



Australian Government  
Department of Industry,  
Innovation and Science

**National  
Measurement  
Institute**

# Appointment of Verifying Authorities for Reference Standards of Measurement

## Policy and Procedures

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**Appointment of Verifying Authorities for Reference Standards of Measurement - Policy and Procedures**

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## INTRODUCTION

The national measurement system is a coherent, formal system underpinned by legislation which ensures accurate measurements can be made on a consistent and traceable basis throughout Australia.

The relevant legislation is:

1. *National Measurement Act 1960 (Cth) (the Act)*;
2. *National Measurement Regulations 1999 (Cth) (the Regulations)*;
3. *National Measurement Guidelines 1999 (Cth) (the Guidelines)*; and
4. *National Trade Measurement Regulations 2009 (Cth)*.

There are a number of levels to the system to make sure there is appropriate infrastructure to support measurement in line with international standards:

- Metrological definitions and primary level standards consistent with the internationally agreed measurement framework which are maintained by NMI.
- Secondary level standards to enable the national system of measurement also maintained by NMI.
- A regulatory framework which supports a third level of standards so that National Association of Testing Authorities (NATA) laboratories and legal metrology authorities can calibrate and verify standards for use in industry and commerce. This is necessary to ensure there is sufficient available infrastructure to maintain appropriate standards across the national system of measurement. The regulatory framework is overseen by NMI.
- NMI also supports regulation of measurements in industry, commerce and the community.

To support the needs of the national measurement system, NMI appoints the eligible applicant with a demonstrated capability to deliver verifications of reference standards of measurement, as a verifying authority for reference standards of measurement to perform verification of reference standards of measurement.

This document sets out the policies and the procedures for the consideration of applications for appointment as a verifying authority by the Chief Metrologist under Division 2 Part 7 of the *National Measurement Regulations 1999 (Cth) (the Regulations)*. This includes the objectives, policy goals and other matters that are considered relevant when assessing the capability of an applicant to verify a standard of measurement.

Standards of measurement include standards for temperature, mass, density, force, volume, pressure, length, angle, time, frequency, impedance, resistance, voltage, and power.

A reference in this document to 'Chief Metrologist' includes any relevant delegate or to a person holding a relevant delegated position, unless stated otherwise.

A reference in this document to the 'capability of the applicant' includes the capability of staff under the direct control of the applicant.

## PURPOSE

The purpose of this document is to set out policies and procedures to assist applicants and to guide the Chief Metrologist in the assessment and processing of applications for appointment as a verifying authority to verify standards of measurement under Regulation 73 of the *Regulations*.

Under regulation 73 of the *Regulations*, upon application the Chief Metrologist may appoint as a verifying authority an applicant who

- (a) in the opinion of the Chief Metrologist is capable of, or has direct control of staff who are capable of, verifying a standard of measurement; or
- (b) holds NATA accreditation that the Chief Metrologist considers appropriate to the functions mentioned in paragraph (a).

Consistent application of testing, calibration and verification to a minimum national standard supports trust in Australia's national measurement system, facilitates cooperation between laboratories and other bodies and assists with international harmonisation of standards and procedures.

This document also provides guidance on the information that is needed for the Chief Metrologist to determine an applicant's capability when NATA accreditation is not provided.

Applicants who do not hold NATA accreditation should provide sufficient evidence to enable the Chief Metrologist to form an opinion as to whether they are capable, or have direct control of staff who are capable, of verifying a standard of measurement.

NMI suggests applicants who do not hold NATA accreditation have regard to NATA accreditation requirements and in particular ISO/IEC 17025 when considering the evidence they wish to supply in support of their applications. In particular, in considering an application for appointment as a verifying authority, the Chief Metrologist will take into account the following:

- the range of standards of measurement for which appointment as a verifying authority is sought
- the methods that are appropriate to verify standards of measurement for the type and accuracy for which appointment is sought
- the least uncertainties of measurement suitable for the range of standards of measurement for which appointment is sought
- whether there is appropriate legal traceability in accordance with section 10 of the *Act*. The most common legal traceability pathway under section 10 is through the use of reference standards of measurement.
- whether measurements are expressed in terms of Australian legal units of measurement.

