



Australian Government
Department of Industry, Science,
Energy and Resources

**National
Measurement
Institute**

**Appointment as a Verifying Authority
for
Reference Standards of Measurement and Physical Quantities of
Artefacts**

In accordance with Regulation 73 of *National Measurement Regulations 1999* (Cth), in force under the *National Measurement Act 1960* (Cth), the Chief Metrologist hereby appoints:

**N.G. Brown & Associates Pty Ltd
ABN (97 004 819 738)**

Operating at:
**31 Jellico Drive
Scoresby VIC 3179**

to be a Verifying Authority for the verification of reference standards of measurement under regulation 13 and the verification of physical quantity of artefacts under regulation 34C of the *National Measurement Regulations 1999* (Cth) for the physical quantity of:

Mass and Volume

This appointment is for the period from 18 April 2021 to 17 April 2024 and is limited to the range specified in the attached schedule, and the use of procedures approved by the Chief Metrologist.

Dated this Twenty First day of April 2021

Signed

James Cantrill
For Dr Richard Bruce Warrington
Chief Metrologist
National Measurement Institute

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Schedule to Appointment as a Verifying Authority for Reference Standards of Measurement and Artefacts

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Physical Quantity	Range of Standard(s) and Artefact(s)	Least Uncertainty
Mass		
Mass standards and Industrial Mass Standards	From 1 mg to 10 mg	1.0 µg
	At 20 mg	1.0 µg
	At 50 mg	1.2 µg
	At 100 mg	1.4 µg
	At 200 mg	1.7 µg
	At 500mg	2.4 µg
	At 1 g	2.8 µg
	At 2 g	3.1 µg
	At 5 g	6 µg
	At 10 g	8 µg
	At 20 g	10 µg
	At 50 g	19 µg
	At 100 g	30 µg
	At 200 g	43 µg
	At 500 g	90 µg
	At 1 kg	0.15 mg
	At 2 kg	0.9 mg
At 5 kg	1.2 mg	
At 10 kg	2.3 mg	
At 20 kg	13 mg	

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Above 20 to 25 kg	1.5 in 10 ⁶
Above 25 to 50 kg	4 in 10 ⁶
Above 50 to 100 kg	2 g
Above 100 to 250 kg	3 g
Above 250 to 500 kg	8 g
Above 500 to 1 000 kg	10 g
Above 1 000 to 1 500 kg	30 g

Determination of mass	Up to 25 kg	4 in 10 ⁶ or 40 µg (whichever is greater)
	Above 25 to 50 kg	1 in 10 ⁵
	Above 50 to 100 kg	2 g
	Above 100 to 250 kg	3 g
	Above 250 to 500 kg	8 g
	Above 500 to 1 000 kg	10 g
	Above 1 000 to 1 500 kg	30 g

Volume From 10 mL to 25 L 0.01% of reading

Signatories

The following persons are the permitted signatories under this appointment:

Name	Physical Quantity	Range
Paul Copeland	Mass and Volume	as per the scope of this schedule
Chris Sherwin	Mass and Volume	as per the scope of this schedule
Phil Holland	Mass and Volume	as per the scope of this schedule
Mike Delsorte	Mass and Volume	as per the scope of this schedule
Nigel Pugh	Mass and Volume	as per the scope of this schedule

Statutory Conditions

This appointment as a verifying authority for reference standards of measurement under regulation 73 of the *National Measurement Regulations 1999* (Cth) is subject to the conditions stated in regulation 77 of the *National Measurement Regulations 1999* (Cth) as amended. At the time of appointment regulation 77 contains the following conditions

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- (a) That the authority participate in training, related to the performance of the duties of an authority, required by the Chief Metrologist;
- (b) That the authority report, as required by the Chief Metrologist, about its performance of its duties;
- (c) That the authority, and any responsible agent or employee of the authority, comply with the *National Measurement Act 1960* (Cth) and the *National Measurement Regulations 1999* (Cth) and any condition stated in the instrument of appointment.
- (d) That the authority comply with any determinations applying to the authority under regulation 20 of the *National Measurement Regulations 1999* (Cth).

Additional Conditions

In addition to the statutory conditions of appointment of authorities contained in regulation 77 of the *National Measurement Regulations 1999* (Cth) this appointment is also subject to the following conditions:

- (i) Continuing accreditation against AS ISO/IEC 17025 *General requirements for the competence of testing and calibration laboratories* in the form of NATA accreditation No. 933
- (ii) The authority shall not engage a responsible agent or arrange for any standard of measurement to be verified by an agent or anyone under its supervision without obtaining the prior consent of the Chief Metrologist in writing;
- (iii) Discharge of all financial obligations to the National Measurement Institute in respect of this appointment;
- (iv) Compliance with the formatting and/or any other requirements of the Chief Metrologist and/or the National Measurement Institute with respect to certificates of verification of reference standards of measurement;
- (v) During the term of this appointment each signatory under this appointment must attend a legal metrology seminar conducted by the Policy and Regulatory Services Section of the Legal Metrology Branch of the National Measurement Institute;

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- (vi) This appointment revokes and replaces any previous appointments and/or any extensions granted to any previous appointments.

Notes:

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Chief Metrologist
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