

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III

STATEMENT OF BASIS

Former Beazer East, Inc. Facility (Formerly Koppers Company Inc.) Bridgeville, Pennsylvania

EPA ID No. PAD063764898

Prepared by Office of Remediation Land, Chemicals and Redevelopment Division July 2023

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Attachments

Figure 1	Site Location Map
Figure 2	AOE-1 and AOE-2

List of Acronyms

AR	Administrative Record
EC	Environmental Covenant
EI	Environmental Indicator
EPA	Environmental Protection Agency
COC	Constituent of Concern
FDRTC	Final Decision and Response to Comments
FLA	Facility Lead Agreement
GPRA	Government Performance and Results Act
IC	Institutional Control
IRM	Interim Remedial Measure
MCL	Maximum Contaminant Level
MOA	Memorandum of Agreement
MSC	Medium Specific Concentration
PADEP	Pennsylvania Department of Environmental Protection
ACT 2	Pennsylvania's Land Recycling Program
PRCP	Post Remedial Care Plan
RCRA	Resource Conservation and Recovery Act
RSL	EPA Regional Screening Levels
SB	Statement of Basis
SVOC	Semi-Volatile Organic Compound
SWMU	Solid Waste Management Unit
UECA	Pennsylvania Uniform Environmental Covenants Act
VOC	Volatile Organic Compound

Section 1: Introduction

The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis (SB) to solicit public comment on its proposed remedy for the former Beazer East, Inc. (formerly Koppers Company Inc.) facility located at Bridgeville, Pennsylvania (Facility). This SB highlights key information relied upon by EPA in making its proposed remedy of Corrective Action Complete with Controls. EPA's proposed remedy requires compliance with the existing six (6) Environmental Covenants (ECs) respectively recorded in 2016 and 2017 on the title to six parcels within the Facility property and the Post Remedial Care Plan (PRCP) approved by the Pennsylvania Department of Environmental Protection (PADEP) on January 23, 2015. The ECs and PRCP apply to current conditions and future redevelopment and construction activities at the Facility.

The Facility is subject to the Corrective Action Program under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. Sections 6901 to 6992k. The Corrective Action Program is designed to ensure that certain facilities subject to RCRA have been investigated and that all releases of hazardous waste and hazardous constituents have been remediated. The Corrective Action program under Section 3006 of RCRA. Therefore, EPA retains primary authority in the Commonwealth for the Corrective Action Program.

The Administrative Record (AR) for the Facility contains all documents, including data and quality assurance information, on which EPA's proposed remedy is based. See Section 8, Public Participation, for information on how you may review the AR. Information on the Corrective Action Program as well as a fact sheet for the Facility can be found by navigating through the EPA website <u>https://www.epa.gov/hwcorrectiveactionsites/corrective-action-programs-around-nation#3.</u>

Section 2: Facility Background

The Facility is located in South Fayette Township near Bridgeville, Allegheny County, Pennsylvania. The Facility property is approximately 301 acres of which 55 acres comprise the former manufacturing plant. The Facility is bounded by Millers Run to the north and west, Chartiers Creek to the east, and a railroad right-of-way to the south. The confluence of the Millers Run and the Chartiers Creek discharges 16 miles downstream to the Ohio River. The location of the Facility is presented in Figure 1.

The former manufacturing plant at the Facility was constructed in 1928. Ownership of the Facility has changed hands several times since 1928. The Facility was initially owned by the Seldon Company between 1928 and 1934. From 1934 to 1963, the American Cyanamid Corp. operated the Facility before it was sold to Beazer in 1963. In 1989, Beazer leased portions of the Facility (known as the former Reichhold, Inc. facility) to Reichhold, Inc. (Reichhold). Reichhold produced polyester resins and resole resins until 2005 when it ceased operations and vacated the property. Historical manufacturing processes included the production of chlorinated

naphthalene, amino and alkyd resins, resole resins, maleic anhydride, and phthalic anhydride. All generated wastes were disposed off-site since 1978.

After Reichhold's departure in 2005, the Facility structures were dismantled and decommissioned under PADEP's oversight. All permitted RCRA waste management units at the Facility were closed in the 1980s and 1990s. Most of the buildings at the western portion of the Facility were removed in the mid-1980s. The remaining process area buildings were removed between 2005 and 2007 after Reichhold ceased operations at the Facility. Demolition activities, consisting of removal of all above ground piping, tanks, buildings, and structures, were completed in January 2007.

