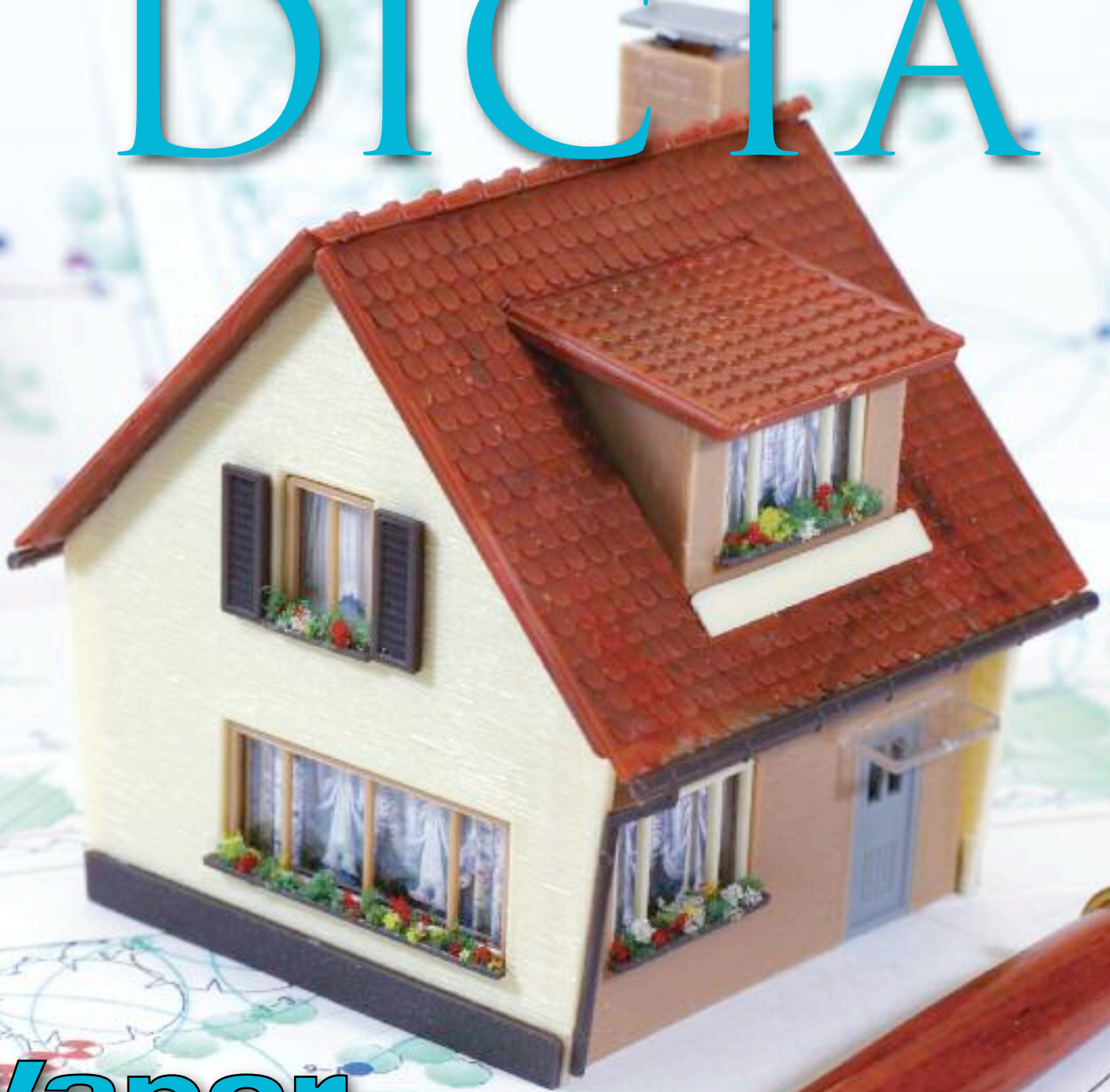


# DICTA



**Vapor  
Intrusion  
Creates New  
Environmental Risk**



# Vapor Intrusion Creates New Environmental Risk

Most attorneys, especially real estate, corporate, and banking attorneys have become familiar with a Phase I Environmental Site Assessment. Phase Is identify recognized environmental conditions and advise whether soil and groundwater sampling is necessary so

buyers, sellers, landlords, and others may find themselves involved in protracted toxic tort litigation related to exposure to harmful vapors.

