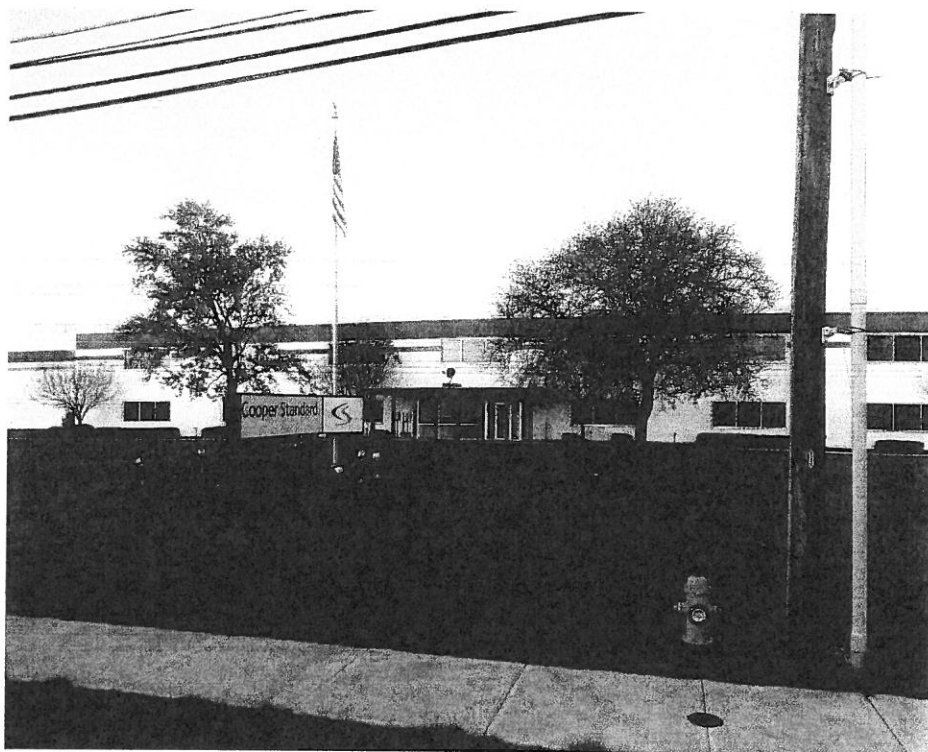


## Decision Document

**FOR THE REMEDIATION OF THE COOPER STANDARD  
AUTOMOTIVE SITE  
1175 NORTH MAIN STREET  
BOWLING GREEN, WOOD COUNTY, OHIO**



**Division of Environmental Response and Revitalization  
Northwest District Office**

**May 2018**

Ohio EPA's Division of Environmental Response and Revitalization (DERR) - Remedial Response Program			Decision Document For the Remediation of the Cooper Standard Automotive Site Bowling Green, Wood County, Ohio		
THE REMEDIAL RESPONSE PROCESS					
(1) Preliminary Assessment & Site Inspection	(2) Remedial Investigation & Feasibility Study	(3) Remedy Selection (Preferred Plan & Decision Document)	(4) Remedial Design	(5) Remedial Action	(6) Remedy Operation, Maintenance & Monitoring

## Ohio EPA Announces Decision Document

In November 2017, Ohio EPA issued a Preferred Plan that outlined Ohio EPA's preferred alternative to remediate contamination at the Cooper Standard Automotive Site. Ohio EPA held a public meeting on December 13, 2017 at the Ohio EPA, Northwest District Office located at 347 North Dunbridge Road, Bowling Green, Ohio 43402 to explain the Preferred Plan. Oral and written comments were accepted at this meeting and during the comment period which ran from November 13, 2017 to December 20, 2017. Section 8.0 (Responsiveness Summary) of this Decision Document summarizes the comments and Ohio EPA's responses.

Based on the Preferred Plan and the consideration of comments received during the comment period, Ohio EPA is issuing this Decision Document identifying the selected remedial alternative for the cleanup of the contaminated surface and subsurface soil, inhalation of contaminated soil and/or ground water via vapor intrusion, and direct contact with contaminated ground water at the site and providing the rationale for the selection.