Section 3: Summary of Environmental Investigations

1. Solid Waste Management Unit (SWMUs) and Areas of Concern (AOCs)

Below is a description of the SWMUs and AOCs at the Facility:

SWMU G

SWMU G was a former half-acre unlined settling lagoon that collected solids from the resin constituent water. Use of the lagoon was discontinued in 1984. During the July 22, 1999 site visit, it was observed that the surface of the lagoon was covered with vegetative growth. Several soil samples were collected. No COCs were detected above EPA Regional Screening Levels (RSLs) for industrial direct contact. Under PADEP oversight, the former lagoon was regraded and capped with a Type I Engineered Soil Cover (ESC), which consisted of a non-woven geotextile overlain by a 12-inch layer of compacted, well-graded road base material.

<u>SWMU H</u>

SWMU H was a former 30 square yard unlined lagoon used to contain settled solids from resin constituent water between 1978 and 1981. In 1981, the lagoon reached maximum capacity and the facility discontinued its use. During the EI inspection it was observed that the surface of the lagoon was covered with vegetative growth. Several surface and subsurface soil samples were collected. No COCs were detected above the RSLs for industrial direct contact. Under PADEP oversight, the former lagoon was regraded and capped.

SWMU J

SWMU J was a 10-acre area used to dispose organic wastes, manufacturing catalysts, fly ash and residual wastes. It is unknown when the area was initially used for waste disposal, however, it is estimated that between 1950 and 1978 the unit accumulated 60,300 tons of waste. In 1978, the facility discontinued the use of the disposal area. Although the facility has no official documentation of closure activities, it is believed that around the late 1970's or early 1980's the area was capped with soil and revegetated.

Several soil borings and test pits were installed to evaluate the soil cap and the contents beneath the cap. Benzo(a)pyrene, hexachlorobenzene and benzo(b)fluoranthene were detected in isolated

areas at levels above the RSLs for industrial direct contact. All other levels for the COCs were below the RSLs for industrial direct contact.

Closure of SWMU J consisted of grading the existing waste and fill materials and capping the area with an ESC under PADEP oversight.

<u>SWMU K</u>

The former SWMU K was a small waste disposal area in a wooded area west of the Facility and west of the Bethany Cemetery. COCs were detected above the residential RSLs. No COCs were detected in surface soil above the RSLs for industrial direct contact. The area was capped with topsoil and vegetated. As a preventive measure to limit potential exposures to the SWMU K area, a chain-link fence was installed around the perimeter with "No Trespassing" signs posted along the fence. An environmental covenant recorded on the title to the SWMU K parcel requires that SWMU K remain a designated open space area and will not be redeveloped. An annual visual reconnaissance is required to ensure that the soil cover and fence remain in intact and if necessary, repairs are implemented.

Area of Interest 1 (AOI-1)

Area of Interest 1 (AOI-1) is located at the eastern end of the dirt access road west of Presto-Sygan Road. AOI-1 lies between Millers Run and Presto-Sygan Road and contains primarily construction and demolition debris. Remediation at AOI-1 consisted of clearing and grubbing existing vegetation, regrading existing waste and fill materials, and capping the area with a Type I ESC. A fence was installed around the perimeter of AOI-1 to limit accessibility.

Flood Control Levee

A flood control levee had been constructed in AOE-1 along a 700-foot section of the bank of Millers Run at the southwestern-most portion of the Facility. The levee was constructed from materials found at the Facility and reinforced with steel rods. Levee materials contained SVOCs that exceeded the PADEP nonresidential direct contact MSCs which were excavated and disposed offsite. The embankment was restored to match the existing bank slope.

Former Buildings 59 and 60

Former Buildings 59 and 60 were storage buildings for the former chemical plant. The buildings were located in AOE-2 at the eastern end of the dirt access road west of Presto-Sygan Road. Soils immediately adjacent to the foundations of both buildings detected arsenic concentrations above the PADEP residential direct contact MSC of 12 mg/kg and above the Act 2 Background Standard of 15.2 mg/kg. In 2009 under PADEP oversight, the arsenic impacted soils were excavated and disposed offsite and the excavated areas were backfilled with general subgrade fill.

2. EPA Facility Lead Agreement (FLA)

On July 22, 1999, the EPA and the U.S. Army Corps of Engineers (USACE) conducted a site visit to evaluate pertinent information related to two key environmental cleanup indicators: (1) Current Human Exposures Under Control and (2) Migration of Contaminated Groundwater

Under Control. Based on the site visit and the subsequent Environmental Indicators (EIs) Inspection and Final Report (EI Report), EPA concluded that additional investigations were required.