Phase Is and IIs do not typically assess VI as a potential source of contamination. Developers and others are now having to take

Or worse, they abandoned them and dared banks or municipalities to foreclose on them. Cities began losing property taxes, and employers and industry relocated to outlying counties in more rural and untouched land.

## **D**evelopers, buyers, sellers, landlords, and others may find themselves involved in protracted toxic tort litigation related to exposure to harmful vapors.

parties can properly assess the environmental risk related to a property in anticipation of its sale and development or redevelopment. Phase Is (and any sampling performed in the subsequent Phase IIs) help the buyer establish the innocent purchaser defense under superfund, as well as other defenses recently established in the Environmental Protection Agency's ("EPA's") recent All Appropriate Inquiries regulation.

Just as parties are becoming more comfortable with Phase Is and IIs and buying, selling, and lending money for the purchase of contaminated property, a new wrinkle is emerging. Vapor intrusion (VI), the migration of contamination from the subsurface into indoor air, is increasingly becoming a concern where contaminated real estate is being redeveloped. Indeed, VI can be a source of potential liability for all parties involved: buyers, sellers, lenders, developers, contractors, landlords, and tenants. And this liability is not limited to superfund enforcement. Developers,

an additional step -- a VI assessment -- which requires them to integrate their environmental due diligence into their development plans early in the process, and generally long before closing. This may be a difficult adjustment for some real estate professionals, but with some careful planning on the front end, parties can still properly redevelop contaminated property into its new "highest and best use."

### **The Pendulum Swings**

With the passage of the federal Superfund statute in 1980 (42 U.S.C. 9601 et seq), real estate buyers became strictly, jointly, and severally liable for contamination on their acquired property, without regard to fault or culpability. This onerous law caused buyers to shy away from these sites and instead buy clean parcels, so-called "greenfields." The unintended consequence was that sellers couldn't sell impacted property, so they held onto them, even after they no longer needed the property.

### **The Pendulum Swings Back**

Realizing this, EPA created a "brownfield" program, and many states have followed suit, including Tennessee. Buyers can now seek and secure liability protection by entering into brownfield agreements with the government, securing financing, and then redeveloping the impacted parcel, confident that they will not be held liable for the existing contamination. One of the conditions of a brownfield agreement is to ensure that the site is remediated to protect human health and the environment. In many instances, the remediation takes the form of institutional or engineering controls, such as deed restrictions, fencing and signs, pavement, or building construction. This allows impacted soil and/or groundwater to remain in place, as long as there is no so-called pathway for someone to come into contact with the contamination, such as by drinking the groundwater. However, these types of restrictions usually do not account for the potential exposure pathway of someone breathing indoor air that is impacted by the contamination lying underneath or close to the building.



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### Not Historically Assessed

Phase Is and IIs are focused on assessing the conditions of the soil and surface water and groundwater to determine potential liability for a purchaser or lender. Their scope does not include the potential for that contamination to migrate into an existing or proposed new building. Even the new American Society for Testing and Materials' (ASTM) Phase I standard (E 1527-05), and EPA's new All Appropriate Inquiry regulation (40 CFR 312) do not include this assessment.

### New ASTM Standard for Vapor Intrusion

In March, ASTM published the "Standard Practice for Assessment of Vapor Intrusion into Structures on Property Involved in Real Estate Transactions," E 2600-08. This standard prescribes a tiered approach (similar to a Phase I followed by a Phase II) to assessing whether a parcel has actual or potential vapor intrusion.

