



ARKANSAS
Department of Environmental Quality

Storage Tank Cleanup Series Fact Sheet #5

Understanding Contractor Code Words

ADEQ protects, enhances, and restores the environment for the well-being of all Arkansans

Definitions

Here are definitions of some of the words or phrases that are often used by contractors when they are cleaning up leaking storage tank sites.

Most of the definitions focus on cleanup technologies and terms associated with the chemical components of gasoline. The list does not currently include types of site investigation or cleanup equipment.

Activated carbon adsorption is a widely used method of cleaning groundwater. In it, particles of carbon are used to remove chemical compounds from water.

Air sparging is a method of removing VOCs (see definition) from groundwater. Compressed air is forced through a well screen placed in the aquifer, causing a bubbling effect in the groundwater. Contaminants in the groundwater are forced into the soils above the aquifer. These contaminants can then be removed by soil vapor extraction. Air sparging can enhance bioremediation.

Air stripping is a method in which groundwater contaminated with petroleum is mixed with air. The mixing process removes the dissolved petroleum from the water by transferring it into the air. Local air pollution rules may prohibit using this method.

Aquifer is a water-bearing stratum (layer) of permeable rock, sand, or gravel.

Arkansas Petroleum Tank Storage Trust Fund is administered by the Department of Environmental Quality. The fund helps eligible tank owners pay for cleaning up tank leaks.

Bioremediation is the natural process in which microorganisms (that is, bacteria) break down petroleum products in the soil. Enhanced bioremediation refers to the addition of microorganisms or chemicals to speed up the natural rate of breakdown of petroleum products in the soil.

BTEX is the abbreviation for benzene, toluene, ethylbenzene, and xylene, which are all chemical compounds in gasoline. Site investigations often measure the amount of these compounds in soil and groundwater; as such, they are often called indicator chemicals.

Free product is the petroleum product that resides in the spaces between the soil particles or floats on top of the groundwater and is

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ADEQ contacts

Wanda Paes, Trust Fund Administrator
501-682-0981
paes@adeq.state.ar.us

Joe Hoover, Chief, Regulated Storage Tanks Division
501-682-0999
hoover@adeq.state.ar.us

ADEQ Helpline

501-682-0923

generally more accessible for removal or treatment.

Groundwater is the water within the earth that supplies wells and springs.

Incineration is the process of burning soils or sludges at a high temperature to destroy contaminants. Air pollution control devices are usually needed to comply with local or state regulations.

In-situ means within place and is often used to refer to the location of activities (that is, in-situ soil treatment).

Land farming is a method of removing petroleum compounds from soils. Contaminated soils are removed from the ground, spread over a given area, and periodically tilled to speed up the release of VOCs and breakdown of the contaminants.

Monitoring well (observation well) is a hollow, perforated cylinder inserted into a special hole or boring in the ground for the purpose of obtaining groundwater samples.

MTBE is the abbreviation for methyl tertiary butyl ether, which is a blending agent added to gasoline.

Permeability is the quality or the state of being permeable (that is, of having pores or openings that permit liquids or gasses to pass through). Sandy soils are permeable.

Plume is often used to describe the shape of the contaminated area, which is usually

elongated. Delineating the plume refers to the act of determining the boundaries of the plume.

Regulation 12 refers to the Arkansas Pollution Control and Ecology Commission Regulation 12 (Storage Tanks). It contains the rules for the state's storage tank program and state trust fund.

Recovery well is a well installed for the purpose of pumping contaminated water or free product from an aquifer for treatment. Recovery wells are generally larger in diameter than monitoring wells.

Site investigation is the process of confirming that a release of a regulated substance has occurred; it can involve determining the extent of soil and groundwater contamination caused by that release.

Soil borings are holes drilled in the ground to determine soil structure and/or to monitor for the presence of contaminants in the soil.

Soil vapor extraction draws (with a vacuum pump) fresh air into the ground and brings toxic contaminants up to the surface, where they can be treated and safely discharged.

Soil vapor survey is a method used to collect and analyze volatile petroleum hydrocarbons from subsurface soils. A hand or vacuum pump is used to collect samples from a borehole. Samples are then analyzed in the field.

Soil venting is a method used to remove gasoline vapors from soils without excavation. This method can be performed passively with vents that are open to the atmosphere or actively with the use of pressure or vacuum pumps.

TPH is the abbreviation for total petroleum hydrocarbons. The level of TPH can be used to determine the amount of contamination at a site.

VOCs, volatile organic compounds, are carbon-containing compounds that readily vaporize (that is, change from a liquid to a gas) at normal temperatures and pressures.

Remember—The sooner a leak is cleaned up, the better. The longer you wait, the more the damage will spread and the more the cleanup will cost.

ADEQ: What We Do

The Department of Environmental Quality is an agency of the state of Arkansas. We are headquartered in North Little Rock and have offices and inspectors throughout the state.

Our regulatory programs for air, water, solid waste, hazardous waste, regulated storage tanks, and mining help protect Arkansas's environment. We issue operating permits for businesses and farms and monitor for compliance.

We also manage programs to assist businesses, educators, and the public with regulatory, recycling, and other issues. ADEQ offers loans and tax credits for environmental improvement projects.

Storage Tank Cleanup Series

This fact sheet was developed with help by the Environmental Protection Agency's Office of Underground Storage Tanks in conjunction with state fund administrators. The rest of the series includes:

- Hiring a Contractor
- Negotiating the Contract
- Interpreting the Bill
- Managing the Process