

New Jersey Law Journal

VOL. CXCIII - NO.3 - INDEX 133

JULY 21, 2008

ESTABLISHED 1878

Environmental Law

The Chilling Impact of Vapor Intrusion

Policies and enforcement trends to know and understand

By Suzanne M. Avena

Vapor intrusion of hazardous contamination is an urgent and expanding environmental issue having a particularly chilling impact on brownfield (contaminated property) real estate development. This article will discuss the most recent regulatory policies and enforcement trends pertaining to vapor intrusion, potential claims and the effect of vapor intrusion on due diligence for property acquisition.

“Vapor Intrusion” (“VI”) is a term describing the migration of vapors into a building from subsurface contaminated soil or groundwater. Evolving scientific awareness and measurement of potential human health risks from vapors from common contamination such as dry cleaning and industrial solvents, have led federal and state regulators to now require additional assessment of VI at developing sites. Certain states, including New Jersey and particularly New York, are “re-opening” environmental investigation of VI at past “closed” sites, causing disruption,

Avenais Co-Chair of the Environmental Practice Group at Garfunkel, Wild & Travis in Great Neck, NY. She is also a member of the firm's Finance and Real Estate Practice Group and Compliance Practice Group, as well as Managing Editor of the firm's Environmental Bulletin.

cost increases, delays and in some cases a public relations challenge to brownfield transactions. Accordingly, this is having a chilling effect on the voluntary cleanup and redevelopment of contaminated sites.

Developing Federal and State Vapor Intrusion Standards

By way of background, in November 2002 the Environmental Protection Agency (“EPA”) issued “Draft Guidance for Evaluating Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils” (“Draft Guidance”). These are guidelines to determine whether or not a vapor intrusion exposure pathway is complete and if it poses unacceptable risk to human health. It sets forth a three-tiered approach: The Draft Guidance does not include recommendations on how to delineate the extent of risk or how to eliminate or mitigate vapor intrusion. Since this Draft Guidance came under criticism for conservative assumptions regarding vapor intrusion contaminants and exposure levels, modifications are planned by the EPA, which are expected to be more moderate and enlarged into a four-tier approach. In March, the EPA released its “Draft Evaluation of Vapor Intrusion Attenuation Factors,” which draws from data collected from 41,000 sites on how vapor migrates to and into buildings. This document is in the process of being peer reviewed.

In the meantime, other organizations have generated various general guidance documents and training. The Interstate Technology & Regulatory

Council (“ITRC”) assembled a Vapor Intrusion Team — composed of representatives from state and federal environmental agencies including EPA and companies to develop the ITRC Technical and Regulatory Guidance document “Vapor Intrusion Pathway: A Practical Guide (VI-1, 2007).” They also developed a companion document, “Vapor Intrusion Pathway: Investigative Approaches for Typical Scenarios (VI-1A, 2007).”

Additionally, a new commercial standard to assess vapor intrusion as it relates to property transactions was released on March 3 by the American Society of Testing Materials (“ASTM”), an organization that has been the authority for environmental due diligence for many years. The final standard, ASTM E2600-08 Standard Practice for Assessment of Vapor Intrusion into Structures on Property Involved in Real Estate Transactions, adopts a flexible four-tiered approach for evaluating the presence of a vapor intrusion condition (“VIC”) to adversely impact property. Tier 1 requires an initial, nonnumerical screening of the site, similar to a Phase I ESA to determine if a potential vapor intrusion condition (“pVIC”) exists by considering specific chemicals of concern within a prescribed radius. If so, Tier 2 is recommended to develop a more refined screening that applies semi-site specific numeric screening criteria to existing soil, soil gas and/or groundwater testing results. If the Tier 2 evaluation indicates that risk-based concentrations are exceeded at the property, then a Tier 3 evaluation may be conducted to determine whether a VIC exists.

Tier 3 evaluations are more sophisticated analysis that focuses on site-specific numerical screening, mandating

on-site sampling and comparison of collected vapor intrusion data with predetermined state-specific screening levels. If the results of this evaluation indicate that a VIC exists, then a Tier 4 evaluation may be appropriate. Tier 4 evaluations assess proper VI mitigation techniques. From Tier 1, one can proceed to any of the other tiers, or directly to mitigation or wherever the client, consultant or legal counsel chooses.

