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No. S 133

PUBLIC UTILITIES ACT (CHAPTER 261)

PUBLIC UTILITIES (WATER SUPPLY) (AMENDMENT) REGULATIONS 2017

In exercise of the powers conferred by section 72 of the Public Utilities Act, the Public Utilities Board, with the approval of the Minister for the Environment and Water Resources, makes the following Regulations:

Citation and commencement

1.—(1) These Regulations are the Public Utilities (Water Supply) (Amendment) Regulations 2017 and, except for regulation 5, come into operation on 1 April 2017.

(2) Regulation 5 is deemed to have come into operation on 1 January 2016.

Amendment of regulation 2

2. Regulation 2 of the Public Utilities (Water Supply) Regulations (Rg 5) (called in these Regulations the principal Regulations) is amended by inserting, immediately before the definition of “authorised officer”, the following definition:

““accredited laboratory” means a laboratory —

- (a) accredited under the Singapore Laboratory Accreditation Scheme (SAC-SINGLAS) administered by the Standards, Productivity and Innovation Board (established under section 3 of the Standards, Productivity and Innovation Board Act (Cap. 303A)); or

(b) recognised under a mutual recognition agreement or arrangement between Singapore and any other country;”.

Amendment of regulation 5

3. Regulation 5(3) of the principal Regulations is amended —

(a) by deleting sub-paragraph (a) and substituting the following sub-paragraph:

“(a) an accredited laboratory; or”; and

(b) by deleting the words “product certification body or” in sub-paragraph (b).

Deletion of regulation 40A and new Part IVAA

4. Regulation 40A of the principal Regulations is deleted and the following Part substituted therefor:

“PART IVAA

WATER EFFICIENCY

Division 1 — General

Interpretation of this Part

40A. In this Part —

“affix”, in relation to a Water Efficiency Label, includes printing the Water Efficiency Label on the packaging of a registered water fitting;

“manufacturer” includes a person who assembles parts of a specified water fitting;

“registered supplier” means an importer or a manufacturer who is registered as a registered supplier under regulation 40AE(3);

“specified water fitting” means —

(a) a tap and mixer;

(b) a flushing cistern;

(c) a urinal flush valve;

(d) a waterless urinal; and

(e) a clothes washing machine intended for household use;

“supply”, in relation to any specified water fitting, means the supply of the specified water fitting in the course of any trade or business, and includes —

(a) the supply of the specified water fitting by way of sale, lease, loan, consignment, hire or hire-purchase;

(b) the supply of the specified water fitting in connection with any agreement;

(c) the offer to supply the specified water fitting; and

(d) the display of the specified water fitting for supply;

“test report”, in relation to any specified water fitting, means the report of the most recent test carried out for the specified water fitting in accordance with the prevailing test standard or method specified in Part 1 of the Second Schedule;

“Water Efficiency Label” means a water efficiency label that is in accordance with the requirements specified in Part 2 of the Second Schedule.

Division 2 — Restrictions on supply, etc., of specified water fittings

Restrictions on supply of specified water fittings

40AA.—(1) A person must not supply any specified water fitting unless the specified water fitting —

(a) is registered under regulation 40AE(3); and

(b) is affixed with a Water Efficiency Label in the manner specified in regulation 40AD(3).

(2) A person must not supply any specified water fitting affixed with a Water Efficiency Label —

- (a) that is obscured or defaced; or
- (b) that the person has reason to believe to be altered, forged or falsified.

(3) Without affecting paragraph (1) or (2), an importer or a manufacturer of a specified water fitting must not supply the specified water fitting unless —

- (a) the importer or manufacturer is a registered supplier for the specified water fitting; and
- (b) the specified water fitting meets the water efficiency requirements specified in Part 3 of the Second Schedule for the specified water fitting.

(4) Any person that contravenes paragraph (1), (2) or (3) shall be guilty of an offence.

Restrictions on advertisements for supply of specified water fittings

40AB.—(1) A person must not advertise a specified water fitting for supply unless the specified water fitting is registered under regulation 40AE(3).

