Australian Government

Department of Industry, Innovation and Science

DISCUSSION PAPER:

THIRD PARTY ARRANGEMENTS

Measurement Law Review

2019

Have your say

The Australian Government is seeking responses to the issues and questions raised in this paper. You can submit your comments via the Department of Industry, Innovation and Science's Consultation Hub https://consult.industry.gov.au/measurement-law-review/measurement-assurance

Australia's measurement laws can be found on the Federal Register of Legislation **https://www.legislation.gov.au**.

Submissions will be considered by the government to help develop options for reform.

If you have difficulties or questions, please call **1300 686 664** or email **measurementlawreview@industry.gov.au**.

The closing date for submission is **23 December 2019**.

By making a submission you consent to the submission being made public on the consultation website unless otherwise specified. Submissions should indicate whether any part of the content should not be disclosed to the public.

Contents

1. Overview **4**
- 1.1 The Measurement Law Review (the Review) 5
- 1.2 This Discussion Paper 5

2. Third Parties in Australia's Measurement Framework **6**
- 2.1 The Measurement System and the Legislative Framework 6
- 2.2 Current Third Parties in the Framework 6
- 2.3 International Measurement Frameworks 7
- 2.4 Other Australian Entities out of Scope of this Discussion Paper 8

3. Common Issues **9**
- 3.1 Competency 9
- 3.2 Prescriptiveness of Legislation 10
- 3.3 Compliance and Enforcement 10
- 3.4 Applying a Principles-based Approach 11

4. Servicing Licensees and Verifiers **13**
- 4.1 Current Arrangements 13

5. Utility Meter Verifiers (UMVs) **15**
- 5.1 Current Arrangements 15
- 5.2 Issues 16

6. Public Weighbridge Licensees and Weighbridge Operators **17**
- 6.1 Current Arrangements 17
- 6.2 Issues 18

7. Legal Metrology Authorities (LMAs) **20**
- 7.1 Current Arrangements 20
- 7.2 Issues 21

Appendix A: Comparison of Third Party Arrangements **22**

Measurement plays a fundamental part in the innovation system

DISCUSSION PAPER:

THIRD PARTY **ARRANGEMENTS**

MEASUREMENT LAW REVIEW – DISCUSSION PAPERS

1 Scope of Australia's Measurement Laws
2 Traceable Measurement
3 Measuring Instruments
4 Measurement-based Transactions
5 Third Party Arrangements
6 Compliance Arrangements

1. Overview

Measurement plays an important role in Australia's economy. As detailed in section 51(xv) of the Constitution, the Australian Government has power to legislate in relation to weights and measures and has enacted legislation to carry out its metrological functions. The objectives of this legislation include establishing and coordinating a uniform national system of measurement, including trade measurement.

A 2015 independent review of Australia's legal metrology activities indicated while the national measurement system is working well, the legislation is:

- very prescriptive and needs to address matters of policy and principle, reduce prescription and remove matters of detail (regulatory processes) into subordinate legislation or guidance material;
- complicated and needs to enable the public to understand their obligations and the implications of regulatory measurements; and
- not easy to understand and needs to be written in plain language to improve clarity and simplicity.

The measurement law needs to: better reflect and integrate current policy and principles into the legislation; articulate performance outcomes; and enhance flexibility, with consideration given to the application of a principles-based approach.

1.1 The Measurement Law Review (the Review)

The Australian Government is conducting a review of Australia's measurement laws. The review aims to ensure Australia's measurement framework can support the economy now and into the future as technology, industry and consumer needs evolve.

The Review provides an opportunity to consider whether the current legislation continues to be appropriate, effective and efficient. This paper is not an exhaustive exploration of the topic and you are welcome to raise issues and views not outlined in this paper in your submission. Questions are provided at the end of each section to prompt feedback. Any calculations of costs or benefits of the current regulations or in response to identified issues would be useful to include in your submission.

The Review secretariat would be interested in receiving responses from parties including, but not limited to:

- businesses or individuals involved in making or relying on measurements under the legislative framework;
- providers of physical, chemical and/or biological measurement services;
- providers of measuring instruments;
- innovators of measurement technology;
- jurisdictional agencies whose regulations call up measurement laws; and
- consumers and the general public who rely on or are impacted by measurement in their daily lives.

For more information on the Review, please visit **www.industry.gov.au/measurement-law-review**

1.2 This Discussion Paper

This paper outlines the current legislated framework that provides the basis for authorising third parties to exercise specific functions in the regulation of measurement in Australia. It considers the appropriateness of current third party arrangements, seeks input on the benefits and challenges associated with introducing more flexible options and appropriate auditing arrangements. Stakeholders are also encouraged to read Discussion Paper 6 for more information regarding general compliance and enforcement arrangements.

This discussion paper on *Third Parties* will refer to:

- The *National Measurement Act 1960* (the Act): Part X Servicing Licensees; Part XI Public Weighbridges; Part XII - Disciplinary action against servicing licensees and public weighbridge licensees; Part XIII Utility meter verifiers
- The *National Measurement Regulations 1999* (NMR): Part 7, Division 2 – Appointment of authorities.
- The *National Trade Measurement Regulations 2009* (NTMR): Part 2, Division 2.4 Servicing Licensees, Part 3 – Weighbridges used for trade, Schedule 1 Maximum permissible errors.

For additional information on all discussion papers, please refer to the ***Guide to the Discussion Papers***

This paper is structured to:

- Provide background regarding the third parties under the measurement framework (Chapter 2)
- Outline issues common to all third parties (Chapter 3)
- Consider each type of third party and raise questions specific to those particular third parties:
  - Servicing Licensees (Chapter 4)
  - Utility Meter Verifiers (Chapter 5)
  - Pubic Weighbridge Licensees (Chapter 6)
  - Legal Metrology Authorities (Chapter 7)

While stakeholders are encouraged to read the whole paper, they may find sections discussing individual types of third parties more relevant to their specific needs.

2. Third Parties in Australia's Measurement Framework

2.1 The Measurement System and the Legislative Framework

Australia has a national measurement system which ensures that measurements of physical, chemical or biological quantities can be made on a consistent basis throughout the country.[1] This system ensures practical measurements made by industry and the community are linked to the International System of Units (SI). The Australian Government's National Measurement Institute (NMI) manages this system to ensure Australia's reputation as a trusted source of reliable measurement is maintained domestically and internationally. This supports trade, science and innovation in Australia, thereby promoting economic growth.

Key elements of Australia's measurement system are legislated (the measurement framework) and include mechanisms to ensure traceable measurement[2] and the regulatory control of measurement used for trade and legal purposes. The framework is provided in:

- the primary legislation – the Act;
- the subordinate regulations – NMR and NTMR; and
- other legislative instruments made under powers in the legislation including determinations, testing standards and guidelines.

2.2 Current Third Parties in the Framework

Third parties are entities licensed or appointed under the measurement legislation to perform a particular domestic function necessary to maintain confidence in the accuracy of a measurement used for trade or legal purposes. These functions are often performed by entities already engaged in performing measurement activities, such as supplying, calibrating or servicing measuring instruments.