Further information regarding the criteria the Chief Metrologist will take into account in determining an application is set out in section 7 of this document.

## POLICY PRINCIPLES

Appointment of verifying authorities to verify standards of measurement is guided by the following policy principles:

- The primary purpose of appointment is to support national measurement infrastructure by ensuring industry has access to appropriately qualified and capable verifying authorities.
- Verifying authorities will use reference standards of measurement (or other legal traceability pathways specified in section 10 of the *Act*) that satisfy the uncertainty and other requirements set out in *Act* and *Regulations* including the schedules to the *Regulations*.
- Verifying authorities will maintain an overall capability that includes equipment, quality management systems, methodologies and competencies that are consistent with the objectives of the national measurement system.
- The Chief Metrologist considers accreditation under ISO/IEC 17025 is the appropriate accreditation for the purposes of regulation 73(1)(b) of the *Regulations*.
- Applicants who do not hold NATA accreditation should provide sufficient evidence to enable the Chief Metrologist to form an opinion as to whether they are capable, or have direct control of staff who are capable, of verifying a standard of measurement (as provided for in regulation 73(1)(a) of the *Regulations*). NMI suggests applicants have regard to the NATA accreditation requirements under ISO/IEC 17025 when considering the evidence they wish to supply in support of their application. The Chief Metrologist may also take into account other relevant factors in assessing applications made by applicants who do not hold NATA accreditation.
- The accuracy with which various classes of standards of measurement must be verified is prescribed in terms of measurement uncertainty and permissible variation in the schedules to the *Regulations*, and particular reference is made to these schedules for the verification of reference standards of measurement.
- NMI also suggests applicants refer to the requirements of the Joint Committee for Guides in Metrology document JCGM 100: 2008 - *Evaluation of measurement data - Guide to the expression of uncertainty in measurement*.
- The Chief Metrologist may request an onsite visit to determine the capability of the applicant's systems, equipment, laboratory environment, staff competencies and any other relevant matter that is best assessed at the applicant's site.
- Verifying Authorities can only be appointed to verify standards of measurement of physical quantities for which there are Australian legal units of measurement.
- Appointments are generally made for a period of three years.

## **FUNCTIONS**

### **Functions of Chief Metrologist**

The Chief Metrologist has the following functions in respect of the appointment of verifying authorities for reference standards of measurement:

- Approval of relevant policies and procedures, application forms and other documents associated with and necessary for the performance of the Chief Metrologist's functions under the *Act* and *Regulations*.
- Approval of appropriate fees associated with the making, processing and consideration of applications for appointment as a verifying authority, including fees for onsite assessment of the capability of an applicant where required.
- Acknowledgement of applications for appointment as a verifying authority for the purposes of verifying standards of measurement under regulation 73 of the *Regulations*.
- Consideration of the capability of an applicant to verify standards of measurement.
- Consideration as to whether the information provided demonstrates the applicant is capable, or has direct control of staff who are capable, of verifying a standard of measurement.
- Consideration as to whether an appointment should be subject to any appropriate conditions.
- Advising an applicant in writing of a decision whether to appoint, or to refuse to appoint, the applicant as a legal metrology authority, any conditions imposed on the appointment and the reasons for the decision.
- Providing an instrument of appointment to the applicant if the application is successful.
- Reconsidering a decision (such as a decision to refuse to make the appointment, to vary or impose a condition on the appointment) if the applicant requests reconsideration.
- Cancellation of appointments on application.
- Cancellation of appointments and varying appointments on the grounds that:
  - the authority has not complied with a condition the appointment is subject to,
  - in the opinion of the Chief Metrologist, the authority does not have the necessary or appropriate facilities or standards to perform the functions or duties to which the appointment relates, or
  - in the opinion of the Chief Metrologist, the authority does not have the necessary competent staff to perform the function or duties to which the appointment relates.
- Giving written notice for cancellation of an appointment including reasons for a decision to cancel an appointment.
- Performance of any other responsibilities provided for under the *Act* or *Regulations* in relation to Legal Metrology Authorities.

