First published in the Government Gazette, Electronic Edition, on 22 March 2019 at 5 pm.

#### No. S 153

# PUBLIC UTILITIES ACT (CHAPTER 261)

# PUBLIC UTILITIES (WATER SUPPLY) (AMENDMENT NO. 2) REGULATIONS 2019

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.** These Regulations are the Public Utilities (Water Supply) (Amendment No. 2) Regulations 2019 and come into operation on 25 March 2019.

#### 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 deleting the definition of "potable water" and substituting the following definition:
  - ""NEWater" means NEWater supplied through the water reticulation system of the Board to persons who have entered into an agreement with the Board for the supply of such water;".

# Deletion and substitution of heading to Part II

**3.** Part II of the principal Regulations is amended by deleting the Part heading and substituting the following Part heading:

# "WATER FITTINGS, WATER SERVICE INSTALLATIONS, ETC. — WATER SUPPLIED BY BOARD".

#### New regulation 3A

**4.** The principal Regulations are amended by inserting, immediately before regulation 4 in Part II, the following regulation:

# "Application of this Part

**3A.** This Part applies in relation to every water fitting, apparatus, pump, water service installation, hot water apparatus, water heater or any other thing mentioned in this Part, used for the supply of water by the Board."

#### Amendment of regulation 4

**5.** Regulation 4(3) of the principal Regulations is amended by deleting the words "potable water" wherever they appear and substituting in each case the words "piped water suitable for drinking".

# Amendment of regulation 5

- **6.** Regulation 5(1) of the principal Regulations is amended by deleting sub-paragraph (c) and substituting the following sub-paragraph:
  - "(c) if used for the conveyance of piped water suitable for drinking supplied by the Board, fit for such conveyance;".

# Amendment of regulation 9

- 7. Regulation 9 of the principal Regulations is amended
  - (a) by deleting the words "to have the water fitting" in paragraph (1) and substituting the words "to have a sample of the water fitting";
  - (b) by deleting the words "and such person must deliver samples of the water fitting to the accredited laboratory or testing laboratory" in paragraph (1);

- (c) by deleting the words "the Board is satisfied" in paragraph (3) and substituting the words "the Board informs the person that the Board is satisfied"; and
- (d) by deleting the words "Where the Board is not satisfied that the water fitting is fit for use in a water service installation, the person referred to in paragraph (1)" in paragraph (4) and substituting the words "Where the Board informs the person who receives a notice mentioned in paragraph (1) that the Board is not satisfied that the water fitting is fit for use in a water service installation, the person".

# Amendment of regulation 14

**8.** Regulation 14 of the principal Regulations is amended by deleting the words "potable water" in paragraphs (1)(a) and (2) and substituting in each case the words "piped water suitable for drinking (excluding NEWater)".

#### **New Part III**

**9.** The principal Regulations are amended by inserting, immediately after regulation 15, the following Part:

#### "PART III

# WATER FITTINGS, WATER SERVICE INSTALLATIONS, ETC. — WATER SUPPLIED BY APPROVED PERSONS

Division 1 — Prescribed requirements under section 42(1) of Act for approved persons

# **Application of this Division**

16. This Division applies, for the purposes of section 42(1) of the Act, to every approved person in relation to every water fitting, apparatus, pump, water service installation, hot water apparatus, water heater or any other thing mentioned in this Division used by the approved person to supply piped water suitable for drinking.

# Requirements for installation, etc., of water fittings, etc.

- 17.—(1) An approved person must not
  - (a) install, alter, repair or use; or
  - (b) cause or permit to be or to remain installed, altered, repaired or used,

any water fitting, apparatus or pump in such a manner that —

- (c) affects or is likely to affect the quality of the piped water suitable for drinking supplied by the approved person (including in any water main or other pipe of the approved person);
- (d) causes or permits, or is likely to cause or permit, contamination of the piped water suitable for drinking supplied by the approved person; or
- (e) does not conform to any applicable requirement specified in the First Schedule or any standard, code of practice or guidelines adopted or issued by the Board under regulation 3.
- (2) An approved person must not install, or cause or permit to be or to remain installed, any water fitting, apparatus or pump which
  - (a) is damaged, worn or faulty;
  - (b) for any reason
    - (i) affects or is likely to affect the quality of the piped water suitable for drinking supplied by the approved person (including in any water main or other pipe of the approved person); or
    - (ii) causes or permits, or is likely to cause or permit, contamination of the piped water suitable for drinking supplied by the approved person; or
  - (c) does not conform to any applicable requirement specified in regulation 18, the First Schedule or any standard, code of practice or guidelines adopted or issued by the Board under regulation 3.

