

PLEASE ADDRESS ANY CORRESPONDENCE TO WATER SUPPLY (NETWORK) DEPARTMENT

**Our Ref :** WSN 92413/90/202112/WCFLUSHVALVES **Tel :** 65172925

**Date :** 1 Dec 2021

**E-mail :** noryati\_abdullah@pub.gov.sg

To water fittings suppliers, test laboratories, Singapore Sanitary Ware Importers & Exporters' Association (SSWIEA), Singapore Plumbing Society (SPS), Certification Bodies for Water Efficiency Labelling Scheme (WELS), Licensed Plumbers and all relevant test laboratories, government agencies, statutory boards, Professional Engineers, M&E consultants, associations and organisations.

Dear Sir/Madam

**(A) PUBLIC UTILITIES (WATER SUPPLY) (AMENDMENT NO.2) REGULATIONS 2021 ON THE FOLLOWING:**

- EXTENDING THE MANDATORY WATER EFFICIENCY LABELLING SCHEME (MWELS) TO INCLUDE WATER CLOSET (WC) FLUSH VALVES
- MANDATING A MINIMUM 2-TICK WATER EFFICIENCY RATING FOR THE SALE & SUPPLY OF SUCH WC FLUSH VALVES

**(B) MANDATORY INSTALLATION OF AT LEAST 2-TICK MWELS WC FLUSH VALVES EFFECTIVE FROM 1 JANUARY 2022**

**(C) TESTING, CERTIFICATION AND REGISTRATION OF WC FLUSH VALVES**

This circular is to remind the water fittings suppliers, test laboratories, Singapore Sanitary Ware Importers & Exporters' Association (SSWIEA), Singapore Plumbing Society (SPS), Certification Bodies for WELS and all relevant test laboratories, government agencies, statutory boards, Professional Engineers, Licensed Plumbers, M&E consultants, associations and organisations on the implementation on MWELS for WC flush valves and its mandatory installation.

**(A) Public Utilities (Water Supply) (Amendment No. 2) Regulations 2021**

2. We would like to remind you that **with effect from 1 Jan 2022**, MWELS will be extended to include WC flush valves\*, and all WC flush valves being offered-for-sale, displayed, advertised for sale or supply in Singapore:

- a) shall have a flush volume of not more than 4.0 litres per flush; and
- b) shall be of minimum 2-tick or more water efficiency rating under MWELS. The water efficiency ratings are as shown in **Table 1** below.

Flush valves for WCs with flush volume more than 4.0 litres will no longer be allowed to be offered-for-sale, displayed, advertised for sale or supply in Singapore.

*\*As stated in the WELS Guidebook, the flush valve with the WC pan (with its associated fittings) shall be certified and labelled as a whole complete set.*

**Table 1: MWELS Water Efficiency Rating for WC flush valves**

Tick Rating	2-tick	3-tick
Volume of discharge (Litres per flush)	>3.5 to 4.0	3.5 or less

We would like to update you that the above-mentioned mandatory requirements have been incorporated in the Public Utilities (Water Supply) (Amendment No. 2) Regulations 2021. Please refer to **Annex A** for the relevant extracts of this regulation. Anyone found not complying with the Public Utilities (Water Supply) Regulations shall be guilty of an offence and be liable for prosecution.

**(B) Mandatory installation of minimum 2-tick MWELS flush valves for WCs in all new and existing premises undergoing Addition/Alteration works**

3. We would also like to remind you on the following:
  - a) **With effect from 1 Jan 2022**, all building plans submissions for all new premises and for all existing premises undergoing Additions/Alteration works involving the replacement of WC flush valves are to incorporate such fittings that are labelled with minimum 2-tick or more under MWELS. The above requirements shall apply to all types of premises, except for residential premises where flush valves are not allowed.
  - b) For Building Plans submitted **before 1 Jan 2022 but where the completion date of the water service work** (as indicated in the Certificate of Satisfactory Completion of Water Service Work) is **after 1 Jan 2023**, the premises shall also be required to be installed with water fittings of minimum 2-ticks or more WC flush valves.
  - c) **From 1 Jan 2023**, only WC flush valves that are labelled with minimum 2-ticks or more under MWELS shall be installed in all existing premises undergoing Additions/Alteration works involving the replacement of WC flush valves. The above requirement shall apply to all types of premises except for residential premises where flush valves are not allowed.

