

NJDEP Vapor Intrusion Compliance Alert 12 July 2013

From the LSRPA Vapor Intrusion Subcommittee

Analysis of 2-Methylnaphthalene and Naphthalene

The NJDEP released a policy statement on July 1, 2013 regarding the regulatory requirement for testing for naphthalene and 2-methylnaphthalene during vapor intrusion investigations (7:26E-2.1(c)3). This statement was a follow up to a provision in the previous release of January 16, 2013, in which the NJDEP stated that the implementation of the requirement for conducting the analysis of these two compounds was being delayed six months, to July 16, 2013.

Following the publication of the Technical Requirements for Site Remediation (TRSR) on May 7, 2012, a number of interested parties, including the LSRPA, provided NJDEP with comments regarding technical difficulties associated with meeting the regulatory requirements of this section. The July 1, 2013 policy statement (effective July 16, 2013) represents a consensus approach to overcoming these issues. First, the analysis of 2-methylnaphthalene for vapor intrusion studies associated with petroleum fuel releases will be no longer required. Given that the requirement remains in the TRSR, an investigator will need to apply a variance, citing the July 1, 2013 policy statement, until the requirement is removed from the TRSR in a future edition.

The analysis of naphthalene will be required for vapor intrusion investigations conducted at sites where kerosene, jet fuel, diesel fuel, No. 2 fuel oil, and heavier petroleum products have been released. However, the selection of the sampling technique for the compound is left to the investigator and will typically be EPA Method TO-15 or NJDEP Method Low Level TO-15 (both summa canisters), The investigator may also utilize EPA Method TO-13 (polyurethane foam cartridges), or EPA Method TO-17 (sorbent tubes). Regardless of the method, the investigator must ensure that:

1. The laboratory conducting the analysis holds a current certification for the method selected and that naphthalene is included on the list of compounds for which the certification was obtained; and
2. The reporting limits of the method selected will meet the vapor intrusion screening levels for naphthalene.

Given the relatively low volatility of naphthalene, satisfactory recovery of the compound from a summa canister may be a concern. A good check on this issue for a specific sample group is the analysis of a Laboratory Control Sample (LCS) in the sample batch. Although the analysis of an

LCS sample is not a specific requirement of EPA Method TO-15, it is recommended that the laboratory prepare a LCS in a summa canister and perform the analysis of the LCS with the sample batch. The recovery of naphthalene in the LCS analysis is an indicator that the method is in control and valid for the compound.

Each of these issues, method selection, certification and QA/QC measures, should be summarized in the Quality Assurance Project Plan (QAPP) as required by 7:26E-2.2(a). The Data of Known Quality criteria for EPA Method TO-15 have been included in the draft NJDEP QAPP guidance, to be finalized this fall.

Reporting Vapor Intrusion Data to the New Jersey Department of Health

A New Jersey Department of Health (NJDOH) VI Data Submission Checklist is now available for the submission of data by LSRPs under 7:26E-1.15(h). This section of the TRSR requires the submittal of electronic data and other information to NJDOH within 14 days of the receipt of analytical results for indoor air and ambient air samples. The checklist is available on the SRRA Vapor Intrusion Guidance web page. However it is a *NJDOH* document and should not be submitted to NJDEP.

While the TRSR requires that an LSRP submit the data packages for indoor air and ambient samples, the new form has a place for the submittal of sub-slab soil gas data, which may give the impression that this is now a requirement. John Boyer of NJDEP has explained that this should be viewed only as a checklist, not a form indicating what data must be submitted in every case. Inclusion on the form is only indicative that on occasion the NJDOH may request that additional data, e.g., soil gas results, be submitted.

Note that all submittals to NJDOH must be electronic. NJDEP still requires the submittal of a hard copy of the analytical data reports for vapor intrusion investigations, along with the Full Laboratory Data Deliverables Form and other required information.

Relation to the 7 May 2014 Statutory Timeframe

Evaluation of the vapor intrusion pathway is a component of the Remedial Investigation (RI), and is subject to the 7 May 2014 statutory deadline for the completion of the RI. For sites where naphthalene has been identified as a contaminant of concern in the groundwater in excess of the Ground Water Screening Level (GWSL), or where required by the TRSR, sampling and analysis of soil gas and indoor air will have to be completed as part of the delineation for submission of the RI report prior to the statutory deadline.