SKIM AKREDITASI MAKMAL MALAYSIA (SAMM)
LABORATORY ACCREDITATION SCHEME OF MALAYSIA

SAMM POLICY 7 (SP7) – SPECIFIC REQUIREMENTS ON THE ISSUE OF SAMM ENDORSED CALIBRATION CERTIFICATES
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JABATAN STANDARD MALAYSIA
Department of Standards Malaysia
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1 SCOPE AND APPLICATION

1.1 The specific requirements set out in this document are additional to and/or amplification on the requirements described in Clause 5.10 of MS ISO/IEC 17025.

This document shall be used in conjunction with other relevant SAMM Policy such as SAMM Policy 1 "Terms and Conditions Governing the Laboratory Accreditation Scheme of Malaysia"; SAMM Policy 3 “Policy on the Use of SAMM Accreditation Symbol and Combined ILAC MRA Mark or Reference to SAMM Accreditation" and SAMM Policy 9 “Specific Requirements for Measurement and Calibration Systems”.

2 SPECIFIC REQUIREMENTS

2.1 SAMM endorsed Certificates of Calibration are to be issued in the standard format shown in the Appendix 1.

2.2 The details set out below are mandatory for all Certificates of Calibration issued by an Accredited Laboratory under the SAMM. Additional requirements for Certificates of Calibration may arise in relation to certain field of calibrations or measurements and this will be made known to the laboratory from time to time.

2.3 It is an over-riding requirement that no SAMM endorsed Certificate of Calibration shall be issued in circumstances likely to reduce public confidence in the integrity of the SAMM scheme or the correctness of the results reported.

2.4 It is essential that certificates of calibration other than those issued under the SAMM scheme shall not be mistaken for SAMM endorsed Certificates of Calibration; such certificates shall not carry the SAMM Accreditation symbol nor shall they refer to the fact the issuing laboratory has been so accredited.

3 FORMAT AND MATERIALS

3.1 The paper for a SAMM endorsed Certificate of Calibration shall be in A4 size; its durability and weight shall be adequate for the purpose. If fold-out sheets are included, for example for extensive tables, they shall have a width which is an integral multiple of the basic sheet width.

3.2 Printing or other marking may be in black or colour and may be on one or both sides of the paper. Data reported may be in typescript, from a work processor or computer. The contents of a Certificate of Calibration must remain fully legible under reasonable storage conditions for at least 6 years.
4 FIRST PAGE CONTENT

4.1 The first page of a SAMM Certificate of Calibration shall be as the specimens shown in Appendix 1, and shall contain:

a) SAMM symbol;

b) the name, address and accreditation number of the issuing laboratory as stated on the Laboratory Accreditation Certificate;

NOTE: If desired, the company logo may be incorporate.

c) the date of issue of the Certificate of Calibration, with the month given as a word, in the order day, month, year;

d) the unique serial number of the Certificate of Calibration. Except with the agreement of SAMM serial numbers shall be allocated by each accredited laboratory in a single series commencing at xxx00001 and used in chronological order, where “xxx” being the alphabetical code for the accredited calibration laboratory;

e) the unique page number of the Certificate of Calibration in the form “page of pages”; 

f) the typed name and the signature of the SAMM Approved Signatory or Signatories taking technical responsibility for the content of the Certificate of Calibration. SAMM Approved Signatories should be technically competent in the calibration fields under their responsibility;

NOTE: The SAMM Approved Signatories will may include the Head of Laboratory and if applicable, his Deputy.

g) the appropriate statement of the confidence probability and coverage factor or the appropriate statement on number of standard deviation at which the uncertainties of measurement are estimated;

NOTE: There are two standard statements;
   i. “The expanded uncertainties are based on an estimated confidence probability of not less than 95% and have a coverage factor of k=2 unless stated otherwise”; or
   ii. “The uncertainties are based on the square root of the sum of squares”.

Other values of confidence probability such as “The uncertainties are based on arithmetic summation of the contributions” may be permitted in specific cases with the agreement of SAMM.
NOTE: Calculation of measurement uncertainty should preferably be based on ISO Guide on Uncertainty of Measurement. Where equivalent method is used it shall be an established method, or a method published by a reputable technical body or organization.

h) the copyright statement at the foot of the page;

NOTE: The copyright of the Certificate of Calibration and the terms on which it may be reproduced.

i) the statement on traceability of measurement;

NOTE: This statement gives information regarding, the calibrations and measurements made by the laboratory are traceable to the International System of Units (SI). The link to SI units may be achieved by the reference to national measurement standards. National measurement standards may be primary standards, which are primary realization of SI units or agreed representations of SI units based on fundamental physical constants, or they may be secondary standards which are standards calibrated by another national metrology institute.

