Long-Term Stewardship Assessment Report

Koppers Inc. - Green Spring

EPA ID #: WVD045875291

WVD003080959, WV 26722

Assessment Report Date: August 31, 2022

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 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 the 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.

Facility Background: The 98-acre facility, located at 98 Railroad Street in Green Spring, West Virginia (Facility), produced wood-treated products, primarily for the railroad industry. The Facility boundary is in the shape of an irregular rectangle: the western site boundary is approximately 1,000-feet in length, the eastern boundary is approximately 750-feet wide, and is approximately 5,000-feet in length along the northern and southern boundaries (Arcadis 2002). CSX Transportation, Inc. (CSXT) railroad tracks are located to the south and land owned by CSXT is to the north and east. To the southeast is the City of Green Spring, WV and to the northeast is the Potomac River. The Facility included the current wastewater treatment system components, the chemical storage areas, the wood treatment process area, the drip track area, the treated wood storage area, and undeveloped land. Koppers Inc. (Koppers) operated at the property most recently. Koppers ceased operations in September 2015 and decommissioned the facility. Facility closure report submittal is pending.

Current Site Status: In September 2013, EPA issued a Final Decision and Response to Comments (FDRTC). The Final Decision document described the information gathered during environmental investigations at the Facility and selected remedy. The selected remedy included the maintenance and operation of a Hydrocarbon Sheen Containment system along the North Branch Potomac River, Institutional Controls (ICs) and long-term groundwater monitoring primarily for benzene and naphthalene constituents.

In 2015 and 2016, a pilot test was completed to: 1) evaluative the stability of the Hydrocarbon Sheen Containment system containment wall without the groundwater and creosote dense non-aqueous phase liquid (DNAPL) recovery component; and 2) evaluate DNAPL mobility to verify that DNAPL will not bypass the containment wall with the groundwater and DNAPL recovery component of the system deactivated. The pilot test concluded that the groundwater and DNAPL recovery system components

are not necessary and DNAPL is not practicably recoverable at the site. In 2019, West Virginia Department of Environmental Protection (WVDEP) approved the recommendation to eliminate the pumping component of the system.

The ICs are implemented via a Uniform Environmental Covenants Act (UECA) Environmental Covenant, dated September 30, 2014 (Covenant). The Covenant includes activity and use limitations for groundwater at the Facility. However, the Covenant is limited to the meets and bounds the entire facility. Considering contaminated groundwater extends beyond the Facility boundary to the north and east, in the vicinity of monitoring well MW-08, there is currently no mechanism in place to enforce activity and use limitations associated with groundwater beyond the Facility. Another environmental covenant is proposed for approximately 12.18 acres of the CSXT property in the vicinity of monitoring well MW-08 and in the vicinity containment wall.

Long-term Stewardship Site Visit: On July 11, 2021, EPA conducted a long-term stewardship site visit with Koppers and CSXT to discuss and assess the status of the implemented remedies at the Facility.

The attendees were:

Name	Organization	Email Address
John Hopkins	EPA Region 3	hopkins.john@epa.gov
Kenan Cetin	WVDEP	kenan.cetin@wv.gov
Kevin Rapsack	Koppers Inc.	rapsackkg@koppers.com
Bob Tatsch	Koppers Inc.	tatschrs@koppers.com
Matt Adkins	CSXT	matt_adkins@csx.com

At the time of the LTS, EPA evaluated the status and protectiveness of the ICs and ECs as outlined below.

Institutional Controls (ICs):

The following ICs are identified in the Environmental Covenant placed on the property:

- *Groundwater Use Restriction*: Groundwater shall not be used for any purpose other than (I) non-contact industrial use; and (2) the operation, maintenance and monitoring activities required by WVDEP, unless it is demonstrated to WVDEP that such use will not pose a threat to human health or the environment or adversely affect or interfere with the selected remedy and WVDEP provides prior written approval for such use.

- *Residential Land Use Restriction*: The properties shall not be used for residential purposes unless it is demonstrated to WVDEP that such use will not pose a threat to human health or the environment and WVDEP provides prior written approval for such use.