**(C) Testing, registration and certification**

4. Similar to other existing WELS products, the above-mentioned product shall be tested in accordance with PUB's stipulated test methods by SAC-accredited test laboratory or its Mutual Recognition Arrangement (MRA) partners and certified by an accredited Certification Body (CB) for WELS before they can registered under MWELS. For more information on the test methods to measure water consumption, water efficiency requirements, supporting documents as proof of compliance, etc, please refer to PUB's WELS website at <https://www.pub.gov.sg/wels/suppliers> and download a copy of the WELS Guidebook. Only models published on PUB's WELS website and supplied under the supply chain of their respective registered suppliers are deemed as registered products.

5. Suppliers, manufacturers, distributors and retailers are advised to send their new and existing models for testing and certification by an accredited CB for WELS, if not already done so. With immediate effect, the Certification Bodies for WELS may submit their applications via PUB's WELS website at <https://www.pub.gov.sg/wels/suppliers>.

6. Please disseminate the information in this circular to your relevant distributors, stakeholders, retailers, manufacturers and other industry partners for their information and compliance. A copy of this circular is also downloadable from PUB's website at <https://www.pub.gov.sg/compliance/industry/circulars>. If you have any queries concerning this circular or need further clarification or assistance, please contact me or email to [pub\\_waterfittings@pub.gov.sg](mailto:pub_waterfittings@pub.gov.sg).

Yours faithfully



NORYATI ABDULLAH  
SENIOR ENGINEER  
for DIRECTOR  
WATER SUPPLY (NETWORK) DEPARTMENT

Enclosed.

**Annex A****No. S**

PUBLIC UTILITIES ACT  
(CHAPTER 261)  
PUBLIC UTILITIES (WATER SUPPLY)  
(AMENDMENT NO. 2) REGULATIONS 2021

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 Sustainability and the Environment, makes the following Regulations:

**Citation and commencement**

1. These Regulations are the Public Utilities (Water Supply) (Amendment No. 2) Regulations 2021 and come into operation on 1 January 2022.

**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 —

(a) by inserting, immediately after the definition of “sub-meter”, the following definition:

““urinal flush valve” means a flush valve serving a urinal;” and

(b) by inserting, immediately after the definition of “warning pipe”, the following definition:

““water-closet flush valve” means a flush valve serving a water-closet pan;”.

**Amendment of regulation 40A**

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

(b) by inserting, immediately after paragraph (c) of the definition of “specified water fitting”, the following paragraph:

“(ca) a water-closet flush valve;”;

**Amendment of First Schedule**

8. Paragraph 18 of the First Schedule to the principal Regulations is amended —

(a) by deleting the words “flush valve serving a water-closet pan” in sub-paragraph (2) and substituting the words “water-closet flush valve”;

(b) by deleting the words “4.5 litres” in sub-paragraph (2) and substituting the words “4 litres”; and

- (c) by deleting the words “flush valve serving a urinal” in sub-paragraph (3) and substituting the words “urinal flush valve”.

### **Amendment of Part 1 of Second Schedule**

9. Part 1 of the Second Schedule to the principal Regulations is amended —

- (a) by inserting, immediately after item (3) of paragraph 1, the following item:

<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>
“(3A) Water-closet flush valve	(a) Water-closet flush valve with flush volume of 3.5 litres or more	— The test method for determining the flush volume set out in paragraph 3A
	(b) Water-closet flush valve with flush volume of less than 3.5 litres	— (i) The test method for determining the flush volume set out in paragraph 3A; and (ii) SS 574: Part 1 (2012), Annex J — WC Drainline Transportation Test”;

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

“3A. The flush volume for a water-closet flush valve is the mean of the flush volumes measured (in litres per flush) with the following test method at the dynamic pressures of 1.5 bars, 2 bars and 3 bars:

- (a) the flush pipe must —
- (i) be 300 mm long;
  - (ii) have an internal diameter of at least 25 mm; and
  - (iii) be secured to the outlet of the flush valve;
- (b) the pressure gauge and control valve must be fitted at the inlet of the flush valve;
- (c) the flush valve must be connected to a water supply system and the dynamic pressure of the water supply must be adjusted to one bar;
- (d) the flow regulator must 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 the cessation of the flow of water.”.

### Amendment of Part 2 of Second Schedule

10. Part 2 of the Second Schedule to the principal Regulations is amended —

(a) by inserting, immediately after sub-paragraph (e) of paragraph 2, the following sub-paragraph:

“(ea) water-closet flush valves —

<i>Number of ticks</i>	<i>Flush volume (litres per flush)</i>
2	$3.5 < \text{flush volume} \leq 4$
3	$\text{flush volume} \leq 3.5$

”;

(b) by inserting, immediately after the words “URINAL FLUSH VALVES” in the heading of Label 1 in paragraph 3, the words “, WATER-CLOSET FLUSH VALVES”; and

(c) by deleting the words “or urinal flush valve or waterless urinal” in the definition of “flush volume” in paragraph 4 and substituting the words “, urinal flush valve, water-closet flush valve or waterless urinal”.