In 2001, Beazer entered into an EPA Facility Lead Agreement (FLA) to conduct additional soil investigations; monitor groundwater, and surface water; perform Interim Measures to prevent or mitigate threats to human health and/or the environment and close several Solid Waste Management Units (SWMUs). The interim measures consisted of excavation and off-site disposal of contaminated soil, backfilling and grading, and capping the areas with an applicable cover.

3. Act 2 Program

In 2007, Beazer entered into the Pennsylvania's Land Recycling Program (Act 2 Program) to clean up the Facility with the expectation that portions of the Facility property would be developed for commercial and residential uses and certain areas would be restricted open space. EPA and PADEP oversaw the work being done by Beazer East under the Act 2 Program and RCRA Corrective Action pursuant to the One Cleanup Program and the Memorandum of Agreement (MOA).

Beazer completed the Act 2 Program investigation and cleanup of the Facility in 2015. Currently, most of the Facility property has been redeveloped for residential and commercial use or preserved as open land. Several parcels remain available for future commercial redevelopment. Future redevelopment of these parcels will require the developer to enter the Act 2 Program and meet the requirements of the ECs and PRCP.

The focus of the Act 2 Program investigation was to supplement prior investigations to complete the Facility Wide Characterization. The supplemental investigations included additional soil, surface water and groundwater sampling and a risk assessment evaluation. To expedite the investigation and redevelopment, the Facility was divided into two main Areas of Evaluation (AOE) based on the history of the Facility, former Facility operations, and the proposed redevelopment. The two AOEs are described below and identified in Figure 2:

Area of Evaluation -1 (AOE-1)

AOE-1 is approximately 55 acres and consists of the former manufacturing plant, SWMU G, SWMU J, SWMU K, AOI-1, and a flood control levee along Millers Run. These areas were investigated, remediated, and closed out under PADEP oversight. AOE-1 encompasses an area of the Facility to be redeveloped for commercial and retail use or to be left as open space.

Area of Evaluation -2 (AOE-2)

AOE-2 is approximately 246 acres and consists of primarily undeveloped land located within the western and northern portion of the Facility. Less than an acre of AOE-2 contained two former storage buildings (Buildings 59 and 60) that were used by Reichhold. AOE-2 is designated for residential, and recreational uses or to be left as open space. Except for arsenic exceedances near the foundations of former Buildings 59 and 60 and a small isolated open area that exceeded the

Act 2 residential soil vapor intrusion screening values for benzene, the remaining areas of AOE-2 did not identify potential migration pathways or receptors of concern that exceeded PADEP Statewide Health Standards (SHS) vapor intrusion screening values under Act 2, which are within EPA's allowable risk range.

Groundwater and Surface Water

The Facility Wide Characterization conducted under Act 2 concluded that the following contaminants of concern (COCs) are in groundwater under AOE-1 and AOE-2: VOCs (Benzene, Ethylbenzene, Methylene Chloride, Vinyl Chloride, and Xylenes (total)), SVOCs (4-Methylphenol, Benzo(a)pyrene, Bis(2-ethylhexyl)phthalate, and naphthalene), and Inorganics (aluminum, antimony, arsenic, iron, lead, and manganese) as well as Phthalic Acid/Phthalic Anhydride.

The former manufacturing plant is located on a peninsula that is surrounded by two surface water bodies--Chartiers Creek and Millers Run. Groundwater in the shallow and intermediate zones flows radially at the former manufacturing plant and discharges to the two surface water bodies.

Groundwater monitoring was conducted for several years -- initially pursuant to the EPA Facility Lead Agreement and subsequently under the PADEP Act 2 Program. Groundwater samples were analyzed for VOCs, SVOCs, inorganics, vanadium, formaldehyde, and maleic and phthalic anhydride. Several COCs were detected in concentrations exceeding their applicable maximum contaminant level (MCL) codified at 40 C.F.R. Part 141 and promulgated pursuant to the Safe Drinking Water Act, 42 U.S.C. §300f, et seq. and PADEP non-residential used aquifer MSCs in the shallow and intermediate zones. No COCs were detected above the MCLs or MSCs in the deep aquifer. A list of COCs in the shallow and intermediate zones that exceeded the MCLs or MSCs and the range of detected concentrations are listed below:

Constituents	Range of Concentrations	MCLs or MSCs
Benzene	$ND - 22 \ \mu g/L$	5 μg/L
Benzo(a)pyrene	$ND - 0.24 \ \mu g/L$	0.2 μg/L
bis(2-Ethylhexyl) phthalate	$0.17 - 12 \ \mu g/L$	6 μg/L
Ethylbenzene	ND – 23,000 µg/L	700 µg/L
Methylene chloride	$ND - 150 \ \mu g/L$	5 μg/L
Total Xylenes	ND – 19,000 µg/L	10,000 µg/L
Vinyl Chloride	ND $-7.2 \ \mu g/L$	2 μg/L
4-Methylphenol	$ND - 580 \ \mu g/L$	510 μg/L
Naphthalene	$ND - 480 \ \mu g/L$	100 µg/L
Arsenic	ND $- 140 \ \mu g/L$	10 µg/L
Antimony	$ND - 150 \ \mu g/L$	5 μg/L
Lead	$ND - 76 \ \mu g/L$	5 μg/L

Note: ND denotes non-detect

Because the shallow and intermediate groundwater zones discharge radially into Millers Run and Chartiers Creek, surface water sampling was conducted along the two surface water bodies to

evaluate the impact of the COCs in groundwater to surface water. Surface water results for the COCs did not exceed the Pennsylvania Human Health Ambient Water Quality Criteria (AWQC). Based on the groundwater and surface water results, a PADEP PENTOX fate and transport model was applied to evaluate the long-term potential impact of the COCs in groundwater to surface water. The model projected that the levels of COCs in groundwater that discharges into surface water will not result in an exceedance of AWQC and do not pose an unacceptable human health exposure risk. The investigation concluded that the impact of groundwater contamination is contained within the borders of Millers Run and Chartiers Creek and the footprint of AOE-1

The groundwater contamination is confined to the shallow and intermediate zones with depth-togroundwater varying from 2.7 feet below ground surface (bgs) to 32.5 feet bgs. The two zones are hydrostratigraphically connected and act as one water-bearing unit that discharges to Chartiers Creek and Millers Run. The shallow and intermediate zones produce an insufficient yield to serve as a drinking water source. In addition, if groundwater were drawn at a sufficient rate, surface water from Millers Run and Chartiers Creek would be captured. Given these conditions, EPA determined that the shallow and intermediate zones beneath AOE-1 are not a current or potential source of drinking water.

Despite the presence of the COCs in the shallow and intermediate zones, EPA has determined that the groundwater contamination is confined to a non-use aquifer and the impact via discharge to Chartiers Creek and Millers Run do not exceed AWQC. There are no direct exposures to groundwater contamination. Institutional controls executed under the ECs prohibit the use of groundwater at the Property. Public water is supplied to the Facility and area residents by the Pennsylvania American Water Company. South Fayette Township and Bridgeville Borough require any new commercial or residential establishments to connect into the public water supply system. With the exception of the Pennsylvania American Water Company, there are no other reported public or community groundwater supplies within a 4-mile radius of the Facility.

Subsurface Soil:

The Facility Wide Characterization conducted under Act 2 concluded that specific areas of AOE-1 and AOE-2 exceeded either non-residential or residential SHS for surface and subsurface soils for the COCs: benzene, ethylbenzene, styrene, toluene, vinyl chloride, total xylenes, 1,2,4trichlorobenzene, 2,4-dimethylphenol, 2-methylnaphthalene, 4-methylphenol, acenapthene, anthracene, bis(2)ethylhexylphthalate, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, carbazole; chrysene, dibenz(a,h)anthracene, di-n-butyl phthalate, fluorine, naphthalene, phenanthrene, pyrene, antimony, arsenic, beryllium, cadmium, lead, manganese, and vanadium.

The potential exposure pathway for direct contact to subsurface contaminant soils and materials have been eliminated with a soil covers and engineering caps. The completion of the Facility-wide soil remediation has eliminated potential pathways to human exposures and reduced potential filtration of COCs in soils to groundwater, and surface water. ECs were recorded on the title to six parcels within the Facility property to ensure the integrity of the engineering controls and to prevent direct exposures to the subsurface contaminants/materials. Furthermore,

all anticipated future redevelopment of the Facility will comply with the PRCP to prevent unacceptable exposure risks to the COCs present in surface and subsurface soils.

