



What is Vapor Intrusion?

The term vapor intrusion (VI) describes the migration of volatile organic compounds (VOCs) and other vapor forming chemicals from soil, groundwater, or sewer and drain lines into indoor air. Sample results for VOCs in the soil gas and groundwater at sites are typically used to model indoor air VOC concentrations.

Modeling or limited indoor air sampling results have traditionally been sufficient for achieving regulatory closure; mitigation or remediation can achieve closure at impacted sites.

How will Cal/EPA approach VI in the future?

Newly released **Draft Supplemental Guidance** for evaluating VI will likely result in increased costs and delay regulatory closure of affected sites, including:

- Repeated rounds of indoor air and soil gas sampling;
- Required remediation for long-term regulatory closure at most sites;
- Increased likelihood indoor air sampling is required;
- Additional site characterization;
- Sites that previously received regulatory closure can be reopened.

How can VI evaluations be better?

Use of cost-effective multiple **lines of evidence (LOE)** approach, such as collection of building pressure measurements; modeling publicly available weather and air monitoring data; understanding HVAC system zones and air flow measurements; and use of improved building surveys.

Multiple LOE also support long-term closure, which is significantly more difficult in the new guidance.

Collection of real time, compound specific samples to identify VI hot spots and use of lower-cost passive samplers to evaluate sewer pathways can **identify pathways faster and reduce project timelines.**

Securing **regulatory buy-in** for LOE approaches before indoor air sampling begins can help resolve VI issues quickly and safely.



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