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**National
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Institute**

Trade Measurement Compliance in 2017-18

Legal Metrology Branch

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What is trade measurement?

Trade measurement refers to buying and selling of goods and services where the value is determined by measurement.

Studies in Australia, the USA and Canada have estimated that the total value of trade transactions involving measurement (including packaged goods and utility metering) accounts for at least 50% of Gross National Income¹. Of this amount, around a quarter is accounted for by retail transactions with the remaining three quarters being business to business transactions. Based on these estimates, the total value of trade transactions involving measurement in Australia is currently more than \$750 billion a year.

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

Reliable representations of measurements help consumers and businesses make informed purchasing decisions. More broadly, they support the efficient operation of the market.

Regulation of trade measurement

The National Measurement Institute (NMI), a division of the Australian Government Department of Industry, Innovation and Science, administers the [National Measurement Act 1960](#) and associated regulations to ensure that, for trade purposes:

- measuring instruments are fit for purpose
- measurements are made correctly
- representations about measurements are accurate.

To help businesses comply with their legal obligations, NMI's trade measurement inspectors:

- test measuring instruments, inspect packaged goods and review business practices
- provide advice on meeting compliance obligations
- take enforcement action when necessary.

Inspectors usually wear branded clothing and show an ID card to the business owner/operator at the commencement of an audit. However, inspectors can also make incognito 'trial purchases' to assess whether businesses are, for example, correctly operating scales and allowing for the weight of packaging during over-the-counter transactions.

NMI takes a risk-based approach when targeting compliance activities and determining the appropriate and proportionate regulatory response where non-compliance is identified.

We measure risk in terms of the harm and likelihood of regulatory non-compliance. Some of the factors used to determine harm include:

- impact on confidence in the measurement system
- extent of financial detriment to consumers or industry
- impact on maintaining a level playing field for business competition
- ability of consumers to make informed purchasing decisions.

¹ Birch, J (2003) 'Benefit of Legal Metrology for the Economy and Society', International Committee of Legal Metrology.

Compliance activity and outcomes

Continued development of NMI's risk assessment processes has meant a concentration of compliance activity in areas with a greater likelihood of breaches being found.

In 2017-18, NMI's trade measurement inspectors:

- audited just under 9,500 business premises (includes initial and follow-up audits)
- tested just under 15,000 measuring instruments
- inspected over 950 weighbridges
- inspected over 71,700 lines of packaged goods (over 271,000 individual packages) for correct measure and measurement labelling.

Year	Trader audits	Measuring instruments	Weighbridges	Packaged lines	Individual packages
2015-16	10,123	15,240	960	80,163	319,616
2016-17	10,239	17,093	1147	87,964	355,438
2017-18	9460	14,906	965	71,733	271,243

Non-compliance can take many forms, from inappropriate measurement practices (eg: not excluding the weight of packaging in over the counter transactions) and measurement labels that do not meet regulatory requirements, to short measure in packaged goods, and using measuring instruments that are unapproved or inaccurate.

Not all instances of non-compliance necessarily affect the integrity of measurement-based transactions. Where measurement errors are found they are usually relatively minor and large errors are quite rare. However, even minor measurement errors can have a significant impact on competition and consumer detriment when considered in aggregate.

65 per cent of 7283 traders were found to be fully compliant in an initial audit in 2017–18, a similar proportion to 2016–17.

Trade measurement inspectors make follow-up visits where non-compliance has been identified in an initial audit. Reflecting that most businesses are keen to do the right thing and promptly rectify trade measurement breaches once they are made aware of them, 81 per cent of 2177 traders were found to be fully compliant in follow-up audits. This equates to around 94 per cent of all businesses inspected found to be complying with the law after follow-up audits undertaken where necessary.

