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An Overview of DEPs Recent Updates to Technical Guidance for Vapor Intrusion

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On January 16, 2013, the New Jersey Department of Environmental Protection (DEP) issued updated vapor intrusion screening levels and a revised vapor intrusion (VI) technical guidance.

The New VI Guidance follows revisions to the *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) and *Administrative Requirements for the Remediation of Contaminated Sites* (N.J.A.C. 7:26C) that DEP issued on May 7, 2012.

Changes to the technical guidance for vapor intrusion include the following key revisions:

- **PCE** - The new screening level for PCE, a common dry cleaner related contaminant, is much less stringent. Many mitigation systems have been installed as a result of vapor intrusion from PCE groundwater and soil contamination. The number of systems required for this contaminant is now expected to decrease, and responsible parties that have existing or pending systems due to PCE should evaluate whether they should seek relief.
- **Site Access** - Generally, a responsible party must take legal action if a property owner denies access for remediation. According to the New VI Guidance, it is acceptable to collect near slab samples if access to the building to collect sub-slab samples is denied. This is an important change for property owners as well as responsible parties because it means that intrusive indoor drilling activities may be avoided. Instead, samples can now be collected outside the building near the foundation. (See New VI Guidance, Section 2.4)
- **Sampling Residential Indoor Air** - Under the New VI Guidance, the investigator must collect 24-hour indoor air samples for investigations at residential properties. This requirement was not

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clear under the old guidance. For industrial sites, 8-hour samples may be acceptable if there is technical justification. (See Section 3.5.4)

- *Background Contribution to VI Conditions* - The New VI Guidance discusses the approach for analyzing “background” conditions. Multiple lines of evidence should be considered when evaluating the potential for indoor air contamination from “off-site” sources for investigations at strip malls and other multi-occupant sites. Significantly, according to DEP, a “vapor concern” condition or “immediate environmental concern” condition exists if vapor intrusion sampling results show exceedances of sub-slab soil gas levels and indoor air levels, regardless of the source of the contamination. (See Section 4.4) Pursuant to DEP’s rules, if these conditions are triggered, the responsible party must complete additional remedial actions within specified timeframes.
- *Compliance Averaging* - The New VI Guidance now allows for averaging of groundwater sampling results. Under specified circumstances, if a result exceeds the applicable Groundwater Screening Level additional samples may be collected. If the average of the series of samples is below the Groundwater Screening Level no further investigation is necessary. This change, which allows for compliance averaging in connection with vapor intrusion requirements, only applies to groundwater samples. (See Section 2.1)
- *Gasoline Exclusion* - Previously, a vapor intrusion investigation was not required if results showed that benzene was below its Groundwater Screening Level. A more stringent vapor intrusion investigation will now be required if any other compounds, such as ethyl benzene or MTBE, are detected at levels above the applicable Groundwater Screening Level. (See Section 5.1.4)
- *Requirement for TO-17 Analysis* - Under the May 7, 2012 changes to the Technical Requirements for Site Remediation, the list of target compounds in vapor intrusion investigations of releases of petroleum other than gasoline or light petroleum distillates must include naphthalene and 2-methyl naphthalene. (See N.J.A.C. 7:26E-2.1(c)3). The New VI Guidance sets vapor intrusion screening levels for these compounds and includes them on the target compound list. Currently, only one laboratory is certified by DEP for TO-17. Therefore, the implementation of this provision is delayed until July 16, 2013. (See Section 3.5.3)

The New VI Guidance is posted on the DEP’s Site Remediation Program website page at <http://nj.gov/dep/srp/guidance/vaporintrusion/index.html>.

DEP has also posted the following additional information to assist with the interpretation and implementation of the New VI Guidance:

- Streamlined vapor intrusion sampling results template letters and tables for reporting VI results to property owners and occupants that eliminate the reference to Rapid Action Level: <http://nj.gov/dep/srp/guidance/vaporintrusion/templates/>
- Tables that compare the new VI screening levels to the old levels: http://www.state.nj.us/dep/srp/guidance/vaporintrusion/visl_comparison_table.pdf

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- A suggested "Implementation Strategy": http://nj.gov/dep/srp/guidance/vaporintrusion/visl_implementation_strategy.pdf

Please contact the authors of this Alert, **David A. Roth** and **Maura E. Blau**, for additional information on the DEP's updated technical guidance for vapor intrusion.