

Chapter:	102A	WATERWORKS REGULATIONS	Gazette Number	Version Date
		Empowering section		30/06/1997

(Cap 102, section 37)

[1 January 1975]

(Originally L.N. 251 of 1974)

Part:	I	PRELIMINARY		30/06/1997
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Regulation:	1	Citation		30/06/1997
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These regulations may be cited as the Waterworks Regulations.

Regulation:	2	Interpretation	24 of 2005; L.N. 282 of 2006	02/01/2007
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In these regulations, unless the context otherwise requires-

"BS" means the latest revised edition of a specification issued by the British Standards Institution; (L.N. 252 of 1977)

"Building Authority" (建築事務監督) means the Building Authority under the Buildings Ordinance (Cap 123);

"construction purpose" (建造用途), in relation to a supply, means water supplied for use for any purpose connected with the construction of a building or substantial repairs or alterations to a building;

"Director" (署長) means the Director of Water Supplies;

"plumber's licence" (水喉匠牌照) means a plumber's licence issued under regulation 34;

"shipping purpose" (船舶用途), in relation to supply, means water supplied-

- (a) (i) to or for use on any vessel other than a vessel to which paragraph (b)(i) of this definition applies;
- (ii) to any pier for use on any vessel to which subparagraph (i) applies; or
- (iii) to or for use on any vessel employed for the conveyance of water to any vessel to which subparagraph (i) applies;
- (b) (i) to or for use on any vessel to which the Merchant Shipping (Local Vessels) Ordinance (Cap 548) applies; or (24 of 2005 s. 55)
- (ii) to any pier for use on such pier; (L.N. 219 of 1983)

"trade purpose" (工商業用途), in relation to a supply, means water supplied for use-

- (a) for any purpose connected with a trade, manufacture or business, other than a construction purpose or shipping purpose; or
- (b) for any purpose other than a domestic purpose, construction purpose or shipping purpose.

Part:	II	FIRE SERVICES AND INSIDE SERVICES		30/06/1997
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Regulation:	3	Permission to construct, etc., a fire service		30/06/1997
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(1) Where permission is required under the Ordinance to construct, install, alter or remove a fire service, application for such permission shall be made to the Water Authority in such form as may be specified and the application shall be accompanied by such plans, specifications and other information as the Water Authority may require.

(2) Before submitting an application under subregulation (1), the applicant-

- (a) (Repealed L.N. 673 of 1994)
- (b) if a new fire service requires a direct connection to the main, shall-

- (i) obtain from the Water Authority such information as is relevant to the design of the fire service; and
- (ii) submit to the Water Authority for approval, in such form as he may require, plumbing proposals in respect of the fire service.

(3) (Repealed L.N. 673 of 1994)

(4) The Water Authority shall decide the size and position of a connection to the main in respect of a fire service.

(5) The Water Authority shall, if he refuses to grant permission to carry out any works specified in an application under subregulation (1), return the application to the applicant and state the reasons for such refusal.

Regulation:	4	Fees for fire service		30/06/1997
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(1)-(2) (Repealed L.N. 78 of 1987)

(3) If a seal fixed on a fire service by the Water Authority is broken by any person other than the Water Authority, or a person authorized by him, it shall be replaced by the Water Authority and the consumer responsible for the custody of the fire service shall be liable to pay the charge prescribed in Part I of Schedule 1.

Regulation:	5	Permission to construct, etc., an inside service		30/06/1997
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(1) Where permission is required under the Ordinance to construct, install, alter or remove an inside service, application for such permission shall be made to the Water Authority in such form as may be specified and the application shall be accompanied by such plans, specifications and other information as the Water Authority may require.

(2) If a new inside service is to be constructed or installed, the applicant shall, before submitting an application under subregulation (1),-

- (a) obtain from the Water Authority such information as is relevant to the design of the inside service; and
- (b) submit to the Water Authority for approval, in such form as he may require, plumbing proposals in respect of the inside service.

(3) (Repealed L.N. 673 of 1994)

(4) The Water Authority shall decide the size and position of a connection to the main in respect of an inside service.

(5) The Water Authority shall, if he refuses to grant permission to carry out any works specified in an application under subregulation (1), return the application to the applicant and state the reasons for such refusal.

Regulation:	6	Inspection and approval of works	29 of 1998 s. 105	01/07/1997
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Remarks:

Amendments retroactively made - see 29 of 1998 s. 105

(1) A person who constructs or installs a fire service or inside service shall apply to the Water Authority in such form as may be specified for-

- (a) inspection and approval of the fire service or inside service; and
- (b) a connection to the main and, it necessary, the installation of the part of the fire service or inside service on land held by the Government. (29 of 1998 s. 105)

(2) A person who makes any alterations to a fire service or inside service shall apply to the Water Authority in such form as may be specified for inspection and approval of the alterations.

(3) No pipe or fitting forming part of a fire service or inside service shall be used or covered up until it has been inspected and approved by the Water Authority.

(4) Approval of a fire service or inside service or any alterations thereto may be withheld until any requirement of the Water Authority is complied with.

(5) If a fire service or inside service is approved by the Water Authority he shall, on payment of the charge prescribed in Part I of Schedule 1, make the connection to the main and, if necessary, install the part of the fire service or inside service on land held by the Government. (29 of 1998 s. 105)

Regulation:	7	Responsibility to keep inside service clean	29 of 1998 s. 105	01/07/1997
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Remarks:

Amendments retroactively made - see 29 of 1998 s. 105

- (1) Subject to subregulation (2), a consumer shall be responsible for keeping an inside service clean.
- (2) The responsibility for keeping clean any part of an inside service which is-
  - (a) a communal service shall be that of the agent; and
  - (b) on land held by the Government shall be that of the Water Authority. (29 of 1998 s. 105)

Regulation:	8	Repairs etc., by Water Authority		30/06/1997
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(1) Where the Water Authority carries out any repairs or other works under section 17(3) or (4) of the Ordinance or makes a connection to the main under regulation 6(5) or makes such a connection and installs the part of the fire service or inside service under that regulation or tests any pipe or fitting under regulation 21, the cost thereof shall include- (L.N. 320 of 1992; L.N. 176 of 1996)

- (a) the cost of materials used;
- (b) the cost of labour;
- (c) any other expenses incurred in connection therewith; and
- (d) the supervision charge prescribed in Part II of Schedule 1.

(2) This regulation shall not apply where a charge is prescribed in Part I of Schedule 1.

Regulation:	9	Use of inside service		30/06/1997
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Except with the permission in writing of the Water Authority, no person shall use an inside service for the reception or conveyance of any water other than water from the waterworks in respect of which the inside service is approved.

Regulation:	10	Draw-off points in gardens, etc.		30/06/1997
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Except with the permission in writing of the Water Authority, no person shall-

- (a) install draw-off points in, or draw water from, any part of an inside service for the supply of fresh water for use in any-
  - (i) garden,
  - (ii) lawn,
  - (iii) playground of any kind,
  - (iv) garage or car park, or
  - (v) other place where the supply is not used for a domestic purpose or other purpose approved by the Water Authority; or
- (b) extend or alter an inside service for the supply of fresh water for any purpose referred to in paragraph (a).

