

**EXPLANATION OF SIGNIFICANT DIFFERENCES
TO THE RECORD OF DECISION
PCE SOUTHEAST CONTAMINATION SITE
OPERABLE UNIT 01 – 7th STREET SOURCE AREA SOIL
YORK, YORK COUNTY, NEBRASKA**



Prepared by:

**U. S. Environmental Protection Agency
Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219**

December 2023

ROBERT JURGENS Digitally signed by
ROBERT JURGENS
Date: 2023.12.15
10:02:46 -06'00'

**Robert D. Jurgens, Director
Superfund and Emergency Management Division**

TABLE OF CONTENTS.....	ii
I. INTRODUCTION.....	1
Site Name and Location.....	1
Statement of Purpose.....	1
Rationale for Changes	1
II. SITE DESCRIPTION.....	2
Site History	2
Contamination.....	3
Selected Remedy, as Originally Described in the ROD.....	4
III. BASIS FOR THE DOCUMENT.....	5
IV. DESCRIPTION OF SIGNIFICANT DIFFERENCES.....	5
V. SUPPORT AGENCY COMMENTS.....	6
VI. STATUTORY DETERMINATIONS.....	7
Five-Year Reviews	7
VII. PUBLIC PARTICIPATION COMPLIANCE	7

I. INTRODUCTION

Site Name and Location

PCE Southeast Contamination site
Operable Unit 01 – 7th Street Source Area Soil
York, York County, Nebraska
CERCLIS ID #: NEN000706200

Statement of Purpose

The U.S. Environmental Protection Agency is issuing an Explanation of Significant Differences (ESD) for the PCE Southeast Contamination site located in York, York County, Nebraska. The purpose of this ESD is to select a different remedial alternative (Alternative 4 rather than Alternative 3) outlined in the Record of Decision (ROD) dated September 19, 2018, that includes partial demolition of a site building. Site conditions (the condition of a portion of the building on the site) that were unknown during the development of the ROD and issuance of the Remedial Action contract award have subsequently been identified which make proceeding with Alternative 3 (vertical installation of thermal remediation wells inside the building) unsafe for the EPA and contracting staff. This ESD was prepared in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) §117(c), as amended by the Superfund Amendments and Reauthorization Act, and, to the extent practicable, the National Oil and Hazardous Substance Pollution Contingency Plan (NCP) 40 CFR §300.435(c)(2)(i). Consistent with the NCP 40 CFR §300.825(a)(2), all documents that form the basis for the decision to modify the response action are added to the Administrative Record. The Administrative Record is located at the following information repositories:

U.S. Environmental Protection Agency Region 7 11201 Renner Boulevard Lenexa, Kansas 66219	Site Profile Page: https://www.epa.gov/superfund/pcesoutheastcontamination
--	---

Rationale for Changes

This ESD changes the selected remedy (Alternative 3) in the ROD to Alternative 4 listed in the ROD. The major components of Alternative 3 included: installation and operation of an in situ thermal remediation (ISTR) system (via vertical installation of the ISTR system via the subfloor of the existing site building) to remove vadose zone soil contaminants; vapor and steam recovery by above-ground soil vapor extraction (SVE); and temporary relocation of building occupants during construction and/or operation of the ISTR system, if necessary. Access to the south building at Operable Unit 01 (OU01), which is vacant, was not possible during the pre-solicitation site conference with Remedial Acquisition Framework (RAF) contractors in July 2022. Access to the south building of the OU01 site was possible in December 2022 following award of the RAF site specific remedial action contract on September 19, 2022. Inspection of the interior of the south building of the OU01 site (Image 1 below) in December 2022 by the EPA Region 7 staff and the EPA contractor resulted in the determination that vertical drilling from within the southern portion of the site building was not feasible based on safety and structural integrity concerns (i.e., mold, deceased animals, asbestos, crumbling brick walls, leaking roof, etc.).

Following the inspection of the south building on OU01, the EPA staff worked with the contractor to develop a cost analysis comparing only horizontal drilling (drilling underneath the south building) from outside of the structure to install the ISTR system versus demolition of the south building followed by vertical drilling installation of the ISTR system in the footprint of the removed building. The cost analysis comparison demonstrated that demolition of the south building along with vertical installation of the ISTR system within the footprint of the removed building was the more cost effective route. Demolition of the south building along with vertical installation of the ISTR system was also listed as a potential alternative (Alternative 4) in the OU01 ROD. While the south building's owner passed away in 2022, the trustee for the estate, the city of York, and the state of Nebraska all support the demolition of the south building and vertical ISTR installation alternative. As an aside, the city of York began building condemnation proceedings for the south building in April 2023 because of the building's poor condition. The trustee for the estate has informed both the EPA and the city of York that the estate has no plans to correct the building deficiencies and would prefer building demolition. The city of York has temporarily halted condemnation proceedings while the EPA and the estate attempt to remediate the property.