Ohio EPA is issuing this Decision Document in a manner consistent with Section 300.430(f)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). It summarizes information found in detail in the remedial investigation and feasibility study reports and other documents contained in the administrative record file for this site. Ohio EPA encourages the public to review these documents to gain a better understanding of the site and the activities that have been conducted there.

**ERAC Appeal Period:** As a final action of the Director of Ohio EPA, the Decision Document may be appealed to the Environmental Review Appeals Commission (ERAC) pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with ERAC (77 South High Street, 17<sup>th</sup> Floor, Columbus, OH 43215) within thirty (30) days after notice of the Director's action.

**Additional Information:** Available from the Northwest District Office, located at 347 North Dunbridge Road, Bowling Green, Ohio 43402, Ghassan Tafla, (419)352-8461, and Ghassan.tafla@epa.ohio.gov.

**Additional Information:** Available at the information repository Wood County District Public Library 251 N. Main Street, Bowling Green, Ohio 43402, 419-352-5104

## DECLARATION

COOPER STANDARD AUTOMOTIVE SITE  
1175 NORTH MAIN STREET  
BOWLING GREEN, WOOD COUNTY, OHIO

## STATEMENT OF BASIS AND PURPOSE

This Decision Document presents the selected remedial action for the Cooper Standard Automotive Site in Bowling Green, Wood County, Ohio, chosen in accordance with the policies of the Ohio Environmental Protection Agency, statutes and regulations of the State of Ohio, and the National Contingency Plan, 40 CFR Part 300.

## ASSESSMENT OF THE SITE

Actual and threatened releases of contamination (e.g., trichloroethylene (TCE) and xylenes) on the Site, if not addressed by implementing the remedial action selected in this Decision Document, constitute a substantial threat to public health or safety, and are causing or contributing to air or water pollution or soil contamination.


TCE contamination was discovered during the removal of the xylene USTs located immediately west of the building and immediately south of a former TCE aboveground storage tank (AST). It is suspected that the TCE release was from historical (prior to 1972) chemical handling practices by the prior owners (Gulf & Western Manufacturing). The primary area of TCE contamination is immediately west of the manufacturing building near the former TCE AST and the adjacent former xylene and fuel oil UST basins.

## DESCRIPTION OF THE SELECTED REMEDY

The major components of the selected remedial alternative include: Establishing institutional controls including limiting the property to commercial/industrial use, prohibiting potable use of ground water, evaluating for vapor intrusion risk prior to occupancy of future buildings, requiring use of a risk mitigation plan for construction or excavation activities in the subsurface, and requiring operation and maintenance of engineering controls; utilizing the current parking lot as an asphalt cap (engineering control); installing a passive ventilation system (engineering control); performing sub-slab soil gas and indoor air sampling to periodically evaluate for continued system effectiveness; and establishing a ground water management and monitoring program.

## STATUTORY DETERMINATIONS

The selected remedial action is protective of human health and the environment, complies with legally applicable state and federal requirements, is responsive to public participation and input, and is cost-effective. The remedy uses permanent solutions and treatment technologies to the maximum extent practicable to reduce toxicity, mobility, and volume of hazardous substances at the Site. The effectiveness of the remedy will be reviewed regularly.

  
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Craig W. Butler, Director

5/31/18  
\_\_\_\_\_  
Date

## SUMMARY

On March 27, 1992, Cooper Tire & Rubber Company (Cooper Tire) signed Director's Final Findings and Orders (DFFO) with Ohio EPA to investigate the extent of historic contamination and, if appropriate, develop remedial alternatives to address the problem. The Remedial Investigation (RI) documented the existence of contamination (e.g., trichloroethylene (TCE), xylenes, and metals) on the Site. An evaluation of the risk to human health and environment was performed.

