

# Health Consultation Summary

## Modesto Dry Cleaner Investigation: “Service Cleaners” and “Sparkleen Laundry and Dry Cleaners”

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### California Department of Public Health (CDPH) investigates dry cleaner releases in Modesto, California

The California Department of Public Health (CDPH) worked with the federal Agency for Toxic Substances and Disease Registry (ATSDR) to investigate two former dry cleaners in your neighborhood: “*Service Cleaners*” at 1425 La Loma Avenue and “*Sparkleen Laundry and Dry Cleaners*” at 1511 Yosemite Boulevard. This investigation was done because of concerns about past releases of a dry cleaning chemical called tetrachloroethylene (PCE) and how it could affect nearby workers and residents. This is a summary of our investigation of potential exposures to PCE based on the information that the City of Modesto and the California Department of Toxic Substances Control (DTSC) provided. CDPH and ATSDR are committed to providing the best scientific information available and to promoting the health of the community.

#### Conclusions

Currently, it is safe for workers to breathe indoor air in the former Service Cleaners building. This is because equipment was installed between 2011 and 2013 to remove the chemical of concern: tetrachloroethylene or “PCE”. This equipment improves the air inside the former Service Cleaners building and removes PCE from under the building.

Currently, we do not know the indoor air concentrations of PCE in nearby homes and other buildings. We recommend that the City of Modesto conducts periodic indoor air sampling for buildings within 500 feet of the former dry cleaners. We recommend that residents and workers request and allow the indoor air testing.

In 2010 and 2013 equipment was installed underground to remove PCE from the soil underneath buildings. Breathing indoor air in the former Service Cleaners building before 2011, or in some nearby buildings before 2013, could have been harmful to workers or residents, if this exposure lasted a long time (years).

### History of dry cleaner investigations in Modesto

Since 2001, the City of Modesto has investigated toxic chemicals released from dry cleaners into the local soil and groundwater. Since 2011, DTSC has overseen the cleanup of the former Service and Sparkleen dry cleaners. In April 2010, DTSC asked CDPH for help in responding to a Modesto community member who had health concerns about exposures to chemicals from dry cleaners near their home. We reviewed the information and responded to the

concerned community member. After reviewing additional information, we decided to conduct health consultations for 23 dry cleaners in Modesto. This is a summary of the investigation of the former Service Cleaners and Sparkleen Laundry dry cleaners.

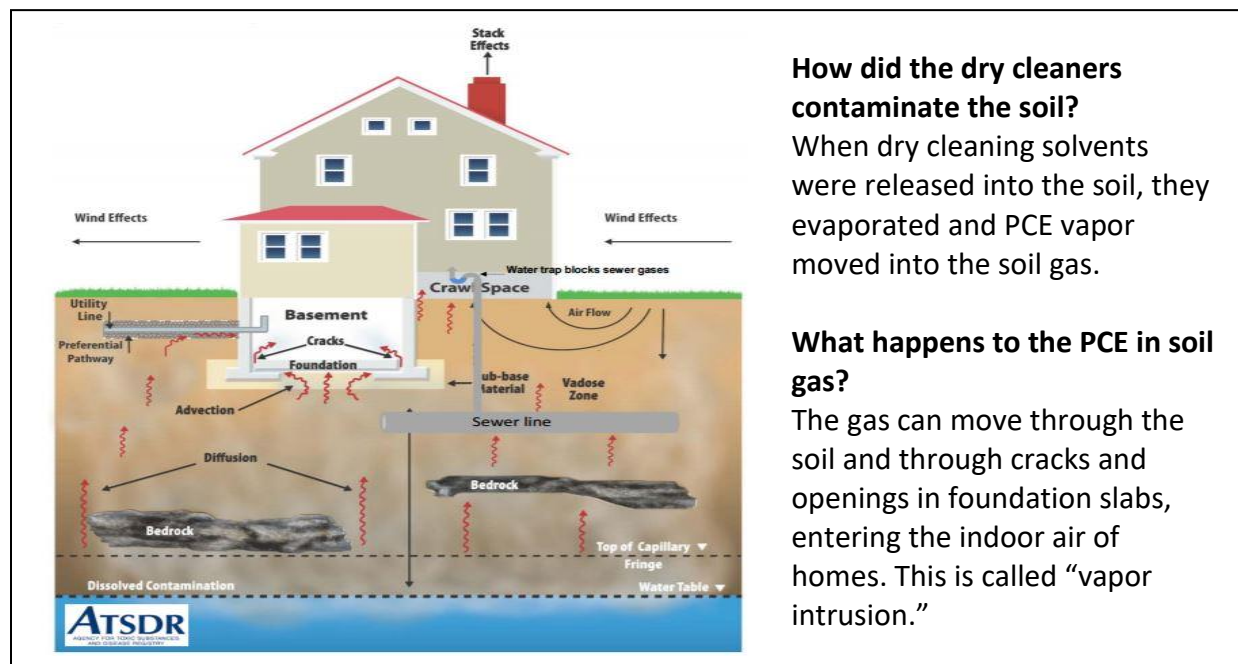
## Modesto community concerns

During our outreach activities we received calls from community members who were concerned about the safety of their soil, drinking water, and air. The dry cleaner sites are fenced or paved, so there is no contact with contaminated soil. We also provided a contact to Modesto's Drinking Water Services. We looked at how the dry cleaner chemicals could affect the indoor air in the former dry cleaner buildings and nearby homes.



