

National Measurement Amendment Regulations 2004 (No. 1)

2004 No. 132

EXPLANATORY STATEMENT

Statutory Rules 2004 No. 132

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Issued by authority of the Minister for Industry, Tourism and Resources

The *National Measurement Act 1960* (the Act) established Australia's legal units and standards of measurement and the framework of legal metrology for measuring instruments including those used in trade.

Section 20 of the Act provides that the Governor-General may make regulations, not inconsistent with the Act, prescribing all matters which are required or permitted to be prescribed, or which are necessary or convenient to be prescribed for carrying out or giving effect to this Act.

The *National Measurement Amendment Act 2004* (the Amending Act) established the National Measurement Institute and the Chief Metrologist and transferred responsibility for measurement from the CSIRO and the National Standards Commission. It thus changed the institutional arrangements for maintaining Australia's measurement system but it did not make changes to Australia's system of measurement or the approach to ensuring traceability of measurement.

The Amending Act did not make changes to the system of pattern approval or to the regulation of utility meters, except where they were necessary to accommodate the different organisational arrangements of the Commission and the Department and the existing powers of a Department of State.

The National Measurement Regulations were comprehensively reviewed in 1999. The proposed amendments do not change the intent of the *National Measurement Regulations 1999* (the Principal Regulations). They reflect the changed organisational structure introduced by the Amending Act and include minor technical corrections and updates in line with the development of legal metrology in Australia and internationally and advances in science and technology.

Details of the Regulations follow.

Regulation 1 - Name of the regulations

This specifies the name of the regulations as the *National Measurement Amendment Regulations 2004 (No. 1)* (the Regulations).

Regulation 2 - Commencement

Regulation 2 provides that regulations 1 to 3 and Schedule 1 commence on 1 July 2004, the day on which the *National Measurement Amendment Act 2004* (the Amendment Act) is proclaimed to commence and the National Measurement Institute and the Chief Metrologist are established. Schedule 2 will commence on 1 July 2005 to allow time for trade measurement authorities to prepare for this change.

Regulation 3 - Amendment of the *National Measurement Regulations 1999*

This amendment provides that Schedules 1 and 2 amend the *National Measurement Regulations 1999* (the Principal Regulations).

Schedule 1 - Amendments commencing on 1 July 2004

Item 1 Regulation 3, definition of *permissible variation*

This item inserts a definition for 'maximum permissible uncertainty' for a standard of measurement and replaces the definition of 'permissible variation' for a standard of measurement with a definition of 'maximum permissible variation' for a standard of measurement.

Item 2 Regulation 3, definition of *standard reference conditions*

This item omits the definition of the 'standard reference conditions' from the Principal Regulations as it is no longer needed in light of the repeal of regulation 24 (standard reference conditions) by item 13 (see below).

Item 3 Regulation 3, definition of *verifying authorities*, paragraph (b)

This item omits the reference to the National Standards Commission in the definition of a 'verifying authority' in the Principal Regulations. This is necessary to reflect the transfer of functions and powers of the National Standards Commission as part of the formation of the new National Measurement Institute under the Amendment Act.

Items 4 and 5 Regulation 5, note and Regulation 7, note

These items amend the notes under regulation 5 (Australian legal units of measurement) and regulation 7 (Prefixes specifying numerical values) in the Principal Regulations to reflect the transfer of responsibility for issuing guidelines from the National Standards Commission to the Chief Metrologist under the Amendment Act.

Item 6 Subregulation 16(3), Marks on, or attached to, standards of measurement

This item corrects an error in cross-referencing in the Principal Regulations.

Items 7 and 9 Paragraph 18(2)(e), Certificates of verification of State primary standards of measurement and Paragraph 19(1)(f) reference standards of measurement

These items amend the Principal Regulations to reflect the nomenclature used in current scientific practice for describing the uncertainty associated with the measurement of standards.

Item 8 Subregulation 18(3), Certificates of verification of State primary standards of measurement

This item removes the reference to the requirement for measurements of standards to be conducted under standard reference conditions following the repeal of regulation 24 (standard reference conditions) by item 13 (see below).

Items 10 and 11 Subregulations 20(1) and (2) Subregulation 20(3), Notification of determinations

These items specify to whom the Chief Metrologist must send copies of determinations made with respect to the standards of measurement under the Principal Regulations. They also reflect

the formation of the National Measurement Institute to take over the functions of the National Standards Commission and the CSIRO National Measurement Laboratory.

Item 12 Regulation 21, Recognition of foreign reference standards of measurement

This item amends regulation 21 to transfer responsibility for the recognition of verifications of reference standards of measurement performed outside Australia from the National Standards Commission to the Chief Metrologist.

Item 13 Regulation 24, Standard reference conditions

This item repeals regulation 24, which requires that the value ascertained for a State primary standard of measurement must be measured under standard reference conditions.

Items 14 to 18 Regulations 25 to 29, Accuracy of State secondary and tertiary standards of measurement and Accuracy of Inspectors' Class 1, Class 2 and Class 3 standards of measurement

These items amend the headings of regulations 25 to 29 to reflect the use of maximum permissible uncertainty introduced in these amendments in prescribing the accuracy of standards of measurement.

