaminated. Currently, the characterization investigation is focusing on soil gas studies, which will help identify risks from vapors emanating from the soils, and a groundwater computer model which will aide in visualizing long-term remedial strategies.

EPA, PADEP and Bethlehem Steel jointly developed a plan for increasing airflow in the soils, with the expectation of increasing microbial activity and the degradation of the organic contaminants. The “passive bio-venting” strategy uses standard technologies in an innovative way. The system will consume very little energy and has low maintenance requirements, lending itself well to the facility’s redevelopment vision. Currently, design of the system is on-hold.

EPA, PADEP, and BSC discussed the regulatory expectations for remediation of *Coal Chemical*, consistent with its intended redevelopment with light and heavy industrial activities. The workgroup is developing proposals to eliminate the exposure threats posed by the soils and groundwater.

BethIntermodal

A new \$14 million intermodal terminal is almost complete on 100 acres in the Coke Works area, just south of *Coal Chemical*. *BethIntermodal* is a six-track transfer station for rail-to-truck and vice-versa shipping. This short line railroad, managed by Lehigh Valley Rail Management, has direct access to a major Norfolk Southern railroad and is expected to move more than 80,000 containers annually. Currently, 20 people work locally for Lehigh Valley Rail Management with additional work intermodal handled by contractors.

The old intermodal terminal is located on the *450-Acre Area* (in *East Lehigh*) which has been purchased for warehousing development (see description under *450-Acre Area* below). Operations at the old terminal ceased when the new *BethIntermodal* opened, in mid-2006.

Commerce Center Boulevard

Commerce Center Boulevard is a \$13 million, 4,200-foot road linking Rte. 412 with the new *BethIntermodal* and the *450-Acre Area* in *East Lehigh*. Construction started in mid-2004, and

when complete will provide access to the eastern third of Bethlehem Commerce Center. Part of the Boulevard crosses the *Coal Chemical* area. BSC studied the risks the *Coal Chemical* area posed to road construction workers as well as those using the road, and submitted a risk evaluation to EPA and PADEP. EPA and PADEP approved construction of the road in July 2001. The road was finished in early 2006.

East Lehigh

Conectiv Bethlehem Generation

A 53.3-acre area along Apple Butter Road in the northeastern most portion of the site is home to a 1100-watt natural gas fired power plant. BSC submitted a soils characterization report, "Final Report of Soils, Conectiv Mid-Merit, Inc., Project Area", which EPA and PADEP approved in October 2001. The contaminants in the soil are below Pennsylvania Act 2 state-wide health-based levels. PADEP granted liability protection for soils pursuant to the Act 2 program. Conectiv bought the property and began construction of the plant shortly thereafter. The plant went "on line" in early 2003. Total investment in this project is expected to be \$600M.

450-Acre Area

An additional 450 acres in the East Lehigh area has been proposed for a warehousing and distribution center. Mittal sold the property to Majestic Realty Co., a real estate developer based in California. Some industrial activity was formerly located on the site. Soils and groundwater characterizations have been completed and were approved by EPA and PADEP in September 2007. On September 26, 2007, PADEP and Majestic entered into a Consent Order and Agreement to address remediation of the Parcel. The remedy involves primarily excavation of soils and construction of buildings to mitigate direct contact and soil to groundwater pathways of migration for any hazardous materials. On November 20, 2007, EPA issued a Final Decision on the remedy at the parcel which mirrors the requirements in the PADEP Consent Order and Agreement and defers implementation of the remedy to PADEP's Consent Order, with the addition of Financial Assurance obligations which will ensure completion of the remedy should unforeseen circumstances arise.

The *450-Acre area* is being sub-divided into ten areas (phases), which will each be remediated on a separate timeline. As the remedy is completed at each phase PADEP will evaluate the work and consider issuing Release of Liability under Act 2, and EPA will assess issuing a "Construction Complete with Controls" decision.

Easton Road Frontage Properties

Half of the 100 acres of property along Easton Road (paralleling Rte 412) is being eyed for immediate redevelopment in 2007. Environmental investigation of the former mineral wool area of Bethlehem Steel began in 2005, and was completed in mid-2006. Two buyers have purchased the property.

Saucon

Investigation and clean-up of this 265-acre tract began in early 2004 and is expected to last through 2008. *Saucon* is slated for redevelopment and has been divided into sections for both investigation and resale.

In July 2004, 31 acres was sold to United States Cold Storage for a \$14 million refrigerated storage and warehousing project. The business began operation in mid-2005 and employs 50 workers.

In December 2005, Primo Produce, Inc. purchased 30.7 acres for a food warehousing enterprise.

At this time, at least two other prospective buyers are interested in sections of the *Saucon* tract.

Greenway

The *Greenway* is currently owned by LVIP, purchased in May from ISG. LVIP is looking into creating a public environmental or educational area on these 110 acres along the easternmost property boundary. LVIP will coordinate with state and local groups to determine the best use of this property.

Site Description

Located on the south side of Bethlehem, PA, Bethlehem Steel's Bethlehem Plant has been in operation since the 1880s. BSC closed its last operations in March, 1998. The site, part of which borders then Lehigh River, consists of approximately 1800 acres, on which are a coke production plant, steel iron making operations, finishing and forging operations, and a chemical plant. In May 2003, Bethlehem Steel Corporation went into bankruptcy and this Bethlehem Steel site was sold to an International Steel Group subsidiary, Tecumseh Redevelopment Corp. In May 2004, the *Coke Works*, *Saucon*, *East Lehigh*, and *Greenway* parcels were sold to Lehigh Valley Industrial Park, Inc, a local redevelopment firm and owners of several industrial parks. In 2004, Tecumseh Redevelopment sold *Bethlehem Works* to BethWorks Now. Tecumseh continued to own the *450 -Acre* area. In 2004, a Dutch steelmaker, Mittal Steel, purchased ISG, including Tecumseh and the *450-Acre* area. In December 2007, Majestic Realty Co. and Bethlehem Commerce Center Corp. purchased the *450-Acre* area for warehousing.

Contaminants

The main contaminants in the groundwater are PAHs (poly aromatic hydrocarbons), and solvents, such as TCE and tetrachloroethane, The primary contaminants in the soil are solvents, PAHs, and heavy metals, such as arsenic and lead.

Community Interaction

From the out-set, BSC worked closely with the city of Bethlehem on the redevelopment project. BSC issued all public notices of "Intent to Remediate" and "Remedial Investigation Report" required under the Act 2 program. Bethlehem Steel held a public meeting October 21, 1998 to keep the public up-to-date on the investigation to that point, as well as future investigations and resale plans for the property. PADEP and EPA were in attendance.

Institutional Controls

The groundwater under the site will not be used for drinking water. The Bethlehem Commerce Center property will be used for non-residential purposes only.

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For more information about EPA's corrective action webpage, including Environmental Indicators, please visit our site at: www.epa.gov/reg3wcmd/correctiveaction.htm