The different kinds of third parties specified under Australia's measurement framework are:

- **Servicing licensees** who support the trade measurement system by testing and verifying measuring instruments used for trade ;
- **Utility meter verifiers** (UMVs) who test and verify utility meters;

1 More information regarding how this occurs can be found in previous discussion papers available at: https://www.industry.gov.au/data-and-publications/measurement-law-review

2 For more information regarding traceability, see *Discussion Paper 2: Traceable Measurement* and https://www.bipm.org/en/bipm-services/calibrations/traceability.html

- **Public weighbridge licensees** who make weighbridges available for public use; and
- **Legal metrology authorities** (LMAs) who comprise of the following:
  - **Verifying authorities** who verify standards of measurement and artefacts;
  - **Certifying authorities** who certify measuring instruments or certify reference materials; and
  - **Approving authorities** who examine measuring instruments and approve patterns of measuring instruments.

The legislation sets out a process for appointment, conditions of appointment, and grounds for cancellation or varying appointment. Requirements for each type of authorised third party are discussed later in this paper.

2.3 International Measurement Frameworks

Australia's measurement system is linked to a number of international arrangements that promote and coordinate global recognition and acceptance of national measurement systems. Australia has responsibilities as a signatory to the two inter-governmental treaties on measurement, the **Metre Convention** and the **Convention Establishing an International Organisation of Legal Metrology:**

1. The governance structures under the Metre Convention are responsible for "ensuring the propagation and improvement of the International System of Units" and "promoting world-wide uniformity in units of measurement", among other matters.[3] Under the Metre Treaty, the International Committee for Weights and Measures (CIPM) has established the global CIPM Mutual Recognition Arrangement (MRA), providing the basis for international recognition of national **measurement standards and calibration and measurement certificates issued by** signatory institutes.[4]
2. The **International Organization of Legal Metrology** (OIML) works towards harmonisation of regulatory frameworks, and developing model regulations, standards and related documents for use by legal metrology authorities and industry. The global framework for type approval requirements is established under the OIML Convention is the OIML Certification System (CS).[5, 6]

The CIPM MRA and OIML-CS support the reduction of technical barriers to trade, and NMI's effective participation in global frameworks and in Asia-Pacific forums ensures international recognition and acceptance of Australia's measurement system. It also underpins competitiveness of Australian business and industry participating in global markets.

Third parties that are part of the national measurement system deliver measurement services in Australia that are supported by these international arrangements. Examples of how these linkages impact on Australia's third parties include:

1. ***National Instrument Test Procedures*** (NITPs): the relevant Australian NITPs are followed when testing a measuring instrument for verification. The NITPs are derived from international requirements (as set out in the OIML 'R' documents) to help ensure individual instruments operate within acceptable limits of error and are of an approved type.
2. ***Laboratory practice***: Internationally consistent laboratory practice is established by the International Laboratory Accreditation Cooperation (ILAC) and the Asia-Pacific Accreditation Cooperation (APAC). LMAs and UMVs are typically accredited by the National Association of Testing Authorities (NATA) to AS ISO/IEC 17025.[7]
3. ***Instruments manufactured overseas***: Before testing and verifying a trade measuring instrument manufactured overseas, a third party will need to be satisfied the instrument holds Australian pattern approval certification and is therefore aligned with internationally agreed type approval requirements.[8]

3 www.bipm.org

4 NMI was an inaugural signatory of the CIPM MRA, established in 1999.

5 The OIML is an "international standard-setting body" in the sense of the World Trade Organization's Technical Barriers to Trade Agreement. The OIML-CS and International Recommendations ('R' documents) specify requirements and methods for evaluating the design of measuring equipment for type approval. See: https://www.oiml.org/en/about/legal-metrology/trade

6 OIML and the International Bureau of Weights and Measures (BIPM; also established under the Metre Treaty) work closely with the International Laboratory Accreditation Cooperation (ILAC) and the International Organization for Standardization (ISO). See the joint declaration regarding the importance of international consistency and comparability of measurements: ***BIPM-OIML-ILAC -ISO Joint Declaration on Metrological Traceability***

7 ***ISO/IEC 17025 General requirements for the competence of testing and calibration laboratories***

8 Australia's pattern approval processes provide confidence that instruments designed for trade use are appropriately fit for Australian conditions. Australia's pattern approval requirements are where practicable for national interests, consistent with specifications published by OIML.

2.4 Other Australian Entities out of Scope of this Discussion Paper

There are a number of other Australian bodies that play a significant role in Australia's measurement system but are not in the scope of this paper. These include:

- Entities authorised to maintain standards for the Chief Metrologist: the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and Australian Nuclear Science and Technology Organisation (ANSTO).
- Organisations forming part of the Technical Infrastructure Alliance of Australia, along with NMI: Standards Australia, the Joint Accreditation System of Australia and New Zealand (JAS-ANZ), and NATA. These organisations have adopted established international arrangements for standards development, and the assessment and accreditation of laboratories, testing facilities and conformity assessment bodies.

QUESTIONS

2.4.1 Are there other functions within the measurement system which could be implemented via third party arrangements? If so, which areas?

2.4.2 Do the current third party arrangements add value to the metrological system? Do they impose unnecessary regulatory burden?

2.4.3 Are there functions within the measurement system currently implemented by third party arrangements which should be implemented by the Australian Government instead? If so, which areas and why?

3. Common Issues

This chapter outlines common issues and points for consideration relating to third parties. Readers are invited to share their views regarding these common issues and any suggestions for potential future arrangements in response to the questions on specific third parties found at the end of Chapters 4 through 7.

Current regulatory arrangements treat third parties differently according to:

- their role in ensuring practical measurements made by industry and the community are traceable back to the SI Units;
- varying requirements for demonstrating competence;
- the nature of conditions imposed on a licence or appointment;
- the prescribed matters to be complied with; and
- enforcement arrangements to address non-compliance.

These differences are further summarised in Appendix A.

3.1 Competency

The Act and regulations establish that competency can be demonstrated through different mechanisms. These include the opinion of the Chief Metrologist, a relevant statement of attainment,[9] or a relevant NATA accreditation. The competency of third parties provides confidence in their ability to perform measurement functions and to ensure Australia's measurement system is aligned with global expectations.

Competency requirements for third parties and their employees differ:

- Verifiers nominated under a **servicing licence** require a statement of attainment[10]
- **Public weighbridge licences** require having at least one operator with a statement of attainment[11]
- Applicants to become a **utility meter verifier** can demonstrate they are competent by holding NATA accreditation[12]
- Applicants to become a **verifying authority** or **certifying authority** can demonstrate competence by holding NATA accreditation or demonstrate capability to the Chief Metrologist's satisfaction[13]
- **Approving authorities** must be competent to perform certain functions.[14]

9 Statements of attainment are issued by a registered training organisation (RTO). NMI is an RTO registered by the Australian Skills Quality Authority (ASQA) under the Australian Quality Training Framework (AQTF).

10 Licence conditions require that verifiers must have a statement of attainment for a subclass of instrument before verifying an instrument of that class (NTMR r 2.43(9A).