- (3) Where a water service installation, or any part of the water service installation, is intended only to receive or convey the approved person's supply of piped water suitable for drinking, the approved person must not
  - (a) install, alter, repair or use; or
  - (b) cause or permit to be or to remain installed, altered, repaired or used,

the water service installation or any part of the water service installation, in such a manner that it receives or conveys any other water.

#### Requirements for water fittings

- **18.**—(1) An approved person must ensure that every water fitting is
  - (a) of an appropriate quality and standard;
  - (b) suitable for the circumstances in which it is used;
  - (c) fit for the conveyance of piped water suitable for drinking;
  - (d) except in the case of exposed terminal fittings such as taps, resistant to dezincification if such fitting is made of brass; and
  - (e) capable of withstanding a hydrostatic field test pressure of not less than 12 bars or an internal water pressure of not less than 1½ times the maximum pressure to which the fitting is designed to be subjected in operation, whichever is the greater.
- (2) For the purposes of paragraph (1)(a), a water fitting is of an appropriate quality and standard only if it conforms to
  - (a) such standard as the Board may stipulate from time to time for compliance, being
    - (i) an appropriate Singapore Standard;
    - (ii) an appropriate British Standard; or

- (iii) some other standard which provides an equivalent or higher level of protection and performance; and
- (b) such other requirements as the Board may stipulate from time to time for compliance.
- (3) For the purposes of paragraph (2)(a), a water fitting is to be treated as conforming with a standard stipulated by the Board if it is certified or tested as complying with such standard by
  - (a) an accredited laboratory; or
  - (b) such other testing laboratory as the Board may allow.
- (4) An approved person who wishes to install any water fitting for which no standard or requirement has been stipulated by the Board under paragraph (2) must submit a request to the Board for the Board to stipulate the appropriate standard and requirement for that fitting for compliance.

#### Accessibility to water fittings

- 19.—(1) An approved person must not install, or cause or permit to be or to remain installed, a water fitting in such a position as will prevent reasonable access to the water fitting for purposes of examination, repair and replacement.
- (2) Paragraph (1) does not apply if it is not reasonably practicable to provide the reasonable access.
  - (3) Nothing in paragraph (1) prohibits
    - (a) the enclosing of any pipe or fitting in a chase or duct, or in plastering, if the pipe or fitting is reasonably accessible for the purposes mentioned in paragraph (1); or
    - (b) the installation of any pipe in a pipe sleeve or duct located under or within a solid floor if the pipe can be readily removed from such sleeve or duct and replaced.

# Requirements for installation of hot water apparatus

- **20.**—(1) An approved person must not install, or cause or permit to be or to remain installed, any hot water apparatus unless the hot water apparatus is fitted with an adequate device or constructed
  - (a) so as to prevent any backflow of piped water suitable for drinking to
    - (i) the hot water apparatus; or
    - (ii) any pipe conveying piped water suitable for drinking supplied by the approved person; and
  - (b) so as not to cause any contamination, or any other adverse effect on the quality, of any piped water suitable for drinking supplied by the approved person.
- (2) Where an approved person installs any water heater on the approved person's premises to heat the approved person's supply of piped water suitable for drinking, the approved person must not connect, or cause or permit to be or to remain connected, any mixing valve, pipe or other water fitting in which hot water and cold water are mixed, so as to mix
  - (a) water supplied from the water heater connected directly to a service pipe, with cold water not supplied directly from a service pipe; or
  - (b) water supplied from the water heater not connected directly to a service pipe, with cold water supplied from a service pipe.

# Board may require testing of water fitting

- **21.**—(1) The Board may, by notice in writing, require an approved person to have a sample of any water fitting for use in any water service installation tested or examined by an accredited laboratory or such other testing laboratory as the Board may allow, within the time specified in the notice.
- (2) Any costs and expenses incurred for the testing or examination of a water fitting (including fees payable to the

accredited laboratory or testing laboratory) must be borne by the approved person.