(2) Without affecting paragraph (1), the person advertising the specified water fitting —

- (a) where the advertisement has any visual element, must ensure that —
 - (i) a Water Efficiency Label is, as far as practicable, displayed in the advertisement next to the image or description of the specified water fitting; or
 - (ii) where it is not practicable to comply with sub-paragraph (i), all the information contained in the Water Efficiency Label is stated in the advertisement; and

(b) must not claim or imply that the specified water fitting is tested, certified, or otherwise approved by the Government or the Board.

(3) Any person that contravenes paragraph (1) or (2) shall be guilty of an offence.

Restrictions on supply of water fittings modified after registration

40AC.—(1) Where a water fitting is modified after it is registered under regulation 40AE(3), a person must not supply the water fitting as modified, unless —

(a) for a modification affecting the water efficiency of the registered water fitting, the registered supplier that originally registered the water fitting first separately registers the water fitting as modified under regulation 40AE(3); or

(b) for a modification not affecting the water efficiency of the registered water fitting, the registered supplier that originally registered the water fitting first notifies the Board in writing of the modification and gives to the Board the particulars of the modification required by the Board.

(2) Any person that contravenes paragraph (1) shall be guilty of an offence.

Restrictions relating to Water Efficiency Label

40AD.—(1) A person must not affix, or cause to be affixed, a Water Efficiency Label on a specified water fitting unless —

(a) the specified water fitting has been registered by the Board;

(b) the person is a registered supplier for the water fitting; and

(c) the Water Efficiency Label was issued to the person by the Board for the registered water fitting.

(2) A registered supplier must, before supplying the registered water fitting in Singapore, affix the Water Efficiency Label in accordance with the requirements in paragraph (3).

(3) A Water Efficiency Label must be affixed on a registered water fitting in accordance with the following requirements:

(a) where the Water Efficiency Label is not printed onto the packaging of the registered water fitting, the Water Efficiency Label must be affixed securely on the registered water fitting or its packaging;

(b) the place where the Water Efficiency Label is affixed must be conspicuous and unobstructed.

(4) A person must not —

(a) alter in any way any Water Efficiency Label that is to be or is affixed on a registered water fitting;

(b) forge or falsify any Water Efficiency Label; or

(c) without reasonable excuse, remove, obscure or deface any Water Efficiency Label affixed on any registered water fitting.

(5) Any person that contravenes paragraph (1), (2) or (4) shall be guilty of an offence.

Division 3 — Administration and enforcement of this Part

Registration of suppliers and water fittings

40AE.—(1) An importer or a manufacturer that intends to supply a specified water fitting in Singapore may apply to the Board —

(a) to be registered as a registered supplier; and

(b) to register the specified water fitting that the importer or manufacturer intends to supply in Singapore.

(2) Every application mentioned in paragraph (1) must be accompanied by —

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- (a) such documents and information as may be required in the relevant form set out at the Board's Internet website at <http://www.pub.gov.sg>;
 - (b) a test report issued by an accredited laboratory in respect of the specified water fitting showing the water efficiency of the water fitting; and
 - (c) such other documents and information as the Board may require.
- (3) Upon considering the application received under paragraph (2), the Board may register, or refuse to register —
- (a) any applicant as a registered supplier; or
 - (b) any specified water fitting as a registered water fitting.
- (4) The Board must not register a specified water fitting under paragraph (3) if the specified water fitting does not comply with regulation 5.
- (5) A registered supplier that —
- (a) intends to cease supplying a registered water fitting in Singapore must notify the Board of such an intention no less than 14 days before it ceases to supply the registered water fitting; or
 - (b) changes the registered supplier's name or contact details must inform the Board in writing of such a change within 7 days after the change.
- (6) Any person that fails to comply with paragraph (5) shall be guilty of an offence.

Withdrawal or revocation of registration

- 40AF.**—(1) The Board may withdraw the registration —
- (a) of any registered supplier where the registered supplier applies to the Board to withdraw the registered supplier's registration as such; or
 - (b) of any registered water fitting that a registered supplier ceases to supply in Singapore, where the registered

supplier applies to the Board to withdraw such registration.

(2) The Board may revoke the registration of any registered supplier after giving notice to the registered supplier and after such inquiry as the Board thinks fit if —

- (a) the registered supplier procured the registration by providing any particulars, information or document, or by making any statement or representation, to the Board which is false or misleading in any material particular;
- (b) the registered supplier has contravened regulation 40AA, 40AC or 40AD; or
- (c) the registered supplier has ceased to carry on the trade of business of supplying registered water fittings in Singapore.