11 This is a condition imposed on public weighbridge licensees NTMR r 3.62(g).

12 Section 18RCA of the Act.

13 Regulation 73(1) of the NMR.

14 Regulation 76(1) of the NMR.

Points for consideration: Should an individual's competency to conduct a third party activity be confirmed before that person is appointed or licensed to be a third party? Are the current competency requirements appropriate to support confidence in the measurement system, both as a precondition and as an ongoing condition to a licence or appointment? Is the required competency burdensome? Can you suggest an alternative mechanism?

3.2 Prescriptiveness of Legislation

The Review has been tasked with developing options and making recommendations for a principles-based approach to regulation to minimise the regulatory burden on businesses.[15] This requires assessing the ***areas that currently use a prescriptive approach*** to determine whether prescriptive regulations (such as weighbridge requirements relating to pits and platforms, cleanliness and weighbridge tickets, and various licence conditions) or formal procedures (such as NITPs)[16] are effective and appropriate. A prescriptive approach can impose a compliance burden by requiring third parties to interact with different levels of regulation and to administer a wide range of potentially complex regulatory matters.

Current Level of Prescriptiveness Under the Measurement Framework[17]

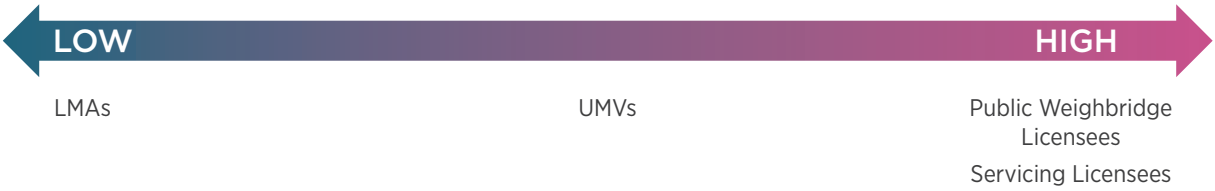


Figure 1: NMI's assessment of the existing level of prescription for each type of third party

Points for consideration: Is a prescribed approach necessary to ensure confidence in testing, verification or certification by third parties? What needs to continue being prescribed and what does not? What areas of the measurement framework impose the greatest burden for your business?

3.3 Compliance and Enforcement

NMI undertakes a range of targeted compliance activities to monitor and audit the compliance performance of third parties. The framework explicitly enables the use of trade measurement inspectors[18] to monitor compliance of some third parties. Prior to initiating enforcement action, NMI uses a range of strategies as detailed in ***Discussion Paper 6: Compliance Arrangements.***

Current compliance actions can involve gathering and analysing information relevant to the regulatory performance of servicing licensees and public weighbridge licensees and using this information to assess compliance risks and potential regulatory breaches. At present UMV and LMA compliance is dealt with on a case by case basis and identified alleged breaches may be escalated for consideration of enforcement action where appropriate.

15 The full Terms of Reference for the Review can be found here: https://www.industry.gov.au/data-and-publications/measurement-law-review

16 NMI consulted industry in 2015 on the effectiveness and use of NITPs. The majority of submissions, including those from non-servicing licensees, did not support the proposed deregulation of National Instrument Test Procedures.

17 This assessment considers a number of substantive obligations applying to each type of third party under the measurement framework and also the number of conditions that must be satisfied under the framework before an appointment is granted or a licence is issued.

18 Act s 18ME – Monitoring powers of inspectors.

Examples of available administrative compliance and enforcement options

Compliance Risk	Licensees[19]	UMVs[20]	LMAs[21]
Low	• Communication about non-compliance • Warnings	• Communication about non-compliance • Warnings	• Communication about non-compliance • Warnings
Medium	• Infringement Notices • Imposition of licence conditions • Reprimand	• Imposing or varying appointment conditions • Reprimand	• Imposing or varying appointment conditions
High	• Cancelling licence • Enforceable undertakings • Publishing details of enforcement action	• Suspending or revoking appointment	• Cancellation of appointment

Consideration Points: Are the current compliance and enforcement arrangements for third parties appropriate and effective? What alternative administrative or legislative options might be considered to encourage third party compliance with their obligations under the measurement framework? What sort of rights of review should be available for compliance and enforcement action against third parties?

3.4 Applying a Principles-based Approach

The Review aims to make the legislation more principles-based to provide increased flexibility and reduce the regulatory burden on third parties. This would involve setting obligations and giving third parties responsibility for interpreting and deciding how these obligations can be met. This may mean more attention and investment is needed in establishing appropriate in-house arrangements such as quality management systems to support a principles-based approach.

The current legislative arrangements set out requirements for how to achieve traceable measurement.[22] A principles-based approach might require outcomes to be achieved, but would allow flexibility regarding the pathway used. For example, a principle is that results must be traceable and sufficiently accurate then a business could comply with this requirement by either:

1. using procedures specified by the Chief Metrologist;[23] or
2. using an alternative procedure to achieve the same outcome.

The latter option would still involve third parties using appropriate standards of measurement, procedures and methods that ensure the outcome of accurate and reliable measurement, but there would be a greater degree of flexibility with the method used.

A 'mix' of principles-based approaches and regulatory prescription might also be appropriate, depending on regulatory and policy objectives, and assessment of risk factors. Additionally, to facilitate a principles-based approach and retain overall confidence in the measurement system, a greater emphasis on monitoring both quality management systems and results may be necessary.

19 Disciplinary action requirements for servicing licensees and public weighbridge licensees are provided by Part XII of the Act. Infringement notices are provided for under s 18LF of the Act and are discussed in *Discussion Paper 6: Compliance Arrangements*.

20 Legislative compliance actions for UMVs are provided by section 18RG of the Act.

21 Grounds for varying or cancelling an appointment for authorities are provided in regulation 79 of the NMR.

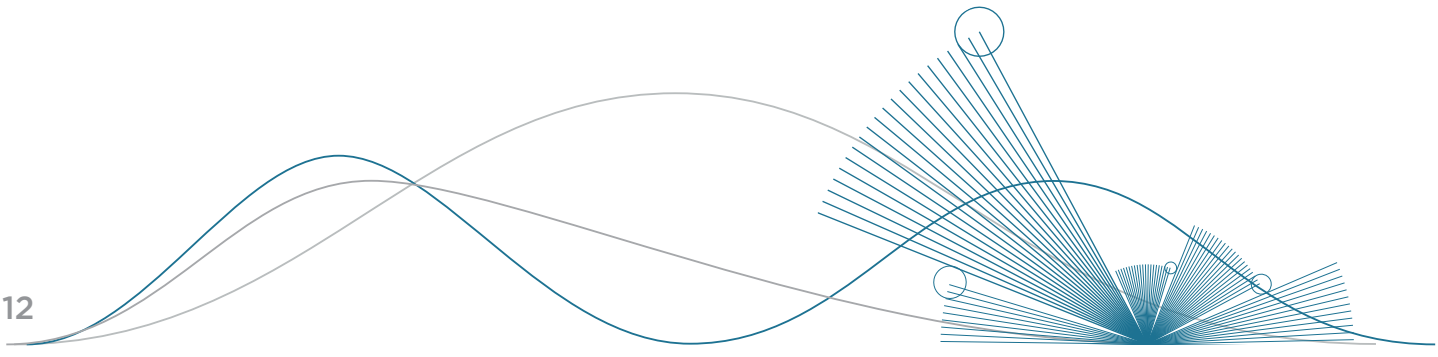
22 The requirements which support traceable measurement are found in different parts of the legislation. This includes section 10 of the Act which requires that measurements be made in accordance with appropriate standards of measurement, certified reference material or certified measuring instruments. Section 18GG(2) of the Act enables the Chief Metrologist to make NITPs which must be used when verifying instruments.

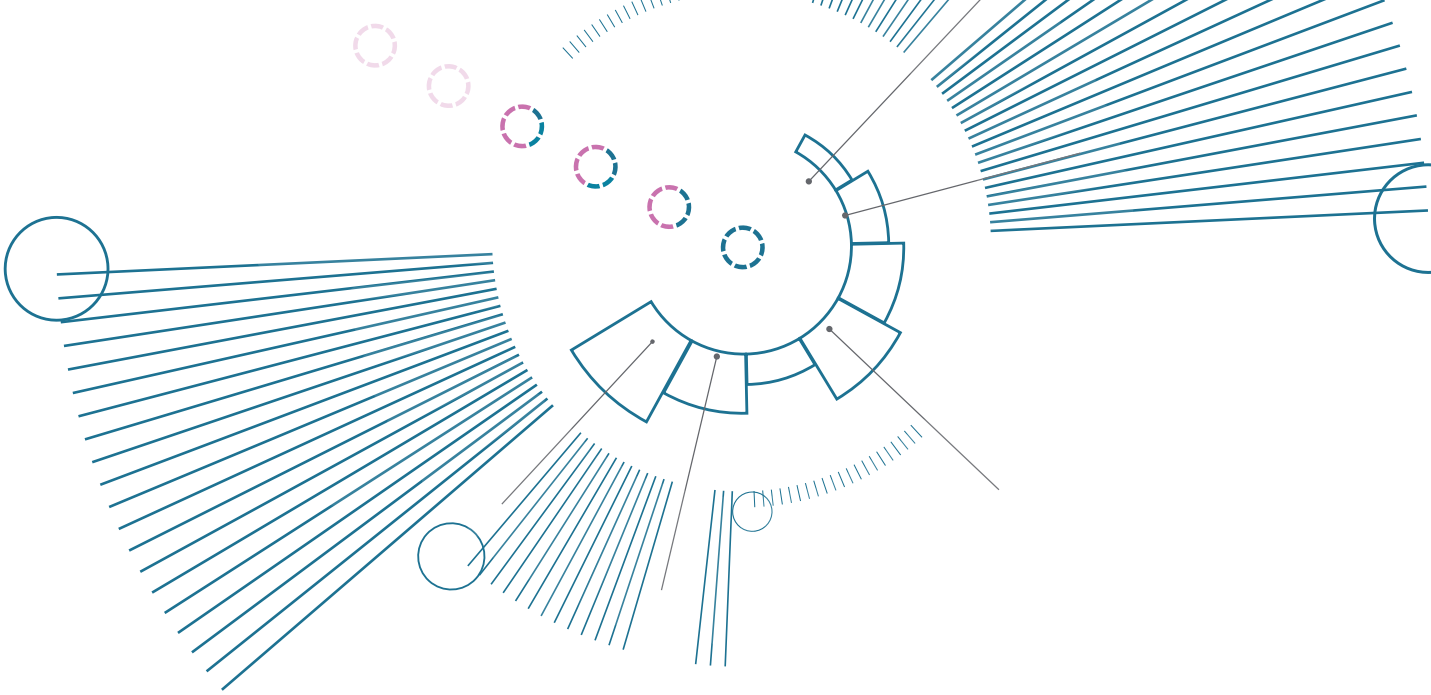
23 This could take the form of detailed guidance or policy requirements that may be adopted as a default for compliance, or where appropriate, a legislative mechanism for deeming compliance.

Even where certain activities warrant prescription, it may be possible to adopt a more flexible approach for achieving this prescription. Examples of prescriptive arrangements with flexible application include:

- general pattern approval certificates (for example, **for vehicle tanks**);
- **NITP-0** which provides 'general' test procedures for measuring instruments and can be followed in the absence of a specific NITP for a particular instrument; and
- general licences used in other legislation to authorise certain types of activity, including:
  - in the United States for certain **export licences**;
  - in the United Kingdom for a range of 'low risk' activities relating to **wildlife management**; and
  - in Australia to **regulate use of the radiofrequency spectrum** for devices such as **low interference potential devices (LIPDs)** or **citizen band radios**, use of **Victorian Crown land for various private purposes such as grazing animals** and at the Commonwealth level for **ships to engage in coastal trading**.

Points for consideration: Where might there be a benefit in using a principles-based approach? What guidance materials or other support might be required to enable third parties to comply with principles-based requirements? Where is there a need to retain prescriptive requirements, and where can these be made more general in nature?





4. Servicing Licensees and Verifiers

The Act enables granting a servicing licence to test and verify measuring instruments (excluding utility meters) before use for trade, thereby ensuring that measuring instruments operate accurately.[24] In order to verify a measuring instrument used for trade under a servicing licensee, the servicing licensee must nominate a verifier to conduct verifications. This verifier must have the relevant competency to do so, which can be demonstrated by a statement of attainment. Whether they are a sole trader or company, a verifier must still be nominated under a servicing licensee to perform verifications.[25]

4.1 Current Arrangements

Granting of licence

NMI grants licences to businesses or individuals on application to verify measuring instruments. The licence is granted following an assessment of the application along with the information accompanying it. NMI can refuse an application based on the conditions set out in the legislation.

Once appointed, servicing licensees have various obligations they need to comply with, including:

- ensuring verification functions are performed as required by the legislation; and
- complying with conditions under the licence, including those requirements that relate to the performance of the licensee's functions and reporting obligations.

The circumstances in which a servicing licence must be refused are set out in section 18NC of the Act. This includes where neither the applicant nor any employee of the applicant has the competencies appropriate to perform the functions and duties of a verifier (s 18NC(1)(d)).

Performance

There are general conditions imposed on all servicing licensees (s 18NH) and additional conditions can also be added (s 18NG). One key general condition requires individuals who verify a measuring instrument to hold a relevant statement of attainment (issued by a registered training organisation) to verify that class of measuring instrument (NTMR regulation 2.43(9A)).

24 Measuring instruments used for trade must be pattern approved and verified before first use (s 18GA). For more information, please refer to *Measuring Instruments Discussion Paper*, available at: https://www.industry.gov.au/data-and-publications/measurement-law-review

25 Sections 18GA and 18GH(1)(c) of the Act.

Servicing licensees verify measuring instruments by using approved test procedures (for instance, NITPs) to ensure accuracy and reliability of the measurements made using the instrument. They are required to provide certified reference standards of measurement that verifiers under their licence can use to test and verify measuring instruments in accordance with NITPs.[26] To operate accurately, measuring instruments need to satisfy Maximum Permissible Error (MPE)[27] requirements. An instrument that passes all verification tests has a verification mark applied to it.[28]

Compliance

Servicing licensees are required to submit information on each completed verification via a Form 6 to NMI.[29] Data contained in Form 6 reports is processed and analysed to identify potential non-compliance for appropriate action.[30]

NMI currently uses an escalating risk assessment framework to inform decisions on appropriate compliance and enforcement actions. A servicing licensee will be subject to enforcement action if a non-compliance is considered substantial or there have been a number of alleged breaches (or an increase in the licensee's risk rating). Actions that have been taken against servicing licensees for non-compliance include direct communication about specific non-compliance issues, warnings, infringement notices with associated fines, and disciplinary action for more serious breaches.

The type of disciplinary actions that can be taken include: issuing an official reprimand; imposing a condition on the licence; suspending the licence; cancelling the licence; accepting an enforceable undertaking from the licensee; and publicising information about a particular disciplinary action (ss 18QC - 18QF). The legislation contains grounds for disciplinary action (s 18 QA), including breach of a licence condition.[31] A breach of conditions is also a strict liability criminal offence (s 18NO).

QUESTIONS

4.1.1 Should we continue to have a servicing licensee system? Why or why not? What is the value to businesses and to the community?

4.1.2 Should the current arrangements for granting a servicing license continue? How can the process of licensing be streamlined or improved? How appropriate and efficient are the current licensing requirements?

4.1.3 How can ongoing competency of verifiers be ensured and facilitated? Is the required level of competency appropriate? What alternatives might be considered to an RTO-issued statement of attainment?

4.1.4 How important is the servicing licence to your business? What percentage of your business activity involves carrying out verifications under the licence?

4.1.5 How appropriate and efficient are the current reporting requirements? What is the appropriate level of ongoing monitoring and auditing of verifiers and licensees? Are the current compliance and enforcement options effective?

26 Under regulation 2.43(18) of the NTMR, servicing licensees and their employees (verifiers) are required to test instruments in accordance with the NITP prior to verifying. Section 18GG of NM Act provides that a measuring instrument is verified when tested in accordance with the NITPs. Each NITP sets out the reference standards to be used for testing measuring instruments for verification. Section 18NH(I) of the Act imposes a condition that servicing licensees must *'provide such classes and denominations, as are determined by the Secretary, of reference standards of measurement as are necessary for the exercise of the powers or the performance of the functions of the servicing licensee.'*

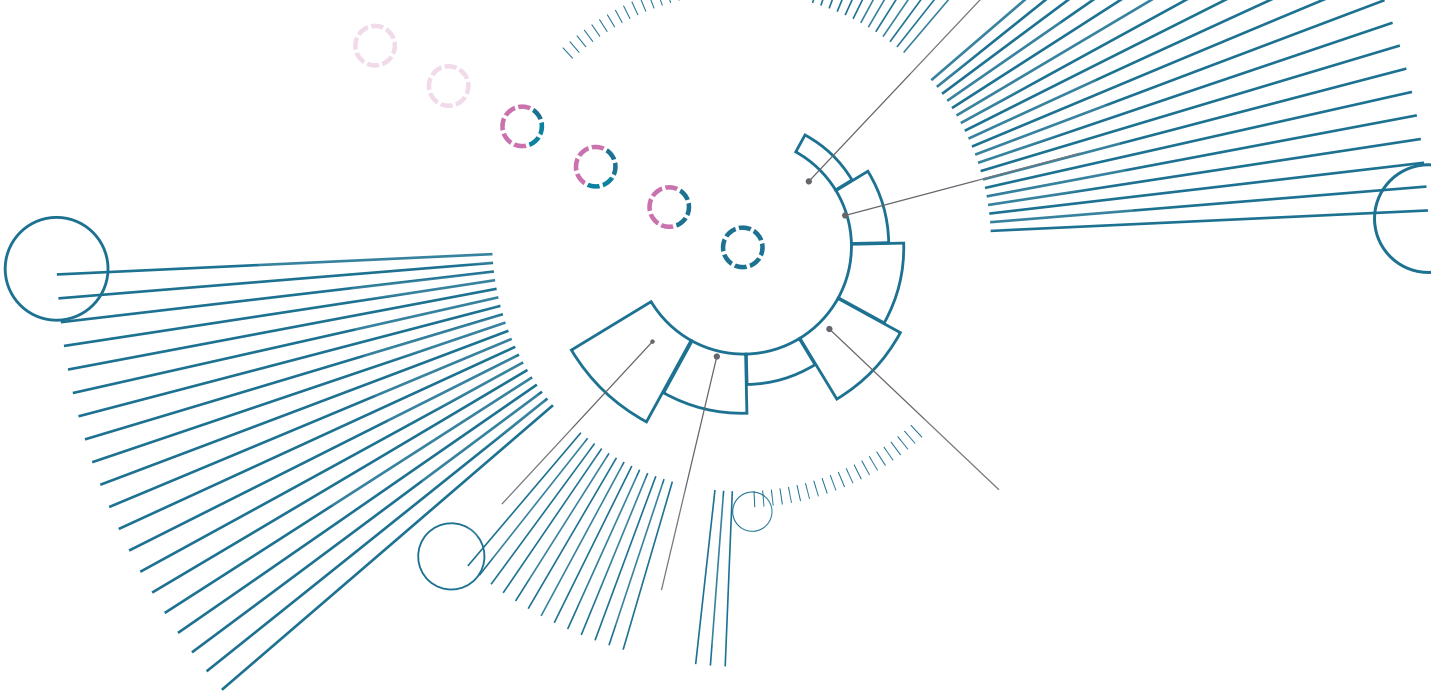
27 Maximum permissible error (MPE) is defined in regulation 1.4 of the NTMR. Schedule 1 of the NTMR sets out MPE requirements for various applications under the measurement system.

28 Section 18GJ of the Act provides for a register of verification marks. NMI issues each servicing licensee and each verifier employed by a licensee a verification mark to use when marking verified measuring instruments. These marks are used by servicing licensees, individual verifiers, and trade measurement inspectors to identify who has verified a particular instrument.

29 Regulation 2.43(16) of the NTMR.

30 Section 18ME of the Act provides trade measurement inspectors with monitoring powers over servicing licensees, public weighbridge licensees and utility meter verifiers.

31 Part XII of the Act provides for disciplinary action to be taken against servicing licensees and public weighbridge licensees and sets out the circumstances or grounds when disciplinary action can be taken (section 18QA), the type of disciplinary action that can be taken (section 18QC) and the other administrative arrangements and compliance options.



5. Utility Meter Verifiers (UMVs)

The Act enables the appointment of utility meter verifiers to test and verify electricity, water and gas utility meters used for trade (section 18GI). This is necessary because while certain classes of utility meter are exempt[32] from the operation of the Act,[33] those utility meters which are not exempt must be pattern approved and verified before they can be used for trade (sections 18GA and 18GG).

5.1 Current Arrangements

Appointment

NMI appoints UMVs to verify particular classes of utility meters. A UMV can only be appointed to a particular class of utility meter when they or one of their employees is competent to test that class of utility meter.[34] UMVs are typically appointed based on their ISO/IEC 17025 accreditation (by NATA).[35] Documents relating to an applicant's quality management system and traceability of their reference standards of measurement are also provided as part of the application process.

Performance

As a part of their appointment, UMVs are subjected to a range of conditions.[36] A key condition for a UMV is having the **competence** to test and verify a specific class of utility meter – either as an individual *'personally undertaking the verification'* or as a business *'employing persons to undertake the verification'*.[37] UMVs typically hold NATA accreditation to ISO/IEC 17025.[38] This standard requires that the laboratory have available the personnel, facilities, equipment, systems and support services necessary to manage and perform its activities. Although this standard leaves the

32 Refer to Section 4A of the Act and regulation 5.6 of the NTMR. The regulations prescribe an exemption for gas meters, and certain capacities of electricity and water meters from Part XIII of the Act under regulation 5.6(a) of the NTMR.

33 The exemptions were first put in place to allow time for appropriate infrastructure to be developed (pattern approval requirements, NITPs, verifiers, appropriate reference standards, and verifying authorities. More information regarding the history behind these can be found in the explanatory memoranda and second reading speech to what became the *National Measurement Amendment (Utility Meters) Act 1999*, which introduced s 4A of the Act.

34 This is required by section 18RA.

35 A person who is accredited by NATA to test a class of utility meter is taken to be competent to test that class of utility meter (section 18RCA)

36 These include the general conditions specified in section 18RB and specific conditions which may be applied to their appointment under section 18RA.

37 Section 18RB(a) and (aa) of the Act

38 ISO/IEC 17025:2017-11 (E), General requirements for the competence of testing and calibration laboratories: https://www.iso.org/ISO-IEC-17025-testing-and-calibration-laboratories.html

determination of what constitutes competent personnel to test a class of utility meter to the laboratory management in accordance with the NATA accredited quality system, confidence is created through the requirement to have procedures and retain records for: determining competency requirements; selection, training and supervision of personnel; authorisation of personnel to perform specific activities; and the monitoring of their competence.[39]

UMVs must maintain reference standards of measurement and participate in required utility meter verification training if required. UMVs demonstrate traceability through following **NITP 14** when performing a verification and using certified standards (provided by NMI or a relevant authority).

Compliance and enforcement

NMI does not currently require UMVs to submit verification data. However, NMI can request verification information from a UMV as required or can impose submission of verification data as a condition on a UMV's appointment.[40] Also, a trade measurement inspector may enter the business premises of a UMV to check their compliance with conditions of appointment.[41]

If a UMV breaches the conditions of appointment, NMI can take administrative disciplinary action against the UMV, which can range from a reprimand to revoking or suspending the appointment (section 18RG). Prior to taking disciplinary action, the UMV must be provided with a notice setting out a statement of reasons regarding the alleged breach and an opportunity to comment (sections 18RD – 18RF).

5.2 Issues

Is there a need for a separate category of verifier

UMVs are verifiers of measuring instruments used for trade – in this case utility meters. They provide the verification required before a specific instrument can be used for the first time, or as may be periodically required. While this is similar to the role that servicing licensees perform, different arrangements apply. As outlined in Appendix A, these differences include the requirements which need to be satisfied to become appointed/licensed, ongoing conditions and compliance and enforcement options.

QUESTIONS

5.2.1 Should the current system for UMVs be maintained and why? What is the value UMVs provide to businesses and to the community?

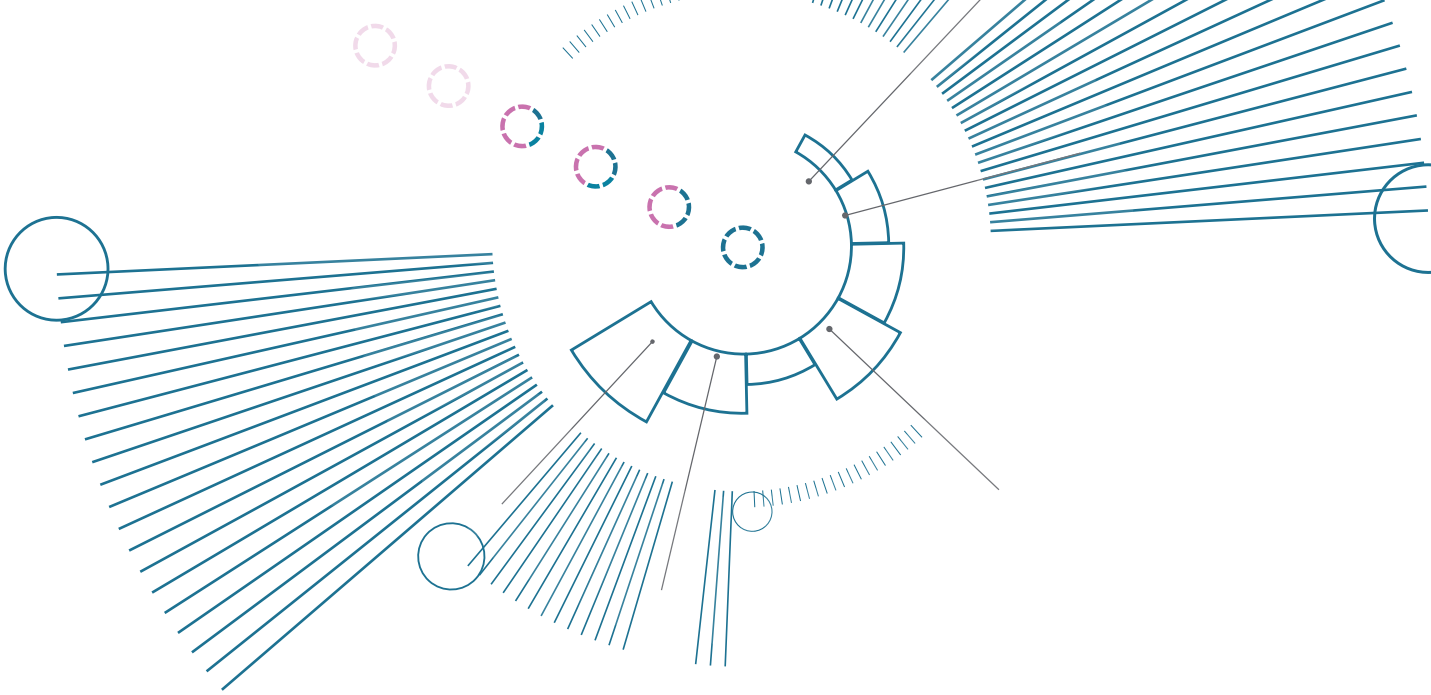
5.2.2 How different is a UMV to a verifier of a trade measuring instrument under a Servicing Licence? Do utility meters need to be verified by a separate category of third party? If so, why?

5.2.3 How can the process of appointment for UMVs be improved? How appropriate, effective and efficient are the current requirements and conditions for appointment as a UMV?

5.2.4 What is the appropriate level of competency that should be required for a UMV? Is the current accreditation requirement appropriate, effective and efficient?

5.2.5 What is the appropriate form of ongoing monitoring and auditing of a UMV?

39 Refer to ISO 17025, Section 6 Resource Requirements, 6.2 Personnel.
40 Section 18RB(g) of the Act.
41 Section 18ME of the Act.