The selection of a different remedial alternative documented in this ESD represents a significant change to the selected remedy, as specified in the ROD, but not a fundamental change with regards to scope, performance, or cost. A contract modification for increased funding is necessary, but the amount required meets the +50 percent to -30 percent threshold of recognized uncertainties associated with the hazardous waste engineering process cost estimates from the Feasibility Study (FS) guidance outlined in the EPA's *Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents* (July 1999) and the EPA and US Army Corps of Engineers' *A Guide to Developing and Documenting Cost Estimates During the Feasibility Study* (July 2000) document.

II. SITE DESCRIPTION

The site covers the extent of site boundaries and includes approximately two square miles and/or 1,200 acres and is within both the city of York, Nebraska, and the adjoining York County area southeast of the limits of the city of York. The site is located approximately 47 miles west of Lincoln, Nebraska, in an area of the state where agricultural activities have occurred since the 1870s. The site consists of two contaminant source areas (OU01 and OU02) that originate in the downtown area associated with former dry-cleaning facilities and groundwater contamination (OU3) that migrates southeast. This ESD changes OU01 and the OU01 ROD only. OU01 is approximately one-half acre and is located on the northeast corner of West 7th Street and North Platte Avenue in downtown York. A brick and concrete building exists on the ½-acre lot. The building is separated into two distinctly owned parcels (the north building and the south building), which are joined by a common wall. The north building is owned and occupied by a construction company (this company will be relocated during remedial actions). The south building is vacant but is designed to house multiple storefronts. The EPA identification number is NEN000706200. A citizen can use this number on the EPA's website to obtain additional information on the site.

Site History

Historic use of volatile organic compounds (VOCs) such as tetrachloroethylene (PCE) and trichloroethylene (TCE) was common in dry-cleaning operations. The former York Laundry and Dry-Cleaning (YLDC) facility and/or its predecessors operated at the northeast corner of West 7th Street and North Platte Avenue from about 1915 to 1972. Review of Nebraska's online deed records indicates the two parcels at OU01 were under single ownership until 1984 when the property was subdivided. The current owner (now deceased and the property is in his estate) of the south building purchased the

property in 2012 and had used it for commercial space, although it is presently vacant. The current owner of the north building purchased the property in 2010 and uses it to store equipment and materials for his business.

The site was discovered in the fall of 2010 during private well sampling in residential and rural areas of southeastern York, Nebraska. Tetrachloroethylene (PCE) was detected in groundwater samples from five private wells with concentrations ranging from 0.9 to 32 micrograms per liter, or ($\mu\text{g/L}$). The maximum contaminant level (MCL) for PCE is 5 $\mu\text{g/L}$.

In 2011, the EPA conducted a Time-Critical Removal Action (TCRA) at the site under the authority of CERCLA § 104(a), 42 U.S.C. § 9604(a), and the NCP, 40 CFR Part 300 to connect affected residents to an alternate water supply or install whole-house filtration systems. To date, the EPA has connected 16 residents to city water and installed two whole-house filtration systems. In 2013, the EPA held a public availability session to present the groundwater sampling results to the community and discuss the proposal for the site to be placed on the National Priorities List (NPL). The site was proposed for the NPL in December 2013 and placed on the NPL in May 2014.

The EPA tasked its contractor to perform a Remedial Investigation (RI) to characterize the contamination at the site and a Feasibility Study (FS) to evaluate remedial alternatives to address the contamination. The OU01 RI/FS commenced in 2014 and was completed in 2018. Between 2014 and 2018, the EPA held numerous public availability sessions in York to present status updates and provide current sampling data and results to the community.

In 2015, the EPA conducted a TCRA under the authority of CERCLA § 104(a), 42 U.S.C. § 9604(a), and the NCP, 40 CFR Part 300, to collect additional samples at the site to evaluate the vapor intrusion (VI) pathway and install VI mitigation systems where the EPA Regional Screening Levels (RSLs) for soil gas impacts to indoor air were met or exceeded. To date, 27 VI mitigation systems have been installed at 26 residential and/or commercial properties.

