

Vapour intrusion

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In the United States, new rules will soon be taking effect making consideration of vapour intrusion risk a mandatory step in the Phase I environmental site assessment (ESA) process. Companies should review their real estate portfolios and consider whether properties may be at risk. In Canada, mortgage financing and asset sales are expected to be affected by the new diligence standard (that includes checking for vapour intrusion risks) in the near future.

WHAT IT IS

As the name suggests, vapour intrusion means that soil or groundwater which is contaminated releases vapours which “intrude” onto an adjacent property or into a building.

A Phase I ESA is an investigation intended to determine whether current or past use of a property or neighbouring properties may have resulted in soil or groundwater contamination. The investigator reviews property records and government registries and conducts a site inspection. If he believes that there is a risk of contamination, he mentions it in his report. Sampling of soil and groundwater for laboratory analysis may then follow, as part of a “Phase II” ESA.

WHAT YOU NEED TO KNOW

When someone enters a basement surrounded by hydrocarbon contaminated soil — a mess created by an abandoned underground heating oil tank, for example — that person can usually smell the hydrocarbon vapours. These vapours are detected by “olfactory” means and their presence is noted by the investigator in the context of a Phase I ESA. But there are also odourless contaminants, whose presence outside the building and in indoor air can only be confirmed by testing with specialized equipment. Investigators will henceforth be required to report on whether there is a risk that such contaminants may be present. In the affirmative, they will recommend that indoor air be tested. This can be complicated, because sometimes the vapours that get detected are released by objects in the building and not the soil or groundwater outside.

Obviously, just because someone cannot smell a substance doesn't mean that it is not there. An example is trichloroethylene, which is found in solvents. Solvents are associated with dry cleaning operations, which used them as stain removers, and they are still a staple in industrial settings, wherever someone needs to clean floors, walls, equipment, trucks, and other things that are covered in grease. They are a major factor at contaminated sites worldwide and in many cases, the contamination has yet to be discovered. Solvent-related site contamination is harder to clean up than hydrocarbon contamination. Decontamination often takes a long time and can be very expensive. In addition, there are concerns about potential effects associated with human exposure (through air, drinking water, etc.) to contaminants which have made their way inside buildings. In the U.S., some states charge a tax on dry cleaning to help finance clean-up at sites affected by past practices in this industry.

WHY IT'S IMPORTANT

In the U.S., buyers have to commission a Phase I ESA before purchasing commercial real estate in order to meet the “all appropriate inquiries” due diligence test. By including vapour intrusion in the list of issues buyers need to look into up front, the United States Environmental Protection Agency is forcing them to assess the risk at the pre-purchase due diligence stage instead of suing later on. This will impact deal-making.

The requirement to check for vapour intrusion risk, which is making its way to Canada, should raise eyebrows in the following areas: environment, insurance, civil and commercial litigation, finance, M&A, and securities. It may translate into heightened liability in the areas of penal law (environment, health and safety) and civil law (contractual and delictual liability, fault-based and no-fault). Furthermore, if contamination is confirmed, it will impact the value of a property and sometimes even that of a company, leaving directors and officers potentially exposed to site clean-up orders and other types of claims.

The Canadian Council of Ministers of the Environment has just released a “Protocol for the Derivation of Soil Vapour Quality Guidelines for Protection of Human Exposures via Inhalation of Vapours”. Some provinces have issued guidance documents on this subject. It is to be expected that the new rules for Phase I ESAs in the United States will soon be incorporated into CSA's standard Z768-01 in Canada, with the result that down the road, an uptick in the discovery of hard to clean up site contamination is to be expected, leading to problems with property sales and transaction financing, an increase in environmental liabilities for accounting purposes, and heightened legal/financial risks for corporations and individuals.

Caution is in order.