



GEOTECHNICAL
CONSULTANTS INC.

Revisions to Ohio UST Regulations Expected Soon

The Ohio Division of State Fire Marshal, Bureau of Underground Storage Tank Regulations (BUSTR), pursuant to Section 119.03 of the Ohio Revised Code, has filed twenty-one revised rules related to Ohio's underground storage tank (UST) program, found at Ohio Administrative Code Chapter 1301:7-9. The final rules are expected to be published by September 2017. When the rules are published, they become effective immediately.

New rules considerably more stringent

Projects that are in-process prior to the rule publication can be completed under the current regulations. Any newly discovered USTs, even on projects already under construction, must comply with the new rules. The proposed rules that were published for public comment contain significant changes for certain contaminants.

Because the final rules will not be known until they are published and in effect, property owners and developers with urban redevelopment projects are advised to remediate known USTs rather than risk potential project delays and additional expenses that may be associated with the new rules.



Older USTs were constructed of bare steel which corrodes over time, allowing liquids to leak into the surrounding soils and possibly contaminate ground water.

Undocumented USTs relatively common

USTs were not significantly regulated or documented prior to the 1980s. Additionally, some USTs were removed decades ago but contamination can remain below ground at concentrations exceeding regulatory agency action levels.

Due diligence performed during a Phase I ESA may uncover the potential existence of an abandoned UST through a review of historical resources including county property, health, and fire department records and fire insurance maps. But finding a previously undocumented or unidentified UST during construction in urban areas is not uncommon.

Representative UST projects completed by GCI:

BUSTR-regulated USTs:

- UST removal at multiple former gas stations, Short North District, Columbus; sites received No Further Action (NFA) letters from Ohio's BUSTR
- Removal of five USTs in downtown Canton; site received NFA letter
- Removal of 10,000-gallon steel UST at redevelopment site, Hilliard
- Closure of four USTs, Italian Village site, Columbus
- Closure of two USTs, downtown Bexley site

Removal, documentation and closure reports for unregulated heating oil USTs:

- Multiple Downtown Columbus sites
- Emergency removal of 250-gallon unregulated UST, urban redevelopment site in Grandview Heights
- Closure of 4,000-gallon UST, Downtown Columbus
- Closure of 15,000-gallon heating oil UST at former school site, Columbus

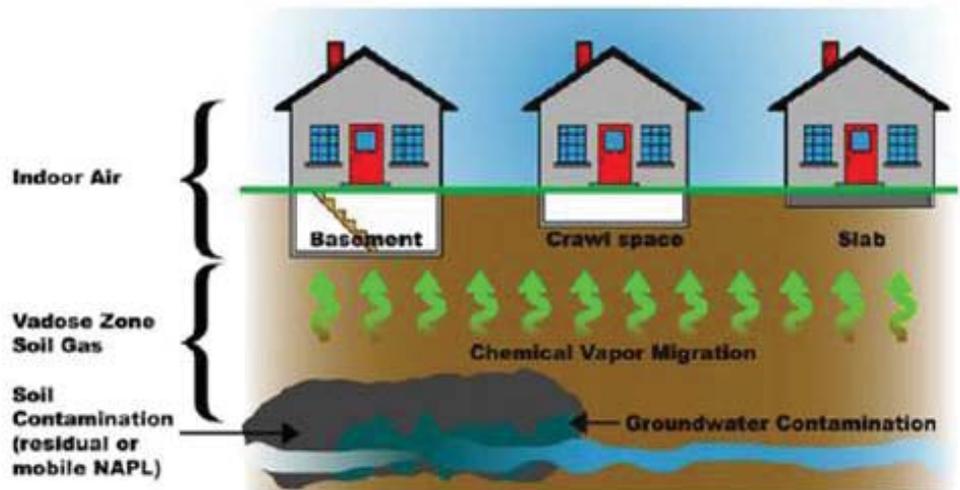
Removal of petroleum contaminated soil (PCS) at former UST locations in Ohio:

- University District, Columbus
- Former boat fueling building, Xenia
- Urban redevelopment site, Hilliard
- Kenny Road residential development site, Columbus

Prepare contingency plans for urban redevelopment projects

UST discovery can significantly affect project cost and schedule, so developers and contractors are advised to have an environmental contingency plan. An experienced UST removal consultant will ensure compliance with state and local guidelines and management of the UST closure/removal process.