5 CONTINUATION PAGE CONTENT

5.1 Continuation pages shall be as shown in the Appendices and shall contain:

a) the accreditation number of the laboratory;

b) the serial number of the Certificate of Calibration;

c) the page number in the form “page of pages”;

d) the appropriate statement for the confidence probability.
6 TECHNICAL CONTENT

6.1 SAMM endorsed certificate of calibration shall meet requirements of clause 5.10 of SAMM Accreditation Standard MS ISO/IEC 17025. In addition, it shall contain at least the following technical information which are amplifications of the requirements of MS ISO/IEC 17025:

a) a clear identification of the items(s) subjected to measurement (including make, type number, serial number where relevant);

b) the parameter measured;

c) where not self evident the measurement method and procedure used;

d) any relevant environmental conditions;

e) dates(s) of performance of measurement(s);

f) the measurement result(s);

g) the estimated uncertainty of the measurement result(s).

7 OTHER CONDITIONS

7.1 Compliance with specification

a) A statement of compliance with specification may be made on a SAMM endorsed Certificate of Calibration only when the measured value(s), extended by the estimated uncertainty of measurement for the stated confidence probability, fall(s) within the appropriate specification limit(s).

b) If compliance with a specification cannot be demonstrated according to the above criterion a statement of non-compliance may be made.

c) Statement of compliance or non-compliance should be accompanied, by the measured values and the estimated uncertainties of measurement for the stated confidence probability but unaccompanied statements will be permitted provided the measured values are retained by the laboratory and made available on request.

d) The specification and the relevant clauses appropriate to a statement of compliance or non-compliance must be unambiguously identified in the Certificate of Calibration.

e) Other conditions as stipulated in Clause 5.10 of MS ISO/IEC 17025 are as follow:
i) “Where the certificate contains results of calibrations performed by sub-contractors these results shall be clearly identified”.

ii) “Particular care and attention shall be paid to the arrangement of the certificate, especially with regard to presentation of the calibration data and ease of assimilation by the reader. The format shall be carefully and specifically designed for each type of calibration carried out, but the headings shall be standardised as far as possible”.

iii) “An accredited laboratory shall ensure that where clients require transmission of calibration results by telephone, telex, facsimile or other electronic or electromagnetic means, staff will follow documented procedures that ensure that the requirements of MS ISO/IEC 17025 are met and that confidentiality is preserved”.

7.2 Adjustment of Instruments

a) It is normal for an instrument to be calibrated in an "as received" condition. If adjustments, agreed by the customer, are made a further calibration should be carried out and the results, together with the agreed adjustments, reported in the same or a second Certificate of Calibration.

b) For a reference standard in which adjustment is to be made, it shall be calibrated before and after adjustment. The calibration results shall be reported in the calibration certificate.

7.3 Scope of Accreditation

A calibration laboratory accredited by SAMM may use the SAMM endorsement on calibrations certificates that deal solely with calibrations or measurements covered in the scope of accreditation.

8 DISTRIBUTION AND RETENTION

a) The Certificate(s) of Calibration covering the contracted work shall be supplied to the customer. Where partial contracting has been implemented, the laboratory shall issue the certificate incorporating the subcontracted results and these results shall be clearly identified in the certificate. For calibration which has been fully subcontracted, the laboratory performing work shall issue the calibration certificate to the contracting laboratory.
b) A copy of each Certificate of Calibration shall be retained in the issuing laboratory's records. These records are to be maintained for a minimum period of 6 years.

c) A copy of each Certificate of Calibration of adequate contrast and legibility shall be despatched promptly to STANDARDS MALAYSIA when requested.

9 AMENDMENTS

a) Any correction or addition to a Certificate of Calibration shall be made only by the issue of a further Certificate of Calibration marked ‘supplementary to Certificate of Calibration serial no....’. The copy of such supplementary Certificate of Calibration shall be accompanied by a letter explaining the exact circumstances. Such changes will involve editing or typing mistakes.

b) When it is necessary to issue a new calibration certificate e.g. due to recalibration, the new calibration certificate shall be uniquely identified and shall contain reference to the original that it replaces. Comments: Supplementary certificate for editing changes only issue of new calibration certificate after recalibration.

c) An accredited laboratory shall notify a customer promptly, in writing, in the event of any circumstances coming to light that cast doubt on the validity of the measurements reported in any SAMM endorsed Certificate of Calibration or amendment to a certificate.
APPENDIX 1

(Cover page)

CERTIFICATE OF CALIBRATION

ISSUED BY:

DATE OF ISSUE: SERIAL NUMBER:

COMPANY ADDRESS:

HEAD OF LABORATORY:

NAME OF APPROVED SIGNATORY (IES)

The expanded uncertainties are based on an estimated confidence probability of not less than 95% and have a coverage factor of $k=2$ unless stated otherwise

or

The uncertainties are based on the square root of the sum of squares.

This certificate is issued in accordance with the conditions of accreditation granted by SAMM which has assessed the measurement capability of the laboratory and its traceability to recognized national standards and to the units of measurement realised at the corresponding national standards laboratory. Copyright of this certificate is owned by the issuing laboratory and may not be reproduced other than in full except with the prior written approval of the Head of the issuing laboratory.
The expanded uncertainties are based on an estimated confidence probability of not less than 95% and have a coverage factor of \( k=2 \) unless stated otherwise

or

The uncertainties are based on the square root of the sum of squares.