- *Earth-Moving Restriction*: All earth moving activities in Solid Waste Management Units SWMUs 1,3, 4 and 5 including excavation, drilling and construction activities shall be prohibited unless it can be demonstrated to WVDEP that such activity will not pose a threat to

human health or the environment or adversely affect or interfere with the Final Remedy and WVDEP provides prior written approval for such activity.

The LTS identified the following deficiencies associated with ICs at the property.

1. As previously noted, groundwater contamination extends beyond the footprint of the portion of the property covered by the environmental covenant. Groundwater use restrictions do not cover the extent of groundwater contamination associated with the Facility.

Engineering Controls (ECs):

Operation and Maintenance of the Hydrocarbon Containment System: In August 2004, construction of a Hydrocarbon Sheen Containment System was installed along the riverbank to control the petroleum hydrocarbon sheen from the North Bank of the Potomac River. The System consisted of a 105-foot long, 80-mil thick High Density Polyethylene containment barrier wall, anchored approximately 2 to 3 feet into the bedrock, followed by a 40-mil HPDE liner, used to line the slope of the riverbank, welded to the top of the 80-mil wall, followed by a non-woven geotextile fabric and then covered with a 3-inch concrete blanket.

As previously noted, a pilot test conducted concluded that the groundwater and DNAPL components of the system were no longer necessary. The containment wall associated with the system was left in place after the groundwater extraction component of the system ceased. The containment wall provides a physical barrier between trace, residual, immobile DNAPL at the Facility and the North Branch Potomac River. Since wall installation in 2004, the gabion baskets had corroded. To maintain the integrity of the wall, stabilization activities (i.e., placement of riprap) were completed in 2020. To limit vegetation growth that could affect the structural integrity of the wall, vegetation along the containment wall is currently mowed once per year, usually during Fall season. The containment wall and supporting structure appear to be maintained as designed during the LTS visit. Koppers is required to inspect the wall annually.

***Long-Term Groundwater Monitoring*:** From 1995 to 2020, quarterly groundwater sampling was completed for five monitoring wells (MW-01 through MW-03, R-04, and LF-03R), in association with the NPDES permit for the Facility (Permit No. WV0073482). The NPDES groundwater data was submitted via the WVDEP Electronic Discharge Monitoring Reporting System. On August 21, 2020, the NPDES permit was terminated as Koppers had discontinued operations. Therefore, groundwater sampling for NPDES purposes ceased.

In 2019, 2020, and 2021 groundwater sampling and DNAPL gauging events, concentrations of benzene and naphthalene detected in monitoring well MW-08 were above the USEPA MCL of 5 micrograms per liter (µg/L) for benzene and the West Virginia De Minimis Standard of 0.12 µg/L for naphthalene. While the concentrations of benzene and naphthalene in monitoring well MW-08 exceeded the screening levels, the area surrounding MW-08 is delineated by monitoring wells in the vicinity with concentrations below screening levels.

Financial Assurance: Financial Assurance is not currently required for corrective action activities at the Facility.

Reporting Requirements/Compliance: Koppers submits annual monitoring reports summarizing groundwater sampling and DNAPL gauging events. The Facility is currently in compliance with conditions and requirements set forth in the FDRTC.

Mapping: Surveying is needed for the proposed environmental covenant area at the adjacent CSX parcel in the vicinity of monitoring well MW-08.

Conclusions and Recommendations The LTS assessment reviewed facility files and current site conditions relative to the FDRTC and Environmental Covenant. Based on this evaluation, the Koppers – Green Spring Facility is currently in compliance with EPA's 2013 Final Decision. However, the Final Decision will be updated with an Explanation of Significant Differences (ESD) document to reflect changes in Facility conditions observed since the original remedy was selected. This ESD includes a request for additional groundwater monitoring and a request for an environmental covenant for a portion of CSXT property containing off-site groundwater migration and contamination.

