



Calibration Laboratories Accreditation Scheme (CLAS)

Background

The SADCAS Calibration Laboratories Accreditation Scheme (CLAS) was established in October 2009. The CLAS is multi-disciplinary accreditation scheme operated in accordance with ISO/IEC 17011: Conformity assessment – General requirements for accreditation bodies accrediting conformity assessment bodies.

The Need for Accreditation

Metrology which is defined as the science of measurement is the cornerstone of any credible accreditation process. When we test or inspect, we measure. The accuracy and traceability of these measurements is paramount and is influenced by the reliability of calibration laboratories. Calibration laboratories provide the essential link between national measuring standards and the working standards, test and measurement equipment. For calibration laboratories concerned with demonstrating competence underpinned by a quality system, the appropriate International Standard is ISO/IEC 17025 which specifies the accreditation requirements for calibration laboratories.

Accreditation of a calibration laboratory in accordance with ISO/IEC 17025 provides a number of benefits:

- It assures accuracy, reliability, comparability and traceability of measurements;
- It is a means of demonstrating competence to clients;
- It increases confidence in calibration certificates;
- It limits product failure and down time;
- It helps control manufacturing costs;
- It facilitates trade and economic growth.;
- It is a credible and effective marketing tool.

Scopes of Calibration

The current fields of calibration offered on the SADCAS CLAS are:

- Mass;
- Dimensional;
- Volume;

- Humidity;
- Time and frequency;
- Pressure;
- Temperature;
- Flow;
- Force/Hardness/Torque;
- Viscosity;
- Photometry;
- Radio Activity/Dosimetry ;
- Electrical-DC low frequency etc.

The fields of calibration are listed in SADCAS TG 03: Area of Accreditation.

Typical Instruments /Equipment Calibrated

- Balances, scales, weights, weighbridges;
- Micrometers, gauge blocks;
- Vernier calipers;
- Stop watches and tachometers;
- Hygrometers;
- Flow meters;
- Pressure gauges;
- Breath analyzers;
- Dosimeters;
- Multimeters, oscilloscopes and electrical test equipment;
- Laboratory glassware etc.

Accreditation Criteria

Calibration laboratories seeking to be accredited on the SADCAS CLAS need to comply with the International Standard ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories.

The Accreditation Process

A calibration laboratory wishing to be accredited:

- Submits directly to SADCAS duly completed SADCAS F 43 (a): Application for accreditation of calibration laboratory together with the laboratory quality manual, and duly completed SADCAS F 43 (f): Application for approval of personnel i.e. nominated representative





and technical signatory in the case of calibration laboratories and SADCAS F 44: SADCAS accreditation agreement

- Upon receipt, SADCAS undertakes a **completeness check** of the application documents.
- SADCAS provides the applicant with a detailed quotation based on the scope of application. If acceptable, the applicant signs and returns duly signed quotation to SADCAS.
- SADCAS undertakes a **documentation review** of the applicant's quality manual and provides feedback to the applicant who, if there are non conformities, institutes corrective action. If the quality manual addresses all the requirements of the standard then the application proceeds to the assessment stage.
- **Pre- assessments** are optional but may be compulsory depending on the regulator's condition for acceptance where required. Pre-assessment is an on-site visit to check the readiness of applicant for accreditation.
- An **initial assessment** of the organization's competence is undertaken on-site and involves an opening meeting, assessment, witnessing of select technical activities and a closing meeting. Findings from the assessment are recorded as non-conformities where the laboratory needs to institute corrective action.

Assessors

Assessors are experts from the public and private sectors as well as from technical institutions/associations in the SADC region who have been trained, qualified and registered as assessors by SADCAS. Assessors trained and qualified by other accreditation bodies and evaluated for competence can also undertake assessments on behalf of SADCAS. An assessment is undertaken by an assessment team consisting of a Team Leader and at least one Technical Assessor/Technical Expert with expertise in the scope of assessment. The assessment team makes **recommendations for accreditation**.

Accreditation Certificate

Accreditation decision is made by the Accreditation Approvals Committee based mainly on the information gathered during an assessment. The

accreditation certificate is valid for 5 years and renewed subject to terms and conditions of the CLAS.

Periodic On-Site Assessment and Re-assessment

In order to maintain accreditation **periodic assessments** are conducted on-site. The first periodic assessment is undertaken not more than 12 months after accreditation thereafter annually throughout the accreditation cycle of 5 years. The intervals between periodic on-site visits can be extended depending on the risks associated but must not exceed two years.

Re-assessments are conducted at least 6 months prior to the end of the accreditation cycle of 5 years.

Appeals

Appeals from laboratories on an accreditation decision shall be in writing and shall be forwarded to the Chief Executive Officer within 3 months of the cause of appeal. Appeals are handled in accordance with SADCAS AP 08: Customer Feedback Handling procedure which maintains independency and impartiality.

Complaints

Complaints concerning SADCAS services, personnel and assessors/experts can be received by any member of staff who shall complete SADCAS F 85 and direct the complaint to the Quality Manager

Accreditation Fees

SADCAS accreditation fees are contained in SADCAS AP 02: SADCAS Service Fees. The fees contained therein are estimates. Individual quotations are provided based on the fee estimates contained therein. SADCAS accreditation fees are reviewed annually.

Accreditation Documents

SADCAS accreditation documents are available from the SADCAS website: www.sadcas.org



For further information, please contact:

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