

ASTM E1527-13/AAI

Phase I Environmental Site Assessment

ASTM E2600-15 – Tier 1

Vapor Encroachment Assessment

- Both approaches consider existing information to evaluate the subsurface presence of hazardous vapors from releases on-site, at adjoining properties, petroleum sites within 1/10th mile and other sites within 1/3 mile – the Area of Concern (AOC.)
- Phase I may also consider the potential migration of vapors into the building as part of the REC determination.

- No specific methodology is defined
- Vapor encroachment considered as possible Recognized Environmental Condition (REC)

- Provides guidance for evaluation
 - Evaluates Vapor Encroachment Conditions (VEC)*
- *Not all VECs are RECs. The EP should determine whether a REC exists.

Both approaches consider the following:

- Current use
- Historical Information
- Regulatory database
- Limited geologic sources

Deeper Dive Non-invasive

Excluded from Phase I - may be performed using an independent approach.

Consideration of the future use of the property may be added to the Phase I scope of work.

Tier 2 – Non-invasive

- Review existing files and reports, the size of the contaminated plume and its behavior, contaminants of concern, their respective concentrations to better understand the proximity of impacts.

Invasive

EPA and State Guidance/requirements

Tier 2 - Invasive

Collection of samples to more conclusively determine impacts

- Soil
- Soil gas
- Groundwater
- Outdoor air
- Indoor air

Key Terms

Vapor encroachment – The presence of chemicals of concern, as defined by ASTM E2600, in vapor form in the subsurface of a property.

Vapor intrusion – "...migration of hazardous vapors from any subsurface vapor source, such as contaminated soil or groundwater, through the soil and into an overlying building or structure."

EPA – OWSER Guidance