

Buchalter

CLIENT ALERT

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CalEPA Draft Vapor Intrusion Guidance Released for Public Comment Guidance Increases Uncertainty for Restoring Brownfields

The long-awaited CalEPA guidance for screening and evaluating vapor intrusion has been issued as a draft for public comment. This state-wide guidance, jointly developed by the State Water Resources Control Board ("SWRCB") and the Department of Toxic Substances Control ("DTSC") under the oversight of CalEPA, is intended to establish a consistent approach among California regulatory agencies for screening buildings for the potential for vapor off-gassing from contaminated soil and groundwater and into buildings, presenting a potential health risk to occupants. Previously, different agencies had different approaches and assumptions when assessing vapor intrusion risk, leading to some frustration for those remediating contaminated sites.

Vapor intrusion is the migration of gasses from subsurface contamination into buildings through cracks in floors, penetrations for sewer lines and utilities, and other openings. This is a particular concern with volatile organic compounds ("VOCs") such as PCE, TCE, and other solvents that are frequently the chemicals of concern at contaminated properties. The vapor intrusion pathway was not given as much consideration as soil and groundwater contamination levels until recently, but in recent years the potential for vapor intrusion has become the main driver of obtaining site closure when remediating contaminated sites.

The details of the draft guidance will not surprise those who work in the remediation field in California, as agency staff have been gravitating towards this approach over the past year while the draft has been finalized. These include:

- Use of the Johnson & Ettinger (J&E) mathematical model for predicting indoor air levels based on subsurface contamination levels is no longer recommended. In

fact, based on agency staff communications recently, this goes beyond “not recommended” and, *de facto*, J&E will no longer be accepted.

- Instead of J&E modeling, the USEPA nationwide table of attenuation factors (“AFs”) should be used for screening. These include an AF of 0.03 for soil gas and 0.001 for groundwater. The AF of 0.03 for soil gas means that it is presumed that 3% of the measured soil vapor contamination makes its way into the building above. These are highly conservative AFs (from a public health standpoint) that the draft guidance acknowledges are not based on data from California or from commercial and industrial buildings.
- The SWRCB will be adding capability to their existing GeoTracker online database to allow collecting data on actual site vapor sampling and indoor air results with the intent to determine if AFs specific to California commercial and industrial buildings are justified. Data from a limited sample size of a few southern California sites with data pairs of soil vapor and indoor air point to an actual AF in the range of 0.001 for soil gas to indoor air.
- There is greater focus on sewer lines and other preferential pathways that can allow vapors to travel laterally to buildings that are not directly above the highest contamination. When assessing for vapor intrusion risk, not only should buildings within the footprint of the contamination be evaluated, but also buildings nearby that could be connected through these preferential pathways.
- The draft guidance outlines a four-step process for performing vapor intrusion assessments of whether buildings are potentially impacted, including sampling criteria. As expected, these include indoor air and soil gas samples over multiple events and different seasons and with HVAC on and HVAC off to allow development of a conceptual model for vapor intrusion.

Written comments are due by noon on April 30, 2020 and four public meetings will be held: April 1 at CalEPA headquarters in Sacramento and also webcast; April 9 by webcast only; April 14 at the San Diego RWQCB Hearing Room; and April 16 at the City of Commerce Council Chambers. Details on the meetings and how to submit comments, as well as a copy of the draft guidance, are provided at:

https://www.waterboards.ca.gov/water_issues/programs/site_cleanup_program/vapor_intrusion/

This draft guidance represents a significant change from previous vapor intrusion evaluation protocols. Once it has been formally adopted, it will have a material impact on anyone involved with cleanup of contaminated properties. Developers, in particular, will be significantly impacted, as they will not have the option of performing the type of studies outlined because their buildings have not yet been constructed. The draft guidance only increases uncertainty for developers seeking to restore brownfields to productive use. If you have questions about the guidance or would like assistance with submitting comments, please contact John Epperson at jepperson@buchalter.com or Peter McGaw at pmcgaw@buchalter.com.



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