The OU01 ROD (7th Street source area soil) was signed by the EPA Region 7 Superfund Division Director on September 19, 2018. The OU02 (5th Street source area soil) and OU03 (sitewide groundwater) ROD was signed by the EPA Region 7 Superfund Division Director on September 28, 2021.

The EPA manages this project as a federal fund-lead site. The EPA began a preliminary potentially responsible party search in 2014 and completed it for OU01 in 2018. A series of CERCLA 104(e) information request letters were sent to several parties associated with the former YLDC facility. The agency did not identify any subsequent owners/operators as potentially liable and/or viable, including the current owners/operators.

Contamination

Contaminants of Concern

The Contaminants of Concern (COCs) for the site included VOCs. The COCs were documented in the ROD dated September 19, 2018, as follows:

Soil	
Contaminants of Concern (COCs)	CAS No.
Volatile Organic Compounds (VOCs)	
Tetrachloroethylene (PCE)	127-18-4
Sub-Slab Soil Gas	
Tetrachloroethylene (PCE)	127-18-4
Trichloroethylene (TCE)	79-01-6

The primary COC for OU01 7th Street source area soil is PCE.

PCE concentrations in soil range from non-detect to 8,300 µg/kg. This concentration does not exceed the residential soil screening level of 24,000 µg/kg for direct contact exposure to soil. The EPA has determined the PCE contamination associated with the 7th Street source area is not a principal threat waste but is a low-level threat waste. This determination is based on soil concentrations being below reference dose levels and an excess cancer risk of 1 in 1,000 or greater not being present.

Selected Remedy, as Originally Described in the ROD

The ROD dated September 19, 2018, selected a soil remedy at OU01 that will achieve the following Remedial Action Objectives (RAOs):

- Prevent the migration of PCE contamination in soil that would result in groundwater contamination above levels that are protective of beneficial use (i.e., drinking water use)
- Reduce the inhalation exposure to building occupants to PCE in soil gas, originating from contaminated soil, above acceptable risk levels.

The selected remedy will prevent the continued migration of PCE from contaminated soils to groundwater by reducing the soil concentrations to below the cleanup level of 46 micrograms per kilogram (µg/kg). This cleanup level was derived from the MCL-based protection of groundwater soil screening levels (SSL) for PCE published in the June 2017 RSL table that was then multiplied by a dilution attenuation factor (DAF) of 20. The protection-to-groundwater screening level for PCE in soil is 2.3 µg/kg. From the SSL guidance, the DAF of 20 was selected using a weight of evidence approach, which considers the EPA's Composite Model for Leachate Migration with Transformation and results applying the SSL dilution model to 300 groundwater sites across the United States. High concentrations of PCE above the cleanup level of 46 µg/kg were detected throughout the unsaturated zone to 30 feet below ground surface (bgs). In addition to protecting groundwater, the selected remedy will reduce the inhalation exposure to north building occupants, occupants of the building east of the north and south building, and to any occupants of future developments in the footprint of the south building, to PCE in soil gas, originating from contaminated soil, above levels determined to present a health risk from soil gas to the building occupants.

There are no federal or state cleanup standards for PCE soil contamination. The EPA established a site-specific cleanup level for soil. The cleanup level for soil will prevent the continued migration of PCE in soil into groundwater.

The major components of the Selected Remedy include the following:

OU01 Soil Remedy – In Situ Thermal Remediation (ISTR)

- Installation and operation of an ISTR system to remove vadose zone soil contamination.
- Vapor and steam recovery by above-ground SVE, and
- Temporary relocation of building occupants during construction and/or operation of the ISTR system, if necessary.

III. BASIS FOR THE DOCUMENT

This ESD changes the selected remedy in the OU01 ROD (dated 09/19/2018) of ISTR involving “working around or below the existing buildings” to Alternative 4 (outlined in the ROD), “Partial Building Demolition and In Situ Thermal Remediation.” During the July 2022 pre-bid site conference for RAF contractors to examine and explore site conditions (prior to providing bids to the EPA), contractors and the EPA staff were unable to obtain access to the south OU01 building because the building owner was experiencing health and personal issues and was not in communication. As such, contractors were required to provide bids to fulfill the required remediation work under the selected remedy - Alternative 3 (working around or below the existing building) without having access to examine the interior of the structure. The Alternative 3 remedy required access to the interior of the structure to complete vertical installation of ISTR treatment wells under the building (vertical well installation). A site-specific contract for Alternative 3 was awarded in September 2022. The building owner passed away in August 2022, but the trustee of the deceased owner’s estate gave access to the south building to the EPA and the contractor in December 2022. The December 2022 examination and inspection of the interior of the south building demonstrated to the EPA staff and contractors that Alternative 3 was no longer feasible because the structure was unsafe. Several issues were identified within the building, including mold, deceased animals, asbestos, leaking/caving roof and structural integrity concerns. The city of York conducted their own inspection of the south building in early 2023 and began condemnation proceedings against the property.