(3) The Board may revoke the registration of any registered water fitting after giving notice to the registered supplier supplying the registered water fitting and after such inquiry as the Board thinks fit, if the Board is satisfied that —

- (a) the registered water fitting does not conform with the results of any test or examination furnished by the registered supplier to the Board under this Division;
- (b) the registered water fitting does not meet the water efficiency requirements specified in Part 3 of the Second Schedule; or
- (c) the registered supplier has procured the registration of the registered water fitting by providing any particulars, information or document, or by making any statement or representation, to the Board which is false or misleading in any material particular.

(4) The Board must, within 14 days after giving notice under paragraph (2) or (3), inform the registered supplier concerned in writing of the revocation in the notice and the grounds for the revocation.

(5) Where the registration of any water fitting is withdrawn under paragraph (1) or revoked under paragraph (3), the registered supplier of the water fitting must, within 14 days after the registered supplier applies to withdraw the water fitting or the Board informs the registered supplier of the revocation under paragraph (4), as the case may be, give notice to every person whom the registered supplier knows, or reasonably ought to know, intends to supply that water fitting in Singapore, of the withdrawal or revocation of the registration.

(6) Any person that fails to comply with paragraph (5) shall be guilty of an offence.

Board may require specified water fittings for testing or analysis

40AG.—(1) The Board may require any person carrying on a trade or business which consists of or includes the supply of any specified water fitting —

- (a) to provide free of charge to the Board samples of the specified water fitting for the purpose of testing or analysis; and
- (b) to furnish to the Board such documents or information as the Board may require in respect of the specified water fitting or the supply of the specified water fitting.

(2) Any person that fails to comply with any requirement of the Board under subsection (1) shall be guilty of an offence.

Board may require recall of specified water fittings supplied

40AH.—(1) Where the Board knows or has reason to believe that a specified water fitting has been supplied in contravention of regulation 40AA or 40AC, the Board may, by notice in writing, require the person (called in this paragraph the first person) who supplied the specified water fitting to, within such time specified in the notice —

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- (a) recall, at the first person's own cost and expense, all such water fittings (whether or not also installed); or
 - (b) notify every person whom the first person knows, or reasonably ought to know, intends to supply that water fitting in Singapore, of the contravention.
- (2) Any person that fails to comply with a notice served on him under paragraph (1) shall, unless the person satisfies the court that the person has used all due diligence to comply with the notice, be guilty of an offence.”.

Amendment of regulation 40D

5. Regulation 40D of the principal Regulations is amended —

- (a) by inserting, immediately after paragraph (1), the following paragraph:

“(1A) Paragraph (1) does not apply to a consumer who becomes a qualifying consumer in respect of a regulatory period starting on 1 January 2017 by reason only of the consumer attaining the water use threshold at a construction site.”;

- (b) by inserting, immediately after the words “the site of each business activity” in paragraph (2)(b)(vi), the words “(except a construction site)”;

- (c) by inserting, immediately after the words “each site of business activity” in paragraph (2)(b)(vii), the words “(except a construction site)”;

- (d) by inserting, immediately after paragraph (3), the following paragraph:

“(4) In this regulation, “construction site” means any premises where the business activity of the consumer comprises wholly of construction, being any one or more of the following:

- (a) the erection, construction, alteration, repair or maintenance of buildings, structures or roads;

- (b) the breaking up, opening or boring under any road or adjacent land in connection with the construction, inspection, maintenance or removal of works;
- (c) piling, demolition or dredging works;
- (d) any other work of engineering construction.”.

