

# GUIDANCE DOCUMENT FOR ACCREDITATION OF METROLOGICAL VERIFICATION LABORATORIES ACCORDING TO SM SR EN ISO/IEC 17020:2013

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# CONTENT

- 1. Purpose
- 2. APPLICATION DOMAIN
- 3. REFERENCE DOCUMENTS
- 4. DEFINITIONS AND ABBREVIATIONS
- 5. DESCRIPTION OF ACTIVITIES
- 5.1 Overview
- 5.2 Requirements according to SM SR EN ISO/IEC 17020:2013
  - 1. Application domain
  - 2. Normative references
  - 3. Terms and definitions
  - 4. General requirements
  - 5. Structural requirements
  - 6. Resource requirements
  - 7. Process requirements
  - 8. Managements system requirements
- 5.3 Ensuring the validity of metrological verification results
- 6. SYNTHESIS OFMODIFICATIONS

# 1. PUPOSE

The purpose of the present document is to describe the requirements for accreditation of Metrological Testing Laboratories of means of measurement used for measurements in the domain of public interest, according to SM SR EN ISO/IEC 17020:2013 and to EA/IAF/ILAC documents, National Metrology System and NAB which are applicable to this standard in order to ensure a unitary and consequent application.

# 2. APPLICATION DOMAIN

This document applies to accredited Metrological Verifications Laboratories or those seeking accreditation, for MOLDAC personnel involved in accreditation processes of CAB, as well as for all interested parties.

# 3. REFERENCE DOCUMENTS

- Law nr. 235 from 01.12.2011 on accreditation and conformity assessment activities with subsequent amendments.
- SM EN ISO/IEC 17000:2020 Conformity assessment. Vocabulary and general principles
- Metrology Law nr. 19 from 04.03. 2016
- HG no. 1042 of 13.09.2016 on the approval of the official list of measuring instruments and measurements subject to legal metrological control with subsequent amendments.
- SM EN ISO/IEC 17011:2017 Conformity Assessment. General requirements for the accreditation bodies accrediting conformity assessment bodies.
- SM SR EN ISO/IEC 17020:2013 Conformity Assessment. Requirements for the operation of various types of bodies performing inspections.
- SM EN ISO/IEC 17025:2018 General requirements for the competence of testing and calibration laboratories.
- SM SR EN ISO 10012:2006 Measurement management systems. Requirements for the measurement processes and equipment.
- SM SR EN ISO 9001:2015 Quality management systems. Requirements.
- SM SR EN ISO 19011:2018 Guidelines for management system audit.

Application documents IAF/ ILAC:

- ILAC P9:06/2014 ILAC Policy for Participation in Proficiency Testing Activities
- ILAC P10:07/2020 ILAC Policy on Metrological Traceability of Measurement Results
- ILAC P14:09/2020 ILAC Policy for Measurement Uncertainty in Calibration
- ILAC P15:05/2020 Application of ISO/IEC 17020:2012 for the Accreditation of Inspection Bodies

- ILAC P8:03/2019 ILAC Mutual Recognition Arrangement (Arrangement): Supplementary Requirements for the Use of Accreditation Symbols and for Claims of Accreditation Status by Accredited Conformity Assessment Bodies
  - ILAC G27:07/2019 Guidance on measurements performed as part of an inspection process
  - ILAC G24:2007 Guidelines for the determination of calibration intervals of measuring instruments
  - ILAC G28:07/2018 Guideline for the Formulation of Scopes of Accreditation for Inspection Bodies

# EA, ILAC documents can be accessed on following web-pages: <u>www.european-accreditation.org</u> and <u>www.ilac.org</u>

Documents of the National Accreditation Body MOLDAC:

-	Policy P-02	Policy on use of PTs and ILCs and other inter laboratory comparisons in the accreditation process
-	Policy P-03	Policy on traceability of measurements
-	Policy P-04	Policy on handling the non-conformities
-	Policy P-07	Policy on treating the objections of CAB regarding the names of team members
-	Policy P-08	Policy and rules for using of accreditation symbols and references to accreditation
-	RA	Accreditation Rules
-	СА	General Criteria for Accreditation

Normative documents related to National Metrology System:

- GENERAL REGULATION FOR LEGAL METROLOGY regarding the way of designation for metrological verification of measurement means, and for measurement making in the fields of public interest.
- RGML 12:2018 National Metrology System. Measurement means of metrological verification.
- RGML 09:2018 Elaboration, approval, comservation, use, comparison, improvement of national measurement units standards, as well as recording/ deregistration of those in the State Register of measurements units standards.

# 4. TERMS, DEFINITIONS AND ABBREVIATIONS

#### 4.1 Terms and Definitions

For the use of this documents, there are applied relevant terms and definitions from::

- Metrology Law no.19 from 04.03.2016 with subsequent amendments

- SM SR EN ISO/IEC 17000:2020 Conformity assessment. Glossary and general principles.
- SM EN ISO/IEC 17011:2017 Conformity assessment. General requirements for accreditation bodies accrediting conformity assessment bodies.
- SM Guideline ISO /IEC 99:2017 International Metrology Dictionary (IMD). Fundamental and general concepts and associated terms
- SM SR EN ISO 9000:2016 Quality management systems. Fundamentals and glossary.

with the following additions:

**3.6 Time-time** - the duration of the metrological verification of the measuring instruments, in hours, determined by the requirements of the normative document, the working capacity of the equipment used and the metrological verifier involved

**3.7 Production standard** - the quantity of measuring instruments or works to be carried out shall be carried out in a unit of time (month, exchange, hour) by a suitably qualified performer and working at normal and normal intensity under technical conditions - organizationally specified at the workplace; is expressed in units per unit of time

**3.8 Hire** - a tenant (lessee) undertakes to give the other party (lessee) an individually determined asset for temporary use or for use and for temporary possession, and the latter undertakes to pay rent.

4.2. Abbreviations

- CMA (ACM) Central Metrology Authority
- NAB (ONA) National Accreditation Body
- NMS (SNM) National Metrology System
- NDLM (DNML) Normative Documents in Legal Metrology
- CAB (OEC) Conformity Assessment Body
- MVL (LVM) Metrological Verification Laboratory
- IB (OI) Inspection Body
- CL (LE) Calibration Laboratory
- RD (DR) Reference documents
- ILC Interlaboratory comparisons

# **5. DESCRIPTIONS OF ACTIVITIES**

#### 5.1 Overview

Accreditation of Metrological Verification Laboratories will be performed in accordance with the rules and procedures of National Accreditation Body provided for SM SR EN ISO/IEC

17020:2013 and applicable documents of ILAC and with the provisions stipulated in the regulations of legal metrology (RML) within the National Metrology System (SNM).

MOLDAC will distribute to Central Metrology Authority information on any application for accreditation from LVM, which intends to act as an LVM designated to perform metrological verification and will require the participation of appointed representative of the later at all stages of the accreditation process as an observer.

Following the analysis of documents and records related to the application, NAB may invite the applicant, if deemed necessary, in order to clarify certain aspects related to the initiated application.

# 5.2 Requirements according to SM SR EN ISO/IEC 17020:2013

Numbering and naming of the elements in 5.2 correspond to SM SR EN ISO/IEC 17020:2013

#### 1. Application domain

- 1.1. Present requirements specify the additional criteria for application of SM SR EN ISO/IEC 17020:2013 by laboratories performing metrological verification with the purpose of accreditation.
- 1.2. These requirements are fulfil intended by entities that conduct metrological verifications of legal measurement means, by National Accreditation Body, as well as by the Central Metrology Authority (ACM) Ministry of Economy.
- 1.3. Present specific requirements are added to the regulatory requirements applicable to the domain of legal metrology mentioned in corresponding RML of SNM.
- 1.4. These requirements do refer neither to testing laboratories, nor to calibration laboratories that have a different set of criteria defined in SM SR EN ISO/IEC 17025:2006. The following normative documents contain provisions which must be taken into account when applying the requirements of this reference document:
  - ✓ SM SR Guidelines ISO/IEC 99:2012 International Metrology Dictionary general and fundamental concepts and associated terms (IMD),
  - ✓ SM SR EN ISO 10012:2006 Measurement management system Requirements for measurement processes and equipment,
  - ✓ Normative documents pertinent of SNM (including OIML documents declared national), for types of legal measurement means required to be included in the accreditation, designation domain.

These documents should be held by the LVM and accessible when needed by the NAB and personnel of LVM, who shall be acknowledged with the content to the necessary extent for the application of present additional requirements.

According to ILAC G27:07/2019 where the inspection activity includes measurements and is performed in accordance with ISO/IEC 17020 accreditation, the following requirements of ISO / IEC 17025 apply:

- Metrological traceability (section 6.5 of ISO/IEC 17025: 2017 and section 5.6 of ISO / IEC 17025: 2005),

- Ensuring the validity of the results (section 7.7 of ISO / IEC 17025: 2017 and section 5.9 of ISO / IEC 17025: 2005).

#### 2. Normative requirements according to chapter 3

#### 3. Terms and definitions

**3.1 Initial metrological verification –** Metrological verification of a measurement means which has not been tested previously.

**Regular metrological testing –** Metrological verification of a measurement means, regularly performed, during specified timescales, in accordance with the procedure established in the applicable legal metrology regulations.

**Measurement –** Process of experimentally obtaining of one or more values which could be reasonably attributed to a quantity.

**Metrological Traceability** – feature of a measurement result which could be reported as a reference through a continuous chain and documented by calibrations, each contributing to the measurement incertitude.

**3.2 Metrological Verification Laboratory** – Laboratory open to performance of metrological verification of MML in accordance with the law in force.

#### 4. General requirements

#### 4.1 Impartiality and independence

Requirements from the points 4.1.1 - 4.1.5 are fully applied, taking into account the following;

4.1.2 Contractual arrangements with the personnel of LVM shall include the avoidance of commercial pressure, financial or of any other kind which could affect the results.

4.1.3 Impartiality risks for LVM shall be considered whenever modifications occur, which might affect the impartiality of LVM or of its personnel.

LVM shall disclose any relationships which might affect its impartiality to a relevant extent, using organizational charts or other means.

Examples of relationships which might influence the impartiality are the following:

- Relationships with a "mother" organization
- Relationships with departments within the same organization

- Relationships with related companies or organizations
- Relationships with regulatory authorities
- Relationships with clients
- Relationships of personnel

– Relationships with organizations which design, manufacture, supply, install, purchase, own, use or maintain verified measurement means.

4.1.5 LVM shall have a documented declaration emphasizing its commitment to impartiality while conducting its activities, management of conflicts of interests and ensuring the objectivity of its inspection activities. Actions emanating from the top management should not contradict the present statement.

Engagement of impartiality, objectivity of the top management should be publicly available.

4.1.6 LVM must be independent in a way it is necessary, coming out from conditions in which they develop services, and will be classified as inspection bodies of **type A**, **B** or **C**.

\*LVM which performs metrological verification of measuring means that are subject of legal metrological control, according to requirements of General Regulation of Legal Metrology (RGML designation) and of its modifications and completion by Order no.106 from 17.07.2017 of Ministry of Economy and Infrastructure, must be inspection bodies of **type A**.

\**Note* – the modification above, referred to LVM which perform metrological verifications of measuring means according to Order no.106 from 17.07.2017 and which must be only Inspection body of **type A**, will get in force from 28.07.2018 (after 12 months from publication date in *Monitorul Oficial* of Republic of Moldova).

Laboratories performing metrological testing cannot be accredited and designed except cases when they meet the requirements of applicable normative documents within the NAB and SNM.

Organizational chart showing the relationships between the departments within the same organization as well as with related companies and organizations should demonstrate the independence.

# 4.2 Confidentiality

Requirement is fully applied.

For metrological verification of legal MM procedures should emphasize who, except the client, has the right to access the results.

#### 5. Structural requirements

#### 5.1 Administrative requirements

Requirements are fully applied, taking into account the following:

5.1.1 Metrological Verification Laboratory (LVM) or organization which is a part of LVM should have the status of legal personality with headquarters in Republic of Moldova and it should be legally registered.

5.1.3 Description of activities is applied particularly to activities included in required Accreditation Domain and refers to:

- Metrological verification of measurement means used in measurement in domain of public interest.

The object of metrological verification is defined in the Official List of measurement means subject to obligatory legal metrology control.

Entities designed within the SNM accept for initial metrological verification only legal measurement means.

The LVM must document and approve time and / or production rules for each assortment of measuring instruments subject to metrological verification.

The time / production rules for the metrological verification of a measuring instrument depend on the degree of endowment of the LVM with measuring equipment, the qualification of the metrologies verifier, technical-organizational measures, and so on. The time / production rules also include the time used to prepare MM for metrological verification, recording of verification results and data processing.

When designing time / production rules, it must be borne in mind that the verification of certain measuring instruments can be done by different methods using different measuring equipment. The length of metrological verification may depend on its type (initial, periodic). In this case, more time / production norms may be set for the same measurement milliamps.

5.1.4 LVM should be able to demonstrate which factors were taken into consideration while determining the appropriate level of contracted insurance (Insurance policy). One of the factors, which should be taken into account, is the risk associated with performing of metrological verification activities. LVM should bear legal responsibility for prejudices caused to the client (victim) because of service provision in accordance with the accreditation and designation domain. Coverage amount should be proportional to the level and nature of responsibilities, which may arise from provided by LVM services, but not less than 600 conventional units.

5.1.5 Contractual provisions should be stipulated among the accredited and designated LVM, and:

- user,
- producer,
- importer,
- repair service provider,
- possessor,

For the conduct of initial testing, regular testing of legal measurement means produced, imported, under exploitation and/ or after their repair.

General terms of providing services of metrological verification should be available. They should specify the type of work, tariffs and decision references of accreditation and designation.

In case of withdrawal or expiration of accreditation and designation, LVM should:

- send to the Central Metrology Authority the metrological marks of testing which it possesses for their obliteration (destruction) in accordance with the normative documents related to SNM,
- Inform ACM on forms of Non-authorized Metrological Verification Forecasts.

# 5.2 Organization and management

Requirements are fully applied, taking into account the following:

Structure, requirements for accommodations, personnel, equipment, etc. for a metrological verification laboratory should be in accordance with the provisions of Metrology Law and legal metrology regulations (RGML regarding the designation way for metrological verification of measurement means and for performing measurements in the fields of public interest, RGML 12, RGML 09).

Metrological Verification Laboratory for legal measurement means should maintain an approved organizational chart in a determined and updated manner, which will clearly demonstrate the functions and authority lines for the personnel of the respective laboratory and the existing relationships. Positions of the technical manager and of the responsible for management system shall be clearly presented in the organizational chart. Responsibilities of each of the positions within the organization, which could affect the quality of inspections or registration of results, should be included in the documentation of management system. Degree of documentation complexity and the extent to which the personnel can hold several functions will depend on the size of organization.

The size, structure, composition and management of an LVM, taken together, should be adequate for the competent performance of activities in the domain of an LVM accreditation.

Maintaining the ability to perform activities of metrological verification implies the fact that LVM should be appropriately informed concerning technical and/or legal developments applicable to its activities.

LVM should maintain its capacity and competence to conduct metrological verification activities (normally with intervals longer than one year). An LVM may demonstrate its capacity and competence for performed metrological verifications infrequently using simulated metrological verifications.

LVM should maintain an Organizational Chart and Statement of Duties, which would clearly indicate the functions and authority lines for LVM personnel. Positions of technical manager and of the responsible for management system referred in clause 8.2.3 should be clearly presented in the Organizational chart and Statement of Duties of the later.

LVM should supply the client with information regarding the personnel of LVM who perform additional work tasks which could affect the results of metrological verifications.

In order to be considered "available", the person shall be permanently employed or by contract for the external personnel.

In order to ensure that the metrological verification activities are conducted in accordance with ISO/IEC 17020, technical manager and his assistance should possess a technical competence necessary for understanding of all significant aspects related to the conduct of metrological verification activities.

In an organization where the absence of an important person results in cessation of activity, the requirement to have an assistant is not applied.

Categories of positions involved in metrological verification activities are metrologistsinspectors, and other additional positions, which could affect management, performance, recording or reporting of the metrological verifications.

Statement of duties or other documents should describe in detail the duties, responsibilities and authorities for each of category of position mentioned.

In cases in which LVM headquarter, in which it develop the testing/calibration activities is placed/ replaced in a location, that previously had another destination (for example: storeroom, production room, living places etc.), laboratory must present in addition a sanitary authorization on operation (by case), or other permissive acts, in accordance with the legislation in force, which will confirm the possibility of use of those locations for carrying out the declared activities.

# 6. Resource requirements

#### 6.1 Personnel

Requirements are fully applied, taking into account the following:

Requirements for qualification of metrologists-inspectors are stipulated in RGML designation.

Requirements form metrological verifiers qualification must be established in MS documentation of laboratory and in job description.

The entire personnel of LVM should be acknowledged with the regulatory requirements applicable for legal measurement means which are metrologically verified by the respective laboratory.

Personnel responsible for metrological verification of legal measurement means should know:

- regulatory requirements applicable to these measurement means;
- legal metrological regulations related to verification of MML;

LVM must have enough staff for performing of declared activities (metrological verifications), but not less than 2 persons with confirmed competence according to RGML regarding the designation way for metrological verification of measurement means and for performing measurements in the fields of public interest.

Laboratory shall present record kept up to date on attestation of metrologists-inspectors.

LVM shall define and document competence requirements for every metrological verification activity, as stated in 5.1.3.

For "personnel involved in metrological verification activities" see 5.2.7.

Competence requirements should include knowledge of management system of LVM and ability to implement administrative as well as technical procedures applicable to conducted activities.

All requirements of ISO/IEC 17020 are equally applied for employees as well as for contracted external personnel (concurrently).

The "mentored working period" mentioned in item 6.1.6 b) includes activities where metrological verifications are performed.

Identification of training needs for each person should take place at regular intervals. The interval should be selected in a way to ensure the fulfilment of clause 6.1.6 c). The results of the review of training needs should be documented, for example, plans for further training or a statement that no further training is required.

Monitoring of personnel involved in activities of metrological verifications of measuring means must be conducted according to ILAC-P15:05/2020 requirements (see p. 6.1.9 n1, 6.1.9 n2 and 6.1.9 n3).

Policies and procedures should identify commercial threat, financial or of any other kind or of the incentives which could affect the impartiality, regardless of whether they come from inside or outside of LVM. Such procedures should address the manner any conflicts of interests, identified by the personnel of LVM, are reported and minimized/resolved.

#### 6.2 Facilities and equipment

Requirements are fully applied, taking into account the following:

Requirement 6.2.1 is stipulated in RGML regarding the designation way for metrological verification of measurement means and for performing measurements in the fields of public interest.

Requirements for accreditation/designation of entities for performance of legal metrology activities:

- to documentary confirm possession of right of property or of the right to use and possess standards, installations, measurement means, certified reference materials appropriate to the required domain of activities. In the case of the lease of the standards and specific facilities, must have no more than only one owner (locator). LVM indicates the lease in the equipment list,
- to provide working rooms for performance of metrological verification activities of legal measurement means;

\***Note** - According to *RGML* regarding the designation way for metrological verification of measurement means and for performing measurements in the fields of public interest, the right to use the benchmark, the installation and/or the measurement meaning can be owned by only one legal person.

Necessary equipment for performance of metrological verification activities may include individual protective equipment, scaffolding, etc.

If according to normative documents for correct performance of metrological verification are needed controlled environmental conditions, LVM shall monitor them and record the results. If the environmental conditions do not correspond with the stipulated requirements, the LVM should:

- initiate Corrective Action procedure, clause 8.7.4;
- refuse to perform metrological verification of legal measurement means until there is a confirmation of correspondence of environmental conditions with the stipulated requirements.

Compliance of used equipment should be determined by intermediate verifications and/or recalibration.

If the elements of equipment are replaced, the unique identification of the later should be appropriate even when there is only one item available.

When environmental conditions are prescribed by normative documents, they should be controlled and the equipment used for controlling the environmental conditions should be metrologically verified / calibrated to ensure the quality of results of metrological verifications.

For measurement equipment which significantly affect the metrological verification results, there should be included the accuracy and range of measurements.

Justification for non-calibration of equipment which significantly affects the metrological verification results (see clause 6.2.4) should be recorded.

Requirement 6.2.7 concerning traceability of national or international standards should comply with Policies of MOLDAC, cod PM, P-03.

Equipment used in the process of metrological verification is subject to intermediate verifications between 2 successive calibrations, the nature of these verifications, frequency and acceptance of criteria should be defined.

Requirements for equipment described in item 6.2.14 are requirements for working standards of LVM and not for legal measurement means which are subject to metrological verification.

Each working standard should be accompanied by a technical sheet according to normative document RGML 09:2018. Identification should be complete, clear and unambiguous. Records should be retained.

Measurement equipment should be maintained according to SM SR EN ISO 10012:2006 or SM SR EN ISO/IEC 17025:2006. In particular:

- Working standards of LVM used in activities of metrological verification of MML should be calibrated with insurance of traceability of international system of measurement units SI;
- Measurement equipment should be kept under strict record and should be identified;

- Measurement equipment should be controlled (adjusted, regulated) by LVM in all cases before being installed or reinstalled;
- Frequency of calibration of standards and of working measurement means should be in accordance with the Official List in force;

Responsibilities for calibration of standards of work should be clearly defined and should be fulfilled.

When selecting the standards of work there should be taken into account the calculated expanded uncertainty and prescribed requirements of applicable normative documents.

Requirement 6.2.13 is applied to all software, including those with tables the calculation functions of which are used.

In all cases there should be present records of performed tests.

It is applicable to all types of software, including text.

It is necessary to ensure that stored data could be accessed and operated for a defined period, even in case of change of data or of operating system.

If LVM contracts the suppliers for performance of activities related to the results of metrological verification activities, for example, providing additional services during a metrological verification or of calibration services, such activities are covered by the term "services" used in the present clause.

Factors that should be considered while protecting the data integrity and security include;

- backup practices and frequency of their realization;
- effectiveness in restoring data using the backups;
- virus protection;
- password protection.

#### 6.3 Subcontracting

Subcontracting is allowed only in exceptional cases, such as:

- an unexpected or abnormal overload;
- important members of the personnel are not available;
- important facilities or key-components of the equipment are temporary inadequate for use.

In the present case the reference standard requirement is fully applied.

#### 7. Process requirements

#### 7.1 Inspection methods and procedures

7.1.1 Metrological Verification methods are described in Legal Metrological Regulations approved by ACM. LVM should comply with requirements determined in SNM and should

use authenticated documents (approved by the Central Metrology Authority) intended for a specific type of MML.

7.1.2 Non-applicable.

7.1.3 Non-applicable.

7.1.4 Is fully applied.

7.1.5 Is fully applied, including LVM should perform the analysis of applications, orders, and contracts. Only after the performance of analysis, the contract between accredited and designated MVL and the client will be signed.

LVM, when determining the cost, shall have documented work operations in the metrological verification activities on the measuring instruments according to the required scope of accreditation or the annex to the accreditation certificate. Work operations must include the necessary metrological verification calculations for each type of measuring instrument, depending on the standards used for metrological checks.

Where appropriate, the system of control of contract or of order should also ensure that:

- contract terms are agreed;
- personnel competence is appropriate;
- all legal requirements are identified;
- safety requirements are identified.

For routine work or for repeated applications the analysis 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 authorized person.