Regulation:	11	Hosepipe not to be connected to an inside service		30/06/1997
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- (1) No person shall draw fresh water from an inside service by means of a hosepipe or similar apparatus.
- (2) Subregulation (1) shall not apply where fresh water is drawn by means of a hosepipe or similar apparatus-
  - (a) from a cold water storage cistern approved by the Water Authority for that purpose; or
  - (b) for use in any type of domestic appliance or apparatus approved by the Water Authority.

Regulation:	12	Use of fresh water for flushing	29 of 1998	01/07/1997
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Remarks:

Adaptation amendments retroactively made - see 29 of 1998 s. 105

- (1) If in any premises fresh water from the waterworks is, without the permission in writing of the Water

Authority, used for flushing water-closets, latrines or urinals, the occupier and the owner of such premises shall be guilty of an offence.

(2) Where a contravention of subregulation (1) is committed, it shall be a good defence-

- (a) for the occupier to prove that the contravention was committed without his knowledge or that he had taken reasonable steps to prevent it;
- (b) for the owner to prove that he has provided, or has taken reasonable steps to provide, water (other than fresh water from the waterworks) for flushing water-closets, latrines or urinals.

(3) For the purposes of this regulation and regulation 15(3)-

"owner" (業主) includes any person holding the premises direct from the Government whether under lease, licence or otherwise, any mortgagee in possession and any person receiving rent of the premises, solely or with another, on his own behalf or that of any person, or who would receive the same if such premises were let to a tenant, and the agent of an owner. (29 of 1998 s. 105)

Regulation:	13	Use of water for air-conditioning plants, etc.		30/06/1997
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Except with the permission in writing of the Water Authority, no person shall use water from the waterworks for-

- (a) any heating, cooling or humidification plant; or
- (b) any swimming pool.

Regulation:	14	(Repealed L.N. 252 of 1977)		30/06/1997
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Regulation:	15	Use of salt water for flushing		30/06/1997
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(1) The Water Authority may require the use of salt water for flushing water-closets, latrines and urinals, and may supply salt water for such purpose.

(2) The pipes and fittings of water-closets, latrines and urinals in which salt water is used for flushing shall be constructed of material that is suitable for the use of salt water.

(3) Where under subregulation (1) the Water Authority requires the use of salt water for flushing an existing water-closet, latrine or urinal in which water other than salt water is used, the pipes and fittings of such water-closet, latrine or urinal shall, if necessary, be replaced by the owner of the premises to comply with subregulation (2).

Regulation:	16	(Repealed L.N. 85 of 1979)		30/06/1997
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Regulation:	17	Disconnection or reconnection of supply at consumer's request		30/06/1997
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(1) A consumer who wants a fire service or inside service to be disconnected shall apply to the Water Authority in such form as may be specified giving not less than 14 days' notice of the date on which the disconnection is to be made.

(2) A consumer who wants a fire service or inside service, which has been disconnected under subregulation (1), to be reconnected shall apply to the Water Authority in such form as may be specified giving not less than 14 days' notice of the date on which the reconnection is to be made.

(L.N. 320 of 1992)

Regulation:	18	Method of disconnection		30/06/1997
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(1) Disconnection of a fire service or inside service under section 10 or 19 of the Ordinance or regulation 17(1) or 28(1) may be effected by severing the fire service or inside service from the main or by any other means as the Water Authority thinks fit.

(2) A fire service or inside service which is disconnected under subregulation (1) may be reconnected by the Water Authority-

- (a) on compliance by the consumer or agent with any requirement of the Water Authority relating to the

- reason for the disconnection; and
- (b) on payment of the charge for reconnecting a fire service or inside service prescribed in Part I of Schedule 1.

Part:	III	PIPES AND FITTINGS	32 of 2000	09/06/2000
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Regulation:	19	Pipes and fittings	32 of 2000	09/06/2000
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(1) Subject to subregulations (2), (3), (4), (5) and (6), this Part and Schedule 2 shall apply to any pipe or fitting installed or intended to be installed in any fire service or inside service. (L.N. 320 of 1992; L.N. 673 of 1994; L.N. 106 of 1999)

(2) This Part and Schedule 2 shall not apply to any pipe or fitting installed before the commencement of these regulations in accordance with any enactment then in force and no person shall be required to alter or renew any such pipe or fitting unless such pipe or fitting is in the opinion of the Water Authority so defective or in such condition as to cause, or be likely to cause, waste, undue consumption or pollution of the supply.

(3) The amendments to this Part and to Schedule 2 effected by the Waterworks (Amendment) (No. 2) Regulation 1992 (L.N. 320 of 1992) shall not apply to any pipe or fitting installed before the commencement of that Regulation, and no person shall be required to alter or renew any such pipe or fitting by virtue of those amendments unless such pipe or fitting is in the opinion of the Water Authority so defective or in such condition as to cause, or be likely to cause, waste, undue consumption or pollution of the supply. (L.N. 320 of 1992)

(4) The amendment to Schedule 2 effected by section 4 of the Waterworks (Amendment) Regulation 1994 (L.N. 673 of 1994) shall not apply to any pipe or fitting installed before the commencement of that section, and no person shall be required to alter or renew any such pipe or fitting by virtue of the amendment unless such pipe or fitting is in the opinion of the Water Authority so defective or in such condition as to cause, or be likely to cause, waste, undue consumption or pollution of the supply. (L.N. 673 of 1994)

(5) The amendment to Schedule 2 effected by section 4 of the Waterworks (Amendment) Regulation 1994 (L.N. 673 of 1994) shall not apply to alterations or repairs which-

- (a) are made to a pipe or fitting installed before the commencement of that section; and
- (b) are, in the opinion of the Water Authority, of a minor nature. (L.N. 673 of 1994)

(6) The amendments to Schedule 2 effected by section 3 of the Waterworks (Amendment) Regulation 1999 (L.N. 106 of 1999) shall not apply to any water heater installed before the commencement of that section, and no person shall be required to alter or renew any such water heater by virtue of those amendments unless such water heater is in the opinion of the Water Authority so defective or in such condition as to cause, or be likely to cause, waste, undue consumption or pollution of the supply. (L.N. 106 of 1999; 32 of 2000 s. 48)

Regulation:	20	Pipes and fittings to be of British Standard		30/06/1997
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(1) Subject to regulation 25, every pipe or fitting shall be of the British Standard.

(2) Subregulation (1) shall apply only to so much of any British Standard as relates to the size, nature, materials, strength, test requirements and workmanship of any pipe or fitting and shall be deemed to be satisfied notwithstanding any departure from such British Standard if that departure does not in the opinion of the Water Authority adversely affect the efficiency or suitability of the pipe or fitting for the purposes of these regulations.

(3) The Water Authority may at any time weigh, measure or otherwise test any pipe or fitting to ascertain that it complies with the British Standard.

Regulation:	21	Testing of pipes and fittings		30/06/1997
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(1) The Water Authority may require any pipe or fitting, before it is installed or used, to be tested.

(2) A pipe or fitting which is required to be tested under subregulation (1) shall be delivered to the place specified by the Water Authority and the cost of the testing shall be payable by the person by whom, or on whose behalf, the pipe or fitting is so delivered.