Potential Indoor Air Vapor Intrusion:

Potential indoor air vapor intrusion was evaluated based on the Act 2 vapor intrusion screening values for soils for the intended use of the Property. AOE-1 is restricted to non-residential use. AOE-2 is being developed for residential and recreational use.

Several soil samples in AOE-1 detected levels in exceedance of the indoor air vapor intrusion screening values for non-residential use for 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Benzene, Carbon Tetrachloride, Chloroform, Ethylbenzene, Styrene, Toluene, and Xylenes (Total). With the exception of two samples, soil samples at the 0-2 feet depth were below the soil screening levels for potential indoor air vapor intrusion exposure. Therefore, to prevent potential indoor air vapor intrusion, an EC was recorded on the title to the AOE-1 property that requires either the installation of a passive vapor mitigation measure in all structures on AOE-1 or completion of a vapor intrusion assessment that determines that such a system is not necessary in the assessed building prior to any new construction on AOE-1. In addition, all anticipated future redevelopment of AOE-1 will comply with the PRCP.

AOE-2 is designated for residential redevelopment with the inclusion of recreational and open space. Except for a small, isolated area that exceeded the Act 2 vapor intrusion screening values for benzene for residential indoor air quality, the remaining areas of AOE-2 did not exceed the Act 2 vapor intrusion screening for the COCs. The impacted area is within the restricted open space zoning ordinance under South Fayette Township, which requires that this area remains as open space that will prevent any possibility of indoor vapor intrusion.

Based on the Facility Wide Characterization, the following exposure pathways are potentially complete, i.e., exposure may occur, under current and expected future land use:

- Direct contact with surface and subsurface soil containing concentrations of the COCs above the nonresidential direct contact Medium Specific Concentrations (MSCs) for current (predevelopment) conditions.
- Direct contact with various materials during construction and for anticipated future postdevelopment conditions maintenance, including surface and subsurface soils containing concentrations of COCs above non-residential direct contact MSC cleanup standards.
- Direct vapor intrusion into indoor air.
- Direct contact with groundwater during development activities.

To eliminate potential direct pathway exposures and prevent unacceptable future exposure scenarios PADEP required that Beazer 1) implement land use restrictions at the Facility and record those restrictions on the title to the Facility property through six ECs and 2) comply with the PRCP approved by PADEP on January 23, 2015.

Environmental Covenants:

In 2016 and 2017, Beazer recorded six ECs under PADEP's Uniform Environmental Covenants Act, 27 Pa. C.S. §§ 6501 et seq. (UECA) on the title to six parcels within the Facility property. The ECs require compliance with the PRCP and require that compliance with the EC be documented, and that the documentation be submitted to PADEP and EPA.

Collectively, the ECs include the following use and activity restrictions:

- Requiring the installation of passive sub-slab vapor collection systems in occupied or potentially occupiable buildings, or alternatively, completion of a vapor intrusion assessment prior to construction that indicates that a passive vapor collection system is not necessary.
- Prohibiting the use of groundwater at the Property.
- Compliance with the PRCP during all future intrusive activities to address direct contact with surface and subsurface soils.
- Limiting AOE-1 to non-residential use.
- Prohibiting redevelopment at SWMU K.
- For the Central Soil Cover Area (CSCA), Southern Soil Cover Area (SSCA), SWMU J, and SWMU K, a visual reconnaissance inspection will be conducted on an annual basis of the portion of the soil covers not beneath pavement or buildings for signs of erosion or other damage. Areas with erosion or other damage will be addressed and the repairs documented.

PADEP's Post-Remedial Care Plan (PRCP)

The potential exists for future construction workers to encounter impacted subsurface soils throughout the Facility. Although the potential for that contact to result in an unacceptable level of risk is low, the proposed remedy requires compliance with the PRCP to reduce the potential risk to future construction workers and to prevent unacceptable future exposure scenarios.

Several exposure pathways were addressed during remediation and/or redevelopment of the Property and must be maintained during any future construction activities. Potential exposure pathways consist of direct contact with surface and subsurface soils, human consumption of groundwater, and vapor intrusion.

The exposure pathway elimination measures that must be maintained and reported in the annual letter to PADEP and EPA include:

- AOE-1 will be limited to non-residential use.
- No redevelopment of SWMU K will occur.
- For the installed soil covers at CSCA, SSCA, Southern SWMU J, and SWMU K, a visual reconnaissance inspection will be conducted on an annual basis of the portion of the soil

covers not beneath pavement or buildings for signs of erosion or other damage. Areas with erosion or other damage will be addressed and the repairs documented.