The contamination poses unacceptable current and future human health and environmental risks based on direct contact with contaminated surface and subsurface soil, inhalation of contaminated soil and/or ground water via vapor intrusion, and direct contact with contaminated ground water. Additional details concerning the primary contaminants of concern (COCs) and the health risks associated with them are located in Table 1 below:

<b>TABLE 1: CONTAMINANTS OF CONCERN (COCs) / REMEDIATION LEVELS (RLs)</b>			
<b>Medium</b>	<b>COC</b>	<b>RL</b>	<b>RL Basis</b>
Soil: Human Direct Contact	Trichloroethylene	19,000 µg/kg	US EPA Industrial Soil
Sub-Slab Vapor Intrusion to Indoor Air	Vinyl chloride	930 µg/m <sup>3</sup>	US EPA VISL
	Trichloroethylene	290 µg/m <sup>3</sup>	US EPA VISL
Ground Water: Construction Worker Direct Contact	Cis-1,2-Dichloroethene	4,810 µg/L	Property-Specific
	Vinyl chloride	2,020 µg/L	Property-Specific
	Arsenic	2,400 µg/L	Property-Specific
	Iron	5,600,000 µg/L	Property-Specific
	Manganese	192,000 µg/L	Property-Specific
Ground Water: Vapor Intrusion to Indoor air	Vinyl Chloride	37 µg/L	US EPA VISL
Indoor Air	Trichloroethylene	8.8 µg/m <sup>3</sup>	US EPA Industrial Air
	Vinyl Chloride	28 µg/m <sup>3</sup>	US EPA Industrial Air

Based on this information, remedial alternatives were developed to address human health and environmental risks posed by the Site. The Feasibility Study (FS) documents the remedial alternatives developed for the Site, and the Remedial Action Objectives (RAOs) to ensure protectiveness of human health and the environment.

This Decision Document summarizes the range of remedial alternatives evaluated, identifies Ohio EPA's selected remedial alternative, and explains the reasons for selection of the remedial alternative. The selected remedial alternative is designed to reduce human health risks to within acceptable limits, and to protect human health and the environment from exposure to soil, ground water, and indoor air contamination.

The expectations for the selected remedial alternative include:

1. Reduction of human health risks to within acceptable limits, and protection of human health and the environment from exposure to COCs in soil, ground water, and indoor air, which are above acceptable limits.
2. Short and long-term protection of human health and the environment.
3. Compliance with applicable or relevant and appropriate requirements (ARARs).
4. Cost-effectiveness and limitation of expenses to what is necessary to achieve the selected alternative expectations.
5. Continued operation and maintenance of the existing remedial action and monitoring systems.

The major elements of the selected remedial alternative include:

1. Establishing institutional controls, including limiting the property to commercial/industrial use, prohibiting potable use of ground water, evaluating for vapor intrusion risk prior to occupancy of any future buildings and if needed, installation of a vapor mitigation system as an engineering control, and requiring operation and maintenance of engineering controls.
2. Utilizing the current parking lot as an asphalt cap (engineering control) over Area I soil.
3. Utilizing the asphalt cap (engineering control) to prevent direct contact.
4. Conducting a maintenance and repair program for the engineering controls.
5. Installing a passive ventilation system (engineering control).
6. Performing sub-slab soil gas and indoor air sampling, to periodically evaluate for continued system effectiveness, as part of the operation and maintenance program.
7. Establishing a ground water management and monitoring program.

## **SITE HISTORY**

The Site is currently operated by Cooper Standard Automotive, Inc. (Cooper Standard), which purchased the property and business operations from Cooper Tire in 2004. Specifically, the Site is owned by Cooper Standard, and comprises Wood County Auditor parcel nos. B08-510-130203003000 (eastern parcel with Plant Building) and B08-510-130203002000 (western parcel with parking areas). Cooper Tire purchased the Site in May 1977 from Gulf & Western Manufacturing. Historical Site activities predating Copper Tire and Cooper Standard's ownership included flame cutting, welding, shearing, punching, forming, machining, honing, solvent degreasing, assembly, priming and painting (both dip and spray). Cooper Tire renovations allowed for the manufacturing of reinforced rubber hose and body seals for the automotive industry, as well as other extruded rubber products. Site activities included extruding, knitting, braiding, spiraling, curing (vulcanization), spray coating, floccing, finishing, packing, warehousing, and shipping. TCE, xylenes, and other solvents were used in the past on Site.

