A126 – Toxicology Checklist
Revision 1.0 – February 2011

Laboratory Name: _____

Appendix Name: _____

Appendix Number: _____

Assessor: _____

Date: _____

CALA
Laboratory Accreditation

Please record the following information related to this appendix:

A. EQUIPMENT I.D.

	Manufacturer	Model No.
Auto Sampler (if applicable)		
Equipment/Instrument(s) used in analysis		
Software used for data collection (including version number), if applicable		

B. PROFICIENCY TESTING REQUIREMENTS

Please review Proficiency Testing (PT) information on the cover sheet to the appendix. Make any changes or additions directly on the cover sheet. For requirements on options and number of analytes that must have PT, refer to P02-03 – *Program Description - Proficiency Testing Policy for Accreditation*.

C. ANALYST I.D. (Section 5.2 of ISO/IEC 17025)

	Primary Analyst	Back-up Analyst
Name		
Position		
Degree/Diploma		
Years Analytical Experience*		
Analyst Proficiency**		
Check if interviewed		

* Years of analytical experience related to the appendix being assessed.

** Please record the date that the analyst was deemed competent to perform the appendix OR the date that he/she last successfully participated in Proficiency Testing (PT)

Item	Clause	Requirement	Document Review 1 2 3	Implementation 1 2 3
01		**DOCUMENT CONTROL**		
01	4.3	Verify that the current authorized test method and supporting work instructions are available to the analyst.	❑ ❑ ❑	❑ ❑ ❑
02		**TEST METHOD VALIDATION**		
01	5.4	Verify that there are method validation results, and a statement that the method is fit for the intended use, for the following (as applicable): • precision; • accuracy; • measurement uncertainty;	❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑	❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑
03		**TEST METHOD**		
01	4.2.1, 5.4.1	Test Procedure Verify that all necessary successive steps in the test procedure are appropriate and based on the latest valid edition of a published reference method, unless it is not possible or appropriate. (If this is an Environment Canada method, supplemental checklists are available to verify these steps).	❑ ❑ ❑	❑ ❑ ❑

Item	Clause	Requirement	Document Review 1 2 3	Implementation 1 2 3
04		**SAMPLING**		
01	5.7	Sample History Verify that sample history requirements are: 1) appropriate; 2) documented and readily available; and 3) implemented; e.g.,	❑ ❑ ❑ _____ _____ _____ _____ _____	❑ ❑ ❑ _____ _____ _____ _____ _____
		• field filtration; • chemical preservation; • sample containers; • storage conditions; • holding time.	❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑	❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑
02	5.7	Sampling and Sub-sampling Verify that sampling plans for samples are based on appropriate statistical methods and that the sampling process addresses the factors to be controlled to ensure the validity of the results; i.e.,	❑ ❑ ❑ _____ _____ _____ _____ _____	❑ ❑ ❑ _____ _____ _____ _____ _____
		• Sampling/sub-sampling methods are available and followed; • Sampling plans are statistically based; • Appropriate drying temperature is used (for solid matrices); • Dust loss and cross-contamination are minimized (for solid matrices);	❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑	❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑ ❑

Item	Clause	Requirement	Document Review 1 2 3	Implementation 1 2 3
		• Sample size reduction generates a representative portion for subsequent work;	❑ ❑ ❑	❑ ❑ ❑
		• Uncertainty of sample size reduction steps is known through the introduction of random duplicates;	❑ ❑ ❑	❑ ❑ ❑
		• Field sampling generates representative samples, and duplicates are routinely taken.	❑ ❑ ❑	❑ ❑ ❑
03	5.4.1 5.4.2	<u>Test Organism History</u> Verify that test organism history requirements are: 1) appropriate; 2) included or referenced in the test method; and 3) implemented; e.g.,	❑ ❑ ❑ _____ _____ _____ _____ _____ _____	❑ ❑ ❑ _____ _____ _____ _____ _____ _____
		• culture and/or holding conditions (i.e., temperature, water quality and associated variables, illumination, loading density);	❑ ❑ ❑	❑ ❑ ❑
		• quarantine requirements;	❑ ❑ ❑	❑ ❑ ❑
		• acclimation requirements;	❑ ❑ ❑	❑ ❑ ❑
		• feeding requirements;	❑ ❑ ❑	❑ ❑ ❑
		• disease control and treatment.	❑ ❑ ❑	❑ ❑ ❑