## Mitigation can take several forms: actual cleanup of the contamination, constructing a barrier or vent to block any intrusion, or the pressurization of the building.

Tier 1 involves the initial screening of data similar to what is collected and reviewed in a Phase I. Historical and government records, geologic and soil conditions, surrounding area conditions, aerial photographs, and fire insurance maps are all included in this tier. However, there are inquiries unique to a VI initial screening: future use of the property and any existing buildings, including the types of buildings existing and planned (i.e. residential or industrial). This necessarily requires input from the user of the report. This screen also looks for natural or man-made conduits that could provide a pathway for VI, such as utility corridors, storm drains, or Karst geology that is predominant in East Tennessee. Tier 2 screening is recommended whenever the potential for VI cannot be ruled out with the Tier 1. Tier 2 includes using data existing at regulatory agencies, such as soil and groundwater sampling reports located in the Tennessee Department of Environment and Conservation's (TDEC's) files on the property or nearby properties that have previously been investigated. Tier 2 also may include sampling at the property itself. This inquiry is not looking for any contamination but specifically contamination that has the ability to become airborne, such as volatile and semi-volatile organic compounds and volatile inorganic analytes such as mercury. Chemicals found in petroleum are included, such as benzene and

toluene. Gas stations and drycleaners are common sources of these types of chemicals, but so are many manufacturing companies, landfills, and warehouses. The data collected from existing sources and any site sampling is then used to determine whether those chemicals might exceed acceptable levels that are provided in federal or state guidance. Tier 3 is actual testing of the air itself, either indoor (if there's an existing building) or outdoor, to determine whether any VI exists on the property. Because there are numerous acceptable methods and criteria, the user of the report should be careful in working closely with the consultant to scope a Tier 3 to ensure that it answers the right questions. Unlike a Phase I Environmental Site Assessment, which has a prescribed format, a Tier 3 VI assessment is not "one size fits all." It should also be noted that these results may reflect air contamination present as a result of other sources: indoor

smoking, cleaning chemicals, automobile parking, carpeting, or simply chemicals generally present in the ambient air. Finally, Tier 4 is the actual mitigation, either of the VI that has been determined to exist on the property, or of the potential VI, if it was not affirmatively detected but conditions showed that it could exist and pose a risk given the proposed development. Mitigation can take several forms: actual cleanup of the contamination, constructing a barrier or vent to block any intrusion, or the pressurization of the building. For example, if the development is new construction, plans might be modified to provide for an open parking lot on the first

floor. Redeveloping an existing building, especially if changing it from industrial to residential, may pose a tougher engineering challenge.

### The Takeaway

So often, buyers, lenders, or even sellers request a Phase I Environmental Site Assessment with misguided intentions. They obtain the Phase I and then don't know how to react to its contents and recommendations. Sometimes they ignore the recommendation to conduct Phase II sampling. Sometimes they think that they're required to fully remediate a site before they can sell or develop it. While these opposite and extreme reactions are generally both inappropriate, once the report has been generated, it's in black and white and requires a reasoned response. You can't put the genie back in the bottle. The same is true of a VI report, only the potential stakes may be higher. If a consultant's report exaggerates the potential for VI, or recommends expensive mitigation based on an inaccurate assumption that the property will be used for residential purposes, the user of that report may have difficulty securing the loan, or may lose the deal altogether. If the deal proceeds and the site is developed, that nonprivileged report may become a key piece of evidence for the plaintiff in the toxic tort suit. Therefore it is critical, especially in vapor intrusion assessments, that good consultants are selected, that goals for the assessment are clearly communicated, and that the user of the report actively participates in the decisionmaking. With this, property that has potential or real vapor intrusion can be redeveloped to its highest and best use while protecting the future building inhabitants from poor indoor air and protecting those involved in its development from liability.

