



BERMUDA

## PLUMBING AND DRAINAGE REGULATIONS 1965

SR&O 19 / 1965

*[made under section 15 of the Public Health Act 1949 and brought into operation on 3 May 1965 by GN 176/1965]*

### TABLE OF CONTENTS

1	Interpretation
2	Level of lowest storey
3	Plumbing to conform to regulations
4	Building to have separate drainage
5	Construction requirements
6	Manholes
7	Inlets to be trapped
8	Trade effluent
9	Support for walls
10	Branch drains
11	Ventilating pipes
12	Requirements for ventilating pipes and soil pipes
13	Diameter of soil pipes
14	Discharge of rainwater
15	Waste pipes
16	Water seal
17	Waterclosets and urinals
18	Codes of Practice
19	Cesspits
20	<i>[omitted]</i>
21	<i>[omitted]</i>

#### Interpretation

1 In these Regulations "the Act" means the Public Health Act 1949 *[title 11 item 1]*.

## PLUMBING AND DRAINAGE REGULATIONS 1965

---

### Level of lowest storey

2 The lowest or the only storey of a building (other than so much of a storey as comprises a cellar or other chamber intended for storage only, and constructed in a dry soil or so as to be impervious to water) shall be at such level or so constructed as to allow the construction of a drain or drains sufficient for the effectual drainage of that storey.

### Plumbing to conform to regulations

3 (1) No person shall construct, repair, renew or alter plumbing or drainage work except in conformity with these Regulations.

(2) Every person who has installed any new plumbing or plumbing fittings, shall notify the Department of such installations to enable the necessary inspection to be made by an officer of the Department and the work shall not be covered before the expiration of 24 hours after due notification unless it has been inspected and approved.

(3) Any person who fails to notify the Department in accordance with paragraph (2) commits an offence against these Regulations (and without prejudice to any other action which may be taken against him or in respect of the building under the provisions of any other law):

Punishment on summary conviction: a fine of \$180 in respect of a first offence;

Punishment on summary conviction in the case of a second or subsequent offence: imprisonment for 3 months or a fine of \$360.

### Building to have separate drainage

4 The drainage and drainage disposal from a building shall comply with the following requirements—

- (i) each building shall have separate drainage and means of drainage disposal except where special permission is granted in writing by the Chief Environmental Health Officer;
- (ii) every building together with its out-houses or appurtenances, shall when required by the Chief Environmental Health Officer have a separate drain connected to the cesspit or sewer where there is such a sewer within 100 feet of the building to be drained, and such connections to the sewer shall be made at the expense of the owner.

*[Regulation 4 amended by 2018 : 66 s.2 effective 10 January 2019]*

### Construction requirements

5 (1) Every drain and every private sewer (other than a sub-soil drain or a drain or sewer or trade effluent drain mentioned in regulation 8) constructed in connection with a building shall comply with the following provisions of this regulation in which the term “drain” includes a private sewer.

(2) Every drain, soil pipe and soil ventilating pipe shall be constructed of lead, copper, or cast iron which has been corrosion proofed by an approved method, or glazed stoneware. No other materials shall be used for any drainage purposes unless special

## PLUMBING AND DRAINAGE REGULATIONS 1965

---

permission in writing has been granted beforehand by the Chief Environmental Health Officer.

- (3) The drain shall be of adequate strength.
- (4) The drain shall be properly supported and protected against injury, laid at a proper inclination and provided with suitable water tight joints.
- (5) The drain shall be capable of withstanding a reasonable hydraulic, smoke or air test under pressure, or other suitable test.
- (6) The drain shall be of adequate size, and if intended for the conveyance of foul water shall have an internal diameter of not less than four inches and if intended for conveyance of other drainage from the building shall have an internal diameter of not less than three inches.
- (7) The drain to any extent that it passes through a building shall be constructed of cast iron or other material not less suitable.
- (8) Where any drain or part thereof is laid under a building, it shall—
  - (a) be laid in straight line or, if this is impracticable, in a series of straight lines;
  - (b) unless it is constructed of cast iron or material of not less strength, be laid in the ground or supported throughout its length, and be completely surrounded with concrete not less than six inches thick;
  - (c) be provided with adequate means of access for inspection and rodding of its whole length.
- (9) A drain shall be provided with adequate means of access for its whole length and if not laid in one straight line it shall be provided with an inspection chamber or inspection eye at each change of direction. Any means of access provided to drainage under a building must be by means of a bolted air tight cover or other approved means.

*[Regulation 5 para 2 amended by 2018 : 66 s.2 effective 10 January 2019]*

### Manholes

- 6 (1) A manhole shall be provided at every point at which the sewer changes either its direction or gradient, and manholes shall be provided on every sewer at intervals not exceeding three hundred feet.
- (2) Manholes provided in pursuance of this paragraph shall—
  - (a) be of such size and form as to allow ready access for rodding;
  - (b) be constructed of adequate strength and durability and in such manner as to exclude subsoil water;
  - (c) be provided with a proper iron or concrete cover; and
  - (d) have inverts formed with proper channels and benching.

## PLUMBING AND DRAINAGE REGULATIONS 1965

---

### Inlets to be trapped

7 (1) Every inlet to a drain, other than an inlet provided for the ventilation of a drain, shall be properly trapped.

(2) No inlet to a drain shall be made within a building except—

- (a) a trapped gully fitted with a suitable cover;
- (b) an inlet which is a necessary part of the action of any watercloset, bath, sink, urinal, bidet or lavatory basin;
- (c) a junction with another drain.

### Trade effluent

8 Every drain and private sewer intended solely for the conveyance of trade effluent shall be constructed of suitable material, be of adequate strength, be properly supported and protected against injury, laid at a proper inclination, and be provided with suitable watertight joints.

### Support for walls

9 Where a drain or private sewer passes through or immediately under a wall, suitable support for the wall shall be provided so as to prevent the wall from damaging the drