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Reviewed By: Assessment Specialist: Eben Smit
Date of Approval: 2019-01-30
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## CONTENTS

0. Introduction ...................................................................................... 3  
1. Scope ................................................................................................. 4  
2. Normative references ........................................................................ 4  
3. Terms and definitions ....................................................................... 4  
4. General requirements ....................................................................... 5  
5. Structural Requirements .................................................................. 5  
6. Resources ........................................................................................... 7  
7. Process requirements ......................................................................... 10  
8. Management system requirements .................................................. 12  

APPENDIX 1: Schedule of Accreditation .............................................. 15  
APPENDIX 2: Amendment Record ........................................................ 16
0. INTRODUCTION

General requirements for Inspection Bodies are laid down in the International Standard ISO/IEC 17020. SANS 50010: 2018 - Measurement and Verification of Energy Savings is the technical standard for Measurement and Verification bodies who wish to demonstrate their technical competence for accreditation purposes. These requirements are comprehensive and detailed. Explanations provided in this document may be helpful to ensure consistent application of the Standards.

The structure of this document reflects that of the standard ISO/IEC 17020 including titles of clauses and their numbering. To facilitate future reference to the explanations, the paragraphs of this document are consecutively numbered within each commented sub-clause.

The interpretative notes in this document are intended neither to add to nor subtract from the requirements of ISO/IEC 17020. They are intended to clarify the requirements to assist Inspection Bodies in practically implementing the Standard, SANS 50010: 2018 - Measurement and Verification of Energy Savings and to minimise differences of interpretation. This document shall be read in conjunction with the Standard ISO/IEC 17020.

The term "shall" is used throughout this document to indicate those provisions, which, reflecting the requirements of ISO/IEC 17020, are mandatory. The term "should" is used to indicate those provisions, which, although they constitute guidance for the application of the requirements, is expected to be adopted by Inspection Bodies. Any variation from this document by an Inspection Body shall be an exception. Such variations will only be permitted on a case-by-case basis after the Inspection Body has demonstrated to SANAS that the exceptions meet the requirements of the relevant clause of ISO/IEC 17020 and the intent of this document in an equivalent manner.

Note: In this document whenever the term Inspection Body is used it shall mean Measurement and Verification Body.

In case of a dispute concerning application of this document, SANAS will adjudicate on unresolved matters.

It is intended that after a certain period of use, the content of this document will be revised.

Copyright

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1. Scope

1a Inspection or Examination performed by Inspection Bodies may fall in two (2) categories namely functional and analytical. Functional testing is within the scope of ISO/IEC 17020. Analytical testing, for example air or metallurgical analysis, is a laboratory activity and therefore does not fall within the scope of ISO/IEC 17020. Inspection Bodies wishing to undertake such laboratory analytical testing as part of an inspection will need to do so in accordance with the relevant requirements in SANS/ISO/IEC 17025.

1b If accredited Inspection Bodies’ decisions are reliant upon analytical test results or the results of any sub-contracted specialist service, these tests or services shall, where possible, be carried out by appropriately accredited bodies/laboratories. To ensure traceability to national/international standards (physical standards), such bodies/laboratories shall be accredited by an accreditation body which is a signatory to the ILAC Multilateral Arrangement (MLA).

2. Normative references

The following documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

2.1 ISO/IEC 17000, Conformity assessment — Vocabulary and general principles

2.2 SANS 50 010 - Measurement and Verification of Energy Savings.

3. Terms and definitions

3.1 Inspection

3.1a Throughout this document the word “product” should be understood to include the words “product design”, “service”, “process” and “plant” as specified in clause 2.1. of the standard ISO/IEC 17020.

3.1b In recognition of the wide range of industries represented by Inspection Bodies, alternative terminology could be used for what is inspected.

3.1c For professional judgement to be exercised the personnel member responsible for the Measurement and Verification Body, referred to in Clause 6.1, shall personally perform the Measurements and Verifications or effectively supervise the Measurements and Verifications.

3.2 Measurement and Verification Body

3.2a A Measurement and Verification Inspection Body is a legal entity accredited by SANAS in respect of the competence of its personnel, equipment, procedures and environment, in accordance with the requirements of ISO/IEC 17020: 2012 and any additional requirements that might be required.

3.2b A Measurement and Verification Body may consist of one (1) person provided the requirements of all relevant clauses of ISO/IEC 17020 are fulfilled. A Measurement and Verification Body can be an organisation, or part of an organisation.
3.3 Regulations

Means the Regulations issued by the Minister of Energy in terms of the National Energy Act, 2008 (Act No. 34 of 2008).

4. General requirements

4.1 Impartiality and independence

4.1.3a Risks to the impartiality of the inspection body shall be considered whenever events occur which might have a bearing on the impartiality of the inspection body or its personnel.

4.1.3b The inspection body shall describe any relationships that could affect its impartiality to the extent relevant, using organisational diagrams or other means.

Examples of relationships that could influence the impartiality include:
- Relationship with a parent organisation
- Relationships with departments within the same organisation
- Relationships with related companies or bodies
- Relationships with regulators
- Relationships with clients
- Relationships of personnel
- Relationships with the bodies designing, manufacturing, supplying, installing, purchasing, owning, using or maintaining the items inspected

4.1.5a The inspection body shall have a documented statement emphasising its commitment to impartiality in carrying out its inspection activities, managing conflicts of interest and ensuring the objectivity of its inspection activities. Actions emanating from the top management shall not contradict this statement.

4.1.5b One way for the top management to emphasise its commitment to impartiality is to make relevant statements and policies publicly available.

4.1.6a Type C Inspection Bodies are not allowed in this regulatory domain.

4.2. Confidentiality

No interpretation required, as per the requirements of ISO/IEC 17020

5. Structural Requirements

5.1. Administrative Requirements

5.1.1a The Inspection Body should be a registered juristic person (corporate body). Company name, address, names of directors, contact numbers and registration number shall be made available. No sole proprietors shall be accredited in terms these of the requirements.

5.1.1b Upon obtaining accreditation, a certificate that contains the name, location of the inspection body, the name of the responsible person (however named), approved signatories, and the scope shall be issued. The certificate of accreditation issued by SANAS shall always be prominently displayed.

5.1.3a The inspection body shall describe its activities by defining the general field and range of inspection (e.g. categories/sub-categories of products, processes, services or installations) and the stage of inspection, (see note to clause 1 of the standard) and, where applicable, the regulations,
standards or specifications containing the requirements against which the inspection will be performed.

5.1.4a The level of provisions should be commensurate with the level and nature of liabilities that may arise from the inspection body’s operations.

5.1.4b It is not the role of accreditation bodies to approve the level of insurance cover or reserves held by their customers. The types of liability covered by insurance, for example, may include employers’ liability, public liability and professional indemnity.

Note: Inspection Bodies should pay attention to insurance cover when undertaking inspection work in another country, where legal requirements may differ from those in the body’s home country.

5.2. Organisation and Management

5.2.1a A one person ‘organisation’ may be accredited provided all relevant clauses of ISO/IEC 17020 are effectively implemented.

5.2.2a The size, structure, composition and management of an inspection body, taken together, shall be suitable for the competent performance of the activities within the scope for which the inspection body is accredited.

5.2.2b “To maintain the capability to perform the inspection activities” implies that the inspection body shall take steps to keep it appropriately informed on applicable technical and/or legislative developments concerning its activities.

5.2.2c Inspection bodies shall maintain their capability and competence to carry out inspection activities performed infrequently (normally with intervals longer than one year). An inspection body may demonstrate its capability and competence for inspection activities performed infrequently through ‘dummy inspections’ and/or through inspection activities conducted on similar products.

5.2.3a The inspection body shall maintain an up-to-date organisational chart or documents clearly indicating the functions and lines of authority for personnel within the inspection body. The position of the technical manager(s) and the member of management referenced in clause 8.2.3 shall be clearly shown in the chart or documents.

5.2.4a It may be relevant to provide information concerning personnel which carry out work tasks for both the inspection body and for other units and departments.

5.2.5a In order to be considered as "available", the person shall be either employed or otherwise contracted.

5.2.5b In order to ensure that the inspection activities are carried out in accordance with ISO/IEC 17020, the technical manager(s) and any deputy(ies), shall have the technical competence necessary to understand all significant issues involved in the performance of inspection activities.

5.2.6a In an organization where the absence of a key person causes the cessation of work, the requirement for having deputies is not applicable.

5.2.7a The position categories involved in inspection activities are inspectors and other positions which could influence the management, performance, recording or reporting of inspections.

5.2.7b The job description or other documentation shall detail the duties, responsibilities and authorities for each position category referred to in 5.2.7a.
6. Resources

6.1 Personnel

6.1.1a Where appropriate, inspection bodies shall define and document competence requirements for each inspection activity, as described in 5.1.3a.

6.1.1b For “personnel involved in inspection activities”, see 5.2.7a.

6.1.1c Competence requirements shall include knowledge of the inspection body’s management system and ability to implement administrative as well as technical procedures applicable to the activities performed.

6.1.1d When professional judgment is needed to determine conformity, this shall be considered when defining competence requirements.

6.1.2a All requirements of ISO/IEC 17020 apply equally for both employed and contracted persons.

6.1.5a The procedure for formally authorising inspectors shall specify that the relevant details are documented, e.g. the authorised inspection activity, the beginning of the authorisation, the identity of the person who performed the authorisation and, where appropriate, the termination date of the authorisation.

6.1.6a The “mentored working period” mentioned in item b normally includes activities where inspections are performed.

6.1.7a Identification of training needs for each person shall take place at regular intervals. The interval shall be selected to ensure fulfilment of clause 6.1.6 item c. The results of the review of training, e.g. plans for further training or a statement that no further training is required, shall be documented.

6.1.8a A major aim of the monitoring requirement is to provide the inspection body with a tool to ensure the consistency and reliability of inspection outcomes, including any professional judgments against general criteria. Monitoring may result in the identification of needs for individual training or needs for review of the inspection body’s management system.

6.1.8b For “other personnel involved in inspection activities”, see 5.2.7a.

6.1.9a To be considered sufficient, the evidence that the inspector is continuing to perform competently shall be substantiated by a combination of information such as;

- satisfactory performance of examinations and determinations,
- positive outcome of report reviews, interviews, simulated inspections and other performance assessments (see note to clause 6.1.8),
- positive outcome of separate evaluations to confirm the outcome of the inspections (this may be possible and appropriate in the case of e.g. the inspection of construction documentation),
- positive outcome of mentoring and training,
- absence of legitimate appeals or complaints, and
- satisfactory results of witnessing by a competent body, e.g. a certification body for persons.

6.1.9b An effective program for the on-site observation of inspectors may contribute to fulfil the requirements in clauses 5.2.2 and 6.1.3. The program shall be designed considering;

- the risks and complexities of the inspections,
- results of previous monitoring activities, and
- technical, procedural or legislative developments relevant to the inspections.

The frequency of on-site observations depends on the issues listed above but shall be at least once during the accreditation re-assessment cycle, however, see application note 6.1.9a. If the levels of risks or complexities, or the results from previous observations, so indicate, or if technical, procedural or legislative changes have occurred, then a higher frequency should be considered. Depending on the fields, types and ranges of inspection covered by the inspector’s authorisations, there may be more than one observation per inspector necessary to adequately cover the whole range of required
competencies. Also, more frequent on-site observations may be necessary if there is lack of evidence of continuing satisfactory performance.

6.1.10a Records of authorisation shall specify the basis on which authorisation was granted (e.g. the on-site observation of inspections).

6.1.11 Remuneration methods that provide incentives to perform inspections quickly have the potential to negatively affect the quality and outcome of inspection work.

6.1.12a Policies and procedures shall assist inspection body personnel in identifying and addressing commercial, financial or other threats or inducements which could affect their impartiality, whether they originate inside or outside the inspection body. Such procedures shall address how any conflicts of interests identified by personnel of the inspection body are reported and recorded. Note, however, that while expectations for inspector integrity can be communicated by policies and procedures, the existence of such documents may not signal the presence of integrity and impartiality required by this clause.

<table>
<thead>
<tr>
<th>Table 1. – Qualifications Requirements</th>
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<tr>
<td>The table below sets out minimum qualifications and experience requirements that are deemed such to ensure competence to the required functions of an Inspection Body.</td>
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<table>
<thead>
<tr>
<th>TITLE</th>
<th>EDUCATIONAL QUALIFICATIONS</th>
<th>PRACTICAL EXPERIENCE</th>
<th>TRAINING</th>
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<tbody>
<tr>
<td>Technical Manager / Measurement and Verification Professional (however named).</td>
<td>Hold at least a general education and Training Certificate Grade 12 or equivalent and further studies in e.g. engineering, energy management and / or business related to their scope of accreditation</td>
<td>5-Years Measurement, Verification &amp; Reporting and Energy Management related experience.</td>
<td>* Specific courses / training in the field of accreditation.</td>
</tr>
<tr>
<td>Quality Manager (However named)</td>
<td>Specific courses / training in the field of Inspection Body management systems i.e. ISO/IEC 17020.</td>
<td>experience in the field of Inspection Body management systems i.e. ISO/IEC 17020.</td>
<td>Specific courses / training in the field of Inspection Body management systems i.e. ISO/IEC 17020.</td>
</tr>
<tr>
<td>Inspector / Specialist / Measurement and Verification Professional (however named)</td>
<td>Hold at least a general education and Training Certificate Grade 12 or equivalent and further studies in e.g. engineering, energy management and / or business related to their scope of accreditation</td>
<td>3-Years measurement verification &amp; reporting and energy management related experience.</td>
<td>* Specific courses / training in the scope of accreditation.</td>
</tr>
</tbody>
</table>

* Must demonstrate knowledge competence in the work instructions of the Inspection Body, ISO/IEC 17020, National Energy Act (Act 34 of 2008 as Amended) and Energy Regulations as applicable to inspection activities. Attended courses (internal or external) to support their scope of accreditation e.g. Energy Act and Regulations, Measurement and Verification Techniques, Energy Management, Electrical Safety, Hazard Identification, Hazard Analysis, Consequence Analysis etc.)

Note: All registrations prior to publication of this document will remain valid until such time an equivalence of qualification structure is in place to certify equivalence of the qualification required above.
6.2. Facilities and Equipment

6.2.1a Equipment required to carry out inspection in a safe manner may include e.g. personal protective equipment and scaffolding.

6.2.3a If controlled environmental conditions are needed, e.g. for the correct performance of the inspection, the inspection body shall monitor these and record the results. If conditions were outside acceptable limits for the inspection to be performed, the inspection body shall record what action was taken. See also clause 8.7.4.

6.2.3b Continued suitability may be established by visual inspection, functional checks and/or re-calibration. This requirement is particularly relevant for equipment that has left the direct control of the inspection body.

6.2.4a In order to enable tracking when items are replaced, the unique identification of an item of equipment may be appropriate even when there is only one item available.

6.2.4b When controlled environmental conditions are needed, the equipment used to monitor such conditions shall be considered as equipment that significantly influences the result of inspections.

6.2.4c When appropriate (normally for the equipment covered by clause 6.2.6) the definition shall include the required accuracy and measurement range.

6.2.6a The justification for not calibrating equipment that has a significant influence on the outcome of inspection (see clause 6.2.4) shall be recorded.

6.2.6b Guidelines on how to determine calibration intervals can be found in ILAC G24 (SANAS TG 05).

6.2.6c Equipment identified under the criteria in clause 6.2.4, as clarified in 6.2.4a, must be traceably calibrated to national or international standards where possible. For guidance on measurement traceability, refer to SANAS TR 25 document.

6.2.6d Where the calibrations are performed in-house, traceability to national standards shall be assured by using reference standards of measurement for which the Inspection Body holds a current calibration certificate or equivalent from a competent body. The certificate or equivalent shall detail an uncertainty of measurement that is appropriate for the equipment that is to be calibrated from the reference standard. For further information on uncertainty of measurement, see ISO/IEC Guide 98 at www.iso.org

6.2.7a According to ILAC P10 it is possible to perform in-house calibration of equipment used for measurements. It is a requirement for accreditation bodies to have a policy to ensure that such in-house calibration services are performed in accordance with the relevant criteria for metrological traceability in ISO/IEC 17025.

6.2.7b According to ILAC P10 the preferred routes for conformity assessment bodies who seek external services for calibration of their equipment are defined in sub-sections 1) and 2) of section 2 in ILAC P10. If, however, it is not possible to comply with these two routes for any justifiable reason, then it is acceptable to use the routes 3a) or 3b) of section 2 of ILAC P10. It is a requirement for accreditation bodies to have a policy to ensure that such external calibration services meet the relevant criteria for metrological traceability in ISO/IEC 17025.

6.2.7c Where traceability to national or international standards of measurement is not applicable, the participation in relevant comparison programs or proficiency tests is an example of how to obtain evidence of correlation or accuracy of inspection results.

6.2.8a When inspection bodies use reference standards of measurement to calibrate working instruments the reference standards of measurement should have a higher degree of accuracy than that required of the working instruments they are used to calibrate.
6.2.9a Where equipment is subjected to in-service checks between regular re-calibrations, the nature of such checks, the frequency and acceptance criteria shall be defined.

6.2.10a The information provided in 6.2.7a, 6.2.7b and 6.2.7c for programs of calibration of equipment is valid also for programs of calibration of reference materials.

6.2.11a When the inspection body engages suppliers to perform activities which do not include the performance of part of the inspection, but which are relevant for the outcome of inspection activities, e.g. order registration, archiving, delivery of auxiliary services during an inspection, the editing of inspection reports or calibration services, such activities are covered by the term “services” used in this clause.

6.2.11b The verification procedure shall ensure that incoming goods and services are not used until conformance with specification has been verified.

6.2.13a Factors that should be considered in protecting the integrity and security of data include;
- backup practices and frequencies,
- effectiveness in restoring data from backup,
- virus protection, and
- password protection.

6.3 Sub-contracting

6.3.1a Inspection activities can overlap with testing and certification activities where these activities have common characteristics (See Introduction of ISO/IEC 17020). For example, examination of a product and testing of the same product can both be the basis for the determination of conformity in an inspection process. It should be noted that ISO/IEC 17020 specifies requirements for bodies performing inspection, whereas the relevant standard to apply for bodies performing testing is ISO/IEC 17025 or ISO 15189.

6.3.1b (ISO/IEC 17011, clause 3.1), accreditation is limited to conformity assessment tasks which the inspection body has demonstrated competence to perform itself. Thus, accreditation cannot be granted for activities referred to in the fourth bullet point under note 1, if the inspection body does not have the required competence and/or resources. However, the task of assessing and interpreting the results of such activities for the purpose of determining conformity may be included in the scope of accreditation, provided adequate competence for this has been demonstrated.

6.3.3a In note 2 to the definition of “inspection” in clause 3.1 it is indicated that in some cases inspection may be examination only, without a subsequent determination of conformity. In such cases clause 6.3.3 does not apply since there is no determination of conformity.

6.3.4a If the evaluation of the competence of the subcontractor is based partly or in full on its accreditation, the inspection body shall ensure that the scope of the subcontractor’s accreditation covers the activities to be sub-contracted.

7. Process requirements

7.1 Inspection method and procedure

7.1.2a SANAS TG 50 - Guidelines for Reporting Uncertainty in Measurement and Verification should be incorporated as part of the M & V inspection method and procedure.

7.1.5a Where appropriate the contract or work order control system shall also ensure that;
- contract conditions are agreed
- personnel competence is adequate
- any statutory requirements are identified
- safety requirements are identified
- the extent of any subcontracting arrangements required is identified
For routine or repeat work requests the review may be limited to considerations of time and human resources. An acceptable record in such cases would be an acceptance of the contract signed by an appropriately authorised person.

7.1.5b In situations where verbal work orders are acceptable, the inspection body shall keep a record of all requests and instructions received verbally. Where appropriate, the relevant dates and the identity of the client’s representative should be recorded.

7.1.5c The contract or work order control system should ensure that there is a clear and demonstrable understanding between the inspection body and its client of the scope of the inspection work to be undertaken by the inspection body.

7.1.6a The information referred to in this clause is not information provided by a sub-contractor, but information received from other parties, e.g. a regulating authority or the client of the inspection body. The information may include background data for the inspection activity, but not results of the inspection activity.

7.2 Handling inspection items and sample

No interpretation required.

7.3 Inspection Records

7.3.1a The records should indicate which item of equipment, having a significant influence on the result of the inspection, has been used for each inspection activity.

7.3.1b The Inspection Body shall retain records of original observations, derived data and sufficient information to establish an audit trail, calibration records, personnel records and a copy of each inspection report or inspection certificate issued, for a minimum period of seven (07) years.

7.4 Assessment Reports and Assessment Certificates

7.4.2a ILAC P8 requires accreditation bodies to specify rules for the use of accreditation symbols on reports and certificates. It should be noted that for endorsed reports and certificates, that is reports and certificates referring to accreditation, such rules shall include the requirement that inspection bodies include a clear disclaimer;

- when not accredited for services/tests listed on reports and certificates (see full text in section 8.1), and
- when reports and certificates include or are based on results from unaccredited subcontractors (see full text in section 9.3).

7.4.2b SANAS TG 50 - Guidelines for Reporting Uncertainty in Measurement and Verification should be incorporated as part of the reporting of energy savings.

7.4.4a It may be useful to identify the inspection method in the inspection report/certificate when this information supports an appropriate interpretation of the inspection results.

7.5 Complains and Appeals

No interpretation required.
7.6 Complains and Appeals process

No interpretation required.

8. Management system requirements

8.1 Options

8.1.1 General

8.1.1a It is the responsibility of the Inspection Body to select, define and maintain a management system based on Option A or Option B. SANAS shall assess the appropriateness of the management system defined.

8.1.2 Option A

No interpretation required.

8.1.3 Option B

8.1.3a If an inspection body claims that they comply with Option B, it needs to demonstrate that it has established a management system that complies with ISO 9001, and that the management system can support the consistent fulfilment of the requirements of ISO/IEC 17020. The accreditation body shall verify the claims made by the inspection body but not assess (or audit) the ISO 9001 management system. The required extent of verification will depend on the evidence provided. If the management system is certified by an accredited certification body, the accreditation body will still need to verify compliance with 8.1.3, but not assess (or audit) against clauses 8.2 to 8.8 of the standard. If the verification results in the identification of nonconformities, these should be reported against clause 8.1.3.

8.1.3b Where the ISO 9001 management system is established for an entity that includes activities other than inspection, the system shall always appropriately cover the activities of the inspection body.

8.1.3c Option B does not require that the inspection body’s management system is certified to ISO 9001. However, when determining the extent of required assessment, the accreditation body should take into consideration whether the inspection body has been certified against ISO 9001 by a certification body accredited by an accreditation body which is a signatory to the IAF MLA, or to a regional MLA, for the certification of management systems.

8.2 Management system documentation (Option A)

8.2.1a Policy statements are intended to demonstrate senior management commitment to the management system. Objectives shall include measurable targets, which are reviewed at least annually. Policies and objectives shall be reviewed at management review, see clause 8.5. Training records shall show that all personnel are familiar with the management system.

8.2.3a In cases where an Inspection Body has several offices at different locations, responsibility for the practical maintenance of the management system in each office should be assigned to a named, local, individual.
8.2.4a For easy reference, it is recommended that the inspection body indicates where the requirements of ISO/IEC 17020 are addressed, e.g., by means of a cross reference table.

**8.3 Control of documents (Option A)**

No interpretation required.

**8.4 Control of records (Option A)**

8.4.1a This requirement means that all records needed to demonstrate compliance with the requirements of the standard shall be established and retained.

8.4.1b In cases where electronic seals or authorisations are used for approvals, access to the electronic media or seal should be secure and controlled.

**8.5 Management review (Option A)**

8.5.1 General

8.5.1a A review of the impartiality risk identification process and its conclusions (clauses 4.1.3/4.1.4) shall be part of the annual management review.

8.5.1b The management review shall consider information on the adequacy of current human and equipment resources, projected workloads and the need for training of both new and existing personnel.

8.5.1c The management review shall include a review of the effectiveness of systems established to ensure adequate competence of the personnel.

**8.6 Internal audit (Option A)**

8.6.1a Inspection Bodies with more than one operational site shall ensure that clause all aspects of the management system and all the sites have a full internal audit during an accreditation cycle.

8.6.4a The inspection body shall ensure that all requirements of ISO/IEC 17020 are covered by the internal audit program within the accreditation re-assessment cycle. The requirements to be covered shall be considered for all scopes of inspection and for all premises where key activities are performed (see IAF/ILAC A5).

The inspection body shall justify the choice of audit frequency for different types of requirements, fields of inspection and premises where key activities are performed. The justification may be based on considerations such as;
- criticality,
- maturity,
- previous performance,
- organisational changes,
- procedural changes, and
- efficiency of the system for transfer of experience between different operational sites and between different fields of operation.

