



## Long-Term Stewardship Assessment Report

**Koppers Industries Inc. - Follansbee**

**EPA ID #: WVD004336749**

**Follansbee, West Virginia 26037**

Assessment Date: April 27, 2018

Report Date: May 30, 2018

**Introduction:** Long-term stewardship (LTS) refers to the activities necessary to ensure that engineering controls (ECs) are maintained and that institutional controls (ICs) continue to be enforced. The purpose of the Environmental Protection Agency (EPA Region 3 LTS program is to periodically assess the efficacy of the implemented remedies (i.e. ECs and ICs) and to update the community on the status of Resource Conservation and Recovery Act (RCRA) Corrective Action facilities. The assessment is conducted in twofold, which consists of a record review and a field inspection, to ensure that the remedies are implemented and maintained in accordance to the final decision.

**Site Background:** The Koppers Industries Inc. – Follansbee (Koppers), now Koppers Inc., coal tar plant is a 34-acre facility located just north of the city of Follansbee in Brooke County, West Virginia (Facility). The Facility is bounded to the north, south and east by a coke manufacturing facility, which is owned and operated by the Former Wheeling-Pittsburgh Steel Corporation, which is now part of Severstal Wheeling Inc. The Facility was first constructed in 1914 by the American Tar Products Company to operate as a tar distillation plant, producing creosote, road tar, and pitches. The current owner of the Facility is Koppers, but within the last century of coal tar processing, the Facility has undergone multiple ownership and name changes.

In September 1990, an Administrative Order on Consent (Order) was issued pursuant to 42 U.S.C. §6928(h) of RCRA to Beazer East, Inc., former owner of the Facility. The Order requires Beazer East to perform interim measures, RCRA facility investigation and a corrective measures study. For convenience of references, Koppers refers to the Site, Facility or Facility owner/operator, and Beazer East refers to the responsible party of the Order to perform the work.

**Current Site Status:** In March 2011, EPA issued the Final Decision and Response to Comments (FDRTC). The final remedy consists of the following 4 components: a soils component, sediment component, groundwater component and Facility-wide Institutional Controls (ICs). The soil remedy consists of compliance with and maintenance of ICs. The sediment remedy consists of dredging and capping. The groundwater remedy consists of continued operation of the perched groundwater collection system and the expansion of the interim dense non-aqueous phase liquid (DNAPL) recovery system, as well as compliance with and maintenance of ICs. Engineering control components of final

remedy detailed in the FDRTC are implemented through a Corrective Measures Implementation Administrative Order on Consent (CMI Order) between Beazer East and EPA dated September 29, 2011. Facility-wide ICs are implemented via a Uniform Environmental Covenants Act (UECA) Environmental Covenant between Koppers, Beazer East and EPA dated February 14, 2017. Currently, the facility is in a transition phase. Ongoing operations have been curtailed and decommissioning activities are underway.

**Long-term Stewardship Site Visit:** On April 27, 2018, EPA conducted a long-term stewardship site visit with West Virginia Department of Environmental Protection, Beazer East and Koppers representatives to discuss and assess the status of the implemented remedies at the site.

The attendees were:

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Kurt Paschl	Beazer East, Inc.	<a href="mailto:kurt.paschl@trmi.biz">kurt.paschl@trmi.biz</a>	(412)208-8863
Linda Paul	Koppers Inc.	<a href="mailto:pauls@koppers.com">pauls@koppers.com</a>	
Mark Allan	Koppers Inc.	<a href="mailto:alanmc@koppers.com">alanmc@koppers.com</a>	(304)527-5548
Bill Cairns	Koppers Inc.	<a href="mailto:cairnsbj@koppers.com">cairnsbj@koppers.com</a>	(304)527-5510
Mark Hanish	Arcadis	<a href="mailto:mark.hanish@arcadis.com">mark.hanish@arcadis.com</a>	(724)742-9180
Hank Pappert	FTS, LLC.	<a href="mailto:hpappert.2006@f-ts.com">hpappert.2006@f-ts.com</a>	(412)429-2694

**Institutional Controls (ICs) Status:**

***UECA Environmental Covenant:*** The Covenant is the method for implementing institutional controls required as a condition of the Statement of Basis and FDRTC. The following ICs apply to the entire Facility, shown on Figure 1:

***Land Use Restriction:*** The Property shall not be used as “residential” property, as that term is defined in W.Va. Code §22-22-2(bb). There were no residential structures or uses of the site at the time of the visit. The Property is secured with fencing, a gateway and guardhouse. Koppers continues to operate the coal tar facility and is currently in compliance with land use restrictions.

***Groundwater Use Restriction:*** Groundwater at the Property shall not be used for potable purposes or uses that result in direct contact or new or additional risk to human health or the environment. Extraction of groundwater for groundwater monitoring and/or remediation is permitted. The facility is connected to a public water supply and there were no uses of groundwater at the time of the visit.

