Region 3 GPRA Baseline RCRA Corrective Action Facility

Koppers Industries (Formerly:Beazer East)

100 Koppers Rd
Follansbee, WV 26037
Congressional District 1
EPA ID #: WVD004336749
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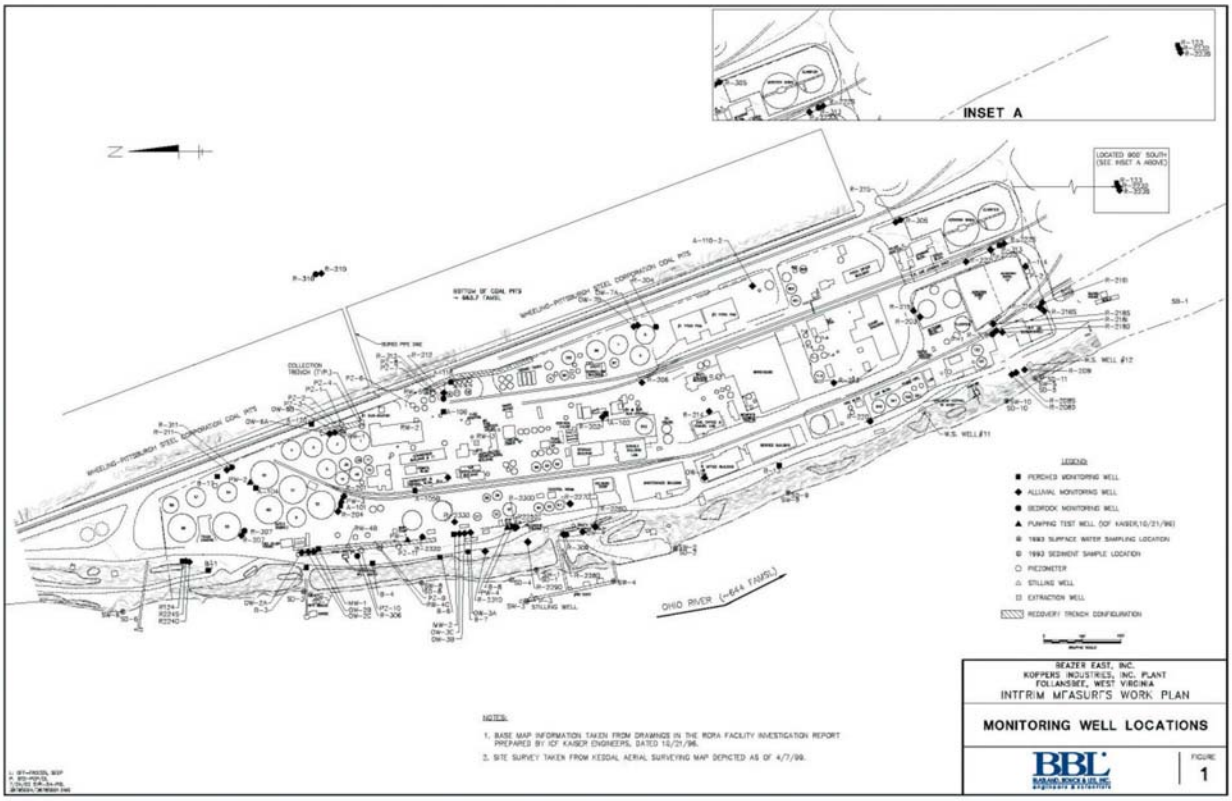

Current Progress at the Site

The facility is currently owned and operated by Koppers Industries, Inc. In October 1990, EPA issued a 3008(h) Consent Order to Beazer East, former owner of the facility, to conduct a site clean-up investigation. Beazer East is operating two interim programs to control contaminated groundwater migration:

(1) The first program, installed in 1983 by a previous owner, involves the operation of five groundwater recovery wells to provide hydraulic containment for portions of the shallow perched zone aquifer. The recovered groundwater is processed in an on-site wastewater treatment plant prior to discharge under a permit to the Ohio River. The

effect of this program has been to control seepage to the neighboring Wheeling-Pittsburgh Steel Corporation coal pits, as well as to control releases to the Ohio River banks. Beazer East recently performed upgrades to optimize the performance of this recovery system. EPA has requested Beazer East to provide a demonstration of the effectiveness of this system. Beazer East is presently completing additional field investigations to fulfill this objective.

(2) The second program, known as an interim Dense Non-Aqueous Phase Liquid (DNAPL) removal program, was initiated in April 1999 to collect coal tar product from the bed rock with one recovery well. A coal-tar DNAPL pool, up to 7 feet thick, was detected in several bedrock wells. The DNAPL removal system has been running continuously since April 1999. As of September 2001 over 15,000 gallons DNAPL have been recovered at a rate of about 300 gallons per month, declining from a peak of 1,500 gallons per month in the first year. Two new exploratory wells were completed in December 2001 to the north of DNAPL recovery well in an attempt to locate new recovery wells when the existing recovery well begins to dry out. The results were not promising and it was decided that an existing monitoring well to the east of the existing recovery well will be tested for the potential future recovery.