### Amendment of Part 3 of Second Schedule

11. Part 3 of the Second Schedule to the principal Regulations is amended —

(a) by deleting the words “or flush valve serving a urinal” in paragraph 2 and substituting the words “, urinal flush valve or water-closet flush valve”;

(b) by inserting, immediately after the words “paragraph 18(1)” in paragraph 2, “, (2)”;

=====END=====

**cc Distribution (via email only)**

No	Name of agency/organisation	Business Address	Addressee
1	President Institution Of Engineers, Singapore (IES)	70 Bukit Tinggi Road Singapore 289758	<a href="mailto:ies@iesnet.org.sg">ies@iesnet.org.sg</a> <a href="mailto:rickie.teo@iesnet.org.sg">rickie.teo@iesnet.org.sg</a>
2	President Association Of Consulting Engineers, Singapore (ACES)	18 Sin Ming Lane #06-01 Midview City, Singapore 573960	<a href="mailto:secretariat@aces.org.sg">secretariat@aces.org.sg</a>
3	President Singapore Contractors Association Limited (SCAL) Construction House	1 Bukit Merah Lane 2 Singapore 159760	<a href="mailto:esther@scal.com.sg">esther@scal.com.sg</a> <a href="mailto:huiqin@scal.com.sg">huiqin@scal.com.sg</a> <a href="mailto:enquiry@scal.com.sg">enquiry@scal.com.sg</a>
4	President Singapore Institute Of Architects (SIA)	79 Neil Road Singapore 088904	<a href="mailto:cijc@sia.org.sg">cijc@sia.org.sg</a> <a href="mailto:info@sia.org.sg">info@sia.org.sg</a>
5	President Society Of Project Managers (SPM)	Macpherson Road P.O. Box 1083 Singapore 913412	<a href="mailto:societyofprojectmanagers@gmail.com">societyofprojectmanagers@gmail.com</a>
6	President Singapore Institute Of Building Limited (SIBL)	20 Maxwell Road, #08-06 Maxwell House Singapore 069113	<a href="mailto:josephine@sibl.com.sg">josephine@sibl.com.sg</a> <a href="mailto:info@sibl.com.sg">info@sibl.com.sg</a>
7	President Real Estate Developers' Association Of Singapore (REDAS)	190 Clemenceau Avenue #07-01 Singapore Shopping Centre Singapore 239924	<a href="mailto:redas_secretariat@redas.com">redas_secretariat@redas.com</a> <a href="mailto:geoklee@redas.com">geoklee@redas.com</a> <a href="mailto:celine@redas.com">celine@redas.com</a>
8	President Professional Engineers Board, Singapore (PEB)	52 Jurong Gateway Road #07-03 Singapore 608550	<a href="mailto:registrar@peb.gov.sg">registrar@peb.gov.sg</a>
9	President Board Of Architects (BOA)	5 Maxwell Road 1st Storey Tower Block MND Complex Singapore 069110	<a href="mailto:boarch@singnet.com.sg">boarch@singnet.com.sg</a>
10	Infrastructure and Facility Services Division School Campus Department Ministry Of Education	1 North Buona Vista Drive, Office Tower Level 9 Singapore 138675	<a href="mailto:CHOO_Boon_Chiao@moe.gov.sg">CHOO_Boon_Chiao@moe.gov.sg</a>
11	Building Service & Construction Department Construction Productivity and Mechanical & Electrical Department Housing & Development Board	480 Lorong 6 Toa Payoh #15-00 East Wing HDB Hub Singapore 310480	<a href="mailto:ng_thiam_min@hdb.gov.sg">ng_thiam_min@hdb.gov.sg</a>
12	Development & Construction Productivity Department Building Quality Group Housing & Development Board	480 Lorong 6 Toa Payoh HDB Hub Singapore 310480	<a href="mailto:denis_tm_wong@hdb.gov.sg">denis_tm_wong@hdb.gov.sg</a>
13	Engineering & Operations Group Projects Management JTC Corporation	8 Jurong Town Hall Road The JTC Summit Singapore 609434	<a href="mailto:TEO_Tiong_Yong@jtc.gov.sg">TEO_Tiong_Yong@jtc.gov.sg</a>
14	Engineering & Operations Group Facilities & Estates JTC Corporation	9 Jurong Town Hall Road The JTC Summit Singapore 609435	<a href="mailto:mark_koh@jtc.gov.sg">mark_koh@jtc.gov.sg</a>
15	Engineering & Operations Group Engineering	10 Jurong Town Hall Road The JTC Summit Singapore 609436	<a href="mailto:Calvin_CHUNG@jtc.gov.sg">Calvin_CHUNG@jtc.gov.sg</a>