Deletion and substitution of Second Schedule

6. The Second Schedule to the principal Regulations is deleted and the following Schedule substituted therefor:

“SECOND SCHEDULE

Regulations 40A, 40AA and 40AF

PART 1

TEST STANDARD OR METHOD

1. A test report for a specified water fitting must contain the results of tests carried out for the specified water fitting in accordance with the applicable test standard or method, as follows:

<i>First column</i>	<i>Second column</i>	<i>Third column</i>
<i>Specified water fitting</i>	<i>Type</i>	<i>Applicable test standard or method</i>
(1) Taps and mixers	(a) Pillar basin taps)	(i) Annex A of SS 448: Part 3 (1998); or (ii) section 10 of BS EN 200 (2008)
	(b) Self-closing)	
	delayed-action)	
	basin taps)	
	(c) Sensor (including)	
	self-closing)	
	delayed-action))	
	basin taps)	
	(d) Combination)	
	basin taps)	
	(e) Bib taps)	
	(f) Sink taps (cold)	
	water only))	

<i>First column</i>	<i>Second column</i>	<i>Third column</i>
<i>Specified water fitting</i>	<i>Type</i>	<i>Applicable test standard or method</i>
	(g) Sensor sink taps)	
	(h) Combination sink taps)	
	(i) Shower taps (cold water only))	
	(j) Self-closing delayed-action shower taps)	
	(k) Sensor (including self-closing delayed-action) shower taps)	
	(l) Combination shower taps)	
		The flow rate is determined in accordance with paragraph 2
	(m) Mechanical basin, sink or shower mixers with a single or separate control device for adjusting flow rate and temperature	— Section 10 of BS EN 817 (2008)
		The flow rate is determined in accordance with paragraph 2
	(n) Thermostatic mixer for basin, sink, bib or shower	— Section 10 of BS EN 1287 (1999)

<i>First column</i> <i>Specified water fitting</i>	<i>Second column</i> <i>Type</i>	<i>Third column</i> <i>Applicable test standard or method</i>
		The flow rate is determined in accordance with paragraph 2
(2) Flushing cistern	(a) Dual-flush low capacity flushing cisterns with volume discharge of 3.5 litres or more for full flush	— SS 574: Part 1 (2012), Volume of Discharge per flush
	(b) Dual-flush low capacity cisterns with volume of discharge of less than 3.5 litres for full flush	— (i) SS 574: Part 1 (2012), Volume of Discharge per flush; and (ii) SS 574: Part 1 (2012), Annex J — WC Drainline Transportation test
(3) Urinal flush valve	(a) Urinal flush valve with flush volume of 0.5 litres or more	— The test method for determining the flush volume set out in paragraph 3
	(b) Urinal flush valve with flush volume of less than 0.5 litres	— (i) The test method for determining the flush volume set out in paragraph 3; and (ii) Dye Test specified in —

<i>First column</i>	<i>Second column</i>	<i>Third column</i>
<i>Specified water fitting</i>	<i>Type</i>	<i>Applicable test standard or method</i>
		(A) Clause 8.5 of the ASME A112.19.2 - 2008/CS A B45.1-08; or (B) ASME A112.19.2 - 2013/CS A B45.1-13
(4) Clothes washing machine	—	(a) Clause 8.6 of IEC 60456 Edition 5.0 (2010-02); or (b) Clause 11 of BS EN 60456 (2005) relating to measurement of water consumption The water consumption is determined in accordance with paragraph 4

2. The flow rate for a tap and mixer is the mean of the average flow rates measured in litres per minute and at the dynamic flow pressures of 1.5 bars, 2.5 bars, 3.5 bars, 4.5 bars and 5 bars.

3. The urinal flush valve is tested at dynamic pressure of 3 bars. The discharge volume per flush is measured with the following test method:

- (a) the flush pipe is to be 300 mm long with an internal diameter of at least 13 mm and is to be secured to the outlet of the valve;
- (b) the pressure gauge and control valve are to be fitted at the inlet of the flush valve;
- (c) the flush valve is to be connected to a water supply system and the dynamic pressure of the water supply adjusted to 0.7 bars;
- (d) the flow regulator is to be set at maximum;
- (e) the operating member must continue to be held actuated until the flow of water ceases;
- (f) the flush volume is the volume of water that is discharged from the flush pipe from the actuation of the operating member to cessation of flow of water.

4. The water consumption for a clothes washing machine is to be measured using the wash programme or other associated settings recommended in the manufacturer's product literature for a normally soiled load at rated load capacity, and the following are not required as a test condition:

- (a) the use of a reference clothes washing machine for normalisation of base load items;
- (b) the parallel operation of a reference clothes washing machine with the tested clothes washing machine;
- (c) the use of a specific inlet water temperature, water hardness, water pressure, ambient temperature or humidity;
- (d) the use of stain test strips;
- (e) the use of detergent.