- For the installed fence and signage at SWMU K, a visual reconnaissance inspection will be conducted on an annual basis of the fence and signage for signs of damage. Areas with damage will be addressed, and the repairs documented.
- Compliance with the environmental covenant's prohibition on groundwater extraction, consumption or use to prevent exposure to groundwater throughout the Property.
- Installation of passive vapor extraction systems beneath all inhabited and potentially inhabitable structure to address vapor intrusion, unless a vapor intrusion assessment has shown that such a system is not necessary.

Redevelopment of AOE-1 and AOE-2

Multiple areas of AOE-1 have been redeveloped for commercial and mixed retail use that include a shopping center, municipal office, and entertainment facility. Several parcels are still available for commercial redevelopment within AOE-1. Future redevelopment of these parcels will require the developer to go through the Act 2 Program and meet the requirements of the ECs and PRCP.

AOE-2 is designated for residential redevelopment with the inclusion of recreational and open space. Multiple single and attached family units and a common recreational area have been constructed in AOE-2. A large portion of AOE-2 will remain open space under South Fayette Township restricted open space zoning ordinance.

Environmental Indicators (EIs)

Under the Government Performance and Results Act (GPRA), EPA has set national goals to address RCRA Corrective Action facilities. Under the GPRA, EPA evaluates two key environmental cleanup indicators for each facility: (1) Current Human Exposures Under Control and (2) Migration of Contaminated Groundwater Under Control. On August 26, 2003, EPA updated the original EIs to reflect the additional investigation and remediation implemented at the Property. EPA determined that both EIs had been met. The approved EI determinations are available at:

https://www.epa.gov/sites/default/files/2016-01/documents/hh_pad063764898.pdf https://www.epa.gov/sites/default/files/2016-01/documents/gw_pad063764898.pdf

Section 4: Corrective Action Objectives

EPA's Corrective Action Objectives for the specific environmental media at the Facility are the following:

A. Groundwater

EPA expects final remedies to return usable groundwater to its maximum beneficial use within a timeframe that is reasonable given the circumstances of the project. For projects where aquifers are either currently used for water supply or have the potential to be used for water supply, EPA will use MCLs as the corrective action objective for groundwater and control exposure to the hazardous constituents remaining in the groundwater until applicable MCLs are achieved throughout the area of contaminated groundwater and demonstrated by groundwater monitoring results. At this Facility, EPA determined that the shallow and intermediate zones at the Facility are not current or potential sources of drinking water. The depth-to-groundwater in the shallow and intermediate zones varies from 2.7 feet below ground surface (bgs) to 32.5 feet bgs. The two zones are hydrostratigraphically connected, and act as one water-bearing unit that discharges to Chartiers Creek and Millers Run.

Given that the aquifer under the Facility is not a potential source of drinking water, EPA has determined that maximum beneficial use of the shallow groundwater at the Facility is recharge flow to Millers Run and the Chartiers Creek. Therefore, EPA's corrective action objective for Facility-related groundwater is to prevent recharge flow to the Millers Run and the Chartiers Creek at levels above AWQCs and to control human exposure to the hazardous constituents remaining in the groundwater by requiring compliance with and maintenance of groundwater use restrictions at the Facility.

B. Subsurface Soil

The potential exposure pathway for direct contact to subsurface contaminant soils and materials has been eliminated with soil excavation, soil covers and/or engineering caps. Therefore, EPA's corrective action objective for subsurface soils is to prevent exposures to the COCs that remain in the subsurface beneath existing structures and paved areas in concentrations above PADEP non-residential MSCs. PADEP's non-residential MSCs are equivalent to EPA Regional Screening Levels for industrial use.

C. Soil Vapor

EPA's corrective action objective for soil vapor is to prevent potential vapor intrusion into structures associated with the Facility related COCs present in subsurface soil.

Section 5: Proposed Remedy

A. Groundwater

Given that the aquifer under the Facility is not a potential source of drinking water, EPA has determined that maximum beneficial use of the shallow groundwater at the Facility is recharge flow to Millers Run and the Chartiers Creek. Surface water sampling in the two surface water bodies confirms that there are no exceedances of the AWQCs. However, because contaminants

remain in the groundwater above MCLs at the Facility, EPA's proposed remedy is to prohibit the use of groundwater for any purpose, including, but not limited to, use as a potable water source, other than to conduct the maintenance and monitoring activities required by PADEP and/or EPA.