6. Public Weighbridge Licensees and Weighbridge Operators

The Act enables granting a licence to operate a public weighbridge. When members of the public use a public weighbridge they can have confidence the weighing outcome is supported by requirements of the national measurement system. This makes reliable and independent weighing of heavy loads accessible to communities across Australia.

A weighbridge is a measuring instrument that has a capacity of 3 tonnes or more and has one or more platforms capable of determining the mass of a vehicle or of livestock.[42] They are often used to weigh goods such as farm produce, agricultural products, scrap metal and landscape materials. Where a weighbridge is made available as a public weighbridge,[43] then they are subject to additional requirements under Part XI of the Act. It is an offence to make a weighbridge available as a public weighbridge without a public weighbridge licence.[44]

6.1 Current Arrangements

Granting of licence

NMI grants licences to third parties to operate public weighbridges. The licence is granted following an assessment of the application along with the information accompanying it. NMI can refuse an application based on the conditions set out in the legislation.

Once granted a licence, public weighbridge licensees have obligations to comply with, including:

- ensuring the weighbridge is operated in accordance with requirements in the legislation; and
- complying with conditions under the licence, which includes general conditions on all public weighbridge licensees[45] and additional conditions that can also be imposed.[46]

The circumstances in which a public weighbridge licence must be refused are set out in section 18PC of the Act. This includes where the weighbridge is not suitable as a public weighbridge[47] and where no one is competent to operate the weighbridge under the licence.[48]

42 Section 3 of the Act.
43 Section 3A of the Act defines when a weighbridge is '*made available as a public weighbridge*'.
44 Section 18PT of the Act.
45 Refer to Section 18PH of the Act and regulation 3.62 of the NTMR.
46 Section 18PG of the Act.
47 Section 18PC(1)(g) of the Act. This includes the physical requirements applying to weighbridges used in trade as outlined in Division 3.1 of Part 3 of the NTMR.
48 Section 18PC(1)(d) of the Act does not define what 'competent to operate a public weighbridge' means, but regulation 3.62(g) makes it clear that a statement of attainment issued by an RTO can demonstrate this competence.

Performance

Public weighbridges are the only measuring instrument under the measurement framework that currently require an appropriately qualified operator. One general condition for the licence is that the licensee, an employee, or an operator contracted with the licensee must have a statement of attainment to demonstrate the person is competent to operate a weighbridge (NTMR regulation 3.62(g)).

Public weighbridges are also the only measuring instrument with a mandatory reverification period (every twelve months).[49] Reverification helps maintain on-going confidence in the accuracy of public weighbridges, as they are subject to a range of treatments that affect their accuracy and reliability. The verifications are performed by servicing licensees who follow the relevant NITP to ensure the use of traceable reference standards and compliance with accuracy requirements.[50]

Compliance and enforcement

NMI tests public weighbridges and carries out audits to assess the performance and compliance of the instrument, public weighbridge licensees and operators. Where a weighbridge used for trade is found to be inaccurate, a trade measurement officer follows the compliance arrangements for instruments used in trade (refer to ***Discussion Paper 6: Compliance Arrangements***). The officer will remove the verification mark, communicate specific non-compliance issues, and as appropriate give a notice to remedy, or a non-compliance notice. More serious non-compliance may also attract additional regulatory responses including letters of warning, issuance of warning, infringement notices or prosecution referral. Servicing licensees are used to verify and reverify weighbridges.

Disciplinary actions which can be taken include reprimanding the licensee, imposing a condition on the licence, suspending the licence, cancelling the licence, accepting an enforceable undertaking from the licensee, or publicising information about a particular disciplinary action (sections 18QC - 18QF). The legislation contains grounds for disciplinary action (s 18 QA), including for breaching a licence condition, which is a strict liability criminal offence (s 18PU).

6.2 Issues

Prescriptive requirements

The current arrangements for public weighbridges are derived from requirements that existed in some states prior to the creation of the national trade measurement system in 2010 and reflect the complexity of public weighbridge operation at that time. As well as reverification and competency requirements, public weighbridge licensees and operators need to comply with a number of prescriptive requirements set out in Divisions 3.1 and 3.2 of the NTMR.

Some examples of these prescriptive requirements include:

- Rules regarding weighbridge pit dimensions and features (regulation 3.6);
- Requirements for electrical or electronic devices (regulation 3.8(a)(iii));
- Requirements for public weighbridge signage (regulation 3.19); and
- Rules regarding what information measurement tickets can contain and how they are to be issued (regulation 3.43).

New technology and weighbridges

Increased presence of electronics and automation of the weighing/ticketing process has in most installations replaced the conventional mechanical weighbridge, e.g. advanced weighing systems using load cells and digital indicators and computerised ticketing. There are also now fully automated weighing systems capable of issuing tickets with remote monitoring and management, removing the need for an operator to be physically on site. To the extent that these changes make weighing simpler, or change the way that weighbridges are operated, then consideration should be given to whether the current level of prescriptive regulation continues to be appropriate.

49 Regulation 3.61 of the NTMR.
50 Use of NITPs by verifiers is a condition imposed on all servicing licences under regulation 2.43(18).

QUESTIONS

6.2.1 Has the need for public weighings changed? Should public weighbridges continue to be licensed? Is there a need to treat 'public weighbridges' differently to other weighbridges? Does this differing treatment create a disincentive for operators to provide access to a weighbridge as a public service?

6.2.2 Should public weighbridges have a reverification period? If so, how often should they be reverified, noting the current requirement is every 12 months? Should a more flexible approach be taken?

6.2.3 How can the licensing and reporting requirements of licensees be streamlined and improved?

6.2.4 Which requirements are the most important for licensees and operators? Which requirements are burdensome, can be made less prescriptive or do not contribute to accuracy of the weighbridge? Which requirements could be removed, reduced or changed?

6.2.5 How can ongoing competency of weighbridge operators be ensured and facilitated? Is the currently required level of competency appropriate? What alternatives might be considered to an RTO-issued statement of attainment?

7. Legal Metrology Authorities (LMAs)

Part 7 of the NMR enables the Chief Metrologist to appoint LMAs to exercise specific legal metrology functions that sustain the maintenance of traceability and confidence in measurement.

There are three broad types of LMA:

- **Verifying authorities** – verifiers of certain standards of measurement and physical quantifies of artefacts[51, 52]
- **Certifying authorities** – certifiers of certain reference materials and measuring instruments[53, 54]
- **Approving authorities** – examiners, approvers or certifiers of patterns of measuring[55]

LMAs often operate as part of a business or scientific facility delivering a range of services within a robust quality assurance framework.

7.1 Current Arrangements

Appointment

Generally, the Chief Metrologist appoints **verifying** and **certifying** authorities based on the applicant holding an appropriate NATA accreditation relevant to the functions of the appointment.[56] The legislation also allows the Chief Metrologist to appoint a verifying or certifying authority if the Chief Metrologist is satisfied as to the competency of the applicant to carry out their function as an LMA.[57]

In contrast, NATA accreditation is not a specified pathway for appointment of **approving** authorities and the appointment is based on the Chief Metrologist being satisfied of the applicant's competencies to carry out their role as an approving authority.[58]

51 Regulation 3 of the NMR defines 'artefact' to mean '*a physical object that is not a standard of measurement*'.
52 Regulations 73 and 74 of the NMR.
53 Section 3 of the Act defines 'reference material' to mean '*a material whose properties are used for the calibration of measuring instruments, the assessment of a measuring method or for assigning values to materials.*'
54 Regulation 73 and 75 of the NMR.
55 Regulation 76 of the NMR.
56 Regulation 73 (1)(a) of the NMR.
57 Regulation 73(1)(b) of the NMR.
58 Regulation 76 of the NMR.