IV. DESCRIPTION OF SIGNIFICANT DIFFERENCES

Selected Remedy in OU01 ROD	ESD Revised Remedy (Change to Alternative 4 in the OU01 ROD)
Alternative 3 – Scope: ISTR consists of the installation and operation of a system to heat the subsurface to volatilize the contaminants for vapor removal and treatment. This alternative includes the installation of both horizontal and vertical borings established by the application of traditional drilling techniques. Installation of ISTR wells under this alternative requires drilling within the interior of the southern portion of the OU01 building.	Alternative 4 – Scope: Alternative 4 is similar to Alternative 3. ISTR will be utilized to heat, remove, capture and treat contamination. Alternative 4 differs by assuming that partial building demolition will be used to enhance access and create safe working conditions.
Alternative 3- Performance: Operation of the ISTR to achieve the soil cleanup level of 46 µg/kg within the thermal treatment zone (TTZ).	Alternative 4 – Performance: Operation of the ISTR to achieve the soil cleanup level of 46 µg/kg within the thermal treatment zone (TTZ).
Alternative 3 – Cost:	Alternative 4 – Cost:

Selected Remedy in OU01 ROD	ESD Revised Remedy (Change to Alternative 4 in the OU01 ROD)
<ul style="list-style-type: none"> • <i>Estimated Present-Worth Cost</i> as described in OU01 ROD - \$5,911,000.00 • <i>Actual Cost</i> for OU01 Alternative 3 as Obligated - \$4,416,223.00 (Includes ISTR Funding; Interagency Agreement Funding with USACE for Relocation Market Services and Actual Relocation Costs) 	<ul style="list-style-type: none"> • <i>Planned/Obligated Cost</i> for OU01 Alternative 4 \$5,420,350.49 (Includes additional \$1,004,127.49 for ISTR Funding). • The additional \$1,004,127.49 is for partial demolition of the OU01 building (also identified as the complete demolition of the south building), asbestos abatement, structural shoring, redesign of the remaining wall of the north building and restoration of the southern parcel.

From the EPA guidance, “A Guide to Developing and Documenting Cost Estimates During the Feasibility Study” dated July 2000, the cost estimates in a ROD and Remedial Design are expected to vary between -30% and +50%. Therefore, the change in cost is a non-significant, or minor, change to the soil remedy at OU01.

Under Alternative 4 the change to original expected outcome is that the south building will be completely removed, leaving an empty lot. Limited change to the timeline is expected. Removal of the building may shorten the original Remedial Action timeline because there will be no need for ensuring structural integrity, mold abatement, removal/replacement of interior walls, etc. that would otherwise be required to drill and install the ISTR system within a standing building.

V. SUPPORT AGENCY COMMENTS

A concurrence determination letter for the Proposed Plan for Remedial Action was received from the state of Nebraska’s Director of the Department of Environmental Quality (now Nebraska Department of Environment and Energy – “NDEE”) on June 19, 2018, for the remedial actions outlined under Alternative 3 in the OU01 ROD. For this ESD, NDEE has commented that any asbestos abatement must be completed by a licensed abatement firm and comply with rules and regulations under the Asbestos Control Act and Uniform Credentialing Act. All project notifications must be submitted to the Nebraska Department of Health and Human Services Division of Public Health – Asbestos Program.

The NDEE provided signed concurrence for this ESD in a letter (dated November 20, 2023) to the EPA Superfund and Emergency Management Division Director (attached).

VI. STATUTORY DETERMINATIONS

The selected remedy, as changed by this ESD, meets these statutory requirements of CERCLA §121 and the NCP. The modified remedy is protective of human health and the environment, complies with federal and state applicable ARARs, except where justified by a waiver, is cost-effective and utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable. As with the original remedy (Alternative 3 in the OU01 ROD), this remedy (Alternative 4) will meet RAOs specified in the ROD and satisfy the statutory preference for treatment as a principal element of the remedy (i.e., reduces the toxicity, mobility, or volume of hazardous substances, pollutants, or contaminants as a principal element through treatment). The selection of Alternative 4 from the original OU01 ROD outlined in this ESD does not affect the original protectiveness outlined under Alternative 3.

