

April 8, 2011

Ms. Janis Hoagland
Director, Office of Legal Affairs
New Jersey Department of Environmental Protection
PO Box 402
401 East State Street, Floor 4
Trenton, New Jersey 08625-0402

RE: Draft Proposed Rulemaking, NJAC 7:26E - New Jersey Low Level TO-15 Method References

Dear Ms. Hoagland

The American Council of Independent Laboratories (ACIL) is the trade association representing independent, commercial scientific and engineering firms in the United States. ACIL's members are professional services firms engaged in testing, product certification, consulting, and research and development and represent 85% of the commercial environmental testing capacity in the United States. ACIL's environmental laboratory members test water, air, soil and other environmental media for a variety of environmental contaminants. The results from these analyses are used to determine whether or not a regulated entity is in or out of compliance with State or Federal rules, evaluate the extent and nature of environmental contaminants, and to collectively provide information used to protect human health and environment.

The ACIL membership is extremely concerned about references to a New Jersey Department of Environmental Protection (NJDEP) analytical testing protocol for ambient air (Low Level TO-15 - NJ LL TO-15) in the draft version of NJAC 7:26E. NJ LL TO-15 is a modification to the United States Environmental Protection Agency's method TO-15. While the recently promulgated revisions to NJAC 7:26E (February 22, 2010) did not contain any reference to NJ LL TO-15, our concern is that upcoming revisions or reauthorizations might include references to that method.

The NJDEP and USEPA methods are procedurally and technically identical producing identical data with identical levels of quality. The USEPA version is written in a performance-based format which provides the user with the flexibility to select procedural steps that are consistent with the projects measurement quality objectives.

There have not been any procedural modifications to NJ LL TO-15 that differentiates it from USEPA TO-15 or increases its sensitivity. Because the methods are identical, the application of the term "low level" to the New Jersey method has caused confusion among the regulated community leading them to believe that there is a sensitivity difference, which is not the case. Promulgating NJAC 7:26E with references to NJ LL TO-15 will result in confusion and additional costs to the laboratory community without any increase in data quality or data usability.

The reporting format prescribed for the New Jersey version is excessively rigid and includes additional items that do not contribute to product quality. These reporting requirements increase costs without a corresponding increase in either sensitivity or data quality and are unsupported in the current economic climate. ACIL strongly recommends that this method reference be removed from the draft rule because it is unnecessary and wasteful.

NJDEP's Site Remediation Program has made extensive claims about the benefit of their modifications to TO-15. However, a closer look indicates that the requirements are either already incorporated into the

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USEPA method or are application-specific requirements that should be enumerated in regulation. Because the underlying scientific methodology and procedural mechanics were not changed, these additional items become administrative in nature. Accordingly, it is unnecessary to reference or require a new method to convey administrative requirements for a specific program.

In 2000, the State of Colorado faced a similar situation, which they addressed by issuing *Guidance for Analysis of Indoor Air Samples* (1). ACIL recommends this approach to NJDEP. This ensures that the additional specifications that are important to the NJDEP are employed for ambient air analysis in New Jersey while eliminating the need for laboratories to hold accreditation for two versions of the same analytical procedure. Specifying the additional program requirements in regulation and/or issuing guidance documents detailing the New Jersey method specifications that can be performed within the framework of USEPA TO-15 will result in the same level of protection to human health and the environment at the lowest cost to the regulated community.

ACIL has reviewed the modifications incorporated within NJ LL TO-15 and prepared specific comments as follows:

1. Holding Times : USEPA's guidance on using TO-15 where low level detection limits are needed (2) indicates that the 30 day holding time that NJDEP has specified is reasonable. However, USEPA expressed that there is still a need for concern even with a 30 day holding time when samples that have a very low humidity or contain co-collected reactive species. Thus, while NJDEP has selected a 30 day holding time for, this is not a change in the method just an administrative requirement well within the framework of the USEPA method.
2. Canister Types and Regulator : While USEPA TO-15 permits the user to employ canister sizes that are appropriate for the desired sensitivity. NJ LL TO-15 specifies only six (6) liter size canisters for the collection of indoor air samples. If the situation requires the highest possible sensitivity, then the use of six liter canisters is appropriate. However, in the proposed rule, NJDEP agrees that smaller size canisters may be appropriate for other situations. We believe that it is more appropriate for NJDEP to limit their specification to the lower limit of measurement needed. The engineering contractor or the laboratory assumes the responsibility for selecting the appropriate size canister.
3. Method Detection, Quantitation and Reporting Limits : NJ LL TO-15 specifies reporting limits for a number of compounds. However, it doesn't employ method detection limits for data reporting although a copy of the laboratory's MDL study is required for every final report, which is unnecessary. The reporting limit specified is within the framework of USEPA TO-15.
4. Clean Canister Certification Levels : The requirement to demonstrate that all sampling canisters are clean and free of any contamination before samples are collected is a requirement of USEPA TO-15. Contamination free means that the concentration of any potential contaminant is below the specified reporting limit. Therefore, the specifications of NJ LL TO-15 are not a change in the technical requirements of USEPA TO-15.
5. GC/MS Tuning and Instrument Performance Check Requirements : The instrument tuning requirements are included within the scope of USEPA TO-15. NJ LL TO-15 employs an identical check at an increased frequency, but this additional check is redundant and unnecessary for GC/MS methods.
6. GC/MS Analysis Techniques : The analysis requirements in NJ LL TO-15 are identical to those included within the scope of USEPA TO-15.

