

# **Recognised Testing Laboratory (Flowmeter) Scheme**

**Information Booklet**

# **WEIGHTS AND MEASURES OFFICE**

© 2021 Enterprise Singapore

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The Weights and Measures Office (WMO) safeguards the interests of consumers and businesses by ensuring a uniform and accurate system of weights and measures in Singapore. The WMO is an office overseen by Enterprise Singapore.

Visit [www.weightsandmeasures.gov.sg](http://www.weightsandmeasures.gov.sg) for more information.

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# WEIGHTS AND MEASURES OFFICE

## 1.0 Preface

Having a uniform and accurate weights and measures system is important to all businesses and consumers. The Weights and Measures Office (WMO) plays an important role in protecting businesses and consumers by regulating the use of weighing and measuring instruments used for trade and pre-packaged goods. It is responsible for the legal metrology of all weighing and measuring instruments used for trade, such as mass, length and volumetric measurements of food, fuel and other essential commodities including pre-packaged goods.

Towards this end, the WMO has implemented the Recognised Testing Laboratory (RTL) (Flowmeter) Scheme. This Scheme aims to supplement the verification capability of flowmeters in Singapore.

This information booklet aims to help interested flowmeter manufacturers and suppliers to understand the requirements and criteria stipulated in this booklet before applying to the WMO.

The WMO reserves the right to amend and introduce new requirements to the aforementioned scheme without reference to the holder of this booklet and encourages feedback from readers to ensure that improvements to this booklet could be made from time to time.

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## 2.0 RECOGNISED TESTING LABORATORY (FLOWMETER) SCHEME

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### 2.1 Criteria for Recognition as Recognised Testing Laboratory (Flowmeter)

A flowmeter laboratory located outside of Singapore, who wishes to be recognised by the WMO as a RTL to carry out calibration of flowmeters must fulfil the following criteria:

- (a) It has the knowledge, capability and competence to perform the calibration of flowmeter to the relevant requirements as specified by the WMO. It is accredited to ISO/IEC 17025 by the ILAC multilateral MRA signatory accredited body.
- (b) It shall provide to the WMO such other information or documents as may be required.
- (c) It shall provide the WMO or any such person as the WMO may authorise access to the laboratory or other premises of the RTL to enable the WMO or such person to observe and assess the calibration procedures of the laboratory.
- (d) It sets up procedures for ensuring that its staff know and can comply with the latest WMO requirements on an on-going basis.
- (e) It needs to ensure that all necessary test equipment is provided with proper characteristics and tolerances.
- (f) It sets up a procedure for maintaining proper calibration of all test equipment, including reference standards.

### 2.2 Assessment Procedures

As the RTL is located outside of Singapore, the WMO will require the RTL to bear all costs and travelling expenses incurred by the WMO or any such person in conducting the following activities:

- (a) Initial assessment of the RTL for the purpose of Recognition.
- (b) Subsequent assessments which must be conducted at least once in three years.
- (c) Investigative assessments as a result of complaints filed with the WMO.

### **2.3 Assessment Fee**

The fee for site assessment and surveillance includes (and not limited to) the following:

- (i) Pre- and Post-Assessment Fee
- (ii) Actual assessment fee based on the Enterprise Singapore's charge out rates for each WMO officer appointed to conduct the assessment or surveillance visit
- (iii) Airfare
- (iv) Hotel accommodation
- (v) Subsistence allowance
- (vi) Local and overseas transportation cost

### **2.4 Validity Period of Recognition and Renewal of Recognition**

The recognition as RTL shall be valid for a period of 3 years, and shall be renewed 3 months before the Certificate of Recognition expires.

The decision of renewing the Recognition of RTL is at the discretion of the WMO.

### **2.5 Duties and Obligations**

#### **As an RTL**

- (1) RTL shall ensure that it maintains its accreditation status, where applicable.
- (2) RTL shall ensure that its calibration of equipment and reference standards are in accordance with the above procedures, rules and policies of international standards and practices.
- (3) RTL shall publish, maintain and make available to the WMO on request:
  - (a) Calibration reports and other documents or information in connection with the business of calibration;
  - (b) Evidence of participation in appropriate proficiency testing programmes; and
  - (c) Evidence that it has carried out all other tasks stipulated in the Terms and Conditions of Recognition.