5. In this Part, unless the context otherwise requires —

“ASME” means American Society of Mechanical Engineers;

“BS EN” means the British Standards European Norm;

“IEC” means the International Electrotechnical Commission;

“SS” means the Singapore Standards.

PART 2

WATER EFFICIENCY LABEL REQUIREMENTS

1. Every Water Efficiency Label must —
- (a) be of the same dimensions as the samples at paragraph 3, or proportionately larger;
 - (b) be of the same shape and colour as the samples at paragraph 3;
 - (c) contain text set out in the samples at paragraph 3 that is —
 - (i) of the typeface Arial;
 - (ii) legible;
 - (iii) in the English language only; and
 - (iv) consistent with or drawn from the relevant test report;
 - (d) show the number of ticks for a specified water fitting, determined in accordance with paragraph 2;
 - (e) be printed in an indelible manner and with a minimum resolution of 300 pixels per inch; and
 - (f) be made of such material as the Board may approve.
2. The number of ticks to be shown on the Water Efficiency Label for a specified water fitting are to be determined as follows:

- (a) basin tap and mixer —

<i>Number of ticks</i>	<i>Flow rate (litres per minute)</i>
1	$4 < \text{flow rate} \leq 6$
2	$2 < \text{flow rate} \leq 4$
3	$\text{flow rate} \leq 2$

- (b) sink tap and mixer or bib tap and mixer —

<i>Number of ticks</i>	<i>Flow rate (litres per minute)</i>
1	$6 < \text{flow rate} \leq 8$
2	$4 < \text{flow rate} \leq 6$
3	$\text{flow rate} \leq 4$

- (c) shower tap and mixer —

<i>Number of ticks</i>	<i>Flow rate (litres per minute)</i>
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1	$7 < \text{flow rate} \leq 9$
2	$5 < \text{flow rate} \leq 7$
3	$\text{flow rate} \leq 5$

(d) flushing cisterns —

<i>Number of ticks</i>	<i>Flush volume (litres per flush)</i>
1	(a) $4 < \text{flush volume for full flush} \leq 4.5$; and (b) $2.5 < \text{flush volume for reduced flush} \leq 3$
2	(a) $3.5 < \text{flush volume for full flush} \leq 4$; and (b) $2.5 < \text{flush volume for reduced flush} \leq 3$
3	(a) $\text{flush volume for full flush} \leq 3.5$; and (b) $\text{flush volume for reduced flush} \leq 2.5$

(e) urinal flush valves and waterless urinals —

<i>Number of ticks</i>	<i>Flush volume (litres per flush)</i>
1	$1 < \text{flush volume} \leq 1.5$
2	$0.5 < \text{flush volume} \leq 1$
3	$\text{flush volume} \leq 0.5$

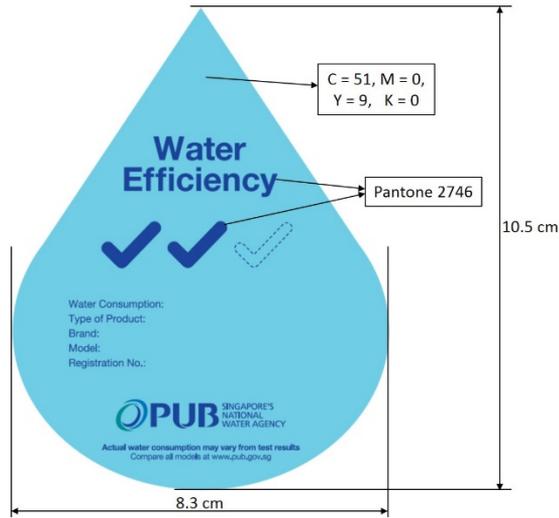
(f) clothes washing machines —

<i>Number of ticks</i>	<i>Water consumption (litres per kg)</i>
2	$9 < \text{water consumption} \leq 12$
3	$6 < \text{water consumption} \leq 9$
4	$\text{water consumption} \leq 6$

