



MAURITAS A12

Procedure for Proficiency Testing

Mauritius Accreditation Service

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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.

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Procedure for Proficiency Testing (PT)

1. Purpose

1.1 This procedure shall ensure the participation of laboratories and inspection bodies in proficiency testing programmes or other comparison programmes for the parameters for which they are accredited as well as analysis of these results by MAURITAS.

2 Scope and Responsibilities

2.1 One of the component in the evaluation of a laboratory or inspection body is examination of the accuracy of test and calibration results, called Proficiency Testing (PT).

2.2 This procedure sets out the requirements of testing and calibration laboratories as well as inspection bodies in their participation in PT programmes. It also refers to follow-up action of MAURITAS and its assessors with respect to PT 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 17043, Conformity assessment – General requirements for proficiency testing**

3.2 **ILAC P9: ILAC Policy for participating in Proficiency Testing Activities**

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.

5 Types of proficiency test

5.1 The objective of PT 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 are recognised:

5.2 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.

5.3 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 Calibration Laboratories

6.1 Calibration laboratories shall be required to undertake a measurement audit on each primary quantity in their accreditation scopes before accreditation is granted and thereafter with each extension of accreditation (including changes to the Calibration Measurement Capability (CMC)), significant staff changes or four years. The acceptance of the laboratory's uncertainty estimates would be influenced by the difference from the reference value.

7 Testing Laboratories

7.1 In general testing does not lead itself to measurement audits, but where they are practicable, they shall be applied as for calibration laboratories.

7.2 Otherwise, testing laboratories shall be required to participate in interlaboratory comparisons when instructed by MAURITAS. The availability of interlaboratory comparison is outside the control of MAURITAS.

7.3 Interlaboratory comparisons are available periodically from:

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

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

7.5 The objective of MAURITAS is to ensure, to the extent possible, that testing laboratories participate satisfactorily in relevant interlaboratory comparisons prior to grant of accreditation or extension of scope. The satisfactory results in interlaboratory comparisons as well as a plan for participation in the first accreditation cycle shall be made available to the Assessment Team at latest during the initial assessment or the extension of

scope exercise. Accredited laboratories shall participate in interlaboratory comparisons at least once in one accreditation cycle for all accredited parameters.

8 Inspection Bodies

8.1 Inspection bodies shall be required to participate, where relevant, in PT/measurement audits when instructed by MAURITAS. The availability of interlaboratory comparisons/measurement audits is outside the control of MAURITAS.

8.2 PT/measurement audits are available periodically from:

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

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

8.4 The objective of MAURITAS is to ensure, to the extent possible, that inspection bodies participate in relevant PT/measurement audits as soon as possible before grant of accreditation and thereafter not less frequently than once every four years.

9 Follow-up action

9.1 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.

9.2 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 the frequency of participation in PT. The PT plan shall be reviewed on a regular basis by the Laboratory/Inspection Body to take into account any significant changes in the Laboratory/Inspection Body.

9.3 The Laboratory/Inspection Body shall review the results of participation in interlaboratory comparisons so as to identify any trends.

9.4 After the conduct of each proficiency program, 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, the Laboratory/Inspection Body shall be required to undertake an investigation and report back to MAURITAS.

9.5 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.

9.6 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.

9.7 The results of 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.

9.8 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

10 Related Forms

Proficiency Testing Plan, F1.24

Appendix A: Amendment Table

SN	Section	Amendment
1.	7.5	1.“as well as a plan for participation in the first accreditation cycle” has been added after ‘interlaboratory comparisons’
2.	9.1	1. A new section 9.1 has been added
3.	9.8	1. A new section 9.8 has been added