The site has been the subject of environmental investigation since the early 1980s. Pursuant to the 1990 Consent Order, Beazer East is required to complete a RCRA Facility Investigation (RFI) and a Corrective Measures Study (CMS). The objective of the RFI was to develop a technically sound Site Conceptual Model and to complete a risk assessment. This information will be used to identify necessary corrective actions for which applicable remedial technologies will be evaluated in the CMS.

Beazer East has been conducting the RFI in phased approach, which resulted in the submittal of comprehensive RFI Reports in 1994 and again in 1996. EPA provided technical comments on these reports. Beazer East responded to these comments by performing additional field programs to better characterize the site and to evaluate certain identified data gaps. These programs have included the installation of additional monitoring wells, performance of additional sampling and analysis, and evaluation of the existing shallow zone pump-and-treat system.

On June 26, 2000, EPA conditionally approved the RFI report subject to additional sediment and surface water sampling by Beazer East. The river sediment and surface water sampling was completed in January 2001 and reported to EPA in August 2001. The report indicated that surface water samples did not show any contamination above either the reporting limits or upstream background concentrations. Sediment samples, however, were found to be elevated with organic contamination above background while inorganic contaminants were statistically indistinguishable from background. Based on the sediment PAH contours presented, a hot spot of between 1,000 to 10,000 mg/kg PAH was located in the near shore area between the pipe barge and loading dock. EPA approved the sediment report in October 2002 which will conclude the RFI work required by the Order.

On April 30, 2003, Beazer submitted to EPA a RCRA CMS Pre-Design Work Plan that describes a DNAPL recovery optimization plan, former water pump houses abandonment investigation and sediment remediation characterization. EPA approves the Pre-Design Work Plan on June 3, 2003 and the field work for sediment remediation characterization was completed in summer 2003.

Beazer East has met with WVDEP several times in 2005 to resolve the difference in interpretation of what remedial actions will meet WVDEP's regulations. WVDEP has made the

final determination in December 2005 that both capping and removal are acceptable remediation options.

In 2007, in support of WVDEP, EPA reviewed the sediment clean up criteria proposed by Beazer East. Based on this review, EPA recommends that 100 mg/kg total PAHs is an appropriate and protective cleanup goal for the PAH contaminated sediments. WVDEP has accepted EPA's recommendation as the basis for clean up of the contaminated sediments associated with the Follansbee facility.

In April, 2008, Beazer East submitted the Corrective Measures Study (CMS) to EPA for review. EPA met with WVDEP and Beazer East in July 2008 to review the CMS. Initially, WVDEP was not receptive of the recommendation to remediate the sediments by excavation and capping. In December 2008, WVDEP provided comments to EPA indicating that the Department will accept the recommended remediation approach. EPA is working with WVDEP to incorporate its comments into EPA's comments on the CMS.

Site Description

The facility is located in the northern panhandle of West Virginia along the east bank of the Ohio River in Brooke County, just north of the City of Follansbee, West Virginia. The facility occupies about 34 acres and is bounded to the north, south, and east by a coke-making facility owned by Wheeling-Pittsburgh Steel Corporation. Throughout its operation history dating back to 1914, the facility has changed ownership several times but has always been operated as a coal-tar processing plant. The facility is located in a heavily industrialized zone within one mile of several population centers. The northern portion of the facility is highly contaminated with coal tar constituents in soil and groundwater which have migrated into bedrock.

Site Responsibility

The RCRA Corrective Action activities at this facility are being conducted under the direction of EPA Region 3 with assistance from the State.

The site was formerly listed under the Superfund National Priority List (NPL), but actual oversight work has been preformed under a 1990 Consent Order from the RCRA program. The site was delisted from the NPL around 2005.

Concurrent with the remediation work, EPA is working with Koppers Industries, current owner and operator of the facility, to oversee its commitment to implement the best pollution prevention and waste minimization practices. EPA understands that an effective clean-up program must be accompanied by an effective pollution prevention and waste minimization program. This facility presents a unique challenge in that the clean up responsible party and the current owner/operator are separate companies.

In December 15, 2003, EPA has approved West Virginia RCRA Corrective Action Program. EPA will continue to oversee performance of the work required under the 1990 Consent Order work, which will lead to selection of the remedy. After selection of the remedy, oversight responsibility to implement the remedy will be transferred to West Virginia.

Contaminants

The site is highly contaminated from a century of coal tar processing operations. The soil and groundwater in the shallow and alluvial zones are contaminated with a range of contaminants including, but not limited to naphthalene, phenol, volatile organics (benzine, xylene, toluene, ethybenzene, trichloroethene and trichlorobenzene), polycyclic aromatics, cyanide, and metals. A coal-tar DNAPL pool, up to 7 feet thick in one well, was detected in the bedrock one hundred feet beneath the surface. The full extent of the DNAPL pool, and its migration pathways, are currently under investigation.

Ohio River is a sensitive ecological habitat. The river is hydraulically connected to the alluvial aquifer in which groundwater moves preferentially toward the river and during flood stage, a reverse flow may occur. Thus, the contaminated groundwater has potentially greater impact on the river than on wells near the facility. The actual impact on Ohio River has not been determined and it is a subject of continued investigation. The region is heavily industrialized and multiple upstream contributors exist. Thus, it may be difficult to quantify the isolated impact from one facility on the river.

Community Interaction

To date, there has not been significant public involvement or interest in the RCRA environmental program at the facility.

Institutional Controls

No institutional controls are currently in place.

Government Contacts

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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