



Australian Government  
Department of Industry,  
Science 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:

**National Weighing & Instruments Pty. Limited  
(ABN 22 071 682 445)**

to be a Verifying Authority for the verification and 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**

Operating at:

1/88 Magowar Road, Girraween NSW 2145

2D/919 Nudgee Road, Banyo QLD 4014

11/5 Agosta Drive, Laverton North VIC 3026

3A Wilford Avenue, Underdale SA 5032

This appointment is for the period from 4 September 2022 to 3 September 2025 and is limited to the range specified in the attached schedule, and the use of procedures approved by the Chief Metrologist.

Dated this      Thirtieth      day of      August      2022

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 Physical Quantities of Artefacts

**National Weighing & Instruments Pty Ltd  
(ABN 22 071 682 445)**

Standards Laboratory Sydney  
1/88 Magowar Road, Girraween NSW 2145

Physical Quantity	Range of Standard(s) and Artefact(s)	Least Uncertainty
<b>Mass</b>		
Mass Standards	from 1 mg to 100 mg	5 µg
	above 100 mg to 200 mg	6 µg
	above 200 mg to 500 mg	7 µg
	above 500 mg to 1 g	8 µg
	above 1 g to 2 g	10 µg
	above 2 g to 20 g	20 µg
	above 20 g to 50 g	37 µg
	above 50 g to 100 g	45 µg
	above 100 g to 200 g	70 µg
	above 200 g to 500 g	220 µg
	above 500 g to 1000 g	360 µg
	above 1000 g to 2000 g	1.5 mg
	above 2000 g to 5000 g	7 mg
	above 5000 g to 10 000 g	20 mg
above 10 000 g to 20 000 g	50 mg	
Industrial Mass Standards	at 100 g	5 mg
	above 100 g to 200 g	10 mg
	above 200 g to 500 g	25 mg
	above 500 g to 5 kg	13 mg
	above 5 kg to 10 kg	0.16 g
	above 10 kg to 20 kg	0.22 g
	above 20 kg to 30 kg	0.3 g
	above 30 kg to 100 kg	3 g

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For Dr Richard Bruce Warrington  
Chief Metrologist  
National Measurement Institute

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	above 100 kg to 300 kg	8 g
	above 300 kg to 500 kg	12 g
	above 500 kg to 1000 kg	18 g
For Onsite Calibrations	at 100 g	5 mg
	above 100 g to 200 g	10 mg
	above 200 g to 500 g	25 mg
	above 500 g to 1000 g	50 mg
	above 1000 g to 2000 g	0.10 g
	above 2000 g to 5000 g	0.20 g
	above 5000 g to 10 000 g	0.27 g
	above 10 kg to 20 kg	0.37 g
	above 20 kg to 200 kg	8 g
	above 200 kg to 500 kg	17 g
<b>Volume</b>		
Industrial Volume Proving Measures	from 1 mL to 500 L	0.013% of reading
Laboratory Volumetric Glassware and Measures	from 1 mL to 5 L	0.01% or 1.7 $\mu$ l (whichever is greater)

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Chief Metrologist  
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**National Weighing & Instruments Pty Ltd**  
**(ABN 22 071 682 445)**

Brisbane Laboratory  
2D/919 Nudgee Road, Banyo QLD 4014

<b>Physical Quantity</b>	<b>Range of Standard(s) and Artefact(s)</b>	<b>Least Uncertainty</b>
<b>Mass</b>		
Mass Standards	from 200 mg to 50 g	0.18 mg
	above 50 g to 100 g	0.23 mg
	above 100 g to 200 g	0.30 mg
	above 200 g to 2000 g	5 mg
	above 2000 g to 10 000 g	30 mg
	above 10 000 g to 20 000 g	60 mg
Industrial Mass Standards	at 100 g	5 mg
	above 100 g to 200 g	10 mg
	above 200 g to 500 g	25 mg
	above 500 g to 1 kg	50 mg
	above 1 kg to 2 kg	0.10 g
	above 2 kg to 5 kg	0.20 g
	above 5 kg to 10 kg	0.27 g
	above 10 kg to 20 kg	0.40 g
	above 20 kg to 500 kg	20 g
above 500 kg to 1000 kg	23 g	

