

**MARCH 2023**

## Background

The U.S. Environmental Protection Agency (EPA) recently awarded a remedial action contract to implement the selected remedy of in-situ thermal remediation (ISTR) to address soil contamination associated with former dry-cleaning operations in downtown York, Nebraska, for the PCE Southeast Contamination Superfund Site.

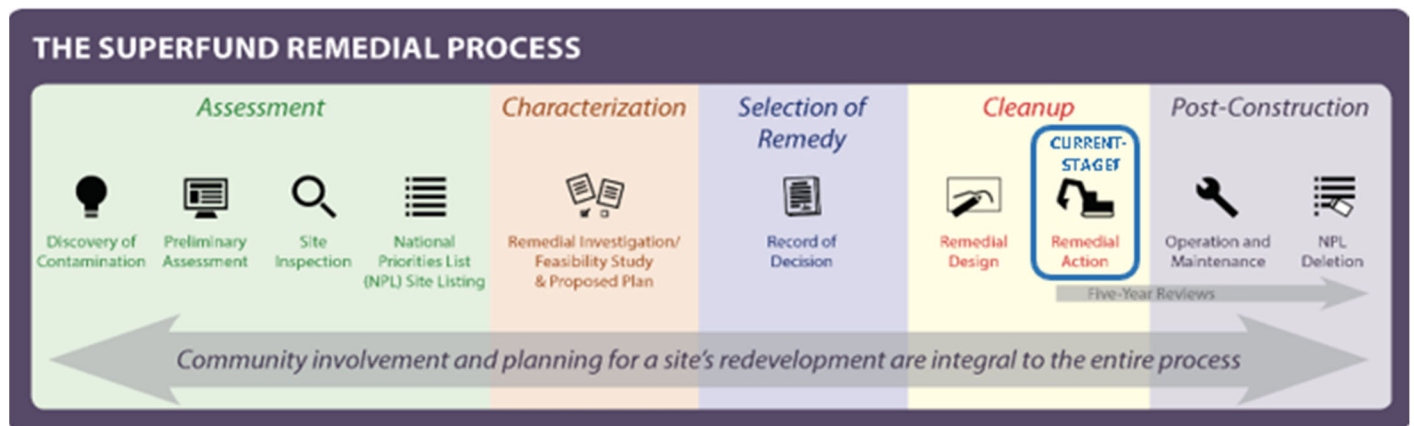
## About the Site

The site is in York, York County, Nebraska. It was discovered in fall 2010 when tetrachloroethene (PCE) and other volatile organic compounds (VOCs), including trichloroethene (TCE), were identified in private drinking water wells at concentrations exceeding 5 micrograms per liter ( $\mu\text{g/L}$ ), which is the maximum contaminant level (MCL) for PCE and TCE. The site's surrounding area consists of a mix of single-family residential, commercial, light manufacturing, and retail shops. EPA added the site to the National Priorities List (NPL) in May 2014.

The site consists of two soil source areas and a groundwater contaminant plume. In 2017, the site was separated into multiple operable units (OUs). OU 1 is designated as the 7th Street source area soil contamination; OU 2 is designated as the 5th Street source area soil contamination; and OU 3 is designated as sitewide groundwater. The remedial strategy for the site will be managed as a phased approach. The OU 1 and OU 2 source area remedial actions will be conducted prior to beginning remedial design and remedial action work at OU 3. This phased remedial approach is preferred, as it will initially focus on eliminating the continued leaching potential of the soil contamination into the water table, thus preventing further impacts to the drinking water aquifer. Learn more about the site at [www.epa.gov/superfund/pcesoutheastcontamination](http://www.epa.gov/superfund/pcesoutheastcontamination).

## What is In-Situ Thermal Remediation (ISTR)?

ISTR is a technology that heats the subsurface to enhance the vaporization of VOCs for removal or treatment. Thermal treatment is described as “in-situ” because the heat is applied underground directly to the contaminated area. The heat vaporizes (evaporates) the contaminants, changing them into gases. These gases, also referred to as “vapors,” can move more easily through soil for vapor extraction and treatment above ground. ISTR can be implemented in a relatively short time frame, expediting the cleanup at Superfund sites. ISTR methods do not pose a threat to site workers or the community when properly operated.



## What is Superfund?

Superfund often refers to hazardous waste sites and EPA's cleanup process. It is the common name for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This federal law authorizes EPA to clean up contaminated sites. The PCE Southeast Contamination Superfund Site is on the NPL, which is a list of national priorities among the known releases or threatened releases of hazardous

substances, pollutants or contaminants throughout the United States. The figure below depicts the Superfund remedial process from discovery of contamination to NPL deletion. OU 1 and OU 2 are currently in the cleanup/remedial action phase of the remedial process.



## Upcoming Work in Your Community

EPA and our contractors will be working on installing the ISTR system components at OU 2, which will consist of drilling in the area of 5th Street and North Platte Avenue beginning in late March to early April 2023. The ISTR treatment area will be fenced off to ensure the security of the treatment system and protection for the community during installation and operations of the ISTR system. The OU 1 ISTR installation and operations will commence after the OU 2 ISTR has been installed.

EPA is extremely mindful of the inconvenience this work will cause to the surrounding businesses and residents in the area. Continued coordination efforts on limiting these impacts to the community are a top priority. Please contact EPA if you have any questions or concerns.

## What are Volatile Organic Compounds (VOCs)?

VOCs are considered a contaminant of concern (COC) at the site. COCs are chemicals that need to be addressed by a cleanup action because they are a potential threat to human health or the environment. VOCs are organic chemical compounds that evaporate under normal indoor temperatures and pressure. Many VOCs are human-made chemicals used and produced in manufacturing paints, pharmaceuticals, and refrigerants. PCE and TCE are the main COCs associated with OU 1 and OU 2. PCE and TCE are VOCs that are commonly associated with former dry-cleaning operations. The main goal of the OU 1 and OU 2 remedial action is to prevent the continued leaching of COCs in soil migrating into the drinking water aquifer. The Centers for Disease Control and Prevention's Agency for Toxic Substances and Disease Registry (ATSDR) has a series of summaries about contaminants, called ToxFAQs. You can find ToxFAQs on specific VOCs at [www.atsdr.cdc.gov/toxfaqs](http://www.atsdr.cdc.gov/toxfaqs).



## Information Repositories

Site project information is available to the public at web repositories. To view cleanup documents, please visit EPA's Site Profile page at [www.epa.gov/superfund/pcesoutheastcontamination](http://www.epa.gov/superfund/pcesoutheastcontamination). If you do not have internet access, you can view these documents online at this location:

Kilgore Memorial Library  
520 Nebraska Ave  
York NE 68801  
402-363-2620

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