



MAURITAS A12

Procedure for Proficiency Testing and/or Interlaboratory comparisons other than Proficiency Testing

Mauritius Accreditation Service

CONTENTS

FOREWORD	2
ABOUT MAURITAS PUBLICATIONS	2
1. PURPOSE	3
2 SCOPE AND RESPONSIBILITIES	3
3. REFERENCES	3
4 DEFINITION	3
5 TYPES OF PT/EQAS	4
6 MAURITAS POLICY ON PROFICIENCY TESTING AND/OR INTERLABORATORY COMPARISONS OTHER THAN PROFICIENCY TESTING	5
7 FOLLOW-UP ACTION	6
8 RELATED FORMS	7
APPENDIX A: AMENDMENT TABLE	8

Foreword

The MAURITIUS ACCREDITATION SERVICE (MAURITAS) is a governmental body established in 1998 to provide a national, unified service for the accreditation of Conformity Assessment Bodies (CABs) such as calibration/testing laboratories, certification bodies and inspection bodies. Organizations that comply with the MAURITAS requirements are granted accreditation by MAURITAS.

About MAURITAS publications

MAURITAS publications are categorized as follows:

- R series Publications containing general policy and requirements related to MAURITAS accreditation.
- G series Publications providing guidance on MAURITAS requirements.
- A series Publications related to assessment procedures.
- P series MAURITAS quality system procedures
- F series MAURITAS Forms
- Directories Classified listing of accredited organizations.

Mauritius Accreditation Service (MAURITAS)
4th Floor, Crescent House,
Corner Deschartes and Foucault Streets
Port Louis
Mauritius
Tel: +230 208 16 90
Fax: +230 210 6101
Email : mauritas@govmu.org
Website : www.mauritas.org

Procedure for Proficiency Testing (PT) and/or Interlaboratory Comparison other than Proficiency Testing

1. Purpose

1.1 This procedure shall ensure the participation of laboratories and inspection bodies in proficiency testing programmes and/or interlaboratory comparison programmes other than PT for the parameters for which they have applied for accreditation or are accredited.

2 Scope and Responsibilities

2.1 One of the components in the assessment of a laboratory or inspection body is the examination of the accuracy of test and calibration results, usually achieved by Proficiency Testing (PT) and/or interlaboratory comparisons (ILC) other than Proficiency Testing or External Quality Assessment Schemes (EQAS).

2.2 This procedure sets out the requirements of testing and calibration laboratories as well as inspection bodies in their participation in PT programmes/EQAS. It also refers to follow-up action by MAURITAS and its assessors with respect to PT/EQAS results obtained by the laboratories and inspection bodies.

3. References

The following documents contain provisions which, through reference in this text, constitute provisions of the MAURITAS accreditation system. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. For undated MAURITAS references, the latest edition of the document referred to, applies. MAURITAS maintains a register of the current valid MAURITAS accreditation documents.

- | | | |
|-----|----------------------|---|
| 3.1 | ISO/IEC 17025 | : General requirements for the competence of testing and calibration laboratories |
| 3.2 | ISO/IEC 17043 | : Conformity assessment – General requirements for the competence proficiency testing providers |
| 3.3 | ISO 15189 | : Medical Laboratories – Requirements for quality and competence |
| 3.4 | ILAC P9 | : ILAC Policy for Proficiency Testing and/or Interlaboratory comparisons other than Proficiency Testing |

4 Definition

4.1 Accreditation

Accreditation is a third-party attestation related to a laboratory conveying formal demonstration of its competence to carry out specific tests/calibrations.

4.2 Proficiency Testing

Proficiency Testing is the evaluation of participant performance against pre-established criteria by means of interlaboratory comparisons.

4.3 Interlaboratory Comparison

Interlaboratory comparison is the organization, performance, and evaluation of measurements or tests on the same or similar items by two or more laboratories in accordance with predetermined conditions.

4.4 External Quality Assessment Scheme (EQAS)

External Quality Assessment Scheme is the evaluation of participant performance against pre-established criteria by means of interlaboratory comparisons.

4.5 Availability

A PT is considered available, if:

- a) it is offered by a competent PT provider and the required documents are provided in the national language of the participating body or a language understood by the CAB;
- b) if it does not require a development by the PT provider and the results can be provided within a short time in regard to the CAB needs formalized in its PT participation plan.