8.6.5a Competent externally contracted personnel may carry out internal audits.

**8.7 Corrective action (Option A)**

No interpretation required.
8.8 Preventive action (Option A)

8.8.1a Preventive actions are taken in a pro-active process of identifying potential non-conformities and opportunities for improvement rather than as a reaction to the identification of non-conformities, problems or complaints.

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<thead>
<tr>
<th>Document</th>
<th>Location</th>
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<tbody>
<tr>
<td>SANAS R &amp; TR-documents</td>
<td><a href="http://www.sanas.co.za">www.sanas.co.za</a></td>
</tr>
<tr>
<td>SANS 50010:2018</td>
<td><a href="https://www.sabs.co.za/">https://www.sabs.co.za/</a></td>
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<tr>
<td>CMVPSA Governance Handbook</td>
<td><a href="http://www.CMVPSA.org.za">www.CMVPSA.org.za</a></td>
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**APPENDIX 1: Scope of Accreditation**

**SCOPE OF ACCREDITATION**

Inspection Body Accreditation Number: EEMV 000X

**TYPE A**

<table>
<thead>
<tr>
<th>Permanent Address:</th>
<th>Postal Address:</th>
</tr>
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<tbody>
<tr>
<td>ACME Measurement and Verification Body (Pty) Ltd 104 ABC Street Town/City XXXX</td>
<td>P O Box XXX City/Town XXXX</td>
</tr>
<tr>
<td>Tel: (012) 123-4567 Fax: (012) 123-4568 Email: <a href="mailto:abc@pppp.co.za">abc@pppp.co.za</a></td>
<td>Issue No: 00 Date of issue: July XXXX Expiry date: July YYYY</td>
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<th>Nominated Representative:</th>
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<th>Technical Signatories:</th>
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<tr>
<td>Mr/Ms A</td>
<td>Mr/Ms B</td>
<td>Mr C Mr D</td>
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<tr>
<th>Field of Inspection</th>
<th>Service Rendered</th>
<th>Codes and Regulations</th>
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<tr>
<td>The supply of services as an Inspection Body for the Measurement, Verification and Reporting of Energy Efficiency Savings in Systems, Processes or Facilities.</td>
<td><strong>Note:</strong> This list is not exhaustive Measurement Methodology as defined by SANS 50010: 2018, Greenfields and Brownfields in relation to: Sector: 1. Residential, load management and/or energy efficiency 2. Commercial, load management and/or energy efficiency 3. Industrial, load management and/or energy efficiency 4. Transportation, load management and/or energy efficiency. Energy type: a. Electricity b. Liquid fuel c. Fossil fuel d. Bio-fuel e. Renewables f. Other to be specified Technologies: - Lighting - Pumping - Control systems - Renewables ➢ Solar ➢ Wind ➢ Other. - Processes - Motors - Other to be specified.</td>
<td>Inspection methods and procedures as per Inspection Body’s Field of Activity. 1. Retrofit Isolation a) Key parameter measurement b) All parameter measurement. 2. Whole Facility 3. Calibrated Simulation</td>
</tr>
</tbody>
</table>

Explanatory note on selection and use of the Energy Efficiency Schedule of Accreditation:
The Measurement and Verification Body must start with selecting the applicable competence Sector/s i.e. Residential, Commercial, Industrial etc. as their main activity for accreditation. The next step will be to select the applicable Energy type/s i.e. Electricity, Liquid fuel, Fossil fuel etc. linked to the sector selection. Next select the associated Technologies i.e. Lighting, Pumping, Control systems etc.
## APPENDIX 2: Amendment Record

<table>
<thead>
<tr>
<th>Proposed by</th>
<th>Section</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM</td>
<td>7.1.2</td>
<td>Add section 7.1.2a to incorporate TG 50 as part of the inspection method.</td>
</tr>
<tr>
<td>AM</td>
<td>7.4.2</td>
<td>Add section 7.4.2b to incorporate TG 50 as part of reporting of energy savings.</td>
</tr>
<tr>
<td>AM</td>
<td>All</td>
<td>Change SANS 50010:2011 to SANS 50010:2018</td>
</tr>
<tr>
<td>AM</td>
<td>All</td>
<td>Grammatical changes</td>
</tr>
</tbody>
</table>

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