In situations where verbal work orders are acceptable, LVM should keep a record of all requests received verbally. Where appropriate, relevant data and identity of the client's representative should be recorded.

The system of control of contracts and of orders should ensure that there is a clear and demonstrable understanding between LVM and its client on the metrological verification activities which are to be conducted by LVM.

The information referred in item 7.1.6 is the information received from other parties, for example, a regulating authority or the client of LVM.

7.1.6 - 7.1.9 are fully applied.

Procedures of recording of observations of primary data during the metrological verifications should be applied to all legal measurement means (MML) metrologically verified and should comply with the applicable normative documents.

# 7.2 Manipulation of elements for inspection and of samples

Requirements are fully applied.

7.2.2 MM which are subject to legal metrological verifications are prepared by the costumer.

7.2.3 Defects and external non-conformities detected in the process of examination of MML after receiving them for metrological verification are recorded and reported to the client.

7.2.4 Specific conditions for storage should be defined, taking into account the analysis of sensible points for the final quality of legal measurement means.

### 7.3 Inspection reports

Requirements are fully applied, taking into account the following:

Metrological Verification Laboratory should establish and maintain procedures for identification and completion of records of primary data of metrological verifications.

Records should allow quick and secure identification of metrological verifications, which MML metrological verified were subject to, and to results of those metrological verifications. LVM should keep records on: reception of MML metrologically verified, surrounding environmental parameters, primary data, and results of metrological verifications.

Records should indicate which equipment, having a significant influence on the results of metrological verifications, was used for each metrological verification.

Observations, data and calculations should be recorded while being performed in Minutes, and should be identifiable for performed metrological verification.

Each LVM completes the minutes of metrological verification according to the provisions of applicable normative documents.

All primary data records should be legible. There should be established a retention period of primary records. Records can be on paper or online.

Retention period of minutes/ reports of metrological verifications should be at least equal with the period between two successive verifications plus one.

Laboratory should have procedures for saving and protecting of online records and for prevention of their non-authorized access or modification.

All records should be kept in safety and confidentiality.

#### 7.4 Inspection reports and inspection certificates

On the basis of recorded results in Minutes there are prepared and issued:

- metrological verification forecast of exact accounts where is specified MML correspondence with the requirements of applicable normative documents;
- disqualification forecasts where are included the negative results of metrological verifications.

The technical task including the form of presentation of the forms for the metrological verification bulletins as well as the technical task of making the metrological verification marks, developed by the National Metrology Institute (NIM) and approved by the Central Metrology Authority, is placed on the web page official NIM.

If on the basis of initial, regular or after the repair metrological verification results, the legal measurement means is acknowledged as useable, then on it and on technical documentation (as appropriate) is applied the metrological verification mark, in conformity with the sealing scheme of the legal measurement means, and is issued a metrological verification forecast of strict evidence.

Issued metrological verification forecasts, Disqualification forecasts and records should be traceable till the verifier who conducted the metrological verification.

Head of LVM verifies and signs the Minute, Metrological Verification forecast or Disqualification forecast.

Additional correction and completion of metrological verification forecasts is not allowed.

Incorrect metrological verification forecasts are cancelled and new ones are issued. Metrological verification forecasts are issued in one copy and the duplicate is not issued.

Data on issuing the Metrological verification forecasts, use of metrological marks should be made available for central metrology authority on request.

Person responsible for buying, keeping, issuing and recording of metrological verification bulletins (MVB), must manage the evidence system of issued MVB, so that it is compatible with the record system managed by the National Metrology Institute.

Responsible person for definition and compliance of purchase, storage, evidence, and restoration procedures of metrological verification marks to ACM should be designated by order.

This person is responsible for attribution of indicative of identification appropriate for each metrologist-verifier, of records related to issuing of these marks and their reception from metrologists-verifiers, and these records should be maintained.

Purchase, storage, use, evidence and restoration of metrological marks are performed in accordance with RGML 26.

# 7.5 Complaints and appeals

Requirements are fully applied, taking into account the following:

In the contract referred in the requirements 7.1.5 should be stipulated the right of the client to fill complaints, appeals at the LVM headquarters.