### **Functions of the Legal Metrology Authority Appointment team**

General administrative support including:

- Responding to general inquiries from applicants or potential applicants.
- Accepting and recording receipt of applications

- Coordinating information flows between the applicant and the Chief Metrologist e.g. issues with applications and supporting documents.
- Assisting the Chief Metrologist with the recording and compilation of relevant documents and information.
- Reviewing applications and advising the Chief Metrologist on relevant administrative or technical issues.
- Coordinating travel for onsite visits.
- Liaising with onsite assessment teams and Chief Metrologist.
- Preparing and issuing invoices.
- Maintaining and publishing details of all appointed legal metrology authorities on the NMI website.

### **Functions of onsite assessment team**

- Coordinate visits with the applicants.
- Confirm with the Chief Metrologist that any outstanding issues with the application and documents have been resolved with the applicant.
- Prepare scope of assessment activities prior to visit.
- Conduct the visit.
- Reporting to Chief Metrologist on the outcomes of the visit.

### **Authority Appointment Application Process**

- A flow chart for Authority Appointment Application Process is at the end of this document.

### **RELEVANT UNITS OF COMPETENCY**

The following units of competency will assist in demonstrating the competency of staff to perform verifications:

- MSL934002A Apply quality system and continuous improvement processes
- MSL925002A Analyse measurements and estimate uncertainties
- MSL924001A Process and interpret data
- MSL904001A Perform standard calibrations
- MSL905001A Perform non-standard calibrations
- MSL935004A Maintain instruments and equipment

## PROCEDURES

### Applications

An application for appointment as a verifying authority must be made in the form approved by the Chief Metrologist and available from the legal metrology authorities' page on the NMI website.

A completed application can be sent to the Chief Metrologist by email or hard copy (post).

The email address is [nalma@measurement.gov.au](mailto:nalma@measurement.gov.au)

The postal address is:

NMI – Licensing & Legal Metrology Appointments  
GPO Box 2013  
Canberra ACT 2601  
Australia

To arrange for payment of the application fee, contact the Legal Metrology Authority Appointment team on 1300 686 664 (Option 2) or by email to [nalma@measurement.gov.au](mailto:nalma@measurement.gov.au)

NMI will acknowledge receipt of the application and payment of fees by email or post.

The Chief Metrologist will initially examine the application to determine:

- Whether the applicant holds NATA accreditation that the Chief Metrologist considers appropriate to verifying standards of measurement, or
- Whether the Chief Metrologist will be required to form an opinion as to whether the applicant is capable, or has direct control of staff who are capable, of verifying a standard of measurement.

### Appointment of applicant with relevant NATA accreditation

If the applicant holds appropriate relevant NATA accreditation, the Chief Metrologist may appoint the applicant as a verifying authority.

### Appointment of applicant without relevant NATA accreditation

If the applicant does not present appropriate NATA accreditation, the Chief Metrologist will assess the application to determine whether, in the opinion of the Chief Metrologist, the applicant is capable, or has direct control of staff who are capable, of verifying a standard of measurement.

If the Chief Metrologist forms the opinion that the applicant is capable of verifying a standard of measurement, then the Chief Metrologist may appoint the applicant as a verifying authority.

Prior to making a decision on the application, the Chief Metrologist may advise the applicant that:

- additional documentation or information is required, and/or
- an onsite assessment is required.

If additional documentation or information is requested, the Chief Metrologist can request the additional documentation or information be provided within a reasonable time frame.



## **Assessment of additional documentation or information**

The Chief Metrologist will consider any additional information provided.

If after receiving the additional documentation or information the Chief Metrologist forms the opinion that the applicant is capable, or has direct control of staff who are capable, of verifying a standard of measurement, then the Chief Metrologist may appoint the applicant as a verifying authority.

If, after considering the additional documentation or information, the Chief Metrologist has not formed the opinion that the applicant is capable, or has direct control of staff who are capable, of verifying a standard of measurement, the Chief Metrologist may advise the applicant that an onsite assessment is required.

## **Onsite assessment**

If required, an onsite assessment will be conducted by appropriately qualified NMI staff or by persons considered by the Chief Metrologist to hold the appropriate experience and qualifications. The onsite assessment in the form of a visit to the applicant's premises will ensure that the facilities are as described in the application and that the applicant actually has the equipment and reference standards of measurement described in their application. The onsite assessment will also be an opportunity to meet and assess the staff who will be performing verifications.