***Materials Management Plan:*** Any construction activities such as excavation, drilling, penetration or any other type of disturbance must be conducted by a contractor who is informed and trained about the releases and exposure to contaminants known to exist at the site. The contractor is required to perform the work in accordance with a site-specific Health and Safety Plan and the December 2014 Materials Management Plan approved by EPA. Also, existing surface covers shall be maintained over impacted areas to minimize surface water infiltration and prevent direct contact with soils. During the Facility

tour no signs of earth-moving activities were observed and most asphalt or concrete paved surfaces were intact. As tanks and/or buildings are demolished, it is recommended to replace the surface cover at the footprint of such structures.

*Ohio River Construction:* Any construction, excavation and deposition of materials in, over, or under waters of the Ohio River at or adjacent to the Property must be permitted by the United States Army Corps of Engineers pursuant to regulations promulgated under the Rivers and Harbors Act of 1899, 33 U.S.C. 403. There were no signs of construction in, over, or under the river during the site assessment.

### **Engineering Controls (ECs) Status:**

*DNAPL Recovery System:* Two (2) Dense Non-Aqueous Phase Liquid (DNAPL) recovery wells operate daily, cycling on and off throughout each day to maximize DNAPL recovery in groundwater. Recovery Well R-225D has been in operation since April 2000 and recovers approximately 20 to 25 gallons of DNAPL per week. However, the rate of recovery at R-225D has slightly decreased over time as the product pool diminishes. The system was expanded in 2016 with the installation of Well R-401. Currently, this well recovers approximately 10 gallons of DNAPL per week. To date, the DNAPL recovery system has removed a total of approximately 120,000 gallons. Recovered DNAPL is routed to a recycling facility on-site. Active groundwater remediation will continue for the foreseeable future.

*Perched Groundwater Recovery System:* The perched groundwater recovery system was installed between 1984 and 1986 to prevent groundwater containing coal tar related constituents from discharging to seeps along the adjacent Mountain State coal pits on the Eastern edge of the Facility and to the Ohio River embankment on the western edge. Four recovery wells, RW-1, RW-2, RW-4 and RW-5, operate continuously with a combined extraction rate of approximately 16 gallons per minute. Captured water is directed to and treated by the Facility's wastewater treatment plant. Mountain State coal pits are inspected weekly for evidence of seeps or sheens. No sheen or seeps have been reported or observed near recovery wells and associated trenches since 2013.

*Ohio River Sediment Cap:* A sediment cap was completed in 2012 due to the presence of polycyclic aromatic hydrocarbons (PAHs) more than 100 milligrams per kilograms in surface sediments and to mitigate intermittent sheens that have appeared on the Ohio River's surface adjacent to the Facility. To assess the effectiveness of the remedy, a bathymetric survey was performed in 2015 and sheen surveys were performed in 2015 and 2016. The bathymetric survey results suggest the sediment cap remains much as it did at the time of its installation and no significant physical damage has occurred. Based on the two sheen surveys, the cap is preventing sheen generation via ebullition from within the cap footprint.

*Groundwater Compliance Monitoring:* Semi-annual post-closure groundwater monitoring is performed around two former 500,000-gallon aeration basins under the guidance of a 1996 Post-Closure Care Permit. These basins are now concreted-lined, covered and enclosed in a security fence with signage. The groundwater monitoring network consist of ten (10) wells (R-208S, R-208D, R-216S, R-216D, R-218S, R-218D, R-222S, R-222D, R-308 and R-313) which target shallow alluvial,

deeper alluvial and bedrock water-bearing zones around the RCRA post-closure unit. In general, groundwater flows towards the Ohio River from east to west.

Concentrations of the permit-defined constituents, benzo(a)anthracene and benzo(a)pyrene, have remained relatively low over the past 5 years. In some cases, concentrations in samples from upgradient monitoring wells were higher than those observed in downgradient wells. Based on a Mann-Kendall statistical test, recent groundwater concentrations have no trend or are stable. It is concluded that closure of the RCRA unit continues to perform as intended to protect groundwater quality.

**Financial Assurance:** Beazer East has satisfied all financial assurance requirements and is currently in compliance.

**Reporting Requirements/Compliance:** Pursuant to the CMI Order, Beazer East is required to submit semi-annual progress reports and 5-year assessment reports. There are no issues of noncompliance regarding reporting requirements as Beazer East has submitted each report, the last of which was the CMI 5-Year Assessment received July 12, 2017. Copies of inspection reports, as well as maintenance, transport and disposal records are kept onsite. No transfer of property, change in use of the property, or work that will affect contamination at the property has been reported.

**Mapping:** The EPA facility website map is accurate and includes the 34-acre Koppers Follansbee Property. The map was field verified and no issues were noted. A downloadable geospatial PDF map is available on EPA's corrective action facility webpage under the "Reports, Documents and Photographs" section, found [here](#).