Items 19 to 21 Subregulation 39(2), (3) and (4), Determinations - accuracy of measuring instruments

These items specify to whom the Chief Metrologist must send copies of determinations made with respect to the accuracy of measuring instruments under the Principal Regulations. They also reflect the formation of the National Measurement Institute and the transfer of functions and powers from the National Standards Commission and the CSIRO National Measurement Laboratory.

Items 22 and 23 Regulation 40, Recognition of foreign certification of measuring instruments and Regulation 53, Recognition of foreign reference materials

These items amend the existing regulations 40 and 53 to transfer responsibility for the recognition of certifications of measuring instruments and reference materials performed outside Australia from the National Standards Commission to the Chief Metrologist.

Items 24 and 26 Subregulation 60(2), Approval of patterns of measuring instruments and Subregulation Variation of approval of patterns of measuring instruments

These items correct minor drafting errors in the Principal Regulations.

Items 25 and 27 After subregulation 60(3), Approval of patterns of measuring instruments and after subregulation 61(4) Variation of approval of patterns of measuring instruments

These items insert new subregulations to enable the Chief Metrologist to issue and vary general certificates of pattern approval without the need for a formal application.

Item 28 Regulation 68, Effect of variation and cancellation of approvals

This item replaces regulation 68 with a regulation incorporating revised wording that further clarifies the meaning and interpretation of the Principal Regulations with respect to the variation and cancellation of pattern approvals.

Item 29 Subregulation 73(1), Verifying and certifying authorities

This item transfers responsibility for appointing certifying and verifying authorities under the Principal Regulations from the National Standards Commission to the Chief Metrologist and introduces further details of the requirements to be met by applicants for appointment.

Item 30 Subregulation 79(1), Grounds for cancelling and varying appointments other than on application

This item further details the grounds on which the Chief Metrologist may cancel the appointment of verifying or certifying authorities appointed under the Principal Regulations other than on application.

Item 31 Regulation 87, Exempt utility meters (Act, s3)

This item substitutes a new regulation 87, to remove the exemption for all classes of cold-water meter with a maximum continuous flow rate capacity of up to 4000 litres per hour installed on or after the 1 July 2004 from the provisions of Part VA of the *National Measurement Act 1960* (the Act). These water meters are usually installed by water authorities in domestic residences.

Item 32 Regulation 88A, Allowances payable to Executive Director (Act s18AL)

This item omits regulation 88A covering allowances payable to the Executive Director of the National Standards Commission as this position will be abolished from 1 July 2004 together with the National Standards Commission by the Amendment Act.

Item 33 New regulations 90A, Identity cards and 9013, Fees

This item inserts new regulation 90A which prescribes the form that an identity card issued under subsection 18ZN of the Act must take. Identity cards are issued to authorised officers who carry out compliance and enforcement duties under the Act. It also inserts new regulation 9013 which prescribes the fee structure and the fees that the Commonwealth may charge for pattern approval activities.

Item 34 Regulation 93, Transitional provisions, heading

This item changes the title of regulation 93 to make it clear that its transitional provisions apply to the Principal Regulations and not the transitional provisions of the regulations.

Item 35 Subregulations 93(1) and (2), Transitional provisions of the Principal Regulations

This item omits subregulations 93 (1) and (2) of the transitional provisions for the commencement of the Principal Regulations which are no longer required.

Items 36 and 37 Subregulation 93(4), Transitional provisions of the Principal Regulations

These items insert new subregulation 93 (4A) to clarify the transitional arrangement for certain appointments that were made before the commencement of the Principal Regulations. Under the transitional provisions of the Principal Regulations certain appointments were deemed to be made under the Principal Regulations and subject to the provisions of those regulations. This resulted in certain appointments issued without an expiry date having a perpetual existence which was both inappropriate and contrary to the intention of the National Standards Commission when issuing them.

Item 38 new Regulation 94, Transitional - 1 July 2004

This item inserts regulation 94 which makes transitional provisions for the commencement of the proposed Regulations on 1 July 2004.

Item 39 Schedule 1, Part 2, SI derived units of measurement with special names

This item inserts item 2.21 into Part 2 of Schedule 1. It takes the definition of the unit of catalytic activity from the International System of Units (SI) and includes it in the Principal Regulations as an Australian legal unit of measurement in the form of an SI derived unit of measurement with a special name. This amendment is made at the request of stakeholders in the national measurement system to further extend the provisions of the national measurement legislation into the developing field of biological measurements.

Item 40 Schedule 1, Part 3, items 3.13, 3.14 and 3.15, Non SI units of measurement used with SI units of measurement

This item amends the definitions of the day, hour and minute to be described in terms of the quantity "time" rather than "time interval" in keeping with current scientific practice.

Item 41 Schedules 4 to 10, Permissible uncertainty of standards

These items replace Schedules 4 to 10 with effect from 1 July 2004. The substituted schedules describe the maximum permissible uncertainty for standards of measurement of a number of physical quantities in terms of a 95 per cent confidence interval instead of a 99 per cent confidence interval in line with current scientific practice. The substituted schedules also correct a number of minor typographical errors in the previous schedules.

