

Hidden Hazards Underground

Underground Storage Tanks (UST'S) stored heating oil and were typically in use during the 1920's-50's, including at many religious properties. Tanks varied in size, depending on use. Today, the most common use is for gas stations. Most heating oil service was converted to natural gas in the late 1950's and 60's. "Once these tanks were no longer used, they were easily forgotten," stated Margaret Leyden of American Tank, Inc. It has been IP's experience that many churches are unaware there is a UST on their property. This results from either turnovers in congregations housed in the facility, or new maintenance staff.

How to determine if your property has a UST? There are several tell-tale signs. Look around the property for a vent or fill pipe. This pipe should have a cap on it but often times this has been removed. The opening is usually 3/4 to 1" in diameter. The boiler may have an information plate that will say "oil fired." Often when the oil service was converted to gas the oil gauge was left in the boiler room. The gallons indicated on the gauge should not be taken for the actual amount of material in the tank. A metal detector can help locate a tank but should be confirmed through other sources. Other signs are a depression in the ground or an area of grass that will not grow. Tanks will usually be located only five or six feet away from the building's foundation.

Upon determining that there is a UST on site there are two options, Abandon in Place and Tank Removal. Either option should be performed by a certified professional. This is not a job for a do-it-yourselfer. Any material remaining in the tank is considered hazardous waste by the Environmental Protection Agency and should be taken seriously. UST's that have not been used since before 1974 do not have to be registered with the City of Chicago. Tanks in use after 1974 must be registered, which involves paying a \$500 registration fee.

Abandon in Place involves preparing the tank so it is in suitable condition to remain on the site. A permit is required to 'abandon,' check your Fire Marshal's office for local codes. Typically, four soil samples, or borings, are required before the permit is issued. These samples determine any contaminants to the soil, which would indicate a possible leak in the tank. Once the property goes up for sale this issue will usually arise. Testing protects the owner from the issue of soil contamination. Once the permit is received the contractor can begin the abandonment process. This process consists of six steps. First, a liquid waste sub-contractor must come to the site and remove any material from within the tank. Costs will vary depending upon the amount of material to be removed. The top of the tank is then excavated and cut open, exposing the inside. A workman, wearing proper safety gear, must climb inside the tank and scrub until clean. After thorough cleaning, the tank is filled with sand and/or gravel. The tank is then covered with soil and the site is regraded. Tank Removal is a simple process in comparison to abandon in place.

A liquid waste sub-contractor must come out and remove any material from the tank. Soil samples may not be necessary. The local Fire Marshal can make the determination if the tank is free from leaks. IP recommends at least one soil test to protect the property owner long-term. The tank is then flushed with water. At this point the tank can be removed and the site regraded. If the tank is to be disposed of as scrap metal it should be tested for explosive vapors, and rendered gas free. Before releasing to a scrap dealer, a sufficient number of holes should be made at the bottom of the tank. The net cross-sectional area of holes should not be less than seventy-eight square inches per tank.

Due to the four soil testings and the manual cleaning of the tank, the 'abandon' option is typically more expensive than 'removal.' The City of Chicago and some contractors prefer the removal option. Harry Wilkinson of Fidelity Environment stated, "We try to abandon only if the tank is within the structure of the building....in the long-run it protects the owner to have the tank removed."

Make sure to get exact costs from several contractors before selecting one, as prices do vary. Some contractors will include site regrading within the scope of work. IP has obtained pricing information from several state approved contractors in the Chicago area. Pricing for 'abandonment' is currently averaging \$7,000 to \$8,000, while 'removal' ranges from \$3,500 to \$5,000. The conditions found on-site will also contribute to pricing variances. A complete list of state approved UST contractors can be obtained through IP's Referral Service or from the Underground Tank Division of the State Fire Marshal at (217)785-5876.