**Conclusions and Recommendations:** No EC/IC deficiencies were identified. EPA has determined that the remedy institutional and engineering controls have been fully implemented.

**Attachments:**

Figure 1: Aerial Map of Koppers Industries Inc. - Follansbee

Picture 1: DNAPL Storage Tank T-1

Picture 2: DNAPL Storage Tank T-2

Picture 3: Perched Groundwater Recovery System

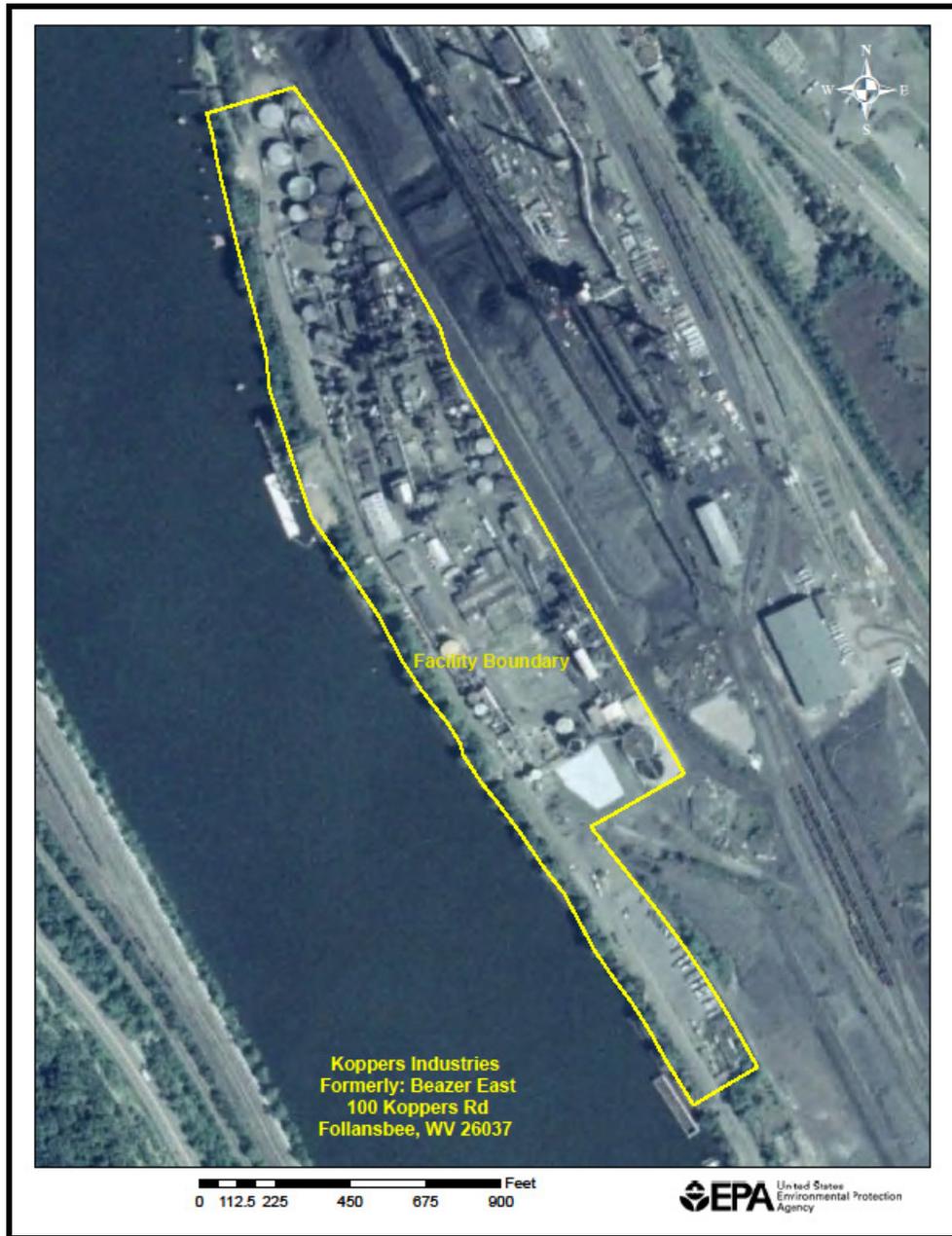
Picture 4: Former Aeration Basins

Picture 5: Signage at Former Aeration Basins

Picture 6: Monitoring Well R-208I

Picture 7: Monitoring Well R-216S

Figure 1: Aerial Map of Koppers Industries - Follansbee



Picture 1: DNAPL Storage Tank T-1



Picture 2: DNAPL Storage Tank T-2



Picture 3: Perched Groundwater Recovery System



Picture 4: Former Aeration Basins



Picture 5: Signage at Former Aeration Basins



Picture 6: Monitoring Well R-208I



Picture 6: Monitoring Well R-216S