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For Dr Richard Bruce Warrington  
Chief Metrologist  
National Measurement Institute

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**(ABN 22 071 682 445)**

Melbourne Laboratory  
11/5 Agosta Drive, Laverton North VIC 3026

<b>Physical Quantity</b>	<b>Range of Standard(s) and Artefact(s)</b>	<b>Least Uncertainty</b>
<b>Mass</b>		
Mass Standards	from 1 mg to 5 mg	7 µg
	above 5 mg to 50 mg	8 µg
	above 50 mg to 200 mg	9 µg
	above 200 mg to 500 mg	10 µg
	above 500 mg to 1 g	12 µg
	above 1 g to 2 g	15 µg
	above 2 g to 20 g	30 µg
	above 20 g to 200 g	0.15 mg
	above 200 g to 1000 g	2 mg
	above 1000 g to 2000 g	3 mg
	above 2000 g to 5000 g	50 mg
	above 5000 g to 10 000 g	80 mg
above 10 000 g to 20 000 g	0.13 g	
Industrial Mass Standards	from 100 g to 2 kg	13 mg
	above 2 kg to 5 kg	50 mg
	above 5 kg to 20 kg	0.16 g
	above 20 kg to 500 kg	12 g
	above 500 kg to 1000 kg	20 g

**National Weighing & Instruments Pty Ltd**

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Chief Metrologist  
National Measurement Institute

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**(ABN 22 071 682 445)**

Adelaide Laboratory  
3A Wilford Avenue, Underdale SA 5032

<b>Physical Quantity</b>	<b>Range of Standard(s) and Artefact(s)</b>	<b>Least Uncertainty</b>
<b>Mass</b>		
Mass Standards	from 1 mg to 5 mg	7 µg
	above 5 mg to 50 mg	8 µg
	above 50 mg to 200 mg	9 µg
	above 200 mg to 500 mg	10 µg
	above 500 mg to 1 g	12 µg
	above 1 g to 2 g	15 µg
	above 2 g to 20 g	50 µg
	above 20 g to 50 g	60 µg
	above 50 g to 100 g	70 µg
	above 100 g to 200 g	0.1 mg
	above 200 g to 1000 g	2 mg
	above 1000 g to 2000 g	3 mg
	above 2000 g to 10 000 g	50 mg
above 10 000 g to 20 000 g	60 mg	
Industrial Mass Standards	from 50 g to 100 g	5 mg
	above 100 g to 200 g	10 mg
	above 200 g to 500 g	25 mg
	above 500 g to 1000 g	50 mg
	above 1000 g to 2000 g	0.10 g
	above 2000 g to 5000 g	0.20 g
	above 5000 g to 10 kg	0.27 g
	above 10 kg to 20 kg	0.37 g
	above 20 kg to 200 kg	4 g
above 200 kg to 500 kg	16 g	

### **Signatories**

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

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The following persons are the permitted signatories under this appointment:

<b>Name</b>	<b>Physical Quantity</b>	<b>Range</b>
Phillip Moraitis	Mass and Volume	as per the scope of this schedule (NSW, QLD, VIC & SA)
Jamie Connolly	Mass and Volume	as per the scope of this schedule (NSW, QLD, VIC & SA)
Theo Moraitis	Mass and Volume	as per the scope of this schedule (NSW, QLD, VIC & SA)
Gareth Finch	Mass	as per the scope of this schedule (VIC)

### **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

- (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:

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Chief Metrologist  
National Measurement Institute

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- (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. 1960
- (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;
- (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  
National Measurement Institute

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