Year	Initial audits	Initial non-compliance	Follow-up audits	Follow-up non-compliance	Estimated final non-compliance
2015-16	7634	2558 (34%)	2489	380 (15%)	5.0%
2016-17	7955	2740 (34%)	2284	372 (16%)	4.7%
2017-18	7283	2542 (35%)	2177	409 (19%)	5.6%

While much non-compliance is relatively minor and usually quickly addressed when identified by trade measurement inspectors, trader types with the greatest proportion of non-compliant businesses in 2017-18 included:

- fruit and vegetables retail
- seafood retail
- meat retail
- importer

- supermarket.

Australia's trade measurement laws require that measuring instruments used for trade are of an approved type, have been verified by a licensed technician before use, and are accurate at all times while in use. NMI authorises servicing licensees to undertake verifications.

Although 6 per cent of almost 15,000 measuring instruments tested were found to be measuring inaccurately, 3.7 per cent of instruments were actually inaccurate in consumer's favour, whereas 2.3 per cent were inaccurate to consumer disadvantage.

In 2017-18, instrument categories with the greatest proportion of instruments tested found to be inaccurate to consumer disadvantage included:

- weighbridges – almost 1000 weighbridges were tested, with 6 per cent inaccurate to consumer detriment
- retail fuel dispensers (petrol and diesel) – over 1900 tested, with almost 5 per cent measuring to the consumer's detriment
- weighing instruments (30 kg to 3 tonnes) – almost 350 tested and just over 5 per cent to consumer detriment
- beverage dispensers – over 1100 were tested, with just over 3 per cent measuring to consumer detriment – a big improvement on more than 6.5 per cent in 2016-17.

As with other aspects of trade measurement, most packaged goods give the right measure. While most discrepancies were usually relatively small, just over 5 per cent of the 71,700 lines of packaged goods tested in 2017-18 were found to contain less product than stated on the label. Packaged goods with the greatest proportion of incorrect measure in 2017-18 included:

- fuel (solid)
- farm supplies
- seafood (frozen)
- meat (processed)
- chemicals (industrial)
- meat (fresh)
- seafood (fresh)

Further details on compliance and enforcement activity and outcomes in 2017-18, are provided below.

The results outlined in this report were used in developing NMI's inspection priorities for trade measurement compliance activity in 2018-19. A copy of the [2018-19 National Compliance Plan](#)² is available on the NMI website.

² <https://www.measurement.gov.au/Publications/trademeasurement/Documents/NationalCompliancePlan.pdf>

Enforcement actions

NMI inspectors issue non-compliance notices whenever any breaches of trade measurement law are identified during trader audits.

Enforcement action of a more serious nature is taken when:

- continued non-compliance is detected after a notice has been previously issued
- a breach detected in an initial audit is particularly severe
- contraventions are of high public interest.

Potential enforcement actions include:

- warning letters
- infringement notices with associated fines
- enforceable undertakings
- referral to the Commonwealth Director of Public Prosecutions (CDPP) for injunction or prosecution.

Any enforcement action, such as a warning letter or infringement notice, may cover more than one breach of trade measurement law.

The value of fines associated with infringement notices is currently \$1,050 per offence.

If a matter is dealt with in a Court, the maximum penalty is \$210,000 per offence for a company and \$42,000 per offence for an individual.

In 2017-18, NMI issued 58 infringement notices with \$65,250 in associated fines and referred one matter to the CDPP for consideration of prosecution.

Year	Non-compliance notice	Warning letter	Infringement notice	Referral to CDPP	Conviction
2015-16	2938	186	87 (\$85,100)	7	1
2016-17	3708	305	74 (\$69,300)	3	3
2017-18	3620	222	58 (\$65,250)	1	0

As shown in the table below, the most common breach subject to an enforcement action in 2017-18 was short measure in packaged goods. Trading practices breaches include not correctly operating scales and not allowing for the weight of packaging during over-the-counter transactions. As noted above, a single enforcement action may cover more than one breach.