- (3) An approved person who receives a notice mentioned in paragraph (1) must not install any water fitting mentioned in the notice unless and until the Board informs the approved person that the Board is satisfied that the water fitting is fit for use in a water service installation.
- (4) Where the Board informs the approved person who receives the notice mentioned in paragraph (1) that the Board is not satisfied that the water fitting is fit for use in a water service installation, the approved person
  - (a) must immediately stop installing such water fitting in Singapore; and
  - (b) must, if the Board so requires, remove all such water fittings already installed at the approved person's own cost and expense.

#### Requirements in relation to disconnected water fitting

- **22.** If a water fitting is disconnected and is not, within 28 days after such disconnection, reconnected or replaced, the approved person must engage a licensed plumber to disconnect a pipe or any part of a pipe that
  - (a) conveyed piped water suitable for drinking supplied by the approved person to that disconnected water fitting; and
  - (b) is not required to convey such piped water suitable for drinking to any other fitting.

# Maintenance of connecting pipes and water service installation

**23.**—(1) An approved person must maintain all connecting pipes used by the approved person to supply piped water suitable for drinking.

- (2) An approved person must
  - (a) maintain, and ensure the security of, every water service installation in accordance with these Regulations and any applicable requirement specified in any standard, code of practice or guidelines adopted or issued by the Board under regulation 3; and
  - (b) notify the Board immediately of any contamination of water in the water service installation which comes to the approved person's knowledge.

#### Maintenance and security of storage tank

- **24.**—(1) This regulation applies to an approved person who uses a water service installation with a storage tank to supply piped water suitable for drinking.
- (2) An approved person must engage, at least once every 12 months, a licensed plumber to do all of the following:
  - (a) inspect the storage tank;
  - (b) where necessary, clean and disinfect the storage tank;
  - (c) certify that
    - (i) the storage tank is fit and safe for the storage of piped water suitable for drinking;
    - (ii) the water contained in the storage tank is free from contamination or pollution, and there is no likelihood of such contamination or pollution;
    - (iii) water samples taken from the storage tank pass the appropriate chemical and bacteriological examinations; and
    - (iv) the storage tank is properly maintained.
  - (3) An approved person must ensure that
    - (a) no person, except with the authority of the approved person, has access to —

- (i) the storage tank (including any tap fitted to the storage tank) and its ancillary equipment; or
- (ii) the premises where the storage tank and its ancillary equipment are located;
- (b) the storage tank (including any tap fitted to the storage tank) and its ancillary equipment, and the premises where the storage tank and its ancillary equipment are located, are kept properly locked at all times;
- (c) checks are conducted regularly for the purpose of ascertaining whether sub-paragraph (b) is being complied with;
- (d) proper records are kept of
  - (i) persons granted access under sub-paragraph (a) to the storage tank (including any tap fitted to the storage tank) and its ancillary equipment, or the premises where the storage tank and its ancillary equipment are located; and
  - (ii) checks conducted under sub-paragraph (c), and that such records are made available for inspection by the authorised officer; and
- (e) the Board is notified immediately of any unauthorised access to the storage tank (including any tap fitted to the storage tank) or its ancillary equipment which comes to the approved person's knowledge.

# Division 2 — Requirements for other persons

# **Application of this Division**

**25.** This Division applies to any person (other than an approved person) in relation to any water fitting, apparatus, pump, water service installation, hot water apparatus, water heater or any other thing mentioned in this Division used by the approved person for the supply of piped water suitable for drinking.

#### Installation of water fitting, etc.

- **26.**—(1) A person must not install, alter, repair or use any water fitting, apparatus or pump in such a manner that
  - (a) affects or is likely to affect the quality of any piped water suitable for drinking supplied by an approved person (including in any water main or other pipe of the approved person);
  - (b) causes or permits, or is likely to cause or permit, contamination of any piped water suitable for drinking supplied by an approved person; or
  - (c) the water fitting, apparatus or pump, when used by the approved person to supply piped water suitable for drinking, does not conform to any applicable requirement specified in the First Schedule or any standard, code of practice or guidelines adopted or issued by the Board under regulation 3.
- (2) A person must not install any water fitting, apparatus or pump which
  - (a) is damaged, worn or faulty;
  - (b) for any reason
    - (i) affects or is likely to affect the quality of any piped water suitable for drinking supplied by an approved person (including in any water main or other pipe of the approved person); or
    - (ii) causes or permits, or is likely to cause or permit, contamination of any piped water suitable for drinking supplied by an approved person; or
  - (c) does not conform to any applicable requirement specified in regulation 18, the First Schedule or any standard, code of practice or guidelines adopted or issued by the Board under regulation 3.
- (3) Where a water service installation or any part of a water service installation is intended only to receive or convey an approved person's supply of piped water suitable for drinking, a

person must not install, alter, repair or use the water service installation or any part of the water service installation, in such a manner that it receives or conveys any other water.

