Fact Sheet on Interim Remedial Measures

Four Seasons Cleaners

13778 Doolittle Drive, San Leandro, CA
Alameda County
ACDEH File No. RO0003155
Geotracker Global ID: T10000006425

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
REBECCA GEBHART, Interim Director

May 2, 2017

This fact sheet is being provided to describe site background, past work to investigate site contamination, next steps, the oversight process for the site, and how you can obtain more information.

Summary

Alameda County Department of Environmental Health (ACDEH) has requested this fact sheet be issued to inform you of recently completed investigations and proposed interim remedial measures at the Four Seasons Cleaners property (site), located at 13788 Doolittle Drive in San Leandro, California (Figure 1).

Figure 1

The purpose of the prior investigation work was to gather sufficient information on the nature and extent of contamination in indoor air, soil, and groundwater to the extent needed to define the most heavily contaminated areas (source areas) and the potential health risks posed to indoor air quality and groundwater by the contamination. The purpose of the proposed interim remedial measures (IRMs) is to mitigate risks to indoor air quality and groundwater by cleaning up the known source areas to the extent practicable. This fact sheet summarizes investigation results and the remedial measures proposed to mitigate health risks to indoor air quality and groundwater. It also includes information contacts and a glossary of certain terms.

Background

The Former Four Seasons Cleaners site is situated within a commercial area of the Marina Faire Shopping Center in San Leandro, California. The subject site is located within a larger shopping mall located on the southeast corner of Fairway and Doolittle Drives, with multiple other operating businesses within suites of the facility. The subject site was a small retail dry-cleaner for 30 years or more that ceased operations and vacated the premises in late 2015.

At that time the site housed a 55-gallon chemical capacity closed-loop dry cleaning machine, which was bolted to the floor. Prior to 2001, the dry cleaning operation utilized tetrachloroethylene (PCE) as the chlorinated solvent cleaning agent.

Environmental Investigation Activities

Environmental investigations have been performed at the site beginning in 2014; these investigations have included soil, soil vapor, and groundwater sampling to assess the type and extent of contamination at the site.

These investigations identified that volatile organic compounds (VOCs), primarily PCE, were accidentally released to the subsurface in the vicinity of the former machine and a nearby floor drain as a result of former dry cleaning operations at the site.

VOCs, primarily PCE and its breakdown products, have been detected in shallow soil, soil vapor, and groundwater directly underlying the former PCE use and storage areas. The data indicate that the highest concentrations of PCE in soil-vapor are located beneath the dry cleaning operation suite in the vicinity of a former floor drain. Concentrations of PCE in groundwater have also been detected in the parking lot in front of the facility to the west and southwest.

Contaminants reported in samples were found at concentrations greater than applicable regulatory agency screening levels. The presence of these chemicals at concentrations exceeding regulatory screening levels does not indicate that adverse impacts to human health or the environment are necessarily occurring, but rather indicates that a potential for adverse risk may exist and that additional evaluations and/or the implementation of conservative preventative measures are warranted.

Four Seasons Cleaners vacated the premises in late 2015. Between February and May 2016, twelve indoor air samples have been collected, two inside the former cleaners, and the rest in the units surrounding the former cleaners. The only samples containing detectable levels of PCE in indoor air were collected within the adjoining dentist office and these may have resulted from PCE associated with dental supplies. This will continue to be investigated. Because the levels were detected during two sampling events and were greater than applicable regulatory agency screening levels, the property owner retained a licensed contractor to increase air exchange rates in the dental office.

