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## 2009, A NEW PARADIGM

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In most parts of the United States, and on commercial cleanup sites in Oregon, an environmental cleanup project involves four entities: the property owner or responsible party (RP); the environmental consultant, engineer or geologist; the contractor; and the regulatory oversight agency. The consultant works with the regulatory agency to develop a work plan on behalf of the RP. The consultant's work plan drives the work performed by the contractor, directs data collection and makes determinations regarding the completion of cleanup activities.

Prior to the inception of the Oregon Department of Environmental Quality (DEQ) Heating Oil Tank (HOT) Program, residential HOT cleanups were performed under the supervision of the Underground Storage Tank program. Cleanup options were mostly limited to excavation, with the objective of achieving Level II Soil Matrix Cleanup (no soil with more than 500 parts per million diesel remaining). Processing cleanup reports was complicated, slow and costly. The HOT Program was created in 2000 to simplify, expedite and reduce the costs of HOT decommissioning and cleanup projects.

When the H.O.T. Program was created, the DEQ began to allow contractors to use Risk Based Decision Making and the simpler Generic Remedy guidance documents. The risk based approach allows contractors to close residential HOT release sites with less site disturbance and expense by allowing impacted soils to remain in-place, within specified limitations. For a time, the DEQ also allowed contractors to perform simple groundwater assessment projects, although the Oregon Water Resources Department requires a geologist or licensed well driller to install monitoring wells and perform groundwater sampling. In other words, the Oregon DEQ's HOT Program altered the generally accepted structure for environmental cleanups on residential HOT cleanup sites.

The DEQ's effort to expedite the disposition of HOT cleanup projects was noble and well meaning, and generally aided the parties to real estate transactions where soil cleanup was involved. Since any contractor capable of passing an exam could become a HOT Service Provider and perform environmental work, the number of HOT Service Providers skyrocketed. Unfortunately, in many cases cost and response time have driven the contractor selection process, rather than competency and professionalism. Lacking adequate funding to audit suspicious contractors or representations, the DEQ has been slow to identify and sanction sloppy and fraudulent contractors, leaving home-

owners and real estate brokers to accept the consequences, as exemplified by the Decommission, Inc. debacle.

Since in 2000, there have been three conditions which would require excavation of contaminated soil from HOT sites: "free product," defined as >60,000 parts per million diesel; a threat posed to a beneficial water resource; and excessive benzene concentrations which could pose a risk to human health due to volatilization and vapor intrusion to indoor air. In most cases, site specific data entered into the DEQ approved vapor intrusion screening model would demonstrate that there was no risk to human health.

In 2008 the US Environmental Protection Agency reclassified the petroleum constituents ethyl benzene and naphthalene from non-carcinogen to carcinogen. This reclassification has dramatically changed the prospect for application of risk based cleanup principals on residential heating oil tank projects without excavation. Even after excavation and removal of all accessible contaminated soil, many projects cannot meet the criteria for risk based cleanup due to the health risks posed by vapor intrusion to indoor air space. In these situations, the next step is to collect and analyze soil vapor samples to more accurately assess the vapor intrusion risk. As is true with groundwater risk assessment, the collection of soil vapor samples and appropriate vapor intrusion risk assessment modeling should be performed under the direction and supervision of a qualified third party consultant to ensure that data is collected properly and that representations are not outcome driven.

The recent changes to Oregon cleanup requirements reflect new findings of potential health risks from heating oil constituents, significantly increasing the cost of complex cleanups at residential heating oil release sites. If trends in other parts of the country are any indication, work which is suspect or has not been performed properly, could lead to conflicts and litigation involving all parties to a project or property transaction. Parties to a complex residential cleanup project will be best served and protected when an independent consultant has been employed to develop the work plan, direct the activities of the cleanup contractor, collect the necessary data and present that data to the Oregon DEQ. This new paradigm may be resisted by many contractors who will view the outside consultant as a threat to their company's profitability. But all parties to a transaction will benefit from the protections afforded by having the work directed by a competent professional who reports directly to the responsible party and to the Oregon DEQ.