Note: EPTIS is a worldwide database (<https://www.eptis.org>) that may be used to find an available PT scheme

4.6 Appropriateness (P9)

A PT and/or ILC other than PT can be regarded as technically appropriate, if the scope of activity being provided is similar to the current practice of the accredited CAB. In the case of specific test or measurement techniques, for which no regular PT and/or ILCs other than PT is available, it may be adequate to choose a PT and/or ILCs other than PT, which is similar to the scope or which covers an important partial aspect of the activity.

5 Types of PT/EQAS

5.1 The objective of PT/EQAS is to compare the test or measurement values obtained by a laboratory on a substance or artefact with known values (when available) or with a large group of tests or measurements made by other laboratories. A competent PT provider shall meet the requirements of ISO/IEC 17043. The two main types that are recognised are:

5.1.1 Measurement audits involve a single indivisible artefact of which the property of interest can be established by a body of a high level of authority such as a National Metrology Institute. Measurement audits can be applied to laboratories or persons within a laboratory individually. The process usually involves the selection of an artefact known to be stable and robust which is calibrated by the National Metrology Institute, then measured by the laboratory under test, then calibrated again by the National Metrology Institute. The value(s) and their estimated uncertainties reported by the laboratory are then compared to the values obtained by the National Metrology Institute. Satisfactory results in a measurement audit confirm the ongoing capability and competence of accredited calibration laboratories.

5.1.2 Interlaboratory comparisons involve the division of a known homogeneous material into several subsamples which are distributed among several laboratories to test at the same time. Their results are then pooled, tested statistically and conclusions drawn about the performances of particular laboratories.

6 MAURITAS Policy on Proficiency Testing and/or Interlaboratory Comparisons other than Proficiency Testing

6.1 General

6.1.1 Laboratories and inspection bodies shall determine their frequency in participation in PT and/or ILC other than PT based on the outcome of their risk assessment, which shall take into consideration the following:

- a) Number and frequency of tests/calibrations/sampling/measurements undertaken;
- b) Turnover of technical staff;
- c) Experience and knowledge of technical staff;
- d) Source of metrological traceability (e.g. availability of reference materials, national measurement standards, etc.);
- e) Known stability/instability of the test or measurement technique;
- f) Stability of the analyte and matrix, and the impact of storage and transportation;
- g) Significance and final use of testing/calibration/sampling data (e.g. forensic science, food safety and medical laboratories represent areas requiring a high level of assurance); and
- h) Level of risk posed by biohazardous PT items used and the containment precautions required.

6.1.2 Applicant and accredited CABs shall develop a PT and/or ILC other than PT participation plan for each accreditation cycle and shall submit same to MAURITAS prior to each assessment.

6.1.3 For grant of accreditation, laboratories or inspection bodies, where relevant, shall participate satisfactorily in PT/EQAS and/or ILC other than PT for each parameter.

6.1.4 For maintenance of accreditation, laboratories / inspection bodies, where relevant, shall participate satisfactorily in PT/EQAS and/or ILC other than PT for specific areas of technical competence (for example, for similar techniques like AAS, GCMS, ICP-MS) and not mandatorily for each parameter within that area of technical competence.

6.2 Calibration Laboratories

In addition to requirements at Clause 6.1 of this document, the following requirements are also applicable to calibration laboratories:

6.2.1 Calibration laboratories shall undertake a measurement audit on each primary quantity in their accreditation scopes, with satisfactory results in the following conditions:

- a) Before accreditation is granted and thereafter;
- b) With each extension of accreditation (including changes to the Calibration Measurement Capability (CMC)),
- c) Significant staff changes;
- d) At least once in each accreditation cycle; and
- e) As instructed by MAURITAS

The acceptance of the laboratory's uncertainty estimates would be influenced by the difference from the reference value.

6.3 Testing Laboratories / Inspection Bodies

Testing laboratories / inspection bodies shall abide to the requirements set out at section 6.1 of this document and to those listed below:

6.3.1 Testing laboratories / inspection bodies shall participate in PT and/or interlaboratory comparisons other than PT, with satisfactory results in the following conditions:

- a) Before accreditation is granted and thereafter;
- b) With each extension of accreditation;
- c) At least once in each accreditation cycle; or
- d) As instructed by MAURITAS.