(L.N. 320 of 1992)

Regulation:	22	Protection of pipes		30/06/1997
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A pipe made of steel if laid under the ground shall be installed in such a manner that it does not come into contact with concrete, cement mortar, lime mortar or plaster and shall be protected against such contact by wrapping it with hessian or other suitable material and coating it with bitumen or where such pipe passes through a wall or suspended floor it may be protected against such contact by being carried through a sleeve or by some other suitable means.

(L.N. 320 of 1992)

Regulation:	23	Booster pumps		30/06/1997
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(1) Except with the permission in writing of the Water Authority, no person shall install or use a booster pump on a fire service or inside service.

(2) A booster pump shall not pump water direct from a main but from a sump installed at a level at which it can be supplied with water from a main by gravity. (L.N. 252 of 1977)

Regulation:	24	Other water using apparatus		30/06/1997
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An apparatus using water in respect of which no express provision is made in these regulations or an apparatus for the treatment or filtration of water shall not be installed or used without the permission in writing of the Water Authority and he may require any such apparatus to be supplied with water from a separate storage cistern.

Regulation:	25	Power to relax regulations		30/06/1997
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(1) The Water Authority may, either generally or in any particular case, relax the provisions of these regulations regarding the size, nature, materials or disposition of any pipe or fitting.

(2) The Water Authority may approve any pipe or fitting which is not of the British Standard.

(3) Where water is-

(a) supplied through a meter;

(b) discharged into a cistern from a point not less than 150 mm above the overflowing level thereof; and (L.N. 252 of 1977)

(c) conveyed therefrom for use in some industrial or research process and is used solely in connection therewith,

the Water Authority may exercise his powers under subregulation (1) with regard to any pipe or fitting installed or used for such purpose.

Part:	IV	METERS		30/06/1997
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Regulation:	26	Installation of meters		30/06/1997
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(1) The Water Authority shall determine the size and the number of meters which shall be installed on any fire service or inside service.

(2) Subject to subregulation (2A), all meters shall be provided by the Water Authority. (L.N. 320 of 1992)

(2A) Where a meter is to be installed on a fire service or inside service, the Water Authority-

(a) if he wishes to do so, may, on payment of the charge prescribed in Part I of Schedule 1, provide and install a meter; or

(b) if he does not so wish, shall, on payment of the charge prescribed in Part I of Schedule 1, provide a meter and allow it to be installed by a licensed plumber in such manner as the Water Authority may specify. (L.N. 320 of 1992)

(2B) Where a meter is installed otherwise than by the Water Authority, he may refuse to connect the supply until the installation has been inspected and approved by him. (L.N. 320 of 1992)

(3) If the seal fixed on a meter by the Water Authority is broken by any person other than the Water Authority or any person authorized by him it shall be replaced by the Water Authority and the consumer responsible for the

custody of the meter shall be liable to pay the charge prescribed in Part I of Schedule 1.

(4) No consumer shall permit any meter to be removed from a fire service or inside service unless the person seeking to remove such meter presents to the consumer a written authority from the Water Authority authorizing him to remove such meter.

(5) The Water Authority may change a meter at any time.

Regulation:	27	Site of meters		30/06/1997
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(1) The siting of a meter shall be determined by the Water Authority and he may install the meter at a point most convenient to him on any wall (internally or externally) of a building in which there is a fire service or inside service.

(2) If access to a meter by the Water Authority is persistently obstructed or denied, the Water Authority may, after consulting the consumer, by notice in writing served on the consumer determine another siting of the meter on any wall (internally or externally) of the building.

(3) If another siting is so determined, the consumer shall, at his own cost, cause such works to be carried out as will enable the Water Authority to install a meter at the other site and, until such works are carried out, the service shall be regarded as not complying with the Ordinance.

(L.N. 320 of 1992)

Regulation:	28	Damage to meters		30/06/1997
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(1) Where a meter is-

- (a) opened up whilst in the custody of the consumer other than by the Water Authority or any person authorized by him;
- (b) so used that water can be wasted, misused or unduly consumed;
- (c) damaged by breaking the seal or lock on it or otherwise; or
- (d) interfered with so that it impairs or falsifies the measurement of consumption,

the Water Authority may immediately disconnect the supply and repair the meter.

(2) Where a meter is damaged and the Water Authority is of the opinion that such damage is not the result of fair wear and tear, or where a meter is interfered with, the consumer responsible for the custody of the meter shall, without prejudice to any penalty provided for the offence, be liable to pay-

- (a) the charge prescribed in Part I of Schedule 1 for testing the meter;
- (b) the cost of repairing the meter;
- (c) any damage or loss suffered thereby by the Water Authority; and
- (d) the charge prescribed in Part I of Schedule 1 for reconnecting the fire service or inside service.

Regulation:	29	Reading of meters		30/06/1997
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(1) Meters shall be read at such intervals as the Water Authority may direct.

(2) The reading taken as the last reading for any period shall be used as the first reading for the period next following.

Regulation:	30	Testing of meters		30/06/1997
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(1) A consumer who doubts the accuracy of a meter which measures his consumption may apply to the Water Authority in such form as may be specified to have the meter tested and the Water Authority shall test the meter in such manner as he thinks fit and the results of the test shall be binding on the Water Authority and the consumer.

(2) A meter shall be deemed to register correctly if its inaccuracy does not exceed 3 per cent above or below the correct amount.

(3) If a meter is found to register correctly the consumer shall pay the charge prescribed in Part I of Schedule 1 for testing the meter, but no charge shall be payable if the meter is found to over-register or to under-register. (L.N. 219 of 1983)

Regulation:	31	Consumption where supply is not measured by meter		30/06/1997
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The consumption for any period during which a meter is known or suspected to be out of order, has been removed or is missing or inaccessible shall be calculated-

- (a) according to the average daily rate of consumption obtained between any successive readings before that period; or
- (b) at the discretion of the Water Authority, according to the average daily rate of consumption between any successive readings following the repairing or replacement of a meter that was out of order; or
- (c) where it would be inappropriate to calculate the consumption in the manner specified in paragraph (a) or (b), whether by reason of fluctuations in consumption or otherwise, in such manner as may be agreed between the Water Authority and the consumer.

(L.N. 320 of 1992)

Regulation:	32	Private check meter		30/06/1997
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(1) A private check meter may, with the permission in writing of the Water Authority, be installed on any part of an inside service.

(2) The Water Authority may at any time require a private check meter installed under subregulation (1) to be tested, and the consumer shall, on payment of the charge prescribed in Part I of Schedule 1, get the meter tested by the Water Authority.

(3) The Water Authority shall, in assessing consumption at any inside service, take no account of the readings of a private check meter.

(4) The Water Authority shall not be responsible for the accuracy of a private check meter and where such meter is found to be operating unsatisfactorily or restricting the supply to any premises the consumer shall, if so required by the Water Authority, remove the meter.

Part:	V	LICENSING OF PLUMBERS		30/06/1997
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Regulation:	32A	Authority for grant of plumber's licence		30/06/1997
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(1) Plumber's licences may be issued by an officer designated for the purpose by the Water Authority.

(2) The officer designated under subregulation (1) is referred to in this Part as "the licensing authority".

(3) The licensing authority shall be assisted by an advisory board appointed by the Water Authority and which shall have such members and be appointed on such terms as the Water Authority may direct.

(4) In exercising his functions under this Part the licensing authority shall consult the board appointed under subregulation (3).