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

#### Accessibility to water fitting

- **27.**—(1) A person must not install a water fitting in such a position as will prevent reasonable access to the water fitting for purposes of examination, repair and replacement.
- (2) Paragraph (1) does not apply if it is not reasonably practicable to provide the reasonable access.
  - (3) Nothing in paragraph (1) prohibits
    - (a) the enclosing of any pipe or fitting in a chase or duct, or in plastering, if the pipe or fitting is reasonably accessible for the purposes mentioned in paragraph (1); or
    - (b) the installation of any pipe in a pipe sleeve or duct located under or within a solid floor if the pipe can be readily removed from such sleeve or duct and replaced.
- (4) Any person who contravenes paragraph (1) shall be guilty of an offence.

# Installation of hot water apparatus, etc.

- **28.**—(1) A person must not install any hot water apparatus unless the hot water apparatus is fitted with an adequate device or constructed
  - (a) so as to prevent any backflow of piped water suitable for drinking to
    - (i) the hot water apparatus; or
    - (ii) any pipe conveying piped water suitable for drinking supplied by the approved person; and

- (b) so as not to cause any contamination, or any other adverse effect on the quality, of any piped water suitable for drinking supplied by the approved person.
- (2) Where a person installs any water heater on the approved person's premises to heat the approved person's supply of piped water suitable for drinking, the person must not connect any mixing valve, pipe or other water fitting in which hot water and cold water are mixed, so as to mix
  - (a) water supplied from the water heater connected directly to a service pipe, with cold water not supplied directly from a service pipe; or
  - (b) water supplied from the water heater not connected directly to a service pipe, with cold water supplied from a service pipe.
- (3) Any person who contravenes paragraph (1) or (2) shall be guilty of an offence.

#### Supply of water fittings to approved persons

- **29.**—(1) A person must not
  - (a) supply; or
- (b) offer, display or advertise for supply, any water fitting for use in Singapore unless
  - (c) the water fitting complies with
    - (i) regulation 18;
    - (ii) paragraphs 1, 2, 5, 7, 8, 9, 10, 11(1)(*a*) and (4), 13(1) and (3), 14, 15, 18(1), (2) and (5) and 19 of the First Schedule; and
    - (iii) such standard, code of practice or guidelines adopted or issued by the Board under regulation 3, as the Board may specify; and
  - (d) any standard referred to in regulation 18(2)(a) or (4) applicable to that water fitting is appropriately

indicated on the water fitting or on the packaging for that water fitting.

- (2) Any person who contravenes paragraph (1) must, if the Board so requires, recall all water fittings supplied by the person in contravention of that paragraph at the person's own cost and expense.
- (3) Any person who contravenes paragraph (1) or (2) shall be guilty of an offence.

#### Board may require testing of water fitting

- **30.**—(1) The Board may, by notice in writing, require any person who
  - (a) installs or offers or advertises to install; or
- (b) supplies or offers, displays or advertises for supply, any water fitting for use in any water service installation to have a sample of the water fitting tested or examined by an accredited laboratory or such other testing laboratory as the Board may allow, within the time specified in the notice.
- (2) Any costs and expenses incurred for the testing or examination of a water fitting (including fees payable to the accredited laboratory or testing laboratory) must be borne by the person mentioned in paragraph (1).
- (3) A person who receives a notice mentioned in paragraph (1) must not
  - (a) install or offer or advertise to install; or
- (b) supply or offer, display or advertise for supply, any water fitting mentioned in the notice unless and until the Board informs the person that the Board is satisfied that the water fitting is fit for use in a water service installation.
- (4) Where the Board informs the person who receives a notice mentioned in paragraph (1) that the Board is not satisfied that the water fitting is fit for use in a water service installation, the person —

- (a) must immediately stop installing, supplying, or offering, displaying or advertising to install or for supply, such water fitting in Singapore; and
- (b) must, if the Board so requires, recall all such water fittings already installed or supplied at the person's own cost and expense.
- (5) Any person who
  - (a) fails to comply with a notice served on the person under paragraph (1); or
- (b) contravenes paragraph (3) or (4), shall be guilty of an offence.