3. The samples of the Water Efficiency Label are as follows:

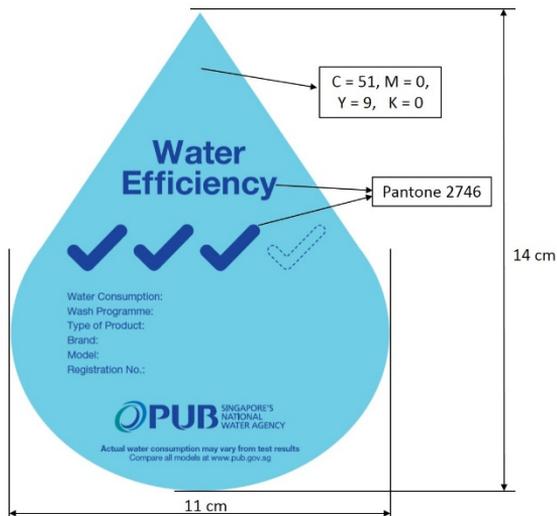
Label 1

WATER EFFICIENCY LABEL FOR TAPS AND MIXERS, FLUSHING
CISTERNS, URINAL FLUSH VALVES AND WATERLESS URINALS



Label 2

WATER EFFICIENCY LABEL FOR CLOTHES WASHING MACHINES



4. In this Part —

“flow rate” means the volume of water that flows out of a tap and mixer per minute, as specified in the test report;

“flush volume” means the volume of water that is discharged from a flushing cistern or urinal flush valve or waterless urinal, as specified in the test report;

“water consumption” means the volume of water used by a clothes washing machine, as specified in the test report.

PART 3

WATER EFFICIENCY REQUIREMENTS

1. Every tap and mixer, regardless of the type, must meet all of the following requirements:

- (a) the difference between the highest and lowest flow rates (measured at the dynamic flow pressures specified in paragraph 2 of Part 1 of this Schedule) of the tap and mixer must not exceed 2 litres per minute;
- (b) the highest flow rate of the tap and mixer must not exceed the upper limit of the range of flow rates within which the flow rate of the tap and mixer falls (under paragraph 2 of Part 2 of this Schedule) by more than 0.5 litres per minute;
- (c) the lowest flow rate of the tap and mixer —
 - (i) for a sink tap and mixer with a flow rate falling within the range of flow rates specified for 3 ticks, must not be lower than the lower limit of the range of flow rates within which the flow rate of the tap and mixer falls (under paragraph 2 of Part 2 of this Schedule) by more than 1.5 litres per minute;
 - (ii) for a sink tap and mixer with a flow rate falling within the range of flow rates specified for 1 tick or 2 ticks, must not be lower than the lower limit of the range of flow rates within which the flow rate of the tap and mixer falls (under paragraph 2 of Part 2 of this Schedule) by more than 0.5 litres per minute; and
 - (iii) for a basin tap and mixer, bib tap and mixer, shower tap and mixer, must not be lower than the lower limit of the range of flow rates within which the flow rate of the tap and mixer falls (under paragraph 2 of Part 2 of this Schedule) by more than 0.5 litres per minute;
- (d) the tap and mixer must have a flow rate as follows:
 - (i) for basin tap and mixer, not more than 6 litres per minute;

(ii) for a sink tap and mixer or bib tap and mixer, not more than 8 litres per minute;

(iii) for a shower tap and mixer, not more than 9 litres per minute.

2. Every flushing cistern or flush valve must be of such a design as to use not more than the amount of water specified in paragraph 18(1), (2) or (5) of the First Schedule, as the case may be.

3. Every clothes washing machine intended for household use must be of such a design as to use not more than 12 litres of water per kilogram of wash load for the washing programme recommended by the manufacturer for a normally soiled load at the rated capacity of the washing machine.

4. In this Part, “flow rate” means the volume of water that flows out of a tap and mixer per minute, as specified in the test report.”.

*[G.N. Nos. S 97/2005; S 703/2008; S 832/2010;
S 161/2011; S 616/2013; S 721/2014; S 826/2014;
S 55/2015]*

Made on 30 March 2017.

TAN GEE PAW
*Chairman,
Public Utilities Board,
Singapore.*

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(To be presented to Parliament under section 72(4) of the Public Utilities Act).