(L.N. 219 of 1983)

Regulation:	33	Application for plumber's licence	57 of 1999	23/07/1999
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(1) Any person who-

- (a) holds a Craft Certificate in Plumbing and Pipefitting issued by the Vocational Training Council after 1987; or (57 of 1999 s. 3)
- (b) (Repealed 57 of 1999 s. 3)
- (c) holds an equivalent qualification,

and who holds a Certificate in Plumbing Services (Hong Kong) issued by the Vocational Training Council or an equivalent qualification may apply for a plumber's licence.

(2) Application for a plumber's licence shall be made in such form as may be specified.

(3) In this regulation-

"equivalent" (相等) means equivalent in the opinion of the Water Authority.

(L.N. 320 of 1992)

Regulation:	34	Issue of plumber's licence		30/06/1997
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(1) On receipt of an application under regulation 33(1) and the fee prescribed in Part I of Schedule 1 the licensing authority shall, subject to subregulation (2), issue a plumber's licence. (L.N. 320 of 1992)

(2) If an applicant for a plumber's licence relies in his application on any qualification referred to in regulation 33(1) that he obtained 5 or more years before the date of his application, the licensing authority shall not issue a plumber's licence unless he is satisfied that the applicant has adequate knowledge of-

- (a) the type of work involved in respect of a plumber's licence; and
- (b) the provisions of the Ordinance relating to such work. (L.N. 320 of 1992)

(2A)-(2B) (Repealed L.N. 320 of 1992)

(3) Subject to subregulation (3A), the licensing authority shall renew a plumber's licence, even if that licence has expired, on receipt of an application in such form as may be specified and the fee prescribed in Part I of Schedule 1. (L.N. 320 of 1992)

(3A) If a licensed plumber fails to renew his licence for 5 or more years, the licensing authority shall not renew his licence unless the licensing authority is satisfied that the applicant for renewal has adequate knowledge of-

- (a) the type of work involved in respect of the licence which is sought to be renewed; and
- (b) the provisions of the Ordinance relating to such work. (L.N. 320 of 1992)

(3B) Without prejudice to any other steps which the licensing authority may take for the purpose of satisfying himself that an applicant has the knowledge required by subregulation (2) or (3A), the licensing authority may require the applicant to pass an examination held for the purposes of this regulation. (L.N. 320 of 1992)

(3C) An applicant for a plumber's licence who is required to undergo an examination pursuant to subregulation (3B) shall pay the examination fee prescribed in Part I of Schedule 1. (L.N. 320 OF 1992)

(3D) The licensing authority may require an applicant for a plumber's licence or for the renewal of a plumber's licence to attend in person at a specified office of the Water Authority in order to collect the licence or renewed licence and may, if the applicant fails to do so, refuse to issue or renew the licence. (L.N. 320 of 1992)

(4) An applicant for a plumber's licence who is aggrieved by the refusal of the licensing authority to issue or renew a plumber's licence or by any limitation or condition imposed by the licensing authority on the issue of a plumber's licence may, within 14 days after the receipt of a notice of such refusal or the imposition of the limitation or condition, appeal to the Water Authority whose decision shall be final.

Regulation:	35	Grades of plumbers' licences		30/06/1997
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(1) A plumber's licence issued under regulation 34 pursuant to an application received before the commencement of the Waterworks (Amendment) (No. 2) Regulation 1992 (L.N. 320 of 1992) may be of either of the following grades and shall be valid for the type of work indicated in the licence-

- (a) Grade I-For the construction, installation, maintenance, alteration, repair or removal of a fire service or inside service of any type.
- (b) Grade II- (i) For the maintenance and repair of a fire service or inside service; and  
(ii) for the installation, maintenance, repair or removal of water appliances.

(2) A plumber's licence issued under regulation 34 pursuant to an application received after the date referred to in subregulation (1) shall, subject to subregulation (3), be a Grade I licence, valid for the construction, installation, maintenance, alteration, repair or removal of a fire service or inside service of any type.

(3) The licensing authority may impose any limitation or condition as he thinks fit on the type of work which may be carried out by a holder of a plumber's licence.

(L.N. 320 of 1992)

Regulation:	36	Plumber's licence		30/06/1997
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(1) A plumber's licence shall be in such form as may be specified.

(2) Subject to regulation 37, a plumber's licence shall be valid up till and including 31 December in the year in which it is issued and may be renewed annually under regulation 34(3) for a further period of 12 months from the date of expiry.

Regulation:	37	Power to cancel plumber's licence		30/06/1997
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- (1) The licensing authority may cancel a plumber's licence at any time if-
- (a) he is satisfied that the plumber's licence was obtained by misrepresentation or fraud; or
  - (b) the holder contravenes any of the provisions of the Ordinance in respect of the construction, installation, maintenance, alteration, repair or removal of a fire service or inside service.
- (2) The licensing authority may suspend a plumber's licence for any period not exceeding 6 months for any contravention specified in subregulation (1)(b).
- (3) Any person who is aggrieved by the cancellation or suspension of a plumber's licence may, within 14 days after the receipt of the notice of cancellation or suspension, appeal to the Water Authority whose decision shall be final.

Regulation:	38	(Repealed L.N. 320 of 1992)		30/06/1997
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Part:	VI	PUBLIC STANDPIPES		30/06/1997
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Regulation:	39	Use of public standpipes		30/06/1997
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- (1) Fresh water from a public standpipe shall be taken away only in a bucket or any other suitable receptacle and in such a manner as to prevent waste.
- (2) No person shall draw water from a public standpipe by means of a hosepipe or similar apparatus.
- (3) No person, other than the Water Authority or a person authorized by him, shall prevent any other person from taking water from a public standpipe.

Part:	VII	FISHING		30/06/1997
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Regulation:	40	Interpretation		30/06/1997
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For the purposes of this Part-

"authorized officer" (獲授權人員) means-

- (a) a police officer;
- (b) (Repealed 47 of 1997 s. 10)
- (c) a nature warden or honorary nature warden appointed under the Wild Animals Protection Ordinance (Cap 170);
- (d) an authorized officer under the Forests and Countryside Ordinance (Cap 96);
- (e) an authorized officer or a fisheries inspector under the Fisheries Protection Ordinance (Cap 171); or
- (f) a person authorized in writing by the Water Authority; (Replaced 14 of 1993 s. 15)

"fishing licence" (釣魚牌照) means a licence issued under regulation 42;

"toxic substance" (有毒物質) means any substance specified in the Schedule to the Fisheries Protection Ordinance (Cap 171).

Regulation:	41	Fishing under licence		30/06/1997
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- (1) No person shall fish in waters forming part of the waterworks except under and in accordance with the terms of a fishing licence.
- (2) No person shall catch fish in waters forming part of the waterworks by any means other than by rod and line.
- (3) No person shall use any explosive or toxic substance to catch or destroy fish in waters forming part of the waterworks.

Regulation:	42	Issue of fishing licence		30/06/1997
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(1) The Water Authority may, on payment of the fee prescribed in Part I of Schedule 1, issue a licence to fish in waters forming part of the waterworks.

- (2) A fishing licence shall-
- (a) be in such form as may be specified;
  - (b) be valid for the period of time stated therein;
  - (c) be for the use of one rod and line;
  - (d) not be transferable; and
  - (e) be subject to any other condition stated therein.