Breaches by enforcement action 2017-18

Enforcement action	Inaccurate measuring instrument	Packaged goods (short measure)	Packaged goods (labelling)	Trading Practices
Warning letter	13	205	33	95
Infringement notice	10	45	1	11

Compliance and enforcement by trader type

As in previous years, certain trader types continued to have relatively higher rates of non-compliance identified during targeted NMI inspections in 2017–18. These trader types also incurred relatively more infringement notices and warning letters.

Fruit and vegetables retail

Year	Initial audits	Non-compliant	Follow-up audits	Non-compliant	Warning letters	Infringement notices
2016-17	646	346 (54%)	268	69 (26%)	56	9 (\$8100)
2017-18	334	175 (52%)	239	63 (26%)	32	14 (\$13,350)

Breaches by enforcement action 2017-18

Enforcement action	Inaccurate measuring instrument	Packaged goods (short measure)	Packaged goods (labelling)	Trading Practices
Warning letter	12	27	13	20
Infringement notice	2	7	1	4

Supermarkets

Year	Initial audits	Non-compliant	Follow-up audits	Non-compliant	Warning letters	Infringement notices
2016-17	1429	528 (37%)	469	82 (18%)	83	24 (\$24,300)
2017-18	1548	594 (38%)	520	100 (19%)	51	13 (\$17,550)

Breaches by enforcement action 2017-18

Enforcement action	Inaccurate measuring instrument	Packaged goods (short measure)	Packaged goods (labelling)	Trading Practices
Warning letter	6	51	3	23
Infringement notice	0	14	0	3

Meat retail

Year	Initial audits	Non-compliant	Follow-up audits	Non-compliant	Warning letters	Infringement notices
2016-17	827	350 (42%)	331	40 (12%)	35	5 (\$4500)
2017-18	857	417 (49%)	392	60 (15%)	37	4 (\$3900)

Breaches by enforcement action 2017-18

Enforcement action	Inaccurate measuring instrument	Packaged goods (short measure)	Packaged goods (labelling)	Trading Practices
Warning letter	5	34	2	16
Infringement notice	0	2	0	2

Importer

Year	Initial audits	Non-compliant	Follow-up audits	Non-compliant	Warning letters	Infringement notices
2016-17	55	24 (44%)	22	5 (23%)	8	5 (\$4500)
2017-18	69	32 (46%)	20	5 (25%)	3	3 (\$2850)

Breaches by enforcement action 2017-18

Enforcement action	Inaccurate measuring instrument	Packaged goods (short measure)	Packaged goods (labelling)	Trading Practices
Warning letter	1	1	0	1
Infringement notice	0	3	0	0

Seafood retail

Year	Initial audits	Non-compliant	Follow-up audits	Non-compliant	Warning letters	Infringement notices
2016-17	183	71 (39%)	67	15 (22%)	12	1 (\$900)
2017-18	189	99 (52%)	85	18 (21%)	6	0

Breaches by enforcement action 2017-18

Enforcement action	Inaccurate measuring instrument	Packaged goods (short measure)	Packaged goods (labelling)	Trading Practices
Warning letter	0	2	1	5
Infringement notice	0	0	0	0

Compliance by instrument type

As in previous years, in 2017-18 more than 80 per cent of instruments tested were found to be fully compliant with legislative requirements and only a relatively small proportion (2.3 per cent) were found to be inaccurate to consumer disadvantage.

An instrument was deemed non-compliant if one or more of the following was found:

- not verified by an authorised servicing licensee
- failed to measure accurately
- did not meet other standards necessary to comply with legislation, such as display issues; eccentricity; inadequate sealing; and data plate irregularities.

Year	Instruments tested	Compliant	Not verified	Inaccurate (consumer advantage)	Inaccurate (consumer disadvantage)	Other non-compliance
2015-16	15,240	12,623 (82.8%)	587 (3.9%)	563 (3.7%)	261 (1.7%)	1206 (8%)
2016-17	17,093	14,664 (85.8%)	829 (4.8%)	571 (3.3%)	309 (1.8%)	720 (4.3%)
2017-18	14,906	12,605 (84.6%)	872 (5.9%)	557 (3.7%)	339 (2.3%)	533 (3.5%)

The instrument types with an above average proportion found to be inaccurate to consumer disadvantage has also been relatively consistent over recent years.