Attachments:

Figure 1: Aerial Map of Koppers – Green Spring Facility

Picture 1: Bottom of Containment Wall Barrier

Picture 2: Bottom of Containment Wall Barrier

Picture 3: Containment Wall Barrier

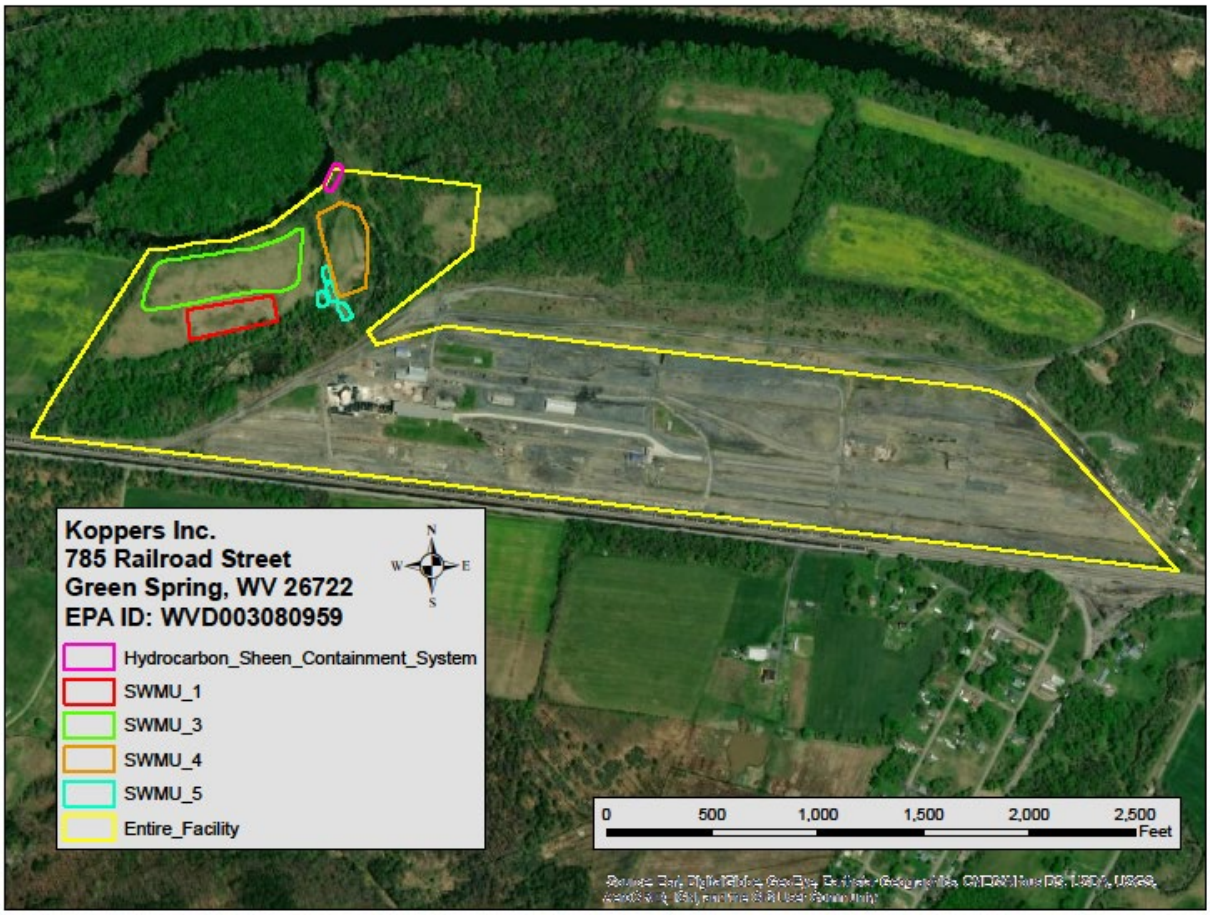
Picture 4: Containment Wall Barrier

Picture 5: DNAPL Recovery Wells

Picture 6: Monitoring Well MW-08

Picture 7: Monitoring Well LF-03R

Figure 1: Aerial Map of Koppers – Green Spring Facility



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