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- (4) RTL shall notify the WMO in writing of the occurrence of any of the following not later than **2 weeks** prior to the date on which it intends to effect such change:
  - (a) The cessation of its business of conformity assessment for which it is recognised;
  - (b) Changes to its shareholding;
  - (c) Changes to its organisational structure;
  - (d) Changes to its accreditation status;
  - (e) Changes in key personnel;
  - (f) Changes to its business address;
  - (g) Changes which may affect its ability to properly calibrate any product for conformity to the requirements for which it is recognised;
- (5) RTL shall maintain the standards of practice as are necessary to properly carry out the calibration of flowmeters to the relevant OIML Recommendation(s).
- (6) RTL shall participate in proficiency testing or other appropriate comparison exercises where such exercises are technically possible and within reasonable cost.

## 2.6 Post-Recognition Surveillance

As and when required, the WMO may conduct surveillance assessments and other non-routine assessments on the RTL. This is:

- (a) To ensure that the RTL standards of practice are maintained; and
- (b) To investigate complaints made against the RTL on matter related to its recognition.

The WMO shall require the RTL to participate in proficiency testing or other appropriate comparison exercises where such exercises are technically possible and within reasonable cost.

## 2.7 Suspension or Withdrawal of Recognition

The WMO may withdraw the recognition as RTL, if:

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- (a) It ceases to carry on the business of conformity assessment for which it is designated; or it ceases to carry on the business of calibrating for which it is recognised; or
- (b) It applies to the WMO for withdrawal of its recognition; or
- (c) Its accreditation status with its accreditation body is withdrawn; or
- (d) It has contravened any provision stated in the Terms and Conditions stipulated by the WMO; or
- (e) It fails to maintain the standards required by the WMO; or
- (f) It is guilty of any offence involving fraud or dishonesty; or
- (g) It has insufficient capital and financial resources to maintain viable operations such as bankruptcy; or

In the event the WMO is of the view that there is cause for the withdrawal of recognition as RTL, the WMO will suspend the recognition of the RTL and:

- (a) Notify the respective RTL in writing of the suspension and the intention of the WMO to withdraw the recognition of the RTL
- (b) If necessary, meet the suspended RTL to discuss any corrective measures to be undertaken by the suspended RTL;
- (c) Disallow RTL whose recognition has been suspended from issuing any Calibration Report during the period of suspension.

Where, after suspending the recognition of the RTL, the WMO takes the view that the recognition as RTL should be withdrawn, the WMO will:

- (a) Notify the respective RTL of its intention in writing
- (b) Request the RTL to return its Certificate of Recognition to the WMO for cancellation;
- (c) Disallow RTL whose recognition has been withdrawn from issuing any Calibration Report.



## **2.8 Procedure for Lifting of Suspension / Against Withdrawal**

This procedure applies to a RTL whose recognition has been suspended.

Upon suspension of the recognition of a RTL, the RTL will be allowed to make representations in writing to the WMO within **14 days** of receipt of the notice of suspension, for the suspension of the recognition of the RTL to be lifted and that such recognition not be withdrawn. The RTL shall provide any documents or information together with an explanation as to why the suspension should be lifted and the recognition not withdrawn.

**Appendix A – Sample of certificate of recognition**

**Recognised Testing Laboratory (Flowmeter)**

**Certificate No.:**

**Date of Issue:**

**Date of Expiry:**

This is to certify that the Weights and Measures Office<sup>1</sup> has under the Recognised Testing Laboratory (Flowmeter) Scheme, recognised the testing laboratory described below. The Laboratory is recognised to carry out calibration of flowmeter for custody transfer in Singapore specified in the attached Annex subject to the terms and conditions specified therein.

*RTL DESCRIPTION*

Name of RTL:

Address of RTL:

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**Officer's name**

Weights and Measures Office

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<sup>1</sup> The Weights and Measures Office is an office overseen by Enterprise Singapore

**Appendix B – Annex to Certificate (Scope of Recognition)**

**Annex to Certificate No.:**

<b>Scope of Recognition</b>			
<b>Equipment</b>	<b>OIML Recommendation</b>	<b>Accredited by an ILAC multilateral MRA signatory accreditation body</b>	<b>Recognised Date</b>