6.4 Availability and appropriateness of PT and/or Interlaboratory Comparisons other than PT

The availability of PT and/or Interlaboratory Comparisons other than PT is outside the control of MAURITAS. PT and/or Interlaboratory Comparisons other than PT are available periodically from:

- a) recognised cooperation bodies (e.g. Asia Pacific Accreditation Cooperation (APAC), European Cooperation for Accreditation, National Laboratory Association (NLA));
- b) other international and national schemes organised by professional or industry bodies (e.g. EPTIS);

A list of PT providers can be found on MAURITAS website www.mauritas.org, under “LINKS”.

When setting the criteria for the technical appropriateness of a PT and/or ILC other than PT, the scope of activity being provided needs to be similar to the current practice of the accredited CAB. In the case of specific test or measurement techniques, for which no regular PT and/or ILCs other than PT is available, a PT and/or ILCs other than PT, which is similar to the scope or which covers an important partial aspect of the activity, can be chosen.

7 Follow-up action

7.1 MAURITAS shall analyse the PT plan for the accreditation cycle and determine whether frequency of participation is appropriate by recording same in the assessment programme.

7.2 Each assessment team shall be provided with an updated PT Participation plan by the laboratory / inspection body. The plan shall be suitable to the scope of accreditation of the laboratory / inspection body and must show, as a minimum, the accreditation cycle period, parameter and method, name of PT provider, frequency of participation in PT in one accreditation cycle, dates of participation in PT or the expected dates of participation in PT and the Z-score (if any) or an indication if PT results was satisfactory.

The PT plan shall be reviewed and maintained on a regular basis by the laboratory / inspection body to take into account any significant changes in the laboratory / inspection body, including updates in its risk assessment.

7.3 The laboratory / inspection body shall review the results of participation in PT and/or Interlaboratory Comparisons other than PT so as to identify any trends. The laboratory / inspection body shall additionally document the rules/criteria used for trend identification. Where trends are identified, laboratories/inspection bodies shall conduct an investigation and implement appropriate corrective actions.

7.4 After each participation in PT and/or Interlaboratory Comparisons other than PT, MAURITAS shall find out the performances of its accredited laboratories / inspection bodies, either by agreement, directly from the body managing the program, or from the laboratories / inspection bodies themselves. Where the performance is deemed to be questionable or unsatisfactory or is persistently poor, the laboratory / inspection body shall be required to undertake an investigation, take corrective actions and report back to MAURITAS.

7.5 In turn, MAURITAS may accept the explanation provided, accept the corrective action undertaken, require a further assessment, reduce the accreditation scope or suspend/terminate the accreditation.

7.6 In the event that there are areas for which PT is not practical or does not exist, MAURITAS and the laboratory / inspection body shall discuss and consent on suitable options by which competence of the laboratory / inspection body can be recognized and monitored. This step will have to be documented in the PT plan of the laboratory / inspection body.

7.7 The results of PT and/or Interlaboratory Comparisons other than PT or suitable alternatives to PT or any other information that may assist in determining the competence of the laboratory / inspection body as well as the effectiveness of corrective and preventative action taken against unsatisfactory results shall be taken into consideration during accreditation decision.

7.8 MAURITAS shall request the laboratory / inspection body to submit a plan for the next cycle before undergoing the re-assessment, this plan shall be analysed by the assessment team during the re-assessment to determine its appropriateness.

7.9 In the event that accredited laboratories and inspection bodies do not participate in Proficiency Testing External Quality Assurance (EQAS) and/or ILC other than PT or measurement audit for any specific parameter(s), MAURITAS shall suspend that/those parameter(s) from the schedule of accreditation for a maximum period of 4 months, pending satisfactory participation in Proficiency Testing External Quality Assurance (EQAS) and/or ILC other than PT or measurement audit. In case accredited laboratories and inspection bodies still do not participate in Proficiency Testing External Quality Assurance (EQAS) and/or ILC other than PT or measurement audit, following suspension period, MAURITAS shall withdraw that/those parameter(s) from the schedule of accreditation.

8 Related Forms

8.1 External Quality Assurance Scheme requirements - ISO 15189:2022, **F 3.36**

8.2 Proficiency Testing requirements – ISO/IEC 17025:2017, **F 3.35**

Appendix A: Amendment Table

SN	Section	Amendment
Issue 1, Revision 5		
1.	7.3	At the end of the paragraph, “The laboratory / inspection body shall ... appropriate corrective actions.” has been added
2.	7.9	A new sub-section 7.9 “In the event that accredited laboratories and inspection bodies ... parameter(s) from the schedule of accreditation.” has been added.