



ACCREDITATION CRITERIA – INSPECTION BODIES

NABCB Inspection Body Accreditation Scheme

Foreword

The Government of India and the Indian Industry jointly took the initiative in 1990s to establish an accreditation framework within the country in response to the emerging needs of the trade and industry. The objective was to make available internationally recognized formal accreditation mechanism to the organizations which provide conformity assessment services such as certification, inspection and testing, who were till then largely dependent on the accreditation systems of Europe and US.

A Council with representation from the Government, Industry and other stakeholders was established and named as the Quality Council of India. This Council was entrusted with the task of establishing the accreditation system in India. Accordingly, the National Accreditation Board for Certification Bodies (NABCB) was established to provide accreditation to the Inspection and Certification Bodies.

NABCB has adopted the international standard ISO/IEC 17020 as the criteria for providing accreditation services to the Inspection Bodies to facilitate harmonization of inspection services in India and to bring them at par with other countries. This is also to facilitate signing of Mutual Recognition / Multilateral Arrangements with regional and international bodies.

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1.0 Scope

This document specifies the requirements that an inspection body shall meet if it is to be recognized by the Board as competent and reliable in the providing inspection services.

2.0 Accreditation Criteria

The Inspection Bodies seeking accreditation for Inspection in specific technical areas shall comply with the requirements as specified in the international standard ISO/IEC 17020:2012 “Conformity assessment – Requirements for the operation of various types of bodies performing inspection” and other requirements as specified in this document.

The standard ISO/IEC 17020:2012 can be obtained online from ISO website ‘www.iso.org’ or its equivalent Indian adopted standard can be procured from the Bureau of Indian Standards.

3.0 Guidance Documents for Inspection Bodies

NABCB has adopted the relevant ILAC and APAC requirements and guidance documents as applicable to the Inspection Bodies as part of its criteria to be read with the criteria as above.

NABCB has adopted the ILAC Policy Document “*ILAC P15: Application of ISO/IEC 17020:2012 for the Accreditation of the Inspection Bodies*”. Applicant and accredited inspection bodies shall also comply with this document. This document provides application notes to inspection bodies to comply with the corresponding clauses of ISO/IEC 17020 and is used for assessment of inspection bodies in a harmonized manner by the accreditation bodies world over. This document forms the basis of mutual recognition arrangements between accreditation bodies, and is considered necessary for the consistent application of ISO/IEC 17020. This document can be freely downloaded from ILAC website ‘www.ilac.org’ or by directly accessing the link given below:

<http://ilac.org/publications-and-resources/ilac-policy-series/>

In addition, NABCB has elaborated some of the requirements of ISO/IEC 17020, based on ILAC/APAC application documents, which have to be complied with by all applicant and accredited inspection bodies.

4.0 Scope of Accreditation

NABCB would categorize the scope of accreditation based on the broad ‘IAF Classification of Scope Sectors’ as indicative scope. The inspection body shall, while applying for accreditation to NABCB specify its detailed scope including the type of inspection, range, stage/category of inspection and title, number and year of publication of the standards / regulations / methods / procedures applicable. The scope of accreditation after assessment shall be issued by NABCB to reflect the demonstrated technical competence of the inspection body. Refer NABCB Format ‘IB Scope of accreditation’ with Format No. BCB F-031 (IB) / Dec 2015 which addresses the requirements of ILAC G:28 – Guidance for formulation of scopes of Accreditation Bodies for Inspection Bodies.

5.0 Policy on Metrological Traceability and Calibration

Metrological Traceability is the property of a measurement result whereby the result can be related to stated references, usually national or international standards, through a documented unbroken chain of comparisons (i.e. calibrations), each having stated measurement uncertainties. The purpose of requiring traceability is to ensure that measurements are accurate representations of the specific quantity subject to measurement, where measurement results form the basis of inspection results.



ILAC Document - ILAC P10 “ILAC Policy on Metrological Traceability of Measurement Results” available on ILAC website ‘www.ilac.org’ forms the basis of NABCB Policy on Measurement Traceability. Traceability of measurement results is a fundamental topic for equivalence as well as harmonization of measurement results provided by conformity assessment bodies including inspection bodies and to ensure confidence amongst accreditation bodies to maintain international Mutual Recognition Arrangements.