Regulation:	43	Powers of inspection and arrest		30/06/1997
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(1) If an authorized officer finds a person fishing or has reasonable grounds for believing that a person has been fishing or is about to fish in waters forming part of the waterworks he may require such person to produce for inspection his fishing licence.

(2) If an authorized officer has reasonable grounds for believing that a person has committed an offence under regulation 44, he may-

- (a) arrest such person;
- (b) seize any fish in his possession; and
- (c) seize any net or other appliance or thing for catching or destroying fish, whether in the possession of such person or not, in respect of which he has reason to believe the offence has been committed.

(3) Where an authorized officer arrests a person under subregulation (2) he shall forthwith take such person to the nearest police station and shall there hand him over to the custody of a police officer and thereupon the provisions of section 52 of the Police Force Ordinance (Cap 232) shall apply.

Regulation:	44	Offences	L.N. 266 of 2006	01/12/2006
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Any person who-

- (a) contravenes regulation 41;
- (b) contravenes any condition of a fishing licence;
- (c) without lawful excuse fails to comply with a requirement of an authorized officer under regulation 43(1); or
- (d) wilfully resists or obstructs an authorized officer in the exercise of his powers under regulation 43(2) and (3),

shall be guilty of an offence and shall be liable on summary conviction to a fine at level 3.

(L.N. 219 of 1983; L.N. 266 of 2006)

Regulation:	45	Revocation or suspension of fishing licence		30/06/1997
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If any condition of a fishing licence is contravened, the Water Authority may, without prejudice to the liability of any person for the contravention, revoke or suspend the fishing licence.

Part:	VIII	MISCELLANEOUS		30/06/1997
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Regulation:	46	Charges for water		30/06/1997
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The Water Authority shall charge the rates specified in Part III of Schedule 1 for fresh water supplied under the Ordinance.

(L.N. 85 of 1979)

**Notes:**

1. The operation of this regulation is affected by the transitional provision contained in section 6 of L.N.

176 of 1996 which is reproduced below-

"6. Transitional

Notwithstanding anything in this Regulation the charges in force under regulation 46 of the principal Regulations immediately before 1 July 1996 shall apply in relation to any bill of charges for a period of supply which includes 30 June 1996."

2. The amount of charge payable for the supply of fresh water pursuant to this regulation shall be reduced in respect of-

- (a) the period commencing on 1 April 2002 and ending 31 March 2003 (please see sections 2(2) and 4 of the Revenue (Variation and Reduction of Fees and Charges) Order 2002 (Cap 2 sub. leg. R):
- (b) bills scheduled to be issued within the period commencing on 1 August 2003 and ending on 30 November 2003 (please see the [Waterworks \(Reduction of Water Charge\) Regulation 2003 \(L.N. 130 of 2003\)](#)).

Regulation:	46A	(Expired)		30/06/1997
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(Expired on 1.4.84)

Regulation:	46B	Examination of water sample		30/06/1997
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(1) The Water Authority shall, upon being requested to do so and upon payment of the fee prescribed in Part IV of Schedule 1, carry out an examination of a water sample from any supply and shall issue to the person who requested the examination a report of the results of such examination.

(2) An additional copy of any report issued under subregulation (1) may be issued to any person requesting the same upon payment of the fee prescribed in Part IV of Schedule 1.

(L.N. 40 of 1985)

Regulation:	47	Prohibition of sale of water		30/06/1997
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(1) Subject to subregulation (2), no person shall, without the permission in writing of the Water Authority, sell or offer for sale water from the waterworks.

(2) Subregulation (1) shall not apply to a consumer of an inside service who recovers the cost of water from any person-

- (a) who occupies the premises in which the inside service exists; and
- (b) who uses in such premises water which is supplied through the inside service.

Regulation:	48	Validity of notices		30/06/1997
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Any notice, form or other document under the Ordinance may bear the name of the Water Authority or other person authorized by him and every such notice, form or other document shall be valid if the name of the Water Authority or such authorized person is printed thereon.

Regulation:	49	Service of notice, etc.		30/06/1997
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(1) Any notice, form or other document under the Ordinance may be served-

- (a) by delivering it personally to the person on whom it is to be served;
- (b) by sending it by post to the last known address of the person on whom it is to be served;
- (c) by leaving it at the residence or place of business of the person on whom it is to be served; or
- (d) by posting it in a conspicuous place upon the premises to which it relates.

(2) Notwithstanding subregulation (1), where a notice is of general application to consumers or agents the notice may be published in such English and Chinese language newspapers circulating in Hong Kong as may be approved for the purpose by the Water Authority.

Regulation:	50	Time limit for payment of charges and levy of surcharge		30/06/1997
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(1) Payment of a charge due shall be made on or before the date specified in the notice of demand. (L.N. 118 of 1988)

(2) Where a charge remains unpaid for a period of 6 months, or less, from the date specified in the notice of demand, the Water Authority or Director of Accounting Services may add to the unpaid charge a surcharge not exceeding 5% of the unpaid charge and recover the total amount of the unpaid charge and surcharge. (L.N. 16 of 1977)

(3) Where a charge remains unpaid for a period exceeding 6 months from the date specified in the notice of demand, the Water Authority or Director of Accounting Services may add to the total amount of-

- (a) the unpaid charge; and
- (b) any surcharge added thereto under subregulation (2), a further surcharge not exceeding 10% of the total amount and recover the total amount and further surcharge.

Regulation:	51	Penalty	L.N. 266 of 2006	01/12/2006
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(1) Any person who contravenes regulation 9, 10, 11, 13, 15(2) or (3), 23, 24, 26(4), 39 or 47 or any requirement of the Water Authority under regulation 15(1), 21, or 32(2) or (4) shall be guilty of an offence. (L.N. 320 of 1992)

(2) Any person who is guilty of an offence under these regulations shall be liable on summary conviction to a fine at level 3. (L.N. 219 of 1983; L.N. 266 of 2006)

Regulation:	52	Saving		30/06/1997
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Any-

- (a) notice or account;
- (b) permission; or
- (c) plumber's licence or fishing licence,

given, granted or issued by the Water Authority under the revoked Waterworks Regulations (Cap 102 sub. leg. 1964), and in force at the commencement of these regulations, shall be deemed to have been given, granted or issued under these regulations.