The building was expanded in 1989 for warehousing. In the latter half of 1993, the hose production operations were relocated to another property. A second expansion was completed in 1997. Cooper Tire used materials typical of rubber manufacturing, including: rubber, adhesives, solvents, reinforcing material, coatings, silicones, and glycol compound. Cooper Standard has continued manufacturing automotive seals since its purchase of the



Site. Neither Cooper Tire nor Cooper Standard used TCE at the Site, or were involved with the release of historical contamination at the Site.

The Site is located on a flat parcel of land (surface relief of 2 feet) with drainage to the east. The Site encompasses approximately 25 acres, including a building of 285,000 square feet, approximately 4.5 acres of paved parking lots, and approximately 2.8 acres of gravel driveways and parking areas, with most of the remaining 12 acres being grass covered. The Site is bounded to the north by Van Camp Road and an auto dealership beyond, to the east by North Main Street (Highway 25) and commercial facilities beyond, to the south by light industrial and commercial properties, and to the west by an abandoned industrial facility.

Ground water at the Site is contained within two primary water-bearing zones, the overburden and the bedrock aquifer. Overburden ground water at the Site consists almost entirely of perched water that extends down to approximately 12 feet bgs. The bedrock aquifer consists of a shallow portion of the bedrock aquifer and an intermediate/deep bedrock portion of the bedrock aquifer.

There are no identified domestic water wells in the downgradient direction (south-southeast) located within one half mile of the Site. The immediate area around the Site is mainly a commercial/industrial area serviced by Bowling Green municipal water supply. Due to the high levels of naturally occurring hydrogen sulfide content in the bedrock ground water, the ground water quality is not considered acceptable for human consumption. As a result, the commercial/industrial area around the Site and the nearby residential area will remain on municipal water for the foreseeable future.

## **SITE CONDITIONS**

In 1986, TCE contamination was discovered during the removal of the xylene USTs located immediately west of the building and immediately south of a former TCE aboveground storage tank (AST). It is suspected that the TCE release was from historical (prior to 1972) chemical handling practices by the prior owners. The primary area of TCE contamination is immediately west of the manufacturing building near the former TCE AST and the adjacent former xylene and fuel oil UST basins.

The RI identified four (4) areas for potential exposure concerns that were subsequently evaluated to determine risk to human health and the environment. Area 1 comprises the Site Building and the approximately 20,000 square foot (sf) paved parking lot area immediately west of the Site Building. This area is associated with the former TCE AST, former xylene USTs, and former fuel oil UST. Area 2 refers to the approximately 10,800 sf area located adjacent to the southeast corner of the Site Building. This area is associated with historical material handling and the historical wastewater pretreatment operations. Area 3 refers to the approximately 9,600 sf undeveloped area of the Site along the southern property boundary and approximately 350 feet south of the Site Building. And Area 4 refers to the area of the paved parking lot approximately 100 feet west of the Site Building and south of the material storage shed. This area was historically used for the storage of rubber stock (See Figure 1).

Interim remedial measures and in-situ chemical oxidation using potassium permanganate (KMnO<sub>4</sub>) were implemented to address soil and ground water contamination for Area 1.

Areas of known saturated fill were de-watered, and the pumped ground water was mixed with  $\text{KMnO}_4$  and re-injected back into the fill material to treat the perched ground water. In 2008, injection wells were installed in the Area 1 to supplement treatment of the perched ground water treatment area. The interim measures successfully reduced the contaminant mass in the soils and perched water within Area 1 by 90 percent.

