



Australian Government
Department of Industry, Science,
Energy and Resources

National
Measurement
Institute

Vehicle tank level gauging – standards and test procedures

Consultation paper

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Contents

Introduction	1
Background	1
The national measurement system	1
Pattern approval and verification	1
Standards and test procedures for vehicle tanks with level gauging	1
Proposed regulatory changes	2
Providing Your Feedback	3
Providing a confidential submission	3

Introduction

The National Measurement Institute (NMI) is seeking submissions from stakeholders on a proposal to update Australia's pattern approval and verification test procedures with the current international standard for the level gauging of vehicle tanks in use for trade.

Background

The national measurement system

NMI, a division of the Australian Government Department of Industry, Science, Energy and Resources is Australia's national measurement authority and responsible for maintaining and regulating Australia's measurement system including the administration of the *National Measurement Act 1960* (the Act).

The Act establishes a national system of units and standards of measurement and provides for their uniform use throughout Australia to ensure traceability of measurement. The Act also regulates transactions involving measurement, including the use of measuring instruments for trade. The Act requires that all measuring instruments used for trade must be pattern-approved and verified.

Consistency and certainty in measurement supports fair and open competition. It provides a level playing field for businesses by ensuring that all market participants, irrespective of their size or financial strength, follow the same rules and have equal opportunity to compete.

Pattern approval and verification

Pattern approval confirms that a measuring instrument's design meets relevant documentary standards and performs as intended over a range of environmental and operating conditions. NMI examines the design of instruments against relevant standards, which includes pattern approval testing and the evaluation of results, and issues Certificates of Approval (also known as pattern approval certificates).

Manufacturers, importers and suppliers that wish to supply and sell trade measuring instruments in Australia are required to ensure those instruments have a Certificate of Approval issued by NMI.

Verification is the process of testing individual instruments to confirm that they are of an approved pattern and operate within maximum permissible errors. Verification is required before instruments are placed into service for trade. NMI licenses third party organisations (servicing licensees) to verify measuring instruments used for trade in accordance with verification test procedures specified by NMI.

Standards and test procedures for vehicle tanks with level gauging

OIML R 80 *Road and rail tankers with level gauging*, published by the International Organization of Legal Metrology (OIML), is the international standard for vehicle tanks with level gauging. Part 1, OIML R 80-1 *Metrological and technical requirements*, was adopted in Australia as NMI R 80-1 (2014) in November 2014, and is used as Australia's pattern approval standard for vehicles tanks with level gauging.

In 2017 OIML published OIML R 80-2 *Metrological controls and tests* and OIML R 80-3 *Report Format for type evaluation* as supplementary parts of the international standard. Parts 2 and 3 provide uniform test procedures for the pattern approval and verification of vehicle tanks with level gauging.

Measuring instruments used for trade must be verified in accordance with National Instrument Test Procedures; and in the case of vehicle tanks with level gauging this is the *National Instrument Test Procedures for Vehicle tanks* (NITP 9). Certificates of Approval may also specify alternative or additional verification test procedures.

Proposed regulatory changes

It is proposed that:

- a) OIML R 80-2 and OIML R 80-3 are adopted and published without modification as NMI R 80-2 and NMI R 80-3, and implemented in conjunction with NMI R 80-1 (2014), as the Australian pattern approval standard for vehicle tanks with level gauging. Drafts of NMI R 80-2 and NMI R 80-3 are provided with this paper for review and comment.
- b) All current Certificates of Approval for vehicle tanks with level gauging will be reviewed to ensure the approved patterns comply with the requirements of NMI R 80-1, now complimented by the metrological controls and test methods outlined in NMI R 80-2.
- c) The review of all Certificates of Approval will be completed within 12 months from the date of publication of NMI R 80-2 and NMI R 80-3.

The Review of Certificates of Approval

The following is provided as background information regarding the review of Certificates of Approval:

- a) Subject to the implementation of the above proposals, NMI will contact all persons holding Certificates of Approval for vehicle tanks with level gauging and request an application for review of their Certificate(s) is submitted within a 3 month time period.
- b) Under each application received, NMI will review the approved patterns described in the Certificate(s) of Approval to confirm ongoing compliance with the requirements of NMI R 80-1.
- c) As per normal Certificate review processes, NMI will advise Certificate holders of the need for additional information or additional testing in accordance with NMI R 80-2 in order to satisfy the requirements of NMI R 80-1.
- d) Patterns of measuring instruments that are found to satisfy the requirements of NMI R 80-1 will be issued with a revised Certificate of Approval in the normal manner.
- e) Patterns of measuring instrument that are found to not satisfy the requirements of NMI R 80-1 will have their Certificates of Approval cancelled.
- f) Certificate holders that fail to submit applications for review will have the relevant Certificate(s) cancelled.
- g) Where a Certificate of Approval has been cancelled, all existing instruments of that pattern may continue to be verified and used for trade, however no new instruments of that pattern may be manufactured, supplied or verified for trade use.

Verification test procedures

OIML R 80-2 specifies test procedures for the verification of vehicle tanks with level gauging (see OIML R 80-2, clauses 4.3 and 4.4). NMI welcomes feedback regarding these test procedures and whether they should form the basis of verification test procedures in Australia. All feedback received in relation to the verification test procedures specified in OIML R 80-2 will inform a future revision of NITP 9. NMI will separately consult with industry stakeholders regarding the revision to NITP 9.

Providing Your Feedback

NMI invites stakeholders to provide comments and suggested amendments, using the form provided, to the drafts of:

- NMI R 80-2; and
- NMI R 80-3.

In addition, NMI invites stakeholders to provide feedback and comment on the following questions:

1. **Do you agree with the proposal to adopt OIML R 80-2 and OIML R 80-3?**
2. **Do you agree with the proposed timeframe (12 months) for reviewing existing Certificates of Approval?**
3. **What are the costs and benefits to your business as a result of the above proposals?**
4. **Are there any other impacts, either positive or negative, to your business that would occur as a result of above proposals? Please provide details.**
5. **Do you have comments regarding the verification test procedures specified in NMI R 80-2, clauses 4.3 and 4.4, and their potential use as verification test procedures in Australia?**

The public consultation process will commence on **9 November 2020**, with the closing date for submissions and comments being **11 December 2020**.

Key questions have been provided in this paper and are replicated in the online submission form to facilitate and focus submissions. Attachments providing supporting evidence may also be included.

Your submission must reach NMI by 11:59 PM AEST on **11 December 2020**.

The Department prefers responses to the consultation paper are submitted online through the Department's consultation hub.

Alternatively, submissions can be made by downloading a form from the Department's consultation hub and:

- emailing to NMILegalMetrologyPolicy@measurement.gov.au, with the subject heading 'Vehicle tanks with level gauging' and your company or individual name; or
- posting to Legal Metrology Branch, National Measurement Institute, GPO Box 2013, Canberra ACT 2601, marked Attention: 'NIR Consultation'

All information (including name and address) contained in formal submissions may be made available to the public on the Department's consultation hub following the close of submissions, unless you request for your submission to be treated confidentially.

For this purpose, automatically generated confidentiality statements in emails will not be viewed as a request to consider your submission as confidential.

Providing a confidential submission

If you wish to make a confidential submission, please complete the commercial-in-confidence submission form that is available on the Department's consultation hub.

A request made under the Freedom of Information Act 1982 (Cth) for a submission marked 'confidential' to be made available will be determined in accordance with this Act.