Regulation:	53	(Spent)		30/06/1997
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(Spent)

Schedule:	1		L.N. 129 of 2010	01/01/2011
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[regulations 4, 6, 8, 18, 21, 26, 28, 30, 32, 34, 42 & 46]

## PART I

### FEES AND CHARGES

Fees and charges payable under the regulations shall be-

1. Under regulation 6(5)-

Making a connection to the main and installing (including reinstatement of the ground surface) the part of a fire service or inside service on land held by the Government- (29 of 1998 s. 105)

For any	For each metre or part
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	length of 100 metres and below	of a metre in excess of 100 metres
(a) Pipes of any size up to and including 20 mm in diameter .....	\$1310	\$ 55
	For any length of 30 metres and below	For each metre or part of a metre in excess of 30 metres
(b) Pipes above 20 mm in diameter up to and including 25 mm in diameter .....	\$2115	\$ 85
(c) Pipes above 25 mm in diameter up to and including 40 mm in diameter .....	\$2670	\$ 110
2. Under regulations 18(2) and 28(2)- Reconnecting a fire service or inside service .....		\$ 275
3. Under regulation 26(2A)-		
(a) Providing and installing a meter .....		\$ 315
(b) Providing a meter .....		\$ 83
4. Under regulations 4(3) and 26(3)- Resealing a fire service or meter .....		\$ 190
5. Under regulations 28(2), 30(3) and 32(2)- Testing a meter or a private check meter (including removal and refixing)-		
(a) any size up to and including 80 mm in diameter .....		\$ 530
(b) above 80 mm in diameter up to and including 100 mm in diameter .....		\$1240
(c) above 100 mm in diameter up to and including 150 mm in diameter .....		\$2070
(d) above 150 mm in diameter up to and including 200 mm in diameter .....		\$2580
6. Under regulation 34(1) and (2)- Plumber's licence .....		\$ 74
7. Under regulation 34(3)- Renewal of plumber's licence .....		\$ 58
8. Under regulation 34(3C)- Plumber's licence examination .....		\$ 895
9. Under regulation 42- Fishing licence .....		\$ 24
	(L.N. 176 of 1996; L.N. 358 of 2000; L.N. 41 of 2001; L.N. 129 of 2010)	

## PART II

### SUPERVISION CHARGE

(Regulation 8)

The charge for supervision of work carried out by the Water Authority, other than work for which a fee is prescribed in this Schedule, shall be 20% of the actual cost of such work.

PART III

CHARGE FOR FRESH WATER

(Regulation 46)

1. The charge for fresh water, filtered or unfiltered, per unit of 1 cubic metre (1000 litres) shall be-
- |   | Charge per unit |
|---|-----------------|
| (a) for construction purposes .....   | \$ 7.11         |
| (b) for domestic purposes (other than flushing), per 4 month period-  |                 |
| (i) for the first 12 units .....  | \$ NIL          |
| (ii) for the next 31 units .....  | \$ 4.16         |
| (iii) for the next 19 units .....   | \$ 6.45         |
| (iv) for the remainder .....  | \$ 9.05         |
| (c) for flushing purposes, per 4 month period-  |                 |
| (i) for the first 30 units .....  | \$ NIL          |
| (ii) for the remainder .....  | \$ 4.58         |
| (d) for shipping purposes referred to in paragraph (a) of the definition of "shipping purpose" .....  | \$10.93         |
| (e) for shipping purposes referred to in paragraph (b) of the definition of "shipping purpose" .....  | \$ 4.58         |
| (f) for trade purposes .....  | \$ 4.58         |
| (g) for any purpose (other than shipping purposes referred to in paragraph (a) of the definition of "shipping purpose") where payment is made against a prepaid ticket issued by the Director of Accounting Services .. | \$ 4.58         |
- (L.N. 291 of 1996; L.N. 292 of 1996)
2. Where a charge under item 1(b) or (c) of this Part is calculated on a computerized basis, a reference in that item to "4 month period" shall be read as a reference to 121.64 days.
- (L.N. 176 of 1996)

PART IV

CHARGES FOR EXAMINATION OF WATER

(Regulation 46B)

1. The charge for examination of a water sample shall be-
- |  | Charge where sample delivered to Water Authority |
|--|--|
| (a) for a general chemical analysis (comprising all standard tests*) ...                               | \$2440   |
| (b) for an individual standard test* .....   | \$ 215   |
| (c) for a non-standard test (other than a non-standard test referred to in paragraph (d) or (e)) ..... | \$ 420   |

- (d) for a British Pharmaceutical test for water for injection purposes ..... \$ 965
- (e) for a general bacteriological examination ..... \$ 490
- 2. Charge for each attendance to collect any sample or samples ..... \$ 925
- 3. Charge for additional copy of examination report ..... \$ 1

\* For the purpose of this Part, "standard test" (標準測試) means a test to determine any one of the following-

- |                        |                      |                      |
|------------------------|----------------------|----------------------|
| Turbidity;             | Nitrite nitrogen;    | Total alkalinity;    |
| Ortho-phosphate;       | pH value;            | Nitrate nitrogen;    |
| Total hardness;        | Fluorides;           | Colour;              |
| Oxygen absorbed value; | Calcium;             | Iron;                |
| Conductivity;          | Suspended solids;    | Magnesium;           |
| Manganese;             | Ammoniacal nitrogen; | Dissolved solids;    |
| Chlorides;             | Aluminium;           | Albuminoid nitrogen; |
| Residual chlorine;     | Sulphates;           | Silica.              |
- (L.N. 176 of 1996; L.N. 129 of 2010)

Schedule:	2		L.N. 106 of 1999	10/06/1999
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[regulation 19]

## PART I

### PIPES AND FITTINGS

1. (1) Pipes on a fresh water fire service shall be made of cast iron, steel or copper.  
 (2) Pipes and fittings on a salt water fire service shall be made of such material as the Water Authority, in consultation with the Director of Fire Services, thinks fit.  
 (3) Pipes on a fresh water inside service shall be made of cast iron, unplasticized P.V.C., polybutylene, steel, copper, polyethylene, crosslinked polyethylene or chlorinated polyvinyl chloride. (L.N. 673 of 1994)  
 (4) Pipes on a salt water inside service shall be made of cast iron or unplasticized P.V.C. (L.N. 320 of 1992)
2. No pipe shall be less than 20 mm diameter, except that a branch pipe may be 15 mm diameter if the pipe run is short and the pipe supplies only one draw-off point.
3. No bend or curve shall be made in any pipe so as to diminish the waterway or alter the internal diameter of the pipe in any part.
4. Changes of direction for a pipe of less than 40 mm diameter shall be effected by slow bends and no elbows shall be used.
5. (a) Cast iron pipes shall comply with BS 4622 for grey iron pipe and with BS 4772 for ductile iron pipe, except that they may incorporate a mechanical or automatic joint of approved design.  
 (b) Cast iron pipes to BS 4622 and ductile iron pipes to BS 4772 shall be of a class appropriate to the duty required.
6. (Repealed L.N. 320 of 1992)
7. Cast iron fittings for use with cast iron pipes shall comply with BS 4622 for grey iron fittings and with BS 4772 for ductile iron fittings, except that they may incorporate a mechanical joint of approved design. Fittings shall be of a class appropriate to the duty required. (L.N. 320 of 1992)
8. (Repealed L.N. 252 of 1977)