NABCB Policy on Measurement Traceability applicable to all NABCB applicant/accredited Inspection Bodies is as follows:

- i. Inspection Bodies shall be able to demonstrate the calibration of equipment which have significant influence on results (critical equipment), whether owned by itself or others, used in inspection are traceable to the International System of Units (SI units) in accordance with the requirements specified in ISO/IEC 17025. Rationale to classify the equipment into a Critical category should be documented and maintained. When using external calibration services, traceability of measurement shall be assured by the use of calibration services from laboratories that can demonstrate competence, measurement capability and traceability.
- ii. NABCB accepts as an evidence of metrological traceability to national and international standards of measurements those calibrations performed by:
 - a) National Metrology Institutes such as NPL-India or other CIPM (International Committee for Weights and Measures) MRA Signatories;
 - b) Calibration laboratories accredited by NABL-India, an ILAC and APAC MRA Signatory, or calibration laboratories accredited by other accreditation bodies under ILAC / APAC MRA ,
 - c) An NMI not covered under CIPM MRA but services are suitable for intended use.
 - d) Calibration laboratories demonstrating compliance to ISO/IEC 17025, as assessed by the inspection body, if need be;

Note: Option of c or d should only be chosen if option a and b is not available.

- iii. Where in-house calibration of equipment is accepted, the inspection body shall ensure that the calibration has been performed in accordance with the relevant criteria for metrological traceability in ISO/IEC 17025, which states that traceability of measurement shall be assured by the use of calibration services from laboratories that can demonstrate competence, measurement capability and traceability. In such cases the inspection body has the responsibility for ensuring and demonstrating that calibrations are performed by using a valid calibration method, by competent person(s). Records shall also be maintained for all conditions related to performing calibration such as traceability of master equipment as per (ii) above, records of environmental conditions, unique ID, accuracy and measurement range etc.
- iv. Where traceability as stated above is not technically possible or reasonable or available, the inspection body and the client and other interested parties may agree to using Certified Reference Materials. Following CRMs with metrological traceability are acceptable:
 - a) CRMs produced by NMI like NPL, India
 - b) CRMs produced by Reference Material Producers accredited by NABL or by any other ILAC/APAC MRA signatory
 - c) The certified values of CRM are covered in JCTLM database.

In case CRM are not available as above, a reference material may be used after ensuring that it is for intended use and is produced following all the practices as per requirement of Reference Material Producer. IB shall maintain adequate records for same.

Note: For metrological traceability requirements of ILAC P 10: ILAC Policy on Metrological Traceability of Measurement Results have to be adhered.

- v. Where inspection body opts to verify compliance of an external/in-house calibration laboratory to ISO/IEC 17025 instead of using a calibration laboratory accredited as per ISO/IEC 17025, then it shall



have a documented procedure to assess an external/in-house calibration laboratory to the applicable requirements of ISO/IEC 17025 (as described in iii above) and shall demonstrate to have assessed the external/in-house calibration laboratory by an assessor trained in ISO/IEC 17025 and relevant calibrations and the IB's procedures, and shall maintain detailed records of assessing compliance of the external calibration laboratory to ISO/IEC 17025.

vi. IB should maintain the calibration interval as per requirements of ILAC G 24 -Guidelines for determination of Calibration intervals of measuring instruments with adequate justification.

vii. NABCB has also adopted the ILAC guidance documents ILAC G 27: Guidance on measurements performed as part of an inspection process.

Applicant and accredited inspection bodies shall comply with the guidance given in this document. This document can be freely downloaded from ILAC website or by directly accessing the link given below:

<https://ilac.org/publications-and-resources/ilac-guidance-series/>

viii. 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.

6.0 Policy on use of Testing Laboratories as part of Inspection

Inspection Bodies use the services of laboratories for testing as a part of its inspection activities. NABCB Policy on use of laboratories for testing by the Inspection Bodies is as follows:

- i. When as a part of inspection, for confirming product compliance to relevant standard, tests are required to be carried out in a laboratory, the inspection personnel may draw sample(s) and send it to their own laboratory or an independent external laboratory. Inspection bodies shall ensure that the laboratories to which samples are sent for testing are either accredited or compliant to ISO/IEC 17025 for the scope of tests being undertaken. Inspection bodies shall not use testing laboratories recommended or decided by its clients unless they are either accredited or compliant to ISO/IEC 17025. If the inspection body opts to verify compliance of an external testing laboratory to ISO/IEC 17025, instead of using a laboratory accredited as per ISO/IEC 17025, then it shall have a documented procedure to assess the external testing laboratory to the requirements of ISO/IEC 17025, shall demonstrate to have assessed the external testing laboratory by an assessor trained in ISO/IEC 17025 and relevant testing procedures, and shall maintain records of assessing compliance of external testing laboratories to ISO/IEC 17025. Only in the above cases the laboratory test report as received from the laboratory may be directly attached to the inspection report.
- ii. When as a part of inspection, the inspection body is required to review test reports for the purpose of assessing conformity to specified requirements/criteria, the testing shall have been carried out in laboratories complying with ISO/IEC 17025 as established by the inspection body or accredited to ISO/IEC 17025. The tests for which results are to be reviewed shall either be covered under accreditation in accordance with ISO/IEC 17025 or the compliance of the laboratory performing the tests shall have been verified by the inspection body for compliance to applicable requirements of ISO/IEC 17025 for the tests under consideration.
- iii. When as a part of inspection, the inspection personnel witness testing at client's or vendor's laboratory at the site, the inspection bodies shall ensure that these laboratories demonstrate compliance to relevant requirements as specified in Clauses 6.1, 6.2 and 7.1 of ISO/IEC 17020:2012. The inspection bodies shall ensure that client's or vendor's personnel performing such tests are competent and use standard / validated test methods. The inspection body shall also ensure that the inspection personnel conducting the test witness shall also be knowledgeable about the above requirements to be able to assess the same.

7.0 Policy on Proficiency Testing (PT)



Proficiency testing (PT) is the evaluation of participant performance against preestablished criteria by means of interlaboratory comparisons or other means. Proficiency testing serves to supplement existing procedures adopted by inspection bodies to assure the quality and evaluation of performance of the activities for which they are accredited or seek accreditation.

ILAC Document “ILAC P9: ILAC Policy for Participation in Proficiency Testing Activities” available on ILAC website ‘www.ilac.org’ forms the basis of NABCB Policy on Proficiency Testing by Inspection Bodies.

NABCB encourages its applicant/accredited inspection bodies to participate in appropriate PT activities, where available and/or relevant. It shall be the responsibility of inspection bodies to check the availability of appropriate PT programs which best match their day-to-day work and to select the programs in which to participate as per their scope of accreditation. NABCB will provide information, as may be available, to its applicant/accredited inspection bodies on PT programs organized by APAC or other ILAC recognized regions or by ILAC MRA Signatories and their accredited PT Providers.

Proficiency testing may be used in some types of inspection where available and justified by the inclusion of testing activities that directly affect and determine the inspection result or when required by law or by regulators.

In considering the application of proficiency testing to inspection bodies, the specialized nature of many inspections and the small number of inspection bodies practicing in any one area may make reliance upon externally sourced proficiency testing challenging. Accordingly, “Proficiency Testing” should at least involve internally conducted technical witnessing of inspectors and other activities that assure the quality of inspection activities.

The purpose of PT is to establish the technical competence and the quality of inspection activities. This may be established by the inspection bodies in a number of ways which include, but are not limited to:

a) Comparison of findings

Several inspectors (drawn from one or several inspection bodies) may inspect an item (either concurrently or over a time interval such that the stability of the inspected item is assured) and the findings are then compared. Comparisons may be numerical or qualitative and a statistical analysis of outcomes may highlight whether the findings from each inspector are satisfactory. Comparison is against the consensus of the group.

b) Measurement audits

An object of inspection with known reference values or qualities may be used in a manner similar to that described in a) above. The extent of variance between the reported results from the inspector and the reference value / quality may be used as a performance evaluation tool.

c) Technical witnessing

An inspector may observe another inspector in the course of an inspection, to confirm the coverage and application of judgment. This technique is frequently used as a measure of the effectiveness of training. IAF/ILAC A4 requires that the monitoring of performance of inspections should include on-site witnessing of inspections by technically competent personnel and cover a representative sample of inspections.

d) Review of inspection reports, records and supporting materials

In some cases the reports & records of inspection will be sufficient to establish whether the inspection was conducted properly and it is therefore possible for a high degree of assurance to be established through review of a comprehensive set of records. An example could include structural and condition inspections where these are supported by extensive photographic records, original observations, notes, drawings etc.



e) Evaluation of performance and characteristics of specific methods

The above activities are able to discriminate between varying levels of performance on the part of the inspector, across the diverse dimensions of the service delivery. They, however, serve as examples and inspection bodies should draw upon them as appropriate to their industry, the environment, the processes of service delivery and the inspection task.

Inspection bodies should identify their approach to assuring the quality of inspection services, by including a statement, policy or procedure in their management system. An applicant/accredited inspection body should have a plan on their intended participation in relevant proficiency testing activities, as applicable, to cover the major technical areas included in its scope of accreditation and organise to undertake the same at a frequency of once on annual basis for each individual scope sector for which IB is accredited. A plan in this regard may be submitted to NABCB and compliance of which would be reviewed during on site assessment. Note: IB may evaluate the risk elements and criticality of inspection item while preparing the plan.