Performance

Appointment as an LMA is subject to a number of conditions, as specified in the legislation and the instrument of appointment including participation in required LMA training and compliance with the Act and regulations.[59] The NMR outlines procedural requirements for the process of certification, verification and pattern approval.

Verifying and certifying authorities comply with the requirements for metrological traceability, required under NATA accreditation to ISO 17025 and also legal traceability requirements under the Act.[60] In doing so, they enable traceability for other third parties and industry sectors at large by verifying reference standards of measurement, certifying measuring instruments and reference materials (NMR 13, 34C, 37 and 48). Authorities must have appropriate certificates for their reference standards, as issued by verifying authorities or the NMI.[61] These certificates are particularly important when measurement needs to be defensible in accordance with section 10 of the Act.

Compliance and enforcement

There is no general requirement for LMAs to report on the performance of their functions, unless specifically required to by the Chief Metrologist[62] or by a specific condition imposed under their appointment.[63] The appointment of an LMA may be varied or cancelled where that LMA has failed to comply with a condition of their appointment, or the authority does not have appropriate facilities or staff to perform their appointed functions.[64]

The Act does not explicitly indicate how LMAs may be monitored for compliance of conditions.

7.2 Issues

Limited functions of approving authorities

Approving authorities have in practice been appointed to examine measuring instruments and patterns of measuring instruments, rather than to approve patterns or issue certificates of approval. The results of an examination or testing activity are sent to NMI for review and the issue of a certificate where appropriate.[65]

QUESTIONS

7.2.1 Should the Chief Metrologist continue to appoint LMAs? What value does appointment of LMAs provide to businesses and the community?

7.2.2 How appropriate are the current appointment and competency requirements for LMAs? Should certifying authorities for reference materials be required to hold accreditation to ISO 17034 as well as or instead of ISO 17025?[66]

7.2.3 If there was a general condition to report to NMI on the performance of activities undertaken under the appointment, what are the main barriers for LMAs and how could these barriers be overcome?

7.2.4 What is an appropriate, effective and efficient way to monitor or audit the performance of LMAs?

7.2.5 How important is the appointment as an LMA to your business? What percentage of your business involves carrying out LMA functions?

59 Regulation 77 of the NMR.

60 For example, in order to verify an instrument under 18GK of the Act, s 18GL requires that the standard of measurement used be compliant with section 10.

61 Under s 3 of the NM Act, a 'reference standard of measurement' must have been verified in accordance with the regulations. For example, under regulation 13 of the NMR.

62 Regulation 77(1)(c) of the NMR.

63 Under regulation 73(2)(b) or 76(3)(c) of the NMR.

64 Regulation 79 of the NMR.

65 An examination by an Approving Authority is requested by a manufacturer (or other applicant), and the Authority will send the results to the applicant. The manufacturer is then able to supply the examination results to NMI as part of an application for pattern approval.

66 ISO/EC 17034 provides general requirements for the competence of reference material producers.

Appendix A: Comparison of Third Party Arrangements

Requirement	*Third Party*				
	Servicing licensee	**UMV**	**Public weighbridge licensees**	**LMA (verifying or certifying authority)**	**LMA (approving authority)**
Competency requirements	• *Statement of Attainment* from an RTO. NTMR 2.43(9A).	• *Competency to verify* (usually via NATA accreditation): Act s 18RB(a), 18RB(aa) and 18RCA.	• *Statement of Attainment* from an RTO: NTMR 3.62(g).	• Either capability to verify or certify, or holds NATA accreditation: NMR 73.	• Competent to carry out the specified functions: NMR 76.
Conditions of appointment	• General conditions under s 18NH of the Act and NTMR 2.43 cover verification processes, standards of reference and competency requirements and reporting (following verification). • Additional conditions may be imposed on licences: s 18NG.	• General conditions under s 18RB of the Act cover verification processes, standards of reference, competency requirements and reporting (when required to). • Additional conditions may be imposed on appointments: s 18RA(3).	• General conditions under s 18PH of the Act and NTMR 3.62 cover competency requirements and certain operating requirements. Part 3 of the NTMR imposes various additional operating requirements for weighbridges. • Additional conditions may be imposed on licences: s 18PG.	• General conditions under NMR 77 cover participating in mandatory LMA training, reporting (when required to) and complying with certain determinations regarding accuracy calculation and property values. • Additional conditions may be imposed on appointments: NMR 73(2)(b).	• General conditions under NMR 77 cover participating in mandatory LMA training, and reporting (when required to). • Additional conditions may be imposed on appointments: NMR 77(1)(d).
Traceability	• Measuring instrument verifications to be in accordance with relevant NITPs: Act s 18GG and NTMR 2.43(18).	• Measuring instrument verifications to be in accordance with relevant NITP 14: Act s 18GG.	• Mandatory reverification every 12 months by servicing licensee, instrument verifications to be in accordance with relevant NITPs: Act s 18GG and NTMR r 2.43(18) and 3.61.	• Traceability for verifying and certifying authorities through QMS as assessed and accredited by NATA.	• Where an approving authority approves the pattern of a measuring instrument under NMR 60(1)(b), the certificate of approval will ordinarily specify the NITP used during the certification.

Requirement	*Third Party*				
	Servicing licensee	**UMV**	**Public weighbridge licensees**	**LMA (verifying or certifying authority)**	**LMA (approving authority)**
Compliance	• Form 6 data submission, inspector data collection and established risk-based program. • Communication about specific non-compliance issues, warnings, infringement notices.	• Generally, NMI does not impose any general requirements on UMVs under the Act to submit data following verification unless specifically required.	• Audits carried out by NMI to assess compliance of licensees and operators, including performing physical inspections. • Compliance arrangements for instruments used in trade, including communication about specific non-compliance issues, warnings, and infringement notices.	• There is no general requirement for LMAs to report following the performance of their functions, unless specifically required by NMI.	• There is no general requirement for LMAs to report following the performance of their functions, unless specifically required by NMI.
Enforcement Options	• Disciplinary action may be taken for more serious breaches under part XII of the Act.	• Disciplinary action may be taken under part XIII of the Act for breach of licence condition.	• Disciplinary action may be taken for more serious breaches under part XII of the Act.	• Cancellation of appointment for breach of condition, or if LMA lacks appropriate standards, facilities or competent staff to perform functions: NMR 79.	• Cancellation of appointment for breach of condition, or if LMA lacks appropriate standards, facilities or competent staff to perform functions: NMR 79.

1300 686 664

measurementlawreview
@industry.gov.au

industry.gov.au/
measurement-law-review

consult.industry.gov.au/
measurement-law-review/
measurement-assurance

...a better framework for measurement in Australia