9. Steel pipes shall-
  - (a) be galvanized;
  - (b) comply with BS 1387 for 'Medium' tubes and tubulars; and
  - (c) if on a fresh water inside service, be lined with internal unplasticized polyvinyl chloride or polyethylene lining approved by the Water Authority. (L.N. 673 of 1994)
10. Malleable cast iron fittings for use with steel pipes shall be galvanized and shall comply with BS 143 and 1256 for malleable cast iron and cast copper alloy pipe fittings. (L.N. 320 of 1992)
11. Wrought fittings of iron or steel for use with steel pipes shall be galvanized and shall comply with BS 1740, Part 1 for wrought iron pipe fittings. (L.N. 320 of 1992)
12. Unplasticized P.V.C. pipes and fittings shall comply with BS 3505 for Class 'D' tubes or equivalent.
13. Copper pipes incorporating screw joints shall comply with BS 2871, Part 2, for copper tubes (heavy gauge) for general purposes and screw thereof shall comply with BS 61, for screw threads for copper tubes.
14. (Repealed L.N. 320 of 1992)
15. Cast copper alloy fittings, for copper pipes screwed in accordance with Table 1 of BS 61, shall comply with the relevant requirements of BS 143 and 1256 for malleable cast iron and cast copper alloy pipe fittings. (L.N. 320 of 1992)
16. Copper pipes to be jointed with compression fittings or capillary fittings or by bronze or autogenous welding shall comply with BS 2871, Part 1.
17. Capillary fittings or compression fittings shall comply with BS 864, Parts 2 for capillary and compression fittings of copper and copper alloy and compression fittings for pipes laid under the ground shall be Type B. (L.N. 320 of 1992)
18. Polybutylene pipes and fittings shall comply with BS 7291 Parts 1 and 2. (L.N. 673 of 1994)
19. Polyethylene pipes shall comply with BS 6730 and BS 6572. (L.N. 673 of 1994)
20. Crosslinked polyethylene pipes and fittings shall comply with BS 7291 Parts 1 and 3. (L.N. 673 of 1994)
21. Chlorinated polyvinyl chloride pipes and fittings shall comply with BS 7291 Parts 1 and 4. (L.N. 673 of 1994)  
(L.N. 252 of 1977)

## PART II

### TAPS AND VALVES

1. Draw-off taps and stop valves of the ordinary screw-down pattern and of nominal size not exceeding 50 mm shall comply with BS 1010, Part 2 for draw-off taps and stop valves.
2. Draw-off taps and stop valves not being of the ordinary screw-down pattern, shall be capable of resisting a pressure of at least 2000 kPa, and every valve, spindle, and other internal part and, where the nominal size of the tap or valve does not exceed 50 mm, the body thereof, shall be made of a corrosion resisting alloy.
3. Sluice valves of nominal size of 50 mm or more shall comply with BS 5163 for sluice valves for waterworks purposes of PN 10 or PN 16 according to the pressure to which the valve will be liable to be subjected under working conditions.

4. (1) Ball valves of the "Piston" type and of a nominal size not exceeding 50 mm shall comply with BS 1212, Part 1 for ball valves and shall comply with the following requirements-

- (a) valves shall be provided with a washer of suitable vulcanized rubber or some other equally suitable material and the washer shall be enclosed in an internally flanged cap screwed to the piston;
- (b) the body and piston shall be of a corrosion-resisting alloy, and the lever shall be of a corrosion-resisting alloy or of copper and shall be of sufficient rigidity not to bend permanently under working conditions. (L.N. 320 of 1992)

(2) Ball valves not being of the "Piston" type shall be sound and suitable and comply with the following requirements-

- (a) high pressure valves shall close against a test pressure of 1400 kPa, medium pressure valves against a test pressure of 700 kPa, low pressure valves against a test pressure of 300 kPa; and the valves, not being valves having an interchangeable orifice seating, shall have the letters "H.P.", "M.P." or "L.P." respectively cast or stamped on the body of the fitting, and shall, while held in a closed position, be capable of resisting a pressure of 2000 kPa;
- (b)-(c) (Repealed L.N. 320 of 1992)
- (d) valves of ferrous metal of a nominal size exceeding 50 mm shall be provided with a flange on their inlets complying with BS 4504, Part 1, Table 16, shall be protected against corrosion by dipping in accordance with the requirements of BS 4164 or by galvanizing in accordance with the requirements of BS 1387 and shall have all their working surfaces lined or faced with, and its orifice seating of, a corrosion-resisting alloy.

(3) Ball valve floats of a nominal outside diameter not exceeding 300 mm shall comply with BS 1968 for copper floats or with BS 2456 for plastic floats.

(4) Ball valves when fixed to a cistern shall have the size of the orifice, the size of the float and the length of the lever so proportioned to one another that, when the float is immersed to an extent not exceeding half its volume, the ball valves shall be watertight against the highest pressure at which it may be required to work.

5. Ball valves or float-operated valves fitted to storage cisterns shall be securely and rigidly fixed thereto above the water-line, and shall be supported independently of the inlet pipe (unless such inlet pipe is itself rigid and rigidly fixed to the cistern), in such a position that no part of the body of the valve will be submerged when the cistern is charged to overflowing level.

6. Where a ball valve or float-operated valve provided with a pipe so arranged as to discharge water into a cistern below its overflowing level, an air hole shall be provided in the outlet chamber of the valve above such level of a size sufficient to prevent siphonage of water back through the valve.

7. No ball valve shall be fitted to a storage cistern to contain heated water.

8. Gate valves shall comply with BS 5154 for copper alloy gate valves for general purposes.

9. Fitting with threaded outlets, or any device facilitating the connecting of rubber or other type flexible hose, shall not be permitted, except with the written permission of the Water Authority.

10. Draw-off taps, valves and valve floats for use with salt water shall, where applicable, comply with the British Standard and other requirements for such fittings for use with fresh water and shall, in addition, be manufactured from materials capable of withstanding the corrosive effect of salt water.

11. No draw-off tap or valve shall be installed or used unless it has been tested in accordance with regulation 21 or otherwise approved by the Water Authority. (L.N. 320 of 1992)

(L.N. 252 of 1977)

### PART III

#### COLD WATER STORAGE CISTERNS

1. No cistern for the storage of cold water shall be installed or used except with the permission in writing of the

Water Authority who shall specify the maximum permitted capacity.

2. Every cistern shall be watertight, of adequate strength, properly supported and shall be constructed of concrete, galvanized mild steel or other approved material. (L.N. 320 of 1992)
3. A cistern of mild steel not exceeding 5000 litres capacity shall comply with BS 417, Part 2 for galvanized mild steel cisterns.
4.
  - (a) Every cistern shall be located so as to minimize the risk of contamination of the stored water and shall be fitted with suitable close fitting lockable covers which shall not be air-tight. Covers shall be positioned so as to facilitate inspection and cleaning.
  - (b) Where a storage cistern for non-potable water is placed adjoining to a storage cistern for potable water there shall be an air space between such storage cisterns.
5. Cisterns shall be fitted with a ball valve controlled inlet in the case of a gravity supply or with an automatic control switch in the case of a pumped supply. The ball valve or control switch shall shut off the supply when the water level is 25 mm below the invert of the overflow pipe. The invert 25 mm above of the inlet pipe or the face of the outlet nose of the ball valve shall be not less the top of the overflow pipe.
6. An overflow pipe of one commercial size larger than the inlet pipe, and in no case less than 25 mm diameter, shall be fitted to each cistern and shall be extended to terminate in a conspicuous position. No overflow pipe shall be connected to a drain, sewer or to the overflow pipe from any other cistern.
7. A stop valve shall be provided on the outlet of every cistern and provision shall be made for a drain-off pipe to enable the cistern to be emptied.
8. No cistern for the storage of fresh water supplied from the waterworks shall, without the written permission of the Water Authority, be so connected that it can be used for the storage of any water other than that supplied from the waterworks.
9. Every cistern shall be installed so that it is easily accessible for cleaning or repair. Where a cistern is installed inside a building and, due to limited headroom available, it is fixed with limited clearance from the ceiling or underside of the roof, a quickly detachable fitting must be used to enable it to be easily removed for cleansing and repair.
10. Safe access shall be provided to all cisterns by means of a secure permanent ladder or readily available portable ladder.

