

Due Diligence Challenges for Historic Dry Cleaners

Historic dry cleaners pose a particular risk to owners of commercial property because the former operations used considerable more solvent and than current businesses, solvent handling practices often resulted in spills and the equipment used in earlier decades was prone to leaks. It does not take a lot of solvent to contaminate soil or groundwater. A solvent leak dripping at a rate of one drop/second results in one gallon of solvent discharged during an 8 hour work day and 320 gallons per year. Just one gallon of PCE can cause one gallon of PCE cause a 200,000,000 gallon drinking water reservoir to exceed the drinking water standard of 5 parts per billion (ppb).

Moreover, dry cleaner frequently discharged solvent-laden wastewater directly to sewers and septic tanks which created significant soil and groundwater contamination problems. A 1988 survey by the International Fabricare Institute (IFI) found that 71% of the dry cleaners discharged separator water either down the sewer or into a septic system. Similarly, it was common in the past for dry cleaners to store spent cartridge filters outside the back service door where solvent drained from the filters onto bare ground or pavement, or disposed dispose solvent wastes into dumpsters where the solvent escaped into the environment as runoff into dry wells, stormwater drains or bare soil.



A 2007 study by the Santa Clara Water District concluded that past dry cleaners that operated long as 50 years ago pose a greater threat to groundwater than current dry cleaners. Of course, the severity and magnitude of releases vary, and the potential for contaminating supply wells depends on proximity to wells, geologic and groundwater conditions, horizontal and vertical conduits (e.g., sewers, utilities), well construction, and duration of dry cleaner operations. Because dry cleaner solvents do not easily degrade and solvent-laden wastewater was frequently discharged to sewers and septic systems, solvent plumes emanating from dry cleaner sites can potentially extend more than a mile, and can be significantly longer than MTBE plumes. Indeed, a 1992 well investigation program conducted by the Central Valley Regional Water Quality Control Board identified 21 PCE impacted drinking water wells in Central Valley towns, and found that dry cleaners were the likely source of PCE for 20 of those wells.

In the past, regulators were not concerned about plumes when groundwater was not used for drinking water purposes. Often times, the regulators did not even delineate the extent of the plume. However, many regulators are now concerned about the potential for vapor intrusion when solvent plumes extend from the former dry cleaner location to beneath residential communities. Because of vapor intrusion, owners of property that formerly contained a dry cleaner have found themselves being increasingly pulled into toxic tort litigation.

EPA has estimated that there may be 9,000 to 90,000 inactive dry cleaner sites in the nation. It should be noted that from 1987 to 1997 alone, approximately 9,200 dry cleaner sites closed.

However, determining if dry cleaners previously operated at a property can be difficult. While the ASTM E1527-13 phase 1 standard recommends that consultants use five year intervals when using historic databases, most phase 1 reports typically use intervals of ten years or more. Since surveys have indicated that the average dry cleaner changes ownership every three to five years, phase 1 reports using the longer interval periods may miss a dry cleaner tenant.

Telephone directories are a popular research tool but there can be challenges with this historical resource. It may not be clear from the listing if the dry cleaner used solvents or was simply a drop-off location. In addition, consultants often overlook business that may be as laundries or coin-operated operations under the mistaken belief that they did not use solvents. In fact, it was not uncommon for laundries to have dry cleaning operations. Some dry cleaners used different names at the same time for different services (e.g. leather or rugs vs. textiles). Moreover, EPA estimates that there were as many as 18,000 coin-operated dry cleaning operations in the country in the 1970s and 1980s that used solvents contained in tanks.



AST for Coin-Operated Dry Cleaner

In addition to short operational periods and misleading business names, another hurdle is simply matching the information in telephone directories against current parcel and street data. Some listings are provided as street intersections. Others are listed by the name of the shopping center or strip mall in which they're located. Renamed or renumbered which can confound efforts to locate dry cleaners that operated in past decades. Even when past dry cleaners can be correctly matched to a shopping center or strip mall, it still may not be possible to narrow down where on the property the business was precisely located.

Because of data gaps and inconsistencies in historic resources, the authors of a California study found that they had to use multiple lines of evidence including manual geo-coding and high resolution digital aerial photos in GIS to identify roof fixtures associated with dry cleaning operation.