This procedure should be also referred to the treatment of observations, warnings and complaints issued by state bodies.

#### 7.6 Complaints and appeals process

Requirements are fully applied.

# 8.1 Options

Options A or B of the standard with SM SR EN ISO/IEC 17020:2013 are applied, taking into account the following:

8.1.3a Expression of "the present international standard" is a reference to ISO/IEC 17020.

8.1.3b Option B does not impose that the management system of an inspection body should be certified according to ISO 9001. However, when the determining the extent of necessary assessment, the accreditation body should consider if the inspection body has been certified according to 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 certification of management systems.

#### 8.2 Management system documentation

Requirements are fully applied.

# 8.3 Control of documents

Requirements are fully applied.

# 8.4 Control of records

Requirements are fully applied.

#### 8.5 Management review

Requirements are fully applied.

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

Management review should consider the information on the adequacy of the actual human and equipment resources, projected work tasks and the need for training of new personnel as well as of existing one.

Management review should include an analysis of effectiveness of established system in order to ensure the appropriate competence of the personnel.

#### 8.6 Internal audits

Requirements are fully applied.

LVM should ensure that all the requirements of ISO/IEC 17020 are included in the program of internal audit. Requirements that should be covered are considered for all the domains of metrological verifications and for all facilities where important activities are performed (see IAF/ILAC A5).

LVM should justify the choice of audit frequency for different requirements, domains of metrological verifications and facilities where important activities are performed. Justification may be based on the following:

- critical activities,
- maturity,
- previous performances,
- organizational changes,
- procedural changes,
- efficiency of the system of experience exchange between different operational sites and between different activity domains.

Internal audits may be performed by the competent external personnel on the basis of contract.

# 8.7 Coercive actions

Requirements are fully applied.

# 8.8 Preventive actions

Requirements are fully applied.

#### 5.3 Ensuring the validity of metrological verification results

The main tools used to ensure the correct performance of the methods are:

- knowledge of the inspected object (6.1.3 ISO/IEC 17020);
- qualification (6.1.3 ISO/IEC 17020);
- staff ongoing training (6.1.5 ISO/IEC 17020);
- monitoring (6.1.8, 6.1.9 ISO/IEC 17020);
- monitoring through internal activities, the use of reference materials or quality control materials; functional checks of measuring equipment; use of verification or working calibrators with control charts, when it's applicable; intermediate checks of measuring equipment; analysis of reported results; internal comparisons between LVM staff (7.7.1 ISO / IEC 17025);
- participation in proficiency testing schemes (7.7.2 ISO / IEC 17025).

Monitoring of the validity of metrological verification results shall be planned and analysed. The results of the monitoring shall be kept.

LVM should demonstrate the technical competence though participation at the interlaboratory comparisons at the national level.

Policies of LVM on ILC should comply with the policy of MOLDAC , Policy on use of competence tests and of other Interlaboratory comparisons in the process of accreditation in accordance with ILAC -P9, EA-2/14 și EA-4/18, cod P-02.

INM should organize intercomparisons for LVM at the national level in accordance with the approved Programs of ACM.

INM should quickly communicate the results of intercomparisons to the Heads of LVM, ACM, and MOLDAC. In case of negative results, LVM is obliged to present the analysis of causes and of taken actions.

If actions undertaken by LVM are not effective, MOLDAC has the right to suspend the accreditation of LVM and to inform the ACM.

In absence of an ILC at the national level, LVM is obliged to ensure the quality validity of results of metrological verifications through internal activities in accordance with SM SR EN ISO/IEC 17025 or by bilateral comparisons.

LVM should immediately inform Central Metrology Authority and MOLDAC about management system dysfunctions (relating to personnel, equipment), or on appropriateness of performed metrological verifications, which may question the compliance of metrologically verified legal measurement means with the provisions of applicable normative documents.

# 7. SYNTHESIS OF MODIFICATIONS

There were included modifications in the following pages: 1, 3, 4, 5, 7, 9, 12, 19, 20.