A70 – Checklist for Asbestos Fibre Counting
Revision 1.11 March 21, 2018

Laboratory Name: _____

Appendix Name: _____

Appendix Number: _____

Assessor: _____

Date: _____

CALA
Laboratory Accreditation

A. EQUIPMENT I.D.

Item	Clause ISO/IEC 17025:2005 (ISO/IEC 17025:2017)	Requirement	Document review 1 2 3	Implementation 1 2 3
01		**DOCUMENT CONTROL**		
01	4.3 (7.2.1.2)	Current authorized test method and necessary supporting work instructions are available to the analyst.	❑ ❑ ❑	❑ ❑ ❑
02		**TEST METHOD VALIDATION/VERIFICATION**		
01	5.4 (7.2.1.5)	There are method verification results. Records of method verification include, but are not limited to: • Duplicate counts - precision • PT • Appropriate number of samples (reference slides , field samples, PT, relocatable slides) for each analyst to establish initial method precision (intra- and inter-counter).	❑ ❑ ❑	❑ ❑ ❑

Item	Clause ISO/IEC 17025:2005 (ISO/IEC 17025:2017)	Requirement	Document review 1 2 3	Implementation 1 2 3
02	5.4 (7.2.2)	Modifications from the reference method are documented and validated. There is evidence that validation demonstrates that the method is fit for intended use.	❑ ❑ ❑	❑ ❑ ❑
03		**TEST METHOD**		
01	4.2.1 5.4.1 (7.2.1.1)	All necessary successive steps in the test procedure (including details on recording results, reagent preparation, storage and shelf life, equipment, supplies, etc.) are 1) documented in the test method 2) appropriate and implemented.	❑ ❑ ❑	❑ ❑ ❑
04		**SAMPLING**		
01	5.7 (7.4)	Sample history requirements are appropriate, documented and implemented; e.g.,	❑ ❑ ❑	❑ ❑ ❑
		• Field filtration;	❑ ❑ ❑	❑ ❑ ❑
		• Chemical preservation;	❑ ❑ ❑	❑ ❑ ❑
		• Sample containers;	❑ ❑ ❑	❑ ❑ ❑
		• Storage conditions;	❑ ❑ ❑	❑ ❑ ❑

Item	Clause ISO/IEC 17025:2005 (ISO/IEC 17025:2017)	Requirement	Document review 1 2 3	Implementation 1 2 3
		• Holding time;	❑ ❑ ❑	❑ ❑ ❑
		• Sample pre-treatment (removal of unwanted material, homogenization, sub-sampling).	❑ ❑ ❑	❑ ❑ ❑
05		**CALIBRATION**		
01	5.4.5 5.6.2.2 5.6.3 (6.4)	Method Calibration Method calibration is appropriate, documented and implemented. e.g.,	❑ ❑ ❑ _____ _____ _____ _____ _____ _____	❑ ❑ ❑ _____ _____ _____ _____ _____ _____
		• Check microscope alignment;	❑ ❑ ❑	❑ ❑ ❑
		• Check magnification;	❑ ❑ ❑	❑ ❑ ❑
		• Check resolution;	❑ ❑ ❑	❑ ❑ ❑
		• adequate number of reference slides (e.g., chrysotile, amosite, manmade mineral fibres);	❑ ❑ ❑	❑ ❑ ❑
		• analysis of reference slides to monitor accuracy;	❑ ❑ ❑	❑ ❑ ❑
		• control charting where appropriate;	❑ ❑ ❑	❑ ❑ ❑
		• criteria to identify calibration nonconformances.	❑ ❑ ❑	❑ ❑ ❑

Item	Clause ISO/IEC 17025:2005 (ISO/IEC 17025:2017)	Requirement	Document review 1 2 3	Implementation 1 2 3
01	5.9 (7.7)	Method Quality Control Method quality control is appropriate, documented and implemented; e.g.,	❑ ❑ ❑ _____ _____ _____	❑ ❑ ❑ _____ _____ _____
		• duplicates to monitor precision (prepare slides for 10% of samples);	❑ ❑ ❑	❑ ❑ ❑
		• record fibres and fields examined;	❑ ❑ ❑	❑ ❑ ❑
		• method blanks (or field blanks as available) to monitor contamination;	❑ ❑ ❑	❑ ❑ ❑
		• recount the same fields to monitor precision;	❑ ❑ ❑	❑ ❑ ❑
		• 5% appropriate slides of known counts for each analyst for ongoing intra- and inter-counter precision	❑ ❑ ❑	❑ ❑ ❑
		• plot control charts of standard deviation (according to NIOSH 7400 or the use of relocatable slides) or other parameters vs. date to monitor precision (for each analyst and laboratory)*;	❑ ❑ ❑	❑ ❑ ❑
		• criteria to identify method nonconformances;	❑ ❑ ❑	❑ ❑ ❑
		• participation in a proficiency testing program (see P02-03)	❑ ❑ ❑	❑ ❑ ❑