No	Name of agency/organisation	Business Address	Addressee
	JTC Corporation		
16	Building & Estates Management People's Association	9 King George's Avenue Singapore 208581	<a href="mailto:David_LOW@pa.gov.sg">David_LOW@pa.gov.sg</a>
17	Building Engineering Division Building And Construction Authority	52 Jurong Gateway Road, #12-00 Singapore 608550	<a href="mailto:CHEW_Keat_Chuan@bca.gov.sg">CHEW_Keat_Chuan@bca.gov.sg</a>
18	Training & Professional Development BCA Academy Of The Built Environment Building And Construction Authority	200 Braddell Road Singapore 579700	<a href="mailto:Leong-Kok_Su_Ming@bca.gov.sg">Leong-Kok_Su_Ming@bca.gov.sg</a>
19	The Secretariat Office Micro Builders Association, Singapore	info@om18 Sin Ming Lane, #02-08, Midview City, Singapore 573960	<a href="mailto:info@imbias.org.sg">info@imbias.org.sg</a>
20	Setsco Services Pte Ltd	531 Bukit Batok Street 23 Singapore 659547	<a href="mailto:yusoof@setsco.com">yusoof@setsco.com</a> <a href="mailto:chenyu@setsco.com">chenyu@setsco.com</a> <a href="mailto:ngds@setsco.com">ngds@setsco.com</a>
21	TUV SUD PSB Pte Ltd	15 International Business Park TÜV SÜD @ IBP Singapore 609937	<a href="mailto:ming-yang.cha@tuvsud.com">ming-yang.cha@tuvsud.com</a> <a href="mailto:Emily.MOK@tuvsud.com">Emily.MOK@tuvsud.com</a>
22	Singapore Laboratory Services	64 Tuas South Ave 2 Singapore 637525	<a href="mailto:jimmy.lee@sls-singapore.sg">jimmy.lee@sls-singapore.sg</a> <a href="mailto:leechoong.chua@sls-singapore.sg">leechoong.chua@sls-singapore.sg</a>
23	Singapore Test Lab Pte Ltd	10B Enterprise Road Singapore 629828	<a href="mailto:chuapc@singaporetestlab.sg">chuapc@singaporetestlab.sg</a> <a href="mailto:gohsl@singaporetestlab.sg">gohsl@singaporetestlab.sg</a>
24	President Singapore Sanitary Ware Importers & Exporters Association (SSWIEA)	61 Ubi Road 1 #02-02, Oxley Bizhub Singapore 408727	<a href="mailto:president@sswiea.org.sg">president@sswiea.org.sg</a> <a href="mailto:secretary@sswiea.org.sg">secretary@sswiea.org.sg</a>
25	President Singapore Plumbing Society (SPS)	3027A Ubi Road 3 #01-94 Singapore 408656	<a href="mailto:president@plumbing.org.sg">president@plumbing.org.sg</a> <a href="mailto:secretary@plumbing.org.sg">secretary@plumbing.org.sg</a>
26	SGS Testing & Control Services Singapore Pte Ltd	3 Toh Tuck Link #01-02/03 Singapore 596228	<a href="mailto:Christopher.Hee@sgs.com">Christopher.Hee@sgs.com</a>
27	Intertek Testing Services (Singapore) Pte Ltd	5 Pereira Road Asiawide Industrial Building, #06-01 Singapore 368025	<a href="mailto:henry.lim@intertek.com">henry.lim@intertek.com</a> <a href="mailto:KengChuan.Ong@intertek.com">KengChuan.Ong@intertek.com</a>
29	Centre Testing International Pte Ltd	Blk 10 Ubi Crescent Ubi Teckpark (Lobby B), #03-26 Singapore 408564	<a href="mailto:donquek@cti-cert.com">donquek@cti-cert.com</a>
30	UL International - Singapore Pte Ltd	20 Kian Teck Lane #01-00PT Singapore 627854	<a href="mailto:AryanJosef.Basas@ul.com">AryanJosef.Basas@ul.com</a> <a href="mailto:ChianHaw.Yong@ul.com">ChianHaw.Yong@ul.com</a>