

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
PCE Southeast Contamination RV001 - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VII

Subject: POLREP #21
Progress (groundwater and soil sampling, vi ports)
PCE Southeast Contamination RV001
A7X7
York, NE
Latitude: 40.8673915 Longitude: -97.5920867

To:
From: Susan Fisher, OSC
Date: 11/8/2015
Reporting Period: 11/1/15 to 11/9/15

1. Introduction

1.1 Background

Site Number:	A7X7	Contract Number:	
D.O. Number:		Action Memo Date:	4/11/2011
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	NPL	Operable Unit:	00
Mobilization Date:	9/7/2011	Start Date:	9/7/2011
Demob Date:		Completion Date:	
CERCLIS ID:	NEN000706200	RCRIS ID:	
ERNS No.:		State Notification:	NDEQ
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

CERCLA Incident Category: Time-Critical Removal Action

1.1.2 Site Description

1.1.2.1 Location

The city of York is located in the west-central portion of York County in southeast Nebraska. The Site is located to the southeast of the city of York, near the intersection of Road N and Road 12. Land use in the area is primarily residential.

1.1.2.2 Description of Threat

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In conducting downgradient sampling pertaining to another Superfund site in the area (the PCE/TCE Northeast Contamination site, f.k.a. as the York Northeast Groundwater site), a distinct groundwater contaminant plume in York was discovered by the U.S. Environmental Protection Agency in the fall of 2010. As a result of this discovery, the EPA completed an Abbreviated Preliminary Assessment (APA) for the Site in November 2010. Sampling conducted during the preparation of the APA identified eight residential drinking wells with concentrations of tetrachloroethene (PCE) ranging from 9.6 to 32 micrograms per liter ($\mu\text{g/L}$). Of these wells, one also contained trichloroethene (TCE) at a concentration of 5.9 $\mu\text{g/L}$. Concentrations of carbon tetrachloride (CCL_4) have been found in wells previously sampled at concentrations as high as 6.9 $\mu\text{g/L}$. The EPA's maximum contaminant level (MCL) for both PCE and TCE is 5 $\mu\text{g/L}$.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

In conducting downgradient sampling pertaining to another Superfund site in the area (the PCE/TCE Northeast Contamination site, f.k.a. as the York Northeast Groundwater site), a distinct groundwater contaminant plume in York was discovered by the U.S. Environmental Protection Agency in the fall of 2010. Concentrations of PCE ranging from 9.6 to 32 $\mu\text{g/L}$ were found in private drinking water wells. One

well also contained TCE at a concentration of 5.9 µg/L. The EPA MCL for PCE and TCE in drinking water is 5 µg/L.

The EPA is continuing to provide an alternative water supply to residents, conduct vapor intrusion sampling, and install vapor mitigation systems where necessary. Additionally, the EPA is conducting additional soil and groundwater sampling, attempting to identify source areas and further delineate the groundwater plume.

2.1.2 Response Actions to Date

Approximately 40 locations were identified for groundwater sample collection and five locations for soil sample collection. On Monday, November 1, 2015, the EPA mobilized to the site to begin collecting groundwater and soil samples, indoor air samples and to install vapor intrusion ports. The EPA mobile laboratory was also on site to analyze groundwater samples in real time to allow movement of sampling locations to better define the groundwater plume.

Seventy-seven groundwater samples were collected for analysis from approximately 36 locations. Samples were analyzed in the mobile lab and confirmation samples were also sent to the Region 7 EPA laboratory. The table showing groundwater sample results can be found in the document section labeled "Groundwater Sample Results - updated 11-7-15". The highest reading for PCE was 160.4 µg/L, and the highest reading for TCE was 56.6 µg/L. Based on the sample results the highest concentration for PCE was farther north than anticipated at location TW15-85 33-37 fbg. (A map of sampling locations can be found in the document section labeled "Groundwater Sample Results Map - updated 11-7-15".) Further soil and groundwater sampling will be conducted in this area the first week of December 2015.

Approximately 20 soil samples were collected from 5 locations. Soil samples were sent to the Region 7 EPA laboratory for analysis.

Approximately 20 indoor air samples were collected and sent to the Region 7 EPA laboratory for analysis. Subslab soil vapor ports were installed in five properties.

The EPA gave a presentation on the site at the Sunrise Sertoma Club on November 2, 2015.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The PRP search is ongoing. No PRP has been identified to date.