An onsite assessment should not commence until the applicant has had a reasonable opportunity to address any outstanding issues with the application or supporting documents and information.

A report on the onsite assessment will be submitted to the Chief Metrologist by the officers undertaking the onsite assessment.

## **Assessment of application and onsite assessment report**

After the assessment of the application and a report on the onsite assessment has been received by the Chief Metrologist, the Chief Metrologist will determine whether, in the opinion of the Chief Metrologist the applicant is capable, or has direct control of staff who are capable, of verifying a standard of measurement, and whether the appointment will be subject to any conditions. The Chief Metrologist may, if required, request further information to assist in making a determination.

The Chief Metrologist will make a decision and advise the applicant of the decision, including reasons for the decision.

If the applicant is not satisfied with the decision, they may request (in writing) that the decision be reconsidered. The request for reconsideration should include reasons why the decision should be reconsidered.

The Chief Metrologist will reconsider the original decision and inform the applicant in writing of the outcome. Should the original decision stand the Chief Metrologist will provide reasons and information regarding the applicant's rights of review.

Applicants may then apply to the Administrative Appeals Tribunal (AAT) to have the reconsidered decision reviewed. Details of the AAT processes, forms, fees and contact details may be found on its website at <http://www.aat.gov.au>. The AAT has an office in every State and Territory capital city to which enquiries may be directed.

## CRITERIA FOR DETERMINING CAPABILITY

### NATA Accredited applicants

To satisfy the requirements of regulation 73(1)(b) of the *Regulations*, the Chief Metrologist needs to consider whether an applicant for appointment as a verifying authority holds the appropriate NATA accreditation.

In determining whether the NATA accreditation is appropriate, the Chief Metrologist will assess whether the the NATA accreditation is consistent with the scope of the application and any other matters considered relevant.

### Non-NATA accredited applicants

For applicants who do not hold NATA accreditation that the Chief Metrologist considers appropriate for appointment as a verifying authority of a standard of measurement, the Chief Metrologist is required to consider whether the applicant is capable, or has the direct control of staff who are capable, of performing the function of verification of standards of measurement to which the application relates.

NMI suggests applicants who do not hold NATA accreditation have regard to the NATA accreditation requirements for ISO/IEC 17025 when considering the evidence they wish to supply in support of their applications.

In considering an application for appointment as a verifying authority, the Chief Metrologist may take into account the following:

- the policy principles set out in this document
- the applicant's quality management system which should demonstrate the applicant has in place an appropriate level of quality management
- the applicant's testing methods and procedures, which should be appropriate to verify standards of measurement of the type and accuracy for which appointment is sought.
- the level of uncertainty that can be achieved in verifications performed by the applicant and the suitability of the applicant's uncertainty analysis in producing least uncertainties of measurement for the range of standards of measurement sought. Variations in factors such as temperature and humidity within a laboratory are to be included in the uncertainty calculation as they can increase the uncertainty with which a standard of measurement may be verified.
- the applicant's reference standards of measurement which must be appropriate for the type and accuracy of verifications for which appointment is sought. The reference standards of measurement must have greater accuracy (i.e. lower uncertainty) than the standards of measurement the applicant proposes to verify.
- the capacity of the applicant to comply with legal traceability requirements set out section 10 of the *Act* will be complied with (the most common legal traceability pathway under section 10 is through the use of reference standards of measurement).
- the applicant's facilities which must be suitable for performing the function of verifying standards of measurement of the type and accuracy for which appointment is sought. Environmental factors within the applicant's facilities must enable the required accuracy of verification to be achieved, including temperature and humidity control of the facilities.
- the competency of the applicant and the applicant's staff to verify standards of measurement of the type and accuracy for which appointment is sought. This can be demonstrated by the qualifications, training and experience of the applicant, and the applicant's staff.

## **FEES**

NMI charges fees on a cost recovery basis.

The fee for making an application for appointment as a legal metrology authority can be found on the NMI website at <https://www.industry.gov.au/regulations-and-standards/australias-measurement-system/verifying-authorities>.

Fees may also be payable if an on-site assessment is required. These will be determined according to relevant departmental policies on user charging and in consultation with the applicant before conducting and charging for an on-site assessment.

# Authority Appointment Application process

