In recent years, the real estate and building marketplace has been affected by concerns over vapor intrusion. This environmental condition occurs when volatile chemicals migrating from contaminated soil or groundwater make their way into indoor air spaces of overlying commercial buildings and residential homes. Harmful vapors can migrate into basements, crawl spaces and confined rooms, potentially causing a wide range of human health and safety problems. Moreover, vapor intrusion into structures can have a material impact on property values, creating significant risk and liability for building owners, prospective purchasers and financial lenders.

Responding to the challenge of vapor intrusion and the potential obstacles it poses in real estate transactions, industry stakeholders came together under the ASTM International umbrella to address the issue. In 2008, a task group in ASTM Committee E50 on Environmental Assessment, Risk Management and Corrective Action completed the first ever standard to assess vapor intrusion as it relates to property transactions.

To facilitate adoption of the standard, the group continued to work closely with industry stakeholders, leading to several major revisions of the document. This process culminated with release of the newly named and revised E2600, Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, in June 2010.

"Today, E2600 fills a critical need in the property due diligence marketplace by providing a tiered methodology to screen for the potential of migrating volatile vapors to encroach upon a property involved in a commercial real estate transaction," notes Anthony J. Buonicore, ASTM vapor intrusion task group chairman and principal at the Buonicore Group, Milford, Conn. "It is a true industry consensus standard, developed by the stakeholders who rely on its guidance and technical merit in the real estate due diligence process."

**E2600: Safe Harbor for Industry Professionals**

For environmental professionals, E2600 is the industry-accepted guide to conducting a vapor encroachment screen. Participation on the task group that developed the screening methodology included environmental consultants, attorneys, lenders, property owners and managers, trade associations such as the American Petroleum Institute and the
Halogenated Solvents Industry Allliance, and government agencies including the U.S. Environmental Protection Agency. The screening methodology in E2600 gives environmental professionals flexibility to use their local knowledge and expertise to evaluate each unique situation of possible vapor encroachment.

“Vapor intrusion continues to be a growing issue in the environmental site assessment process of a real estate transaction,” says Dane Horna, ASTM International member and vice president of S&ME Inc., Charlotte, N.C., an engineering and environmental services firm. “With E2600, industry professionals are no longer on their own in navigating the screening process. The standard offers a safe harbor for environmental consultants as well as property owners and purchasers, facilitating vapor encroachment screening in accordance with industry accepted methods.”

CRITICAL COMPONENT OF ENVIRONMENTAL SITE ASSESSMENT PROCESS

E2600 methodology includes two tiers of vapor encroachment screening. Both tiers may be used in the environmental site assessment process as defined by ASTM E1527, Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, a flagship E50 standard that defines customary practice for conducting commercial real estate environmental site assessment under the Comprehensive Environmental Response, Compensation and Liability Act. However, at the minimum, Tier 1 screening is most appropriate for a Phase I.

Tier 1 of the VES process investigates all known or suspected contaminated sites with volatile hazardous substances or petroleum products within a given distance of a property. When a potential contaminated site is identified in Tier 1, E2600 defines a process for further screening and investigation. Tier 2 screening under E2600 can include a variety of approaches, including review of available extent of contamination reports filed with government agencies or physical sampling of soil and groundwater to assess the proximity of volatile vapors from the contaminated plume. In this phase, E2600 helps gather critical data associated with vapor migration, its proximity to the designated property and the likelihood of vapor encroachment on to the targeted property.

DELIBERATING POSITIVE OUTCOMES FOR REAL ESTATE TRANSACTION STAKEHOLDERS

Using E2600 as a prescriptive screening tool in the commercial real estate due diligence process helps to deliver benefits to the major parties involved in the transaction, including owners, prospective purchasers, financial lenders and attorneys.

- Armed with the information gained in the screening process, prospective purchasers can better assess the environmental condition of the property and make a more informed determination if they want to proceed with the real estate transaction.
- Screening in the due diligence process for harmful vapors that may encroach on the property enables prospective purchasers to avoid acquiring property that may result in future liability, including litigation stemming from tenant suits related to indoor air quality problems.
- Relying on E2600 in the due diligence stage, lenders and their borrowers can protect their building collateral assets long term, reducing the risk of future devaluation of property as a result of encroaching vapors.
- Identifying and mitigating harmful vapors prior to deal closing helps new building owners to better ensure their future tenant base, resulting in the financial stability necessary to repay loans and obtain new credit.
- When used in conjunction with E1527 in a Phase I Environmental Site Assessment, E2600 facilitates compliance with the EPA’s all appropriate inquiries regulation under the CERCLA legislation.

HEALTHIER ENVIRONMENT FOR BUILDING OCCUPANTS

Since vapor intrusion can impact a wide range of structures, including residential and office buildings, manufacturing facilities and other sites, both current and future occupants can face undesirable health risks. By identifying the potential for harmful vapors to encroach upon a property, E2600 provides the foundation for the mitigation strategies and decisions that will improve indoor air quality and protect the health and safety of building occupants.

FUTURE IMPLICATIONS

While industry stakeholders point out that vapor intrusion continues to be a complex and evolving concern, its impact on the real estate transaction process can be managed with prudent action. “Vapor migration and potential intrusion into buildings is a critically important issue in our industry,” adds Buonicore. “Relying on the industry consensus screening methodology offered by E2600, environmental professionals and other stakeholders can more confidently address the problem and protect the interests of all stakeholders in the commercial real estate transaction process.”

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