Instrument type	Year	Instruments tested	Inaccurate (consumer disadvantage)
Weighbridges	2015-16	960	52 (5.4%)
	2016-17	1147	94 (8.2%)
	2017-18	965	61 (6.3%)
Fuel dispensers (petrol and diesel)	2015-16	2925	70 (2.4%)
	2016-17	1779	54 (3.0%)
	2017-18	1933	93 (4.8%)
Weighing instruments (30 kg to 3 tonnes)	2015-16	364	16 (4.4%)
	2016-17	475	23 (4.8%)
	2017-18	346	18 (5.2%)
Beverage dispensers	2015-16	865	35 (4%)
	2016-17	945	62 (6.6%)
	2017-18	1113	34 (3.1%)

Compliance of retail fuel dispensers

While the proportion of retail liquid fuel (petrol and diesel) dispensers found to be inaccurate over the past three years has remained relatively steady at around 6 per cent, the proportion of liquid fuel dispensers inaccurate to consumer disadvantage has doubled between 2016-16 and 2017-18, from 2.4 per cent to 4.8 per cent.

In light of this trend, NMI's [National Compliance Plan for 2018-19](#)³ includes a focus on inspection of this instrument type.

Year	Petrol and diesel dispensers tested	Inaccurate (consumer advantage)	Inaccurate (consumer disadvantage)
2015-16	2925	117 (4%)	70 (2.4%)
2016-17	1779	51 (2.9%)	54 (3.0%)
2017-18	1933	30 (1.6%)	93 (4.8%)

Consumer concern about this issue is reflected in almost two thirds of complaints to NMI about potential breaches of trade measurement law being related to short measure from fuel dispensers (liquid and gas). However, it has been a consistent trend over recent years that only a small proportion of those complaints are found to be justified when investigated.

Year	Total complaints received	Fuel (liquid and gas) complaints	Fuel complaints justified (consumer disadvantage)
2015-16	724	459 (63%)	10 (2.2%)
2016-17	672	411 (61%)	18 (4.4%)
2017-18	782	511 (65%)	16 (3.1%)

³ <https://measurement.gov.au/Publications/trademeasurement/Documents/NationalCompliancePlan.pdf>

Compliance of packaged goods

In 2017-18, trade measurement inspectors examined 71,733 lines of packaged goods (271,243 individual packages) to check whether they:

- contained the correct amount (weight, volume or units) as displayed on the label
- displayed sufficient measurement marking (e.g. weight, price per kilogram and total price for the article) in the correct format and position
- included correct packer identification (name and street address of packer if packed within Australia or name and address of importer or seller)

The proportion of packaged goods lines found to have short measure or non-compliant measurement labelling has increased slightly over recent years, perhaps reflecting improvements to NMI's risk-based targeting of inspections.

Year	Packaged lines inspected	Individual packages	Lines with short measure	Lines with non-compliant labelling
2015-16	80,163	319,616	2155 (2.7%)	1615 (2.0%)
2016-17	87,964	355,438	3111 (3.5%)	4589 (5.2%)
2017-18	71,733	271,243	3464 (4.8%)	3691 (5.2%)

While meat and seafood consistently appear among the categories of packaged goods with the greatest proportion found to contain short measure, there has been considerable variation among other categories over recent years.

Packaged goods short measure 2017-18

Product type	Packaged lines inspected	Individual packages	Lines with short measure
Farm supplies	525	1828	55 (10.5%)
Seafood (frozen)	1133	4289	111 (9.8%)
Meat (processed)	2615	9560	245 (9.4%)
Chemicals (industrial)	144	582	12 (8.3%)
Meat (fresh)	14,891	49,907	1185 (8.0%)
Seafood (fresh)	600	2087	39 (6.5%)