ENVIRONMENTAL LABORATORY SECTOR

VOLUME 1

MANAGEMENT AND TECHNICAL REQUIREMENTS FOR LABORATORIES PERFORMING ENVIRONMENTAL ANALYSIS

Module 3 : Quality Systems for Asbestos Testing

Voting Draft Standard
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PREFACE

This Standard is the result of many hours of effort by those volunteers on The NELAC Institute (TNI) Quality Systems Committee. The TNI Board of Directors wishes to thank these committee members for their efforts in preparing this Standard as well as those TNI members who offered comments during the voting process.

This Standard supplements Module 2, Quality Systems General Requirements, and may be used by any organization that wishes to implement a program for the accreditation of environmental laboratories.

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VOLUME 1, MODULE 3

Quality Systems for Asbestos Testing

1.0 ASBESTOS TESTING

1.1 through 1.3 - NO CHANGE

1.4 Method Selection

Refer to Volume 1 Module 2, Sections 5.4.2, 5.4.3 and 5.4.4.~~A reference method is a method issued by an organization generally recognized as competent to do so. (When ISO refers to a standard method, that term is equivalent to reference method). When a laboratory is required to analyze a parameter by a specified method due to a regulatory requirement, the parameter/method combination is recognized as a reference method. If there is not a regulatory requirement for the parameter/method combination, the parameter/method combination is recognized as a reference method if it can be analyzed by another similar reference method of the same matrix and technology.~~

The inclusion of the ~~parameter~~analyte in the method shall meet all required calibration requirements of the method and the quality control requirements of the method to which the ~~parameter~~analyte is being added. If no QC exists in the method, the laboratory shall adhere to the requirements outlined in ~~the~~ a similar reference method (when available). A method that meets these ~~above~~ requirements shall be identified in such a way so that there is no confusion that the method has been modified.

~~(1) When it is necessary to use methods not covered by reference methods, these shall be subject to agreement with the client and shall include a clear specification of the client's requirements and the purpose of the environmental test. The method developed shall have been validated appropriately before use.~~

1.5 Method Validation

~~a)~~ Refer to Volume 1 Module 2, Section 5.4.5.~~Validation is the confirmation, by examination and objective evidence, that the particular requirements for a specific intended use are fulfilled. The laboratory shall validate non-reference methods, laboratory-designed/developed methods, reference methods used outside their published scope, and amplifications and modifications of reference methods to confirm that the methods are fit for the intended use. The validation shall be as extensive as is necessary to meet the needs of the given application or field of application. The laboratory shall record the results obtained, the procedure used for the validation, and a statement as to whether the method is fit for the intended use.~~

For all methods (e.g. reference), ~~Laboratories~~ laboratories shall participate in proficiency testing programs. The results of these analyses shall be used to evaluate the ability of the laboratory to produce acceptable data.

1.6 Demonstration of Capability (DOC)

1.6.1 NO CHANGE

1.6.2 Initial DOC

An initial DOC shall be conducted prior to using any method, and at any time there is a change in instrument type, personnel or method or any time that a method has not been performed by the laboratory or analyst in a twelve (12) month period.

1.6.2.1 NO CHANGE

1.6.2.2 For asbestos, if the method or regulation does not specify a DOC, the following procedure is acceptable. It is the responsibility of the laboratory to document that other approaches to DOC are adequate.

a) NO CHANGE.

b) NO CHANGE.

c) Using all of the results, calculate the mean recovery in the appropriate reporting units and the standard deviations of the population sample (in the same units) for each ~~parameter~~analyte of interest. When it is not possible to determine mean and standard deviations, such as for presence/absence and logarithmic values, the laboratory shall assess performance against established and documented criteria.

d) Compare the information from (c) above to the corresponding acceptance criteria for precision and accuracy in the method (if applicable) or in laboratory-generated acceptance criteria (if there are not established mandatory criteria). If all ~~parameter~~analytes meet the acceptance criteria, the analysis of actual samples may begin. If any one of the ~~parameter~~analytes does not meet the acceptance criteria, the performance is unacceptable for that ~~parameter~~analyte.

e) When one or more of the tested ~~parameter~~analytes fail at least one of the acceptance criteria, the analyst shall proceed according to i) or ii) below.

i. Locate and correct the source of the problem and repeat the test for all ~~parameter~~analytes of interest beginning with c) above.

ii. Beginning with c) above, repeat the test for all ~~parameter~~analytes that failed to meet criteria.

f) Repeated failure, however, confirms a general problem with the measurement system. If this occurs, locate and correct the source of the problem and repeat the test for all ~~compound~~analytes of interest beginning with b).

1.6.3 NO CHANGE

1.7 NO CHANGE