7. Standard Type and Concentrations: USEPA TO-15 states that "when available, standard mixtures of target gases in high pressure cylinders must be certified traceable to a NIST Standard Reference Material (SRM) or to a NIST/EPA approved Certified Reference Material (CRM)." NJ LL TO-15 employs essentially identical language (Section N.2.) and is therefore just a restatement of standard laboratory documentation procedures.
8. Initial and Continuing Calibration Standards: These are accommodated within the scope of USEPA TO-15 and can be categorized as an administrative specification.
9. Low Level Laboratory Control Samples: NJ LL TO-15 includes an additional control sample at the method reporting limit. It also specifies performance requirements, which are arbitrary. The ability for a laboratory to achieve the performance specification is academic since the methodology and the procedures are unchanged. Therefore this additional check constitutes an administrative modification.
10. Limitation Regarding the Source of Makeup Air: This modification, if imposed for all testing situations, limits the usability of valid field samples for New Jersey samples. This limitation is not included by USEPA TO-15.

The additional requirements that have been incorporated into NJ LL TO-15, an LCS spike at RL concentrations and calibration to 0.2 ppbv can easily be accommodated within the scope of USEPA TO-15. The majority of accredited TO-15 laboratories in New Jersey have been calibrating USEPA TO-15 to 0.2 ppbv for many years to accommodate the New Jersey indoor air criteria without any difficulty.

Requiring laboratories to employ two methods for the same analysis will require that canisters either be certified twice, once by USEPA TO-15 and once by NJ LL TO-15 or alternatively, the maintenance of two completely separate canister inventories, one for each method. This is caused by the need to maintain an on-hand inventory of canisters that have been certified by the analytical method that matches the sample analysis method. Certification occurs in advance of canister requests to assure an available inventory when orders are placed. This will unnecessarily increase costs for NJ LL TO-15 without a corresponding increase in data quality.

The reporting format prescribed for all air analysis regardless of whether USEPA TO-15 or NJ LL TO-15 are used is excessively rigid and includes additional items that do not contribute to product quality. The rigid format requires manual assembly of the package driving up the cost of production, which will be passed on to data users. Imposing requirements that increase costs without a corresponding increase in sensitivity, data quality or usability is unsupportable in the current economic climate.

ACIL strongly recommends that references to NJ LL TO-15 be eliminated from the draft update. The objectives of NJ LL TO-15 can easily be accomplished by adding a few prescriptive requirements for USEPA TO-15 to the NJAC 7:26E update. This can also be accomplished through a directive that provides laboratory guidance on achieving the data quality objectives established by the Site Remediation Program.

ACIL has prepared the following additional comments and recommendations on the draft proposed rule that includes suggestions on a more economical approach for accomplishing New Jersey NJDEP's air analysis objectives which follow.

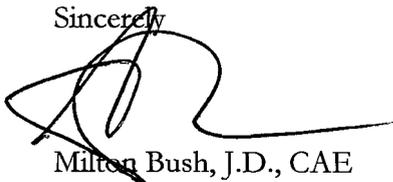
- * Require that TO-15 be calibrated to 0.2 ppbv for all New Jersey air analysis. This can easily be accommodated within the framework of USEPA TO-15.

- * Specify the target compound list in the regulation or in a separate guidance document without referencing NJ LL TO-15.
- * Allow MDL reporting. The current version of NJ LL TO-15 will not demonstrate compliance to the New Jersey indoor air criteria if MDL reporting is not allowed. Converting the reporting limit of 0.2ppbv specified in NJ LL TO-15 to $\mu\text{g}/\text{m}^3$ actually results in a value that exceeds the New Jersey vapor intrusion criteria.
- * Require that a laboratory control sample (LCS) be performed at 0.2 ppbv. However, employ experimental data to develop the accuracy acceptance criteria rather than use an arbitrary range of 70 – 130%.
- * Specify report content rather than format for air analysis in the regulation, similar to the manner in which all other data is reported for full deliverables packages.

Employing these recommendations will enable NJDEP's Site Remediation Program to economically accomplish their air analysis objectives without sacrificing data accuracy or quality and also will minimize adverse economic impact to the laboratory community.

ACIL strongly asserts that any references to the New Jersey method version be excluded from the draft proposal of 7:26E. The analytical objectives of this method can easily be accomplished within the scope of the USEPA method. Clearly, NJ LL TO-15 is a costly solution to a problem, which did not exist. Accordingly ACIL finds the New Jersey version unnecessary, redundant and wasteful and is planning on presenting strong opposition testimony if NJAC 7:26E is re-proposed with references to New Jersey Low Level TO-15 included.

Sincerely



Milton Bush, J.D., CAE
Chief Executive Officer

- (1) Guidance for Analysis of Indoor Air Samples - April 2000; Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division, Denver, Colorado.
- (2) Daughtrey, E.H., Jr., Oliver, K.D.; Jacumin, H.H., Jr., McClenny, W.A. *Supplement to USEPA Compendium Method TO-15 - Reduction of method Detection Limits to Meet Vapor Intrusion Monitoring Needs*, 2003