#### Prohibition against tampering, etc.

- **31.**—(1) A person must not tamper or otherwise interfere with any water service installation used by an approved person for the supply of piped water suitable for drinking, in a manner that causes, or is likely to cause, any contamination or other adverse effect on the quality of such water.
- (2) Any person who contravenes paragraph (1) shall be guilty of an offence.
- (3) It is a defence to any prosecution for an offence under paragraph (2) if the accused proves, on a balance of probabilities, that the accused interfered with the water service installation solely for the purpose of maintaining the water service installation on behalf of the approved person.".

# New regulation 34

**10.** The principal Regulations are amended by inserting, immediately before regulation 35 in Part IV, the following regulation:

# "Application of this Part

**34.** This Part applies in relation to water supplied by the Board.".

#### Amendment of regulation 45

11. Regulation 45 of the principal Regulations is amended by deleting the words "the consumer" and substituting the words "a consumer or used by an approved person for the supply of piped water suitable for drinking".

#### **Amendment of First Schedule**

- 12. The First Schedule to the principal Regulations is amended
  - (a) by deleting the Schedule reference and substituting the following Schedule reference:
    - "Regulations 4(1) and (2), 8(1), 17(1) and (2), 26(1) and (2) and 29(1)";
  - (b) by deleting the words "paragraph (2)" in paragraph 1(1) and substituting the words "sub-paragraph (2)";
  - (c) by deleting the words "potable water supplied by the Board" in paragraph 1(1) and substituting the words "piped water suitable for drinking";
  - (d) by deleting the words "Paragraph (1)" in paragraph 1(2) and substituting the words "Sub-paragraph (1)";
  - (e) by deleting the words "potable water" wherever they appear in paragraph 1(2) and substituting in each case the words "piped water suitable for drinking";
  - (f) by inserting, immediately after the words "supplied by the Board" wherever they appear in paragraph 3(a) and (b), the words "or piped water suitable for drinking supplied by an approved person,";
  - (g) by deleting the words "potable water" wherever they appear in paragraph 4 and substituting in each case the words "piped water suitable for drinking (excluding NEWater)";
  - (h) by deleting the words "water supplied by the Board for potable purposes" in paragraph 7 and substituting the words "piped water suitable for drinking (excluding NEWater)";

- (i) by deleting the words "potable water pumps and other associated appliances and devices of a storage tank" in paragraph 9 and substituting the words "pumps used in connection with the supply of piped water suitable for drinking (excluding NEWater), and other associated appliances and devices of a storage tank,";
- (*j*) by deleting the words "potable water supplied by the Board" in paragraph 10 and substituting the words "piped water suitable for drinking (excluding NEWater)";
- (k) by deleting the words "of the Board" in paragraph 10;
- (1) by deleting paragraph 12 and substituting the following paragraph:
  - "12. A storage tank receiving piped water suitable for drinking (excluding NEWater), and any other water, must have an air-gap of not less than 150 millimetres between the inlet of the storage tank receiving the piped water suitable for drinking (excluding NEWater) and the top edge of the storage tank.";
- (m) by deleting the words "paragraph (2)" in paragraph 17(1) and substituting the words "sub-paragraph (2)";
- (n) by deleting the words ", and shall be of such a design as not to cause wastage of water" in paragraph 19 and substituting the words "or piped water suitable for drinking supplied by an approved person"; and
- (o) by inserting, immediately after paragraph 19, the following paragraph:
  - "20. Every flushing cistern or flush valve connected directly or indirectly to any pipe conveying water supplied by the Board must be of a design that does not cause any wastage of water supplied by the Board."

[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; S 133/2017; S 336/2017; S 164/2018; S 535/2018; S 112/2019] Made on 19 March 2019.

CHIANG CHIE FOO Chairman, Public Utilities Board, Singapore.

[MEWR S030/01/124 v16; AG/LEGIS/SL/261/2015/3 Vol. 6]

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