Five-Year Reviews

Implementation of OU01 ROD Alternative 4 will eliminate hazardous substances, pollutants or contaminants from the site that are above acceptable limits that allow for unrestricted exposure. Based on the elimination of the contamination above acceptable levels from the soil, Five-Year Reviews for OU01 will not be necessary.

VII. PUBLIC PARTICIPATION COMPLIANCE

Public participation requirements set out in the NCP (40 CFR §300.435(c)(2)(i)) will be met for this ESD. A notice of availability for this ESD will be published in a local newspaper, and this ESD will be made available to the public in the Administrative Record. The Administrative Record for the site is located at the EPA Region 7 headquarters at 11201 Renner Boulevard, Lenexa, Kansas, and online at <https://www.epa.gov/superfund/pcesoutheastcontamination>.

As noted above, the trustee for the estate of the deceased owner of the south building, the owner of the north building, and the city of York all wish to proceed with demolition of the south building. The trustee has declared there are no intentions to fix the building issues outlined by the city of York to avoid condemnation.

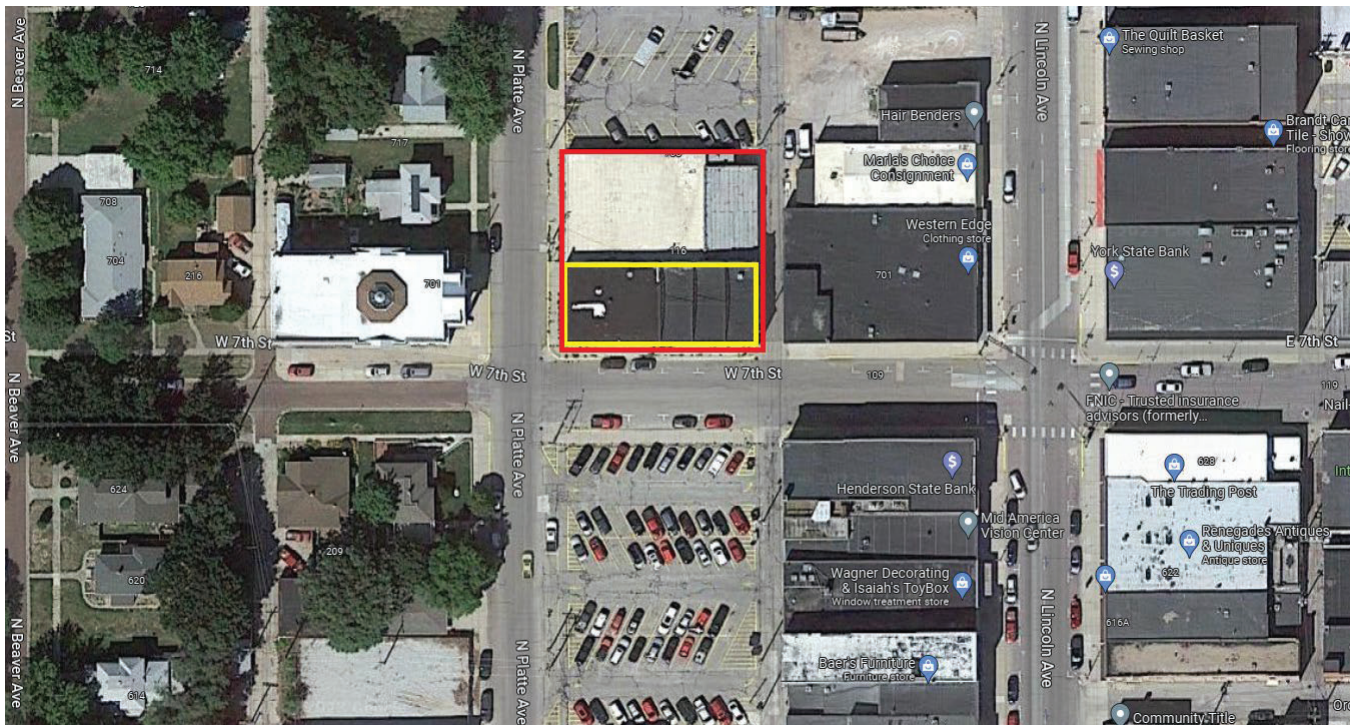


Image 1: OU01 building at the PCE Southeast Contamination site in York, York County, Nebraska. The red boundary identifies the “OU01 site.” The yellow boundary identifies the “South Building” of the OU01 Building. The southern portion or yellow area will be demolished under this ESD change to Alternative 4 (outlined in the OU01 ROD). The address for the south building, according to the York County GIS, is 110 West 7th Street, York, Nebraska.