Next Steps/IRMs

The property owner has proposed the following interim remedial measures which will be conducted pending County or City approval: (1) Install air sparging wells, sub slab monitoring points, and shallow soil vapor monitoring wells to monitor the subsurface during pilot testing and potentially corrective actions; (2) Delineate the extent of groundwater contamination and the groundwater flow away from the source area; (3) Decontaminate the dry cleaning unit and legally close the permitted hazardous material storage areas pursuant to federal, state and local requirements including removal of certain areas of the slab and certain sewer lines previously used for storing/handling of unused, or discharge of spent PCE and PCE laden wastes; (4) Excavate, dispose, and replace documented source areas to the extent practicable between the depths of 2 to 7 feet below grade surface; (5) Install a horizontal vapor extraction well network to test the feasibility of soil vapor extraction, potentially in conjunction with air sparging; (6) Install a protective sub-slab venting well network in the excavation area to capture vapors during pilot testing and / or air sparging; (7) Conduct feasibility testing for up to 60 hours and establish design criteria for a full scale system. The protectiveness of the sub slab venting system will be tested at the same time. During the remedial excavation and pilot testing work, safeguards will be taken to ensure compliance with OSHA rules that serve to ensure the protection of workers and building tenants. Indoor air quality will be protected with temporarily increased ventilation rates using industrial fans and minimum hourly air monitoring with hand held meters throughout the former dry cleaner unit and at the adjacent tenant units.

Timeline

As noted above, substantial work is being planned. Fieldwork is tentatively planned for June through July 2017, and a report documenting the results will be completed by the end of the third quarter 2017. The site will be evaluated at this time to assess whether further remediation or mitigation are required to protect human health and the environment leading to the preparation of a formal corrective action plan (CAP).

How to Get More Information

There are several ways that interested parties will be informed of future work. First, information repositories are being established where reports, data, work plans, and other materials can be viewed. One is the Alameda County Department of Environmental Health website at http://www.acgov.org/aceh/index.htm, where the electronic files for the case are available on-line. A second location electronic files are available is on the State website known as Geotracker.

A third way interested parties can obtain information is to contact the site representatives / spokespersons listed below.

Finally, additional fact sheets will be sent at appropriate intervals.

For More Information

Please contact any of the following individuals with any questions or concerns you may have:

Mark Detterman, Senior Hazardous Materials Specialist, 510-567-6876, mark.detterman@acgov.org

Julie Avanto, PE, Lead Professional in Responsible Charge, RRM, Inc., 951-660-5991, julie@rrmsc.com

Glossary of Terms

Tetrachloroethylene —Tetrachloroethylene, commonly known as PCE, is a colorless organic liquid with a mild, chloroform-like odor. The greatest use of PCE is in the textile industry, and as a component of aerosol dry-cleaning products. It is a known human carcinogen.

Soil-vapor—Soil-vapor refers to the air that is present in the open spaces between soil particles between the ground surface and the water table. It includes air (primarily oxygen and nitrogen, like above ground), water vapor, and occasionally pollutants.

Volatile organic compounds (VOCs)—VOCs are organic liquids, including many common solvents that readily evaporate at temperatures normally found at ground surface and at shallow depths. Many VOCs are known human carcinogens. Examples of VOC usage include dry cleaning solvent, carburetor cleaner, brake cleaner, and paint solvents. If VOCs are chlorinated as is the case for PCE, they are called halogenated VOCs or HVOCs.

Interim remedial measures (IRMs) – these are active steps to mitigate gross pollution impacts that are devised and implemented prior to preparing a formal remedial action plan. They typical involve excavation and/or soil vapor extraction and serve the purpose of cleaning up near surface impacts that pose vapor intrusion risk or removing free phase contamination floating on the water table.

Soil vapor extraction (SVE) – a remediation process under which contaminated soil vapors are pulled from the ground using a vacuum pump that is connected to horizontal or vertical vapor extraction wells typically 4 inches in diameter that have screened intervals within the contaminated soil that overlie impacted groundwater

Air sparging (AS) – a remediation process often used in conjunction with SVE under which highly compressed air is injected via 2-inch diameter wells screened for a short interval below the bottom of an impacted water bearing zone to cause volatile contaminants dissolved in the water to move from aqueous phase to vapor phase and migrate upward for capture in a SVE system.