Item	Clause	Requirement	Document review 1 2 3	Implementation 1 2 3
07		**TEST METHOD CONTENT**		
01	5.4.1 5.5.2 5.5.6 (7.2.1.2)	Other Work Instructions/Procedures All necessary supporting work instructions are current and available to the analyst; e.g.,	❑ ❑ ❑ _____ _____ _____ _____ _____ _____ _____	❑ ❑ ❑ _____ _____ _____ _____ _____ _____ _____
		• glassware cleaning procedures;	❑ ❑ ❑	❑ ❑ ❑
		• equipment instruction manuals;	❑ ❑ ❑	❑ ❑ ❑
		• requisite reference texts;	❑ ❑ ❑	❑ ❑ ❑
		• computer software related procedures.	❑ ❑ ❑	❑ ❑ ❑

Item	Clause 17025: 2005 (17025: 2017)	Requirement	1 2 3
08		**CONDUCT OF TESTING**	
01	5.4.1 4.2.1 (7.2.1.1)	The test procedure and all supporting work instructions are performed as documented.	❑ ❑ ❑
09		**EQUIPMENT**	
01	5.5.1 5.5.4 5.5.12 (6.4)	All instruments required for the test procedure are available, uniquely identified, functioning properly (including stability of reference slides*), and safeguarded from adjustments that would invalidate results. *Samples mounted by acetone-triacetin are not stable and degrade	❑ ❑ ❑
02	5.5.1 (6.4)	All support equipment* required for the test procedure is available and functioning properly. *includes computers	❑ ❑ ❑
03	5.5.7 5.5.9 (6.4.9)	Out of service equipment is clearly isolated or clearly labeled or marked as being out of service, and equipment is checked and validated before return to service.	❑ ❑ ❑

Item	Clause 17025: 2005 (17025: 2017)	Requirement	1 2 3
04	5.5.8 (6.4.8)	All equipment requiring calibration (including reference slides) is labeled to indicate calibration status, including the date last calibrated and expiry criteria, or date when re-calibration is due. * not required for equipment checked daily or as-used.	❑ ❑ ❑
10		**SUPPLIES**	
01	4.6.2 5.5.1 (6.4)	All supplies required for the test procedure are available and meet requisite requirements and/or specifications.	❑ ❑ ❑
	5.3 (6.3.1)	All supplies are stored under appropriate conditions (e.g. 1-4 degrees C) and in a manner that satisfies requirements for safety, security, separation of incompatible materials, and ease of retrieval.	❑ ❑ ❑
03	4.13.2 (6.4.8)	All reagents and media are labeled with material, concentration or purity, date prepared and/or expiry date.	❑ ❑ ❑

Item	Clause 17025: 2005 (17025: 2017)	Requirement	1 2 3
05	5.5.1 (6.4)	All labware is adequately cleaned and, where required, labware quality control incorporates analytical testing.	❑ ❑ ❑
11		**RECORD KEEPING**	
01	4.13.2 4.9 4.13.2 5.5.5 5.6 (7.5)	Records related to the performance of the test method are retained; e.g.,	❑ ❑ ❑
		• analyst worksheet or notebook (1);	❑ ❑ ❑
		• record of nonconformances and actions taken (2);	❑ ❑ ❑
		• reagent preparation log (3);	❑ ❑ ❑
		• equipment maintenance log (4);	❑ ❑ ❑
		• records of gravimetric traceability (6);	❑ ❑ ❑
		• records of volumetric traceability (7);	❑ ❑ ❑
		• records of temperature traceability (8).	❑ ❑ ❑

(1) includes, as appropriate, calibration data, test date (including QC data), experimental variables (e.g., temperature, etc.); analyst ID; sample ID; equipment ID; test organism lot no.; test method ID; date and time of test.

(2) includes, as appropriate, nonconformances related to: test method variances; sample history; method performance; interferences; and data validation.

(3) includes, as appropriate, supplier, grade, batch no.; dates of preparation or verification; measurement of weights, volumes, time intervals, temperatures and related calculations; relevant processes (e.g., pH adjustment, sterilization); verification results; discard date.

(4) includes, as appropriate, inventory no.; manufacturer, model, serial no.; condition when received, checks that equipment complies with laboratory specifications, modifications; date commissioned; repair and maintenance history; calibration history; performance history; location.

(5) includes, as appropriate, species, age, source, lot no.; arrival date; arrival condition; vessel I.D; acclimation history; culture and/or holding history including loading density, temperature, illumination and water quality; feeding history; health history including disease, treatment and mortality; disposal date.

(6) includes, as appropriate, traceability of balance and/or weights to a national standard and daily or as-used checks (see A61- CALA Traceability Policy).

(7) includes, as appropriate, traceability of auto pipettes, dilutors, etc. that play a defining role in analytical accuracy, and daily or as-used checks (see A61- CALA Traceability Policy).

(8) includes, as appropriate, traceability of working thermometers to a national standard for those working thermometers that measure temperatures that play a defining role in analytical uncertainties (see A61-CALA Traceability Policy).