B. Subsurface Soil

Because contaminants remain in the subsurface soil above non-residential MSCs at the Facility, EPA's proposed remedy includes the following land use restrictions and requirements to restrict activities that may result in exposure to those contaminants:

- AOE-1 will be limited to non-residential use.
- Conduct an annual inspection of the portion of the soil covers not beneath pavement or buildings for signs of erosion or other damage in areas CSCA, SSCA, SWMU J and SWMU K. Areas with erosion or other damage will be addressed and the repairs documented.
- Prohibit redevelopment of SWMU K.
- Comply with the PRCP for all future intrusive activities to prevent unacceptable exposure risks to the COCs present in surface and subsurface soils.

C. Soil Vapor

EPA's proposed remedy for soil vapor requires the installation of a vapor extraction system beneath each inhabited and potentially inhabitable structure to eliminate vapor intrusion, unless a vapor intrusion assessment has shown that vapor intrusion does not pose a threat to human health.

D. Implementation

The land use restrictions and requirements listed in this Section have already been implemented at the six parcels within the Facility property through environmental covenants prepared under Pennsylvania's UECA. If the owner of the Facility parcel fails to meet and maintain its obligations under an EPA or PADEP-approved environmental covenant; or EPA or PADEP, in its sole discretion, deems that additional ICs are necessary to protect human health or the environment, both agencies have the authority to enforce the environmental covenant or require and enforce additional corrective action.

Section 6: Evaluation of Proposed Remedy

This section provides a description of the criteria EPA used to evaluate the proposed remedy consistent with EPA guidance. The criteria are applied in two phases. In the first phase, EPA evaluates three remedy threshold criteria as general goals. In the second phase, for those remedies which meet the threshold criteria, EPA then evaluates seven balancing criteria.

Threshold Criteria	Evaluation
1. Protect human health and the environment	EPA's proposed remedy is protective of human health and the environment. The primary human health and environmental threats at the Property are the potential of direct exposures to the groundwater, subsurface soil contamination and indoor vapor intrusion associated with the COCs in subsurface soil. EPA's proposed remedy requires compliance with the existing ECs and PRCP that restrict groundwater and land use, maintain the integrity of the remedy, and prevent unacceptable exposure risks and scenarios for current conditions and anticipated future redevelopment and construction activities at the Property.
2. Achieve media cleanup objectives	Media cleanup objectives have been achieved. Facility-related groundwater recharge to the Millers Run and the Chartiers Creek at levels below applicable AWQCs. In addition, the impact of the groundwater contamination is contained within the borders of Millers Run and Chartiers Creek and the footprint of AOE-1. There are no direct exposures to the groundwater contamination. Groundwater use is prohibited at the Property. A local ordinance requires commercial and residential establishments be connected to public water. There are no direct exposures to the subsurface soils. Areas of contaminated subsurface soils are capped. Potential for indoor vapor intrusion is eliminated with either the installation of a vapor mitigation measure or completion of a vapor intrusion assessment that determines that such a system is not necessary for any structures at the Property. The execution of the ECs and PRCP ensure that these measures are enforced.
3. Remediating the Source of Releases	In all remedy decisions, EPA seeks to eliminate or reduce further releases of hazardous wastes or hazardous constituents that may pose a threat to human health and the environment. The completion of the site-wide soil remediation has reduced the potential filtration of COCs in soils that can potentially migrate into groundwater and discharge to surface water. The execution of the ECs and PRCP ensures the long-term integrity and maintenance of the soil remediation.
Balancing Criteria	Evaluation
4. Long-term effectiveness	The proposed remedy will maintain long-term protection of human health and the environment. EPA's proposed remedy requires compliance with the ECs and PRCP that maintain the integrity of the remedy and prevent unacceptable exposure risks and scenarios for current conditions and anticipated future redevelopment and construction activities at the Property. The ECs and PRCP run with the land and as such, will be enforceable by EPA and PADEP against future landowners.