2.1.4 Progress Metrics

- Collected approximately 112 indoor air samples.
- Collected approximately 227 subslab soil gas samples. Installed 17 vapor mitigation systems.
- Collected approximately 323 groundwater samples to further delineate the groundwater plume (since 2014). Oversaw installation of a water main to hook approximately 10 residences to city water.
- Connected approximately 16 residences to city water (since 2014). Collected approximately 60 soil samples to assist in finding source areas.
- Sample results tables can be found in the document section.

2.2 Planning Section

2.2.1 Anticipated Activities

Groundwater, soil, and subslab soil gas sampling is scheduled for the first week of December 2015.

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

The site is listed on the National Priorities List. A remedial action is being conducted in conjunction with the removal action.

2.2.2 Issues

No issues at this time.

2.3 Logistics Section

Not applicable.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.3 Information Officer

The EPA Community Involvement Coordinator for the Site is Tamara Freeman.

The administrative record for the Site is available for review at the Kilgore Memorial Library, 520 Nebraska Avenue, York, NE 68467.

3. Participating Entities

3.1 Unified Command

EPA
Nebraska Department of Environmental Quality
ATSDR

3.2 Cooperating Agencies

City of York, Nebraska
Four Corners Health Department
York County
York Board of Realtors

4. Personnel On Site

EPA Personnel working on the project (not necessarily on site):
OSC Fisher
RPM Hull
CIC Freeman
EPA Toxicologist Phillips
EPA CNSL Nazar
EPA SME Nicoski

Other:
1 ATSDR representative
2 NDEQ representatives

Administrator of the City of York
Engineer for the City of York

5. Definition of Terms

APA - Abbreviated Preliminary Assessment
ATSDR - Agency for Toxic Substances and Disease Registry
CCL₄ - carbon tetrachloride
CIC - community involvement coordinator
CNSL - US EPA Counsel
CW - City water
EPA - Environmental Protection Agency
f.k.a. - formerly known as
IA - Indoor Air
MCL - Maximum Contaminant Level
Mbl Lab - Mobile Lab
nd - non detect
NDEQ - Nebraska Department of Environmental Quaility
NPL - National Priorities List
OSC - On-Scene Coordinator
PCE - Tetrachloroethene
PRP - Potentially Responsible Party
RAL - Removal Action Level
RPM - Remedial Project Manager
SME - Subject Matter Expert
SS - Subslab
TCE - Trichloroethene
µg/L - Micrograms per Liter
µg/kg - Micrograms per kilogram
µg/ m³ - Micrograms per cubic meter
WHF - Whole House Filter

6. Additional sources of information

6.1 Internet location of additional information/report

PCE - A hazardous substance in CERCLA section 101(14) as listed at 40 CFR section 302.4. A man-made chemical that is widely used for dry cleaning clothes and for metal degreasing. It evaporates easily into the air and has a sharp, sweet odor. Exposure to PCE at very high concentrations (particularly in closed, poorly ventilated areas) can cause dizziness, headache, drowsiness, confusion, nausea, difficulty in speaking and walking, unconsciousness and death. PCE has been shown to cause liver tumors in mice and kidney tumors in rats. It has been determined that PCE is a Class 2A carcinogen via inhalation based on long-term exposure.

TCE - A hazardous substance in CERCLA section 101(14) as listed at 40 CFR section 302.4. A man-made chemical typically used in metal degreasing. The Agency for Toxic Substances and Disease Registry reports that inhalation exposure to TCE at very high concentrations may affect the central nervous system, with symptoms such as dizziness, headaches, confusion, euphoria, facial numbness and weakness. Recent studies have linked TCE with structural heart malformations associated with exposure during the prenatal period.

For more information on these chemicals go to:
<http://www.atsdr.cdc.gov/toxprofiles/index.asp>

Vapor Intrusion - Occurs when vapors produced by a chemical spill or groundwater contamination plume migrate through soil and the foundations of structures and into the indoor air. When chemicals are spilled on the ground, they will seep into the soil and make their way into the groundwater. VOCs, including PCE and TCE, produce vapors that travel through soil. These vapors can enter buildings, through cracks in the foundation, or a basement with a dirt floor, or concrete slab or crawl space.

For more information about vapor intrusion got to:

http://www.epa.gov/region07/factsheets/2010/faq_about_vapor_intrusion_201002.htm

7. Situational Reference Materials

No information available at this time.