SPECIMEN

**Appendix C – Annex to Certificate (Terms and Conditions of  
Recognised Testing Laboratory (Flowmeter))**

**Annex to Certificate No.:**

**Terms & Conditions of Recognised Testing Laboratory (Flowmeter)**

Obligations of RTL

- (1) RTL shall ensure that it maintains its accreditation status, where applicable.
- (2) RTL shall ensure that its calibration of equipment is in accordance with the above procedures, rules and policies of international standards and practices.
- (3) RTL shall publish, maintain and make available to the Weights and Measures Office (WMO)<sup>1</sup> on request:
  - (a) Calibration reports and other documents or information in connection with the business of calibration;
  - (b) Evidence of participation in appropriate proficiency testing programmes; and
  - (c) Evidence that it has carried out all other tasks stipulated in the Terms and Conditions of Recognition.
- (4) RTL shall notify the WMO in writing of the occurrence of any of the following not later than **2 weeks** prior to the date on which it intends to effect such change:
  - (a) The cessation of its business of conformity assessment for which it is recognised;
  - (b) Changes to its shareholding;
  - (c) Changes to its organisational structure;
  - (d) Changes to its accreditation status;
  - (e) Changes in key personnel;
  - (f) Changes to its business address;
  - (g) Changes which may affect its ability to properly calibrate any product for conformity to the requirements for which it is recognised;
- (5) RTL shall maintain the standards of practice as are necessary to properly carry out the calibration of flowmeters to the relevant OIML Recommendation.
- (6) RTL shall participate in proficiency testing or other appropriate comparison exercises where such exercises are technically possible and within reasonable cost.

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- (7) The calibrated flowmeter for custody transfer use in Singapore shall be sealed by the RTL to prevent tampering and it shall advise its client to approach the WMO to have the flowmeter stamped and resealed before the flowmeter is allowed for trade use.
- (8) For flowmeters with operating flowrates within the capability of the Authorised Verifier(s) in Singapore, the RTL is required to inform its clients that they have to get their flowmeters re-verified after the first year of their initial verification. The RTL is required to include this requirement into its contract with its clients.
- (9) The RTL shall immediately inform the WMO in the event that there is any error detected in the calibration process following the release of the flowmeter from its premises.

## Post-Recognition Surveillance

- (10) As and when required, the WMO may conduct surveillance assessments and other non-routine assessments on the RTL. This is:
  - (a) To ensure that the RTL standards of practice are maintained; and
  - (b) To investigate complaints made against the RTL on matter related to its recognition.
- (11) The WMO shall require the RTL to participate in proficiency testing or other appropriate comparison exercises where such exercises are technically possible and within reasonable cost.

## Suspension or Withdrawal of Recognition

- (12) The WMO may withdraw the recognition as RTL, if:
  - (a) It ceases to carry on the business of conformity assessment for which it is recognised; or it ceases to carry on the business of calibrating for which it is recognised; or
  - (b) It applies to the WMO for withdrawal of its recognition; or
  - (c) Its accreditation status with its accreditation body is withdrawn; or
  - (d) It has contravened any provision stated in the Terms and Conditions imposed by the WMO; or
  - (e) It fails to maintain the standards required by the WMO; or
  - (f) It is guilty of any offence involving fraud or dishonesty; or
  - (g) It has insufficient capital and financial resources to maintain viable operations such as bankruptcy.
- (13) In the event the WMO is of the view that there is cause for the withdrawal of recognition as RTL, the WMO will suspend the recognition of the RTL and:
  - (a) Notify the respective RTL in writing of the suspension and the intention of the WMO to withdraw the recognition of the RTL
  - (b) If necessary, meet the suspended RTL to discuss any corrective measures to be undertaken by the suspended RTL;

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- (c) Disallow RTL whose recognition has been suspended from issuing any Calibration Report during the period of suspension.
- (14) Where, after suspending the recognition of the RTL, the WMO takes the view that the recognition as RTL should be withdrawn, the WMO will:
- (a) Notify the respective RTL of its intention in writing
  - (b) Request the RTL to return its Certificate of Recognition to the WMO for cancellation;
  - (c) Disallow RTL whose recognition has been withdrawn from issuing any Calibration Report.

## Appendix D – Summary of Updates

No.	Section	Changelog (only main changes will be highlighted)
1	NA	<p>Updated the office implementing the Recognised Testing Laboratory (RTL) (Flowmeter) Scheme as the Weights and Measures Office.</p> <p>Editorial changes to overall content including updating the website name from <a href="http://www.enterprisesg.gov.sg">www.enterprisesg.gov.sg</a> to <a href="http://www.weightsandmeasures.gov.sg">www.weightsandmeasures.gov.sg</a>.</p>