Item 42 Schedule 12, Part 1 Division 1, insert 3.3A *Beverage dispensers for alcoholic liquor*

This item inserts values for the maximum permissible error for beverage dispensers into Division 1, Part 1 of Schedule 12 at the request of stakeholders in the trade measurement authorities.

Item 43 Schedule 12, Part 1, Division 1, clause 3.5, heading

This item replaces the heading of item 3.5 in Division 1, Part 1 of Schedule 12 to correct a minor typographical error and further clarify the interpretation and application of item 3.5.

Item 44 Schedule 12, Part 1, Division 1, clause 3.8, table heading

This item adds further words to clarify the meaning and application of the table heading.

Item 45 Schedule 12, Part 1, Division 2, heading

This item removes the words "utility meters" from the heading as utility meters have been moved to Part 2, Division 3.

Item 46 Schedule 12, Part 1, Division 2, clause 6, Farm milk tanks

This item inserts further details of the maximum scale intervals for farm milk tanks of various capacities. This amendment has been made at the request of stakeholders and to bring the Principal Regulations into line with the recommendations of the International Organisation for Legal Metrology.

Items 47 and 48 Schedule 12, Part 1, after subclause 8.2.3, Liquid measuring systems

These items insert new item 8.2.4 into Division 2, Part 1 of Schedule 12 and omit existing item 8.5. This item details the procedure for interpreting the maximum permissible error on calculators used with measuring instruments for the measurement of liquids. The effect of these amendments is to move this information to a more appropriate position in the Principal Regulations.

Item 49 Schedule 12, Part 1, clause 9.3, Belt weighers

This item replaces the current table on maximum permissible errors for belt weighers with a table that extends the coverage of this table to include class 0.5 belt weighers.

Item 50 Schedule 12, Part 1, after clause 9.3, Catch weighers

This item inserts new item 9.4 into Division 2, Part 1 of Schedule 12 at the request of stakeholders in the national measurement and trade measurement systems. New item 9.4 details the maximum permissible errors for catch weighers of class Y(a) and Y(b).

Item 51 Schedule 12, Part 1, clause 10.1, Automatic rail-weighers

This item replaces the text after paragraph (d) of item 10.1 in Division 2, Part 1 of Schedule 12, with a reworded explanation designed to further clarify the accuracy requirements for automatic rail-weighers.

Item 52 Schedule 12, Part 1, subclause 10.2.1, Weighing-in motion

This item repeals the current explanation that follows table I of item 10.2.1 (weighing in motion) in Division 2, Part 1 of Schedule 12 and inserts new paragraphs 10.2. 1.1 and 10.2.1.2. These paragraphs better explain the application of the accuracy classes described in table 1 to wagon weighing and train weighing.

Item 53 Schedule 12, Part 1, after clause 10, Multi-dimensional measuring (cubing) instruments, Grain protein measuring instruments and Water Meters

This item inserts new items 11 to 13 into Division 2, Part 1 of Schedule 12. It also creates a new Division 3 covering utility meters that contains new item 13. Items 11 to 13 prescribe the maximum permissible errors for the following measuring instruments:

Clause 11 - multidimensional measuring (cubing) instruments

Clause 12 - grain protein measuring instruments

Clause 13 - water meters

Item 54 Schedule 12, Part 2, Reverification or in-service inspection of measures and measuring instruments

This item substitutes a redrafted Part 2 of Schedule 12 in the Principal Regulations. The new Part 2 amends the explanation of this Part to make its application clearer, and makes minor editorial corrections to the previous Part 2. It also amends the maximum permissible errors at verification for weighing instruments to be in line with current practice and it prescribes maximum permissible errors for beverage measures.

Item 55 New Schedule 13, Fees

This item inserts new Schedule 13 into the Principal Regulations. This schedule prescribes the fees that the Chief Metrologist may charge for activities undertaken by the Chief Metrologist under paragraph 20 (1) (1) of the Act and under new

regulation 90B (to be inserted by Item 33, see above) in relation to the verification of utility meters in use for trade.

Item 56 Further amendments - Chief Metrologist

This item replaces each reference in the Principal Regulations to the National Standards Commission (the Commission) or the CSIRO National Measurement Laboratory (the Organisation) with a reference to the position of Chief Metrologist created in the Amendment Act.

Item 57 Further amendments - maximum permissible uncertainty and maximum permissible variation

This item amends the appropriate parts of regulations 18, 23 and 25 to 34 to specify the accuracy requirements of standards of measurement in terms of the maximum permissible uncertainty and maximum permissible variation introduced by the proposed Regulations.

Schedule 2 - Amendments Commencing on 1 July 2005

Items 1 and 2 Maximum permissible uncertainty

These items replace Schedules 5 and 9 of the Principal Regulations with effect from 1 July 2005. The substituted Schedules prescribe maximum permissible uncertainties for the State and Territory mass standards hierarchies based on the recommendations of the International Organisation of Legal Metrology. They are scheduled to commence in approximately one year's time to allow the States' and Territories' trade measurement authorities to make the necessary preparations to implement these changes.