5. Reduction of toxicity, mobility, or volume of the Hazardous Constituents	The completion of the site-wide soil remediation has reduced the mobility and filtration of COCs in soils that can potentially migrate into groundwater and discharge to surface water. The execution of the ECs and PRCP ensures the long-term integrity and maintenance of the soil remediation to reduce the mobility of the COCs in soil.
6. Short-term effectiveness	EPA's proposed remedy has been implemented under the existing ECs and PRCP. Anticipated future redevelopment and construction activities at the Property will comply with the ECs and PRCP.
7. Implementability	EPA's proposed remedy is continued compliance with the existing the ECs and PRCP.
8. Cost	EPA's proposed remedy is cost effective. The cost in maintaining the integrity of the remedy and implementing the ECs and PRCP at the Property is minimal.
9. Community Acceptance	EPA will evaluate community acceptance of the proposed remedy during the public comment period for this SB and will describe community acceptance in the Final Decision and Response To Comments (FDRTC).
10. State/Support Agency Acceptance	EPA's proposed remedy is compliance with the existing ECs and the PRCP. PADEP supports the proposed remedy.

Section 7: Financial Assurance

EPA has evaluated whether financial assurance is necessary to implement the proposed remedy as described in Section 5. The cost of complying with the existing ECs and PRCP and maintaining ICs at the Property is minimal. Financial assurance is not required for the Property.

Section 8: Public Participation

Before EPA makes a final decision on its proposal for the Facility, the public may participate in the proposed remedy selection process by reviewing this SB and documents contained in the Administrative Record (AR) for the Facility. The AR contains all information considered by EPA in reaching this proposed remedy. It is available for public review during normal business hours at:

U.S. EPA Region III 4 Penn Center 1600 JFK Blvd Mail Code: 3LD12 Philadelphia. PA 19103-2852 Contact: Mr. Khai Dao Phone: (215) 814-5467 Fax: (215) 814-3113

Email: dao.khai@epa.gov

and PADEP Southwest Regional Office 400 Waterfront Drive Pittsburgh, PA 15222-4745 Phone: (412) 442-4000

Interested parties are encouraged to review the AR and comment on EPA's proposed remedy. The public comment period will last thirty (30) calendar days from the date that notice is published in a local newspaper. You may submit comments by mail, fax, or e-mail to Mr. Khai Dao. EPA will hold a public meeting to discuss this proposed remedy upon request. Requests for a public meeting should be made to Mr. Khai Dao.

EPA will respond to all relevant comments received during the comment period. If EPA determines that new information warrant a modification to the proposed remedy, EPA will modify the proposed remedy or select other alternatives based on such new information and/or public comments. EPA will announce its final remedy and explain the rationale for any changes in the FDRTC. All persons who comment on this proposed remedy will receive a copy of the FDRTC. Others may obtain a copy by contacting Mr. Khai Dao at the address listed above.

Dana Aunkst Director Land, Chemicals, and Redevelopment Division U.S. Environmental Protection Agency, Region III

Section 9: Index to Administrative Record

USEPA Beazer East (formerly Koppers Co., Inc.), Environmental Indicator Inspection Report, prepared by US Army Corps of Engineers, February 2000.

USEPA Facility Lead Agreement with Beazer East, Inc., February 2001.

Act 2 Remedial Investigation Report, Former Reichhold, Inc. Facility Bridgeville, Pennsylvania, prepared by BBL, Inc., an Arcadis Co., June 2007.

Act 2 Final Report for AOE-2, Former Reichhold, Inc. Facility Bridgeville, Pennsylvania, prepared by Civil & Environmental Consultants, Inc., November 2010.

Act 2 Final Report for AOE-1, Former Reichhold, Inc. Facility Bridgeville, Pennsylvania, prepared by Civil & Environmental Consultants, Inc., January 2015.

Environmental Covenant, Document Number 2012-25980, Book-Vol/Pg: BK-DE VL-15026 PG-36, Recorded at the Allegheny County Department of Real Estate, October 02, 2012.

Environmental Covenant, Document Number 2016-20559, Book-Vol/Pg: BK-DE VL-16452 PG-127, Recorded at the Allegheny County Department of Real Estate, July 7, 2016.

Environmental Covenant, Document Number 2016-20560, Book-Vol/Pg: BK-DE VL-16452 PG-165, Recorded at the Allegheny County Department of Real Estate, July 7, 2016.

Environmental Covenant, Document Number 2017-34619, Book-Vol/Pg: BK-DE VL-17003 PG-344, Recorded at the Allegheny County Department of Real Estate, November 3, 2017.

Environmental Covenant, Document Number 2017-34621, Book-Vol/Pg: BK-DE VL-17003 PG-365, Recorded at the Allegheny County Department of Real Estate, November 3, 2017.

Environmental Covenant, Document Number 2017-34622, Book-Vol/Pg: BK-DE VL-17003 PG-397, Recorded at the Allegheny County Department of Real Estate, November 3, 2017.

Attachments





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