Vapor Intrusion Solutions



EPA has increased their level of attention and concern over vapor intrusion to the indoor air pathways in buildings by hazardous chemicals.

Vapor intrusion (VI) is a process by which chemicals in soil or groundwater—especially volatile organic compounds (VOCs)—migrate to indoor air in a building above a contaminated site. Vapor-forming chemicals may include:

- Volatile organic compounds (VOCs) such as trichloroethylene and benzene (typically from factories, dry cleaners, and gas stations)
- Select semivolatile organic compounds such as naphthalene
- Elemental mercury
- Some polychlorinated biphenyls and pesticides

In extreme cases, the vapors may accumulate in dwellings or occupied buildings to levels that may pose near-term safety hazards (e.g., explosion) or acute health effects.

The following article describes installation of a passive vapor mitigation system for new construction.

Contact GCI at 614.895.1400 for additional information.

Combined Technologies Treat Chlorinated and Other Solvents at Former Manufacturing Site Redeveloped for Residential Use

Project Highlights

- Geo-Seal[®] and Vapor Vent[™] Installation allowed for rapid development of environmentally impacted project site
- GCI provided Ohio EPA with a No Further Action (NFA) letter and Ohio EPA generated a Covenant Not to Sue eliminating any concern over future liability

Project Summary

Ohio cities are experiencing a building boom and real estate investors are eager to build multi-family apartments on available land. A well-known real estate developer recently purchased the site of a former manufacturer where chlorinated and other solvent levels exceeded regulatory guidelines. The developer needed a quick and effective solution to mitigate the vapor intrusion present and turned to Geotechnical Consultants, Inc. (GCI), an experienced environmental consultant. The Geo-Seal and Vapor Vent systems were selected by GCI to mitigate the vapor intrusion found.

Technology

Geo-Seal is a vapor management technology designed to eliminate vapor intrusion found on environmentally-impaired sites. Geo-Seal is a chemically-resistant material placed between the foundation of the building and the soil pad to eliminate vapor intrusion pathways and stop contaminant vapors from permeating through the slab. The use of Geo-Seal allows developers to mitigate vapor intrusion risks and ensures a healthy indoor environment, while reducing the cost of site remediation and expediting site construction. Installing a Geo-Seal system offers developers a lower total cost to remediate and move redevelopment projects forward.

Vapor-Vent is a low-profile vent system that can be used in lieu of slotted PVC pipe. The speed of installation and the proximity of the vent to the barrier provide cost savings and performance benefits compared to other technologies.

Results

The certified contractor successfully installed Geo-Seal and Vapor-Vent on multiple new buildings. Vapor intrusion levels were addressed and the project moved forward with the development of a multi-family apartment complex. GCI provided a No Further Action Letter for the property to Ohio EPA to address the vapor intrusion and other pathways. Ohio EPA issued a Covenant Not to Sue for the project, eliminating concern over potential future liability for contamination.

About the Consultant

GCI provides a complete range of environmental, geotechnical engineering and construction materials engineering and testing services to help clients manage risk and make timely, informed decisions. GCI serves clients on residential, commercial, industrial, energy, transportation, recreation, retail, mixed-use, and brownfield projects throughout the Midwest and Mid-Atlantic regions.



Site Details

Site Type: Former Manufacturing Site

Contaminant of Concern: Chlorinated and other solvents

Solution: Vapor intrusion barrier

Treatment Area: 15,000 ft²

Technology Used: Geo-Seal & Vapor-Vent



GCI Expands Welding Lab

GCI recently completed construction of a new fully equipped in-house welding laboratory for welder performance qualification (WQTR) and welding procedures qualification (WPS).

Self-performing contractors and production companies are required by Ohio construction regulations to verify that their welders are individually qualified for the specific welds each welder performs on a project. In accordance with American Welding Society (AWS) standards, GCI provides testing and documentation to certify an individual's welding performance qualification (WQTR) for specific metal thicknesses and in flat, horizontal, vertical and overhead welding positions.



GCI also qualifies welding procedures (WPS) for production companies, fabrication shops and field erection companies. For non-standard welds that are not prequalified in the AWS Standards, regulations dictate a more extensively welded coupon and additional testing procedures.

Qualifications are issued per the AWS standards and certified by GCI's AWS Certified Welding Inspectors. Welding testing can also be performed on-site for production companies, fabrication shops, and welding schools.

Contact GCI's steel inspection department at 614.895.1400 to discuss testing services for your welding performance qualifications and procedures.