8.0 Policy on use of NABCB Accreditation Mark

NABCB strongly encourages its accredited inspection bodies to use NABCB Accreditation Mark along with ILAC MRA Mark on their inspection reports/certificates to promote accreditation granted to their inspection services. It is each inspection body's responsibility to ensure that it describes its NABCB Accreditation Status in a manner that does not imply that accreditation is held in areas that are outside the scope of accreditation, for its other activities and branch offices facilities that are not included in the accreditation or for products or services that NABCB accreditation does not cover.

ILAC Document "*ILAC P8: ILAC Mutual Recognition Arrangement (Arrangement) - Supplementary Requirements and Guidelines for the Use of Accreditation Symbols and for Claims of Accreditation Status by Accredited Laboratories and Inspection Bodies*" available on ILAC website 'www.ilac.org' forms the basis of NABCB Policy on Use of NABCB Accreditation Mark by Inspection Bodies. The detailed conditions on use of NABCB Accreditation Mark are prescribed in NABCB document BCB 202.

While the use of "NABCB Accreditation Mark" on inspection reports / certificates is not mandatory, only inspection reports/certificates bearing the "NABCB Accreditation Mark" (or that otherwise make reference to accredited status by a specific, recognized accreditation body) can benefit from the acceptance established through mutual recognition agreements/arrangements amongst accreditation bodies globally.

Inspection reports/certificates issued by NABCB accredited inspection bodies for the scope and locations covered under NABCB accreditation, irrespective of whether NABCB Accreditation Mark is used or not on such reports/certificates issued, shall be deemed to be covered under accreditation and shall be subject to assessment during routine NABCB Surveillances and/or Reassessments of accredited inspection bodies.

NABCB Fee based on per inspection report/certificate or on % of inspection contract value as announced annually in the NABCB Fee Structure shall be applicable on all inspection reports/certificates issued by NABCB accredited inspection bodies for the scope and locations covered under NABCB accreditation, with or without NABCB Accreditation Mark. It is the responsibility and obligation of NABCB accredited inspection bodies to declare quarterly (every 3 months) the number of such reports/certificates issued or inspection contracts signed / executed and related information, correctly to NABCB.

9.0 Policy on Subcontracting

NABCB shall not grant accreditation to inspection bodies for the scope for which it does not have the competence, resources etc. and for which it intends to subcontract entire inspection activity on permanent basis.

When an inspection body subcontracts inspection activities for allowable reasons as given in ISO/IEC 17020:2012 other than on a permanent basis, it should select a subcontractor inspection body which meets at least the same independence criteria (Type A, B or C) as itself. It shall ensure that the subcontractor



inspection body complies with ISO/IEC 17020 as established by the inspection body or accredited to ISO/IEC 17020. The inspection body shall also ensure that the scope of the subcontractor's accreditation covers the activities to be sub-contracted.

Assigning inspection work to branch offices within the organization structure of the main office and operating under the same quality system is not considered as subcontracting. However, operation of these branch offices shall be assessed by NABCB, if they are to be included in the scope of accreditation. The inspection body shall also be required to demonstrate that it can exercise effective supervision over the inspections performed by these branch offices.

10.0 Inspection Standards

It would be the responsibility of the Inspection body to demonstrate that inspections are carried out in accordance with internationally / nationally acceptable standards. Standards developed by the customer or the inspection body itself, if used, shall be appropriate, fully documented and validated and should be clearly specified in the inspection contract. A reference of same may be provided in the scope statement.

11.0 Time for Inspections undertaken by the Inspection Body

The inspection body shall have a system for ensuring required time is spent by the inspection personnel for carrying out inspections and for monitoring the time spent on inspections. Timelines prescribed by regulatory bodies shall be strictly complied. The documented system shall be assessed for adequacy by the NABCB assessment team as part of documentation review and if required, during the onsite assessment as part of implementation verification.



Amendment Record

<u>Date</u>	<u>Auth. by</u>	<u>Description of Amendment</u>
Jan 2013	Director	To incorporate ISO/IEC 17020:2012 as the accreditation criteria and to align with ILAC & APLAC requirements
Mar 2017	CEO	To incorporate ILAC P 15, to add more details to some requirements and to align with other changes
Dec 2020	CEO	To incorporate ILAC P15:2020 changes