States have also acted on their own to come up with vapor intrusion regulations. As a result, most enforcement and litigation of vapor intrusion requirements is occurring at the state level. In June 2005, the New Jersey Department of Environmental Protection ("NJDEP") released its Draft Vapor Intrusion Guidance. According to a 2004 survey conducted by ITRC led, in part, by the NJDEP, six out of 43 states have vapor intrusion regulations, seven have a defined policy and 26 are operating under informal operating procedures. States with the most comprehensive vapor intrusion guidance include New Jersey, New York, California and Colorado.

Consequently, there is a lack of conformity in addressing the VI issue, as guidance from the EPA and the different states is constantly being updated. For example, the NJDEP Web site tells its users to periodically check for updates in the screening level tables.

Whereas the NJDEP is approaching the VI issue at sites on a case-by-case basis and does not intend to go back and re-open closed sites, the New York Department of Environmental Conservation has launched a systematic statewide re-opening of the investigation of VI pathways at 430 heretofore legally "cleaned" sites. Alternatively, NJDEP, in effect has a built-in vapor intrusion review, since it requires bi-annual certifications for remediations that must consider any new regulations that are promulgated.

Regulatory Enforcement and Litigation Risk of Vapor Intrusion

The new VI regulatory enforcement requirements can significantly increase development costs.

Not only is the indoor air sampling itself expensive, but because the pathways and effect of VI is far from entirely understood, regulatory agencies often require a multitude of samples per site. Furthermore, because indoor air samples are best interpreted when conducted concurrent to related soil vapor samples and sub-slab sampling, investigation costs can escalate exponentially.

In addition to government enforcement, private claims for vapor intrusion can be asserted under such state statutes as the New Jersey Spill Act, as well as common-law contract and tort actions. Potential liability may arise from tenant suits against owners, from current owners against prior owners, or third-party owners and/or operators against a surrounding property owner. Claims can include contract actions for non-disclosure, fraud or misrepresentation and/or tort actions of nuisance, trespass, negligence, property stigma and diminution of value. Environmental consultants performing Phase I Environmental Site Assessments on behalf of lenders and prospective purchasers are vulnerable to professional liability claims if their all-appropriate inquiry of the past and present use of the target property did not consider vapor intrusion as a potential recognized environmental condition.

As scary as the specter of VI toxic tort litigation may sound, plaintiffs must overcome several steep hurdles in order to win their case. First, because there is no one set of standards or minimum contamination levels applicable to all states, litigants will have to determine the standards that govern the jurisdiction. Extensive evaluation of soil and groundwater conditions plus more esoteric studies such as groundwater flow and "fate and transport" modeling may be necessary to provide the necessary weight of evidence to prove a pathway from the toxic chemical to human exposure of the vapor. Thereafter, it must be proven that exposure to the chemical vapor was toxic and caused the specific harm claimed.

Furthermore, there are specific evidentiary tests for the acceptance of testimony from expert witnesses in each state, such as the *Daubert* or *Frye* tests. Regulatory agencies admit that there is no

identified correlation between increased exposure to VI and adverse health. Even if a nexus could be demonstrated, the ability to identify a responsible party can be clouded by the presence of background chemicals as well as vapors from building construction and materials. Additionally, unlike environmental statutes that contain provisions for "strict" liability under common-law actions, the claimants of VI toxic tort cases bear the burden of proving culpability of the responsible party. Lastly, defense strategies such as expired statutes of liability can also defeat a claim.

There are very few fully decided VI cases to date to point to for guidance. In *Ball v. Bayard Pump & Tank*, a Pennsylvania jury rejected that four families suffered health problems from alleged exposure to vapors from a 1998 gas spill. The jury concluded that while vapors did reach three out of the four houses, there was no evidence that the vapors actually entered the homes and caused the alleged autism and leukemia of the minor claimants. However, in this instance, no indoor air tests were ever performed in the homes of the alleged victims. The court did allow into evidence, however, a "hybrid model test" developed by the plaintiffs' expert that used groundwater data to predict air concentrations of toxic vapor in the houses.

Conclusion

Current and future VI issues should be considered when conducting "all appropriate inquiry" of a site targeted for acquisition. NJDEP Technical Requirements set forth that "contaminants in all media should be contained and/or stabilized" to prevent exposure through any pathway. However, it is important to consult experienced environmental legal counsel and technical assistance on this issue since the conduct of nonrequired soil vapor data, which, if not expertly managed, can cause public confusion and anxiety. Finally, counsel can advise on the purchase of environmental insurance. Expert legal negotiation for the appropriate coverage grants, definitions and policy endorsements can provide recovery against vapor intrusion re-openers. ■