

MEASUREMENT AUDIT

Revision 02

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1.0 PURPOSE

The purpose of this procedure is to describe the responsibility and actions required for the planning and subsequent preparation for conducting measurement audits and subsequently evaluating and monitoring the result.

As with BAB assessment activities, all information supplied by a laboratory as part of a measurement audits program is treated as confidential. This information will however be made available to the committee members, Lead Assessor of the laboratory, and if the need arises, to Technical Assessors and/or Technical Evaluation Panel members. All of these people are fully aware of the confidentiality of the results and have signed confidentiality agreements.

2.0 SCOPE AND APPLICATION

This procedure is applicable to the BAB Laboratory Accreditation MA operated by BAB.

This procedure should be read in conjunction with the relevant published policy and procedure documents governing the BAB.

3.0 REFERENCES

- ISO/IEC 17011
- APLAC MR-001: Procedures for Establishing and Maintaining Mutual Recognition Arrangements Amongst Accreditation Bodies
- ISO/IEC 17043: Conformity assessment - General requirements for proficiency testing
- ILAC G13: Guidelines for the Requirements for the Competence of Providers of Proficiency Testing Scheme
- APLAC PT004: Measurement Audits
- BAB Quality Manual (AQM) (QP01)
- BAB Policy (SP01): Terms and Conditions for Accreditation
- BAB Policy (AP08): BAB PT Policy

4.0 POLICY

- 4.1 It is BAB policy to request its applicant / accredited laboratories to give cooperation with BAB by means of participating in proficiency testing (PT) MA or similar activities coordinated/organized by BAB or any body/organisation.
- 4.2 In absence of participation in PT MA, applicant and accredited calibration laboratories seeking extension of scope, shall participate in measurement audit (MA) MA prior to granting of accreditation.

- 4.3 MA also may be needed to be participated if recommended by assessment team or as follow-up action from the unsatisfactory result in PT.
- 4.4 The measurement audits MA is to be conducted by BAB with cooperation of National Metrology Institute (NMI), or other competent organization/individual.
- 4.5 The fields of calibration coverage of this measurement audits program are:
- a) Electrical
 - b) Temperature
 - c) Length and Dimensional
 - d) Mass and Mass related quantities (such as Pressure, Force and Torque)
 - e) Other fields

5.0 DETAILED PROCEDURE

| No | <u>Procedure / Action</u> | <u>Responsibility/ Reference Documents</u> |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| 5.1 Preparation | | |
| 5.1.1 | When application for accreditation or extension of scope for calibration laboratory is received, Case Officer (CO) arranges for Measurement Audit. | CO |
| 5.1.2 | In consultation with National Metrology Institute (NMI), identified the suitable artifact for the laboratory to participate in MA. | CO |
| 5.1.3 | Criteria for selection of MA a) availability of artifact b) depend on the scope applied | CO |
| 5.1.4 | Choose minimum 1 scope for laboratory to participate in MA. | CO |
| 5.1.5 | Exemption for laboratory to participate in MA are as follows:- a) application for extension of scope: -is only to expand of their range, or -laboratory already participate PT for the accredited scope. b) no artifact available. | CO |
| 5.1.6 | Time to conduct MA: a) For new applicant – normally after pre-assessment conducted. b) For extension of scope – any time once agreed by all parties. | CO |
| 5.2 Conducting of MA | | |
| 5.2.1 | MA can be executed once artifacts and participant laboratories identified. Officer is to prepare request letter to NMI and invitation letters to the identified laboratories. | CO |
| 5.2.2 | Inform and communicate to Director of Accreditation (DA) regarding the development, progress and report of the MA. | CO DA |
| 5.2.3 | CO to send instruction prepared by NMI to participant or NMI itself is to send instruction prepared. | CO |
| 5.2.4 | Monitor progress of MA. | CO |
| 5.2.5 | NMI to receive and monitor results from participating laboratories from each program. If any results are outstanding after the due date (typically 2 weeks), remind the laboratory. | CO |
| 5.2.6 | After received report from NMI, review MA report. | CO |

| No | <u>Procedure / Action</u> | <u>Responsibility/ Reference Documents</u> |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| 5.2.7 | Forward MA report to participating laboratory. | CO |
| 5.2.8 | Compile list of participating laboratories and date of MA to be conducted for each participating laboratory. | CO |
| 5.3 Monitoring of the result of program | | |
| 5.3.1 | If result is an outlier, $ E_n > 1$, Send reminder letter to laboratory to investigate and report back to BAB. Also inform the laboratory that the time frame to respond is 30 days from the date of report received. Monitor response from the laboratory. | CO DA |
| 5.3.2 | As for follow-up action, please adhere to the process illustrated "Corrective Action Flowchart". | CO |
| 5.3.3 | As a requirement, minimum 2 qualified personnel with appropriate technical knowledge (normally officers from NMI or BAB or BAB Assessors) will be invited to review the participated laboratory's response. The result of the review is either: (a) accept that the problems have been resolved and require no further action; or (b) request laboratory to take further action and to submit additional corrective action; or (c) to recommend to BAB to: i) suspend all or part of the laboratory's accreditation; or ii) undertaking a partial or full reassessment of the laboratory; or iii) take other appropriate action. | CO |
| 5.3.4 | Performance in measurement audits activity is also reviewed during on-site scheduled assessments. | Lead Assessor |
| 5.3.5 | <u>Record of program</u> Compile list of all MA conducted, laboratories/IB participated and their performance in witness form QF03. | CO QF03 |

Applicable forms for AP04:

QF03 Witness form

CORRECTIVE ACTION FLOWCHART