Item	Clause	Requirement	Document Review 1 2 3	Implementation 1 2 3
05		**NOT APPLICABLE**		
06		**METHOD QUALITY CONTROL**		
01	5.9	Verify that method quality control is: 1) appropriate; 2) included or referenced in the test method; and 3) implemented; e.g.,	❑ ❑ ❑ _____ _____ _____ _____ _____ _____	❑ ❑ ❑ _____ _____ _____ _____ _____ _____
		• replicates to monitor precision;	❑ ❑ ❑	❑ ❑ ❑
		• reference toxicant;	❑ ❑ ❑	❑ ❑ ❑
		• lab control;	❑ ❑ ❑	❑ ❑ ❑
		• control culture to monitor biological response;	❑ ❑ ❑	❑ ❑ ❑
		• control sample to monitor toxic response;	❑ ❑ ❑	❑ ❑ ❑
		• trend analysis (e.g. control charting - see P07);	❑ ❑ ❑	❑ ❑ ❑
		• criteria to identify method non-conformances;	❑ ❑ ❑	❑ ❑ ❑
		• procedures to evaluate interference (see P07);	❑ ❑ ❑	❑ ❑ ❑
		• culture health	❑ ❑ ❑	❑ ❑ ❑
		• taxonomic verification	❑ ❑ ❑	❑ ❑ ❑
		• PT, as per P02-03	❑ ❑ ❑	❑ ❑ ❑

Item	Clause	Requirement	Document Review 1 2 3	Implementation 1 2 3
07		**TEST METHOD CONTENT**		
01	5.4.1	Other Work Instructions/Procedures Verify that all necessary supporting work instructions are documented and readily available; e.g.,	❑ ❑ ❑ _____ _____ _____ _____ _____	❑ ❑ ❑ _____ _____ _____ _____ _____
		• glassware cleaning procedures;	❑ ❑ ❑	❑ ❑ ❑
		• supporting test methods;	❑ ❑ ❑	❑ ❑ ❑
		• equipment instruction manuals;	❑ ❑ ❑	❑ ❑ ❑
		• requisite reference texts;	❑ ❑ ❑	❑ ❑ ❑
		• computer software related procedures.	❑ ❑ ❑	❑ ❑ ❑

Item	Clause	Requirement	1 2 3
08		**CONDUCT OF TESTING**	
01	5.4.1 4.2.1	Verify that the test procedure and all supporting work instructions are performed as documented.	❑ ❑ ❑
09		**EQUIPMENT**	
01	5.5.1 5.5.2 5.5.4 5.5.12	Verify that all instruments required for the test procedure are available, functioning properly, capable of achieving the required accuracy, compliant with specifications, checked and calibrated before use, uniquely identified, and safeguarded from adjustments that would invalidate results.	❑ ❑ ❑
02	5.5.1	Verify that all support equipment* required for the test procedure is available and functioning properly. * includes computers.	❑ ❑ ❑
03	5.5.7 5.5.9	Verify that out of service equipment is clearly isolated or clearly labeled or marked as being out of service, and that equipment is checked and validated before return to service.	❑ ❑ ❑
04	5.5.8	Verify that all equipment requiring calibration is labeled to indicate calibration status, including the date last calibrated and expiry criteria or date when recalibration is due.* * not required for equipment checked daily or as-used.	❑ ❑ ❑

Item	Clause	Requirement	1 2 3
10		**SUPPLIES**	
01	4.6.2 5.5.1	Availability Verify that all supplies required for the test procedure are available and meet requisite requirements and/or specifications.* * includes test organisms, reagents, reference materials, cultures and feed materials. NB: For records of reference standard/material certificates, cite B.05.03 in A02.	❑ ❑ ❑
02	5.3	Storage Verify that 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. NOTE: For records of storage temperatures, cite B.02.03 in A02.	❑ ❑ ❑
03	4.13.2	Labeling Verify that all reagents and media are labeled with material, concentration or purity, date prepared and/or expiry date and that all information required to properly identify test organisms appears on their vessels/containers.	❑ ❑ ❑
04	5.5.1	Labware Verify that all labware is adequately cleaned and, where required, labware quality control incorporates analytical testing.	❑ ❑ ❑

Item	Clause	Requirement	1 2 3
11		**RECORD KEEPING**	
01		Maintain records related to the performance of the test method; e.g.,	❑ ❑ ❑ _____ _____ _____ _____
	4.13.2 4.9	• analyst worksheet or notebook (1);	❑ ❑ ❑
	4.13.2 5.5.5 5.6	• record of non-conformances and actions taken (2);	❑ ❑ ❑
		• reagent preparation log (3);	❑ ❑ ❑
		• equipment maintenance log (4);	❑ ❑ ❑
		• test organism maintenance log (5);	❑ ❑ ❑
		• records of gravimetric traceability (6);	❑ ❑ ❑
		• records of volumetric traceability (7);	❑ ❑ ❑
		• records of temperature traceability (8).	❑ ❑ ❑

(1) includes, as appropriate, calibration data, test data (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, non-conformances 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, identity of the item of equipment and its software; manufacturer, model, serial no.; checks that equipment complies with lab specifications; date commissioned; repair and maintenance history; calibration history; any damage, malfunction or modification to the equipment; location.

(5) includes, as appropriate, species, age, source, lot no.; arrival date; arrival condition; vessel ID; 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 thermometers that measure temperatures that play a defining role in analytical uncertainties (see A61-CALA Traceability Policy)