The Environmental Corner

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Risk Based Cleanup

What Is It and Is It Right For Your Situation?

More and more often, people are talking about "Risk Based Cleanups." It sounds ominous and complicated, but because so many people are throwing the term around, it seems like everyone is supposed to know what it is.

In general terms, a "Risk Based Cleanup" is nothing more than the process of getting the regulatory body that is overseeing the cleanup of a contaminated property to agree with the responsible party that the contamination on the property no longer poses a risk to human health or the environment. The result of this process is the issuance of a letter by the regulatory agency stating that "No Further Action" is necessary on the property.

"Risk Based Cleanups" are nothing new and have been used for decades. After all, in most instances, some amount of contamination will still remain after remedial actions have been completed. It is unrealistic, if not impossible to remove every molecule of contamination at a site.

However, in the past, the process of utilizing "Risk Based Cleanup" was generally used after significant remedial actions had been implemented. The agency often had established levels for chemicals in soil and groundwater and if those levels were exceeded, more often than not the levels had to be remediated or reduced before the issue of site closure would be considered.

Imagine a situation where dry cleaning chemicals were released into the subsurface. The soil and groundwater beneath and around the building was investigated, soil contaminated above specific concentrations was removed and groundwater above specific concentrations was removed or reduced. Groundwater monitoring continued for several years and the samples showed that the concentration of dry cleaning solvents in groundwater were steadily declining and that the groundwater plume was not migrating offsite. The scientists working on the project met with the regulatory agency and showed them that the low levels of dry cleaning solvents were not posing a risk to people or to the environment. The scientists evaluated what

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is called exposure pathways.

Exposure pathways are the ways in which people or the environment (animals, insects, plants, etc.) could be exposed to the chemicals present in the subsurface. The exposure pathways include ingestion, inhalation, and skin and eye contact with the chemicals at certain concentrations over a specific period of time.

The scientists would demonstrate that people and the environment were not being exposed to the contaminated groundwater. No one was drinking the water, no one was using the water for irrigation, the groundwater was not discharging to lakes or streams and no one was going to come in contact with the water. Further, the scientists demonstrated that no one was eating the dirt, including little kids and that contaminated dust was not being generated that could be breathed or inhaled. The scientists also demonstrated that no one was or would be digging in the contaminated soil or playing in the contaminated soil.

If the scientists could demonstrate that the exposures were below health risks or that measures were put into place that would protect people from health risks (e.g. an asphalt cap would protect people from contact and dust inhalation) the regulatory agency could issue a site closure. The site closures would typically be conditional and contain language such as, *"No further action is necessary at this time. The regulatory agency reserves its right to modify this determination if additional information becomes available indicating that this site may become a risk to human health or the environment."*

Note that such "additional information" that has reopened many closed sites has included the determination by the federal government that PCE is a likely carcinogen and the fact that vapors contaminated with PCE emanating from the subsurface have been routinely detected inside houses and commercial buildings.

So, as discussed, "Risk Based Cleanups" have been around for decades, but they typically were initiated after significant remedial activities were completed and long term monitoring showed that the site did not pose significant risk to human health or the environment. Under this scenario, a "No Further Action" letter was pretty good and allowed the property to be sold, refinanced or utilized as an asset.

Today, more and more state regulatory agencies are doing away with established cleanup concentrations and they are considering the closure of sites based solely on the risks posed by the chemicals in the subsurface. The manner in which sites are investigated and ultimately cleaned up has changed as a result of this pronounced change. Sites are now investigated with the focus on addressing the exposure pathways of the contamination on human health or the environment.

Remediation is also focused on determining whether cleanup of soil and groundwater is even necessary, so long as the levels of contamination do not pose a risk to human health or the environment.

At first glance, this approach makes a lot of sense and should facilitate the closure of sites faster and at cheaper than the traditional regulatory cleanup approach and process. On the flip side, the site closures are likely to have less significance when trying to sell or refinance the property or attempting to use the property as secured collateral in obtaining a commercial loan.

The reason for this is that site closures under a "No Further Action" letter from the regulatory agency will mean less. Fundamentally, contamination can now remain in place so long as there is no risk to human health or the environment through exposure pathways. A mass of dry cleaning solvent can remain under a building so long as the people are not exposed to the soil or water from ingestion, inhalation or dermal contact.

Now, try to sell or refinance that property or try to use the property as collateral. Banks are not likely to want to be involved in such a transaction, because at the end of the day, if the loan goes bad, the banks have a contaminated property and they don't want that.

So, beware when you are approached by a consultant or scientist that says we can save you a lot of money by closing the site using a "Risk Based Closure" approach. Certainly, such an approach should be considered, but make sure you evaluate the pluses and minuses of such a closure. What may seem like a value today could end up being a huge liability to you and your heirs in the years to come.

Steve Henshaw has built a leading edge environmental engineering company that specializes in finding the funding to pay for environmental liabilities. By combining responsible party searches with insurance archeology investigations, Enviro-Forensics has been successful at remediating and closing sites for property owners and small business owners across the country with minimal capital outlay from clients. He is a regular contributing writer to Cleaner & Launderer on environmental and regulatory issues and remains active with dry cleaning associations by providing insight on changes in law and policy. Contact him at www.enviroforensics.com or e-mail: shenshaw@enviroforensics.com.