(L.N. 252 of 1977)

#### PART IV

#### WATER HEATERS

1.
  - (1) Subject to subparagraph (2), a water heater shall be supplied with water from a cold water storage cistern.
  - (2) The following type of water heaters may, with the written permission of the Water Authority, be connected direct to a main-
    - (a) non-pressure type water heaters where no restriction of flow can be effected beyond the inlet control valve;
    - (b) cistern type water heaters;
    - (c) instantaneous water heaters where the guaranteed test pressure of the water heater is at least 1 1/2 times the static head available at the water heater;
    - (d) unvented thermal storage type electric water heaters which comply with the safety requirements under the Electrical Products (Safety) Regulation (Cap 406 sub. leg. G). (L.N. 106 of 1999)
  - (3) Where a water heater is connected direct to a main-
    - (a) every draw-off point of the water heater shall be not less than 15 mm above the lowest part of the top

- edge of the receptacle supplied from the water heater;
- (b) if it is a water heater burning gas, the construction of the water heater shall be such that no leakage of gas into the water can occur;
- (c) if it is a water heater using electricity, the construction of the water heater shall be according to the relevant British Standards.

2. Where mixing valves, showers or water blenders are installed, the cold water supply to these fittings shall be from the same cold water storage cistern or main that supplies the water heater and the installation shall be such that the hot water flow will stop before that of the cold water in the event of a failure in the water supply.

3. Every water heater of the thermal storage type, other than an electric water heater of the type specified in paragraph 1(2)(d), shall be provided with an individual expansion pipe taken from its highest point and shall continuously rise without obstruction until it discharges to atmosphere above the storage cistern at a sufficient height to prevent a constant out-flow of hot water therefrom. (L.N. 286 of 1990)

4. No tap or other means of drawing off water (other than a screwed plug with a removable key for emptying the system for cleansing or repair) shall be connected to any part of the hot water system below the top of the hot water cylinder in such a way that the level of the water in the cylinder can be lowered.

5. No tap used for the purpose of drawing hot water shall be fixed at a greater distance (measure along the axis of the pipe by which the tap is supplied) from a water heater or hot water cistern, cylinder or tank, or from a flow and return system, than the distance appropriate to the largest internal diameter of any part of the said pipe as shown in the following table-

TABLE

Largest internal diameter of pipe	Distance in metres
(a) Not exceeding 20 mm .....	12
(b) Exceeding 20 mm but not exceeding 25 mm .....	8
(c) Exceeding 25 mm .....	3

6. A loose jumper type valve shall be fitted on the inlet of every water heater if a non-return valve is not incorporated in such water heater; but this requirement does not apply to an electric water heater of the thermal storage type that is not provided with an individual expansion pipe. (L.N. 286 of 1990)

7. Pipes used for conveying hot water shall be of galvanized steel, copper, or of some corrosion-resisting alloy: Provided that cast iron pipes of not less than 50 mm internal diameter may be used if suitable provision for their expansion is made. (L.N. 320 of 1992)

8. Every hot water cylinder or tank of a capacity of not less than 100 litres shall-

- (a) if made of mild steel, comply with the requirements for cylinders or tanks, as the case may be, of BS 417, Part 2 for galvanized mild steel cisterns, tanks and cylinders; and (L.N. 106 of 1999)
- (b) if made of copper, comply with BS 699 for copper cylinders for domestic purposes or with BS 1566, Parts 1 and 2 for copper indirect cylinders.

9. Every water heater of thermal storage type or the calorifier type shall comply with the requirements of BS 3456, Part 102, Section 102.21 for stationary non-instantaneous electric water heater or with BS 853 for hot water calorifiers respectively. (L.N. 106 of 1999)

10. (Repealed L.N. 320 of 1992)

11. (Repealed L.N. 106 of 1999)

12. Every system incorporating an electric water heater of the thermal storage type shall be provided with-

- (a) a supply pipe that branches off from the feed pipe at a point above the top of the water heater, or some

- other device to prevent the water from draining down from the water heater if there is a failure at the source of water supply;
- (b) an anti-vacuum valve complying with BS 6282 or some other device to prevent heated water from being syphoned back to the supply pipe; and
  - (c) a vessel to accommodate the expansion of heated water where that expansion is constrained by a non-return valve, or a similar device, incorporated at the inlet of the water heater. (L.N. 286 of 1990)
- (L.N. 252 of 1977)

## PART V

### FLUSHING APPARATUS

1. Every flushing cistern shall be of the valveless syphonic type unless otherwise approved by the Water Authority. A stop valve shall be fixed in a readily accessible position so as to control the supply to the cistern.
2. Flushing cisterns for water-closet fitments and slop sinks shall be capable of giving a flush of not less than 7.5 litres and not more than 15 litres of water on each occasion such fitment is used. (L.N. 106 of 1999)
3. The capacity of the flushing cistern in the case of trough water-closets and urinals shall be approved by the Water Authority subject to the discharge in the case of trough water-closets being not less than 9 litres of water for every metre of the channel and the discharge in the case of urinals being not less than 4.5 litres of water for every basin or stall, or in the case of a trough urinal, every metre thereof.
4. The internal diameter of flushing pipes shall-
  - (a) in the case of water-closet fitments, trough water-closets and slop sinks, be not less than 30 mm;
  - (b) in the case of urinals (other than trough urinals), be not less than 15 mm for each basin and stall; and
  - (c) in the case of trough urinals, be not less than 15 mm for every metre thereof.
5. Every flushing apparatus shall be operated by hand, except in cases where written permission from the Water Authority has been granted for the installation of automatic flushing. In such cases the method of control and the amount and frequency of the flushes shall be decided by the Water Authority.
6. Every flushing cistern operated by hand shall be provided with a ball valve so arranged as to refill the cistern within 2 minutes.
7. Flushing cisterns shall in all cases be supplied from storage cisterns and such storage cisterns shall not be used to supply any other apparatus, appliance or fitting. Every such cistern shall be fitted with a suitable close fitting cover and provided with adequate access to enable the cistern to be entered and cleaned.
8. Every flushing cistern shall have an overflow which shall discharge in a conspicuous position.
9. Flushing apparatus without flushing cisterns shall not be used.

(L.N. 252 of 1977)

## PART VI

### BATHS, LAVATORY BASINS AND SINKS

1. Every inlet to a bath, lavatory basin or sink shall be distinct from, and unconnected with, any outlet therefrom and every outlet for emptying such bath, lavatory basin or sink shall be provided with a well-fitting and easily accessible watertight plug or some other equally suitable apparatus.
2. The level of the point of discharge of hot or cold water to a bath, lavatory basin or sink shall be above the level of the overflow, or if there be no overflow, of the top edge of the bath, basin or sink.

3. The water supply to any bidet, sitz bath, slop or sluicing sink or similar apparatus, shall, if the inlet is liable to be submerged, be provided by-

- (a) a storage cistern supplying water to such apparatus only;
- (b) a storage cistern for flushing purposes only; or
- (c) a hot water distribution system supplying such apparatus only.

4. All taps supplying baths, lavatory basins, sinks or similar apparatus shall have a stop valve fixed in a readily accessible position to control the supply to each fitting or branch pipe supplying a range of fittings.