## SITE RISKS

An evaluation of current and potential future risks to human and ecological receptors as the result of exposure to contaminants present at the Site demonstrate that contaminants in environmental media pose, or potentially pose, unacceptable risks sufficient to trigger the need for remedial actions. The risk assessment for human health is an estimate of the likelihood of potential health problems occurring if no remedial actions were taken at the Site. To estimate risk, a four-step process is undertaken that involves data collection and evaluation, assessment of potential exposure, assessment of the contamination toxicity, and characterization of the risk.

A human health risk assessment was prepared to evaluate potential impacts to human health posed by contamination in soils, soil vapor, indoor air, and overburden ground water in Areas 1 through 4. Areas 2, 3, and 4 did not have significant potential risks and were eliminated for further evaluation. The risks and hazard levels for Area 1 indicate that there is significant potential risk to children and adults from direct exposure to contaminated soil, ground water, and soil vapor. Development of an Ecological Risk Assessment was not necessary because important ecological receptors that could be affected by Site contamination were not identified.

## SUMMARY OF REMEDIAL ALTERNATIVES

Remedial Action Objectives (RAOs) were developed for the Site to identify goals that a remedy should achieve in order to ensure protection of human health and the environment. The RAOs for the Site are listed in Table 2, below:

TABLE 2: REMEDIAL ACTION OBJECTIVES	
Ground water	
Human Health Risk	Prevent direct contact of vinyl chloride in Area I overburden ground water (UST-1 and EXT-1) by future construction/utility worker during ground intrusive activities at concentrations in excess of a total excess lifetime cancer risk greater than $1 \times 10^{-5}$ .
	Prevent inhalation within the Site Building of the carcinogen vinyl chloride in vapors emanating from ground water in excess of a $1 \times 10^{-5}$ excess lifetime cancer risk.
	Prevent inhalation within the Site Building of non-carcinogens vinyl chloride in vapors emanating from ground water in excess of a HQ or HI of 1.
Soil (including Sub-Slab Vapor and Indoor Air)	

<b>Human Health Risk</b>	Prevent ingestion/direct contact with soil located in in Area I by future industrial/commercial workers at concentrations greater than 19,000 µg/kg for Trichloroethylene.
	Prevent ingestion/direct contact with soil located in in Area I by future construction/utility workers at concentrations greater than 19,000 µg/kg for Trichloroethylene.
	Prevent indoor air inhalation exposure within the Site Building by future industrial/commercial workers at concentrations greater than a cumulative carcinogenic risk of $1 \times 10^{-5}$ or a hazard index of 1. Prevent inhalation in existing building of carcinogens trichloroethylene in vapors emanating from soil in excess of a $1 \times 10^{-5}$ excess lifetime cancer risk.
	Prevent inhalation in existing building of non-carcinogens trichloroethylene in vapors emanating from soil in excess of a HQ or HI of 1.

A total of 4 remedial alternatives, which include 3 soil and 4 ground water options, were considered in the FS. The "no action alternatives" for soil, ground water and sediment have been included in a single section for efficiency and serves as a baseline for the comparison of other remedial alternatives. Under this alternative, no remedial activities or monitoring are conducted at the Site to prevent exposure to contaminated media.

The second soil alternative, Institutional Controls, would control access and exposure to contaminated media by establishing activity and use limitations through an environmental covenant (EC), including to restrict Site use to commercial and/or industrial purposes and limit excavation in Area 1 without proper protective measures for construction and excavation activities. Management plans would be developed to maintain the parking lot over Area 1 soil, and to maintain and repair the floor within the Site Building.

The third soil alternative, Institutional Controls and Passive Ventilation, is essentially identical to the second soil alternative but adds an engineering control. The engineering control would be designed as a vapor mitigation system to prevent exposure from any vapor intrusion of soil and ground water contaminants to indoor air (such as via installation of a passive ventilation system). The vapor mitigation system would be required for the current building. Any future building at the Site would require evaluation to determine whether a vapor mitigation system is needed for the building.

As previously mentioned, the first ground water alternative is no action and serves as a basis of comparison to other ground water alternatives. The second ground water alternative, Institutional Controls, would prohibit the use of ground water for potable purposes, and would provide for both ground water monitoring as well as a risk mitigation plan to address direct contact scenarios. The components would prevent any direct contact with ground water from construction or excavation activities.

The third ground water alternative is essentially identical to the second ground water alternative but adds management plans to maintain and repair the parking lot (i.e., to prevent any direct contact with ground water from construction or excavation activities), and the Site building floor (i.e., to prevent vapor intrusion to indoor air). The third alternative also adds a specific ground water monitoring program to document the attenuation of contaminants (i.e., monitored natural attenuation or MNA).



The fourth ground water alternative is essentially identical to the third ground water alternative but adds enhanced bioremediation to speed the process of natural attenuation. With the implementation of enhanced bioremediation, the MNA program would not be necessary, and therefore is eliminated as an element of this remedial alternative.

In the process of scoping and conducting the RI, generic preliminary remediation goals (PRGs) were established. These PRGs were converted to site-specific remediation goals (RGs) following completion of the RI and FS phase of the project. The FS includes a list of RGs for protection of human health, established using the acceptable excess lifetime cancer risk and non-cancer hazard goals identified in the DERR Technical Decision Compendium (TDC) document "Human Health Cumulative Carcinogenic Risk and Non-Carcinogenic Hazard Goals for DERR Remedial Response and Federal Facility Oversight," dated August 21, 2009. These goals are given as  $1 \times 10^{-5}$  (i.e., 1 in 100,000) excess lifetime cancer risk and a HQ or HI of 1, and were established using the default exposure parameters provided by U.S. EPA or site-specific information. This TDC can be found at <http://www.epa.ohio.gov/portals/30/rules/riskgoal.pdf>.

Ohio EPA did not receive any comments at the public meeting held on December 13, 2017 or during the public comment period, which ran between November 13, 2017 and December 20, 2017.

## **SELECTED REMEDIAL ALTERNATIVE**

Ohio EPA's selected remedial alternative for the Cooper Standard Automotive Site is a combination of Soil Alternative 3 and Ground Water Alternative 3. The selected remedy relies on various institutional controls to restrict the use of the Site, and engineering controls to prevent direct contact with contamination remaining on Site, as well as to mitigate vapor intrusion to indoor air. The engineering and institutional controls on which the selected alternative relies are commonly used strategies and have been widely applied at other sites with soil and ground water impacts.

The selected alternative consists of an environmental covenant which would (a) limit the use of the Site to commercial and/or industrial purposes, (b) prohibit the use of ground water for any purpose other than sampling and analysis to monitor contamination, (c) require operation and maintenance of engineering controls, (d) require use of a risk mitigation plan for any construction or excavation activities in the subsurface, and (e) require evaluation of vapor intrusion risk prior to occupancy of any future buildings on the Site and if needed, installation of a vapor mitigation system as an engineering control.

The selected alternative will also rely on the existing asphalt parking lot in Area 1 to be maintained as an engineering control to prevent direct contact with the underlying impacted soils. The building floor will be maintained as an engineering control to prevent sub slab vapors from impacting the indoor air of the Site building. Sub-slab soil vapors will be managed through passive ventilation, and will involve trenching within the Site building in limited areas in order to install the passive ventilation system. Lastly, a monitoring program will be implemented to conduct periodic ground water sampling throughout the Site to confirm and document MNA is effective.

Based on information presently available, it is Ohio EPA's current judgement that the selected remedial alternative best satisfies the criteria for evaluation of Site remedial alternatives.

#### **DOCUMENTATION OF SIGNIFICANT CHANGES**

Ohio EPA did not receive any comments on the Preferred Plan, and no significant changes have been made to the selected remedial alternative.

#### **RESPONSIVENESS SUMMARY**

A public meeting/hearing was held on December 13, 2017 to present the Agency's Preferred Plan for the Cooper Standard Automotive Site, and to solicit public comment. Additionally, oral and written comments were accepted at this meeting and during the comment period which ran from November 13, 2017 to December 20, 2017.

Ohio EPA did not receive any comments at the public meeting/hearing, nor during the comment period.