## What is vapor intrusion?

All soils contain numerous tiny air pockets (soil gas), like the air spaces in a sponge. If a volatile solvent like PCE is present in the soil, it evaporates and becomes part of the soil gas. Vapor intrusion occurs when soil gas enters a building through cracks in the slab, foundation, basement floor, sewer lines, or other openings. The amount of soil gas that moves into a building depends on the soil type and wetness of the soil, the air conditioning and heating settings in the building, the time residents keep windows open, the type and condition of the floor (cracks in the concrete, holes for utilities), and other factors. Once inside the building, the solvent vapors are part of the indoor air and we breathe them in.



### How did the dry cleaners contaminate the soil?

When dry cleaning solvents were released into the soil, they evaporated and PCE vapor moved into the soil gas.

### What happens to the PCE in soil gas?

The gas can move through the soil and through cracks and openings in foundation slabs, entering the indoor air of homes. This is called "vapor intrusion."

In the past, some dry cleaners in Modesto spilled solvents like tetrachloroethylene or “PCE” on the ground or flushed them down the drains. PCE evaporates easily and can move from the soil and groundwater into soil gas. In 2010, the USEPA installed a Soil Vapor Extraction System under two homes. In 2011, an air handling system was installed at the former Service Cleaners building that reduced the PCE concentration. In 2013, the City of Modesto installed a Soil Vapor Extraction system near former Service Cleaners and Sparkleen Laundry that removes the soil gas and PCE, which reduces vapor intrusion at nearby buildings.

## What did CDPH do?

We reviewed information on PCE concentrations in soil gas from 2001 to 2016. We reviewed information on PCE concentrations in indoor air in nearby homes and in the former Service Cleaners building from 2010 to 2016. We assessed the potential cancer and non-cancer health risks from breathing PCE in indoor air.

## What did CDPH find?

- Currently, the air inside the former Service Cleaners building does not have levels of PCE that could cause health effects.
- We do not know the current levels of PCE in nearby homes and other buildings, because we do not have indoor air information.
- Breathing air inside the former Service Cleaners building before 2011 or in some nearby homes before 2013 could have increased risks for non-cancer and cancer effects from PCE, if this exposure lasted for a long time (years).
- We do not know the current or past levels of PCE inside the former Sparkleen Laundry because we do not have indoor air information.

## What is PCE and what are its health effects?

PCE is a solvent that was used by many dry cleaners in the past. PCE is also commonly found in outdoor air as well as indoor air of homes. Many home cleaning products, solvents, and paint thinners contain PCE. ATSDR found that exposure to PCE might harm the nervous system, liver, kidneys and reproductive system. It can be harmful to unborn children and increase the risk for certain cancers. Scientists do not know if children are more at risk than adults to the effects of PCE.

Our investigations cannot predict if an exposed person will develop health effects. This depends on how much PCE a person is exposed to (how often and how long), exposures to other chemicals, and the age, sex, diet, heredity, lifestyle, and health of the person exposed.

## How can Modesto residents protect their health?

- We encourage residents and workers to have the indoor air tested.
- Residents and workers who might have been exposed to PCE in the past, and who have health or exposure concerns related to these dry cleaners, should contact their doctor and give them a copy of this summary and the health consultation. We can refer your health care provider to additional resources.
- We encourage residents and workers to review the two factsheets included in this letter. These factsheets give more information about the health effects of PCE and explain vapor intrusion.

## What can other organizations do?

CDPH recommends that:

- The City of Modesto conducts periodic testing of indoor air for buildings within 500 feet of the former drycleaners.
- The City of Modesto continues operating the Soil Vapor Extraction system that removes PCE from the soil gas, and monitor soil gas and ambient air for volatile organic compounds.
- DTSC continues to oversee the cleanup work of the City of Modesto at the former Service Cleaners and Sparkleen Laundry drycleaners

## Where can you learn more?

The complete [Health Consultation document](https://goo.gl/rviVvS) is available in English and Spanish at the CDPH website <https://goo.gl/rviVvS>. You can also contact us via phone, email or letter to receive a copy. In addition, our website has more information on [Vapor Intrusion and PCE](https://goo.gl/pouPYV): <https://goo.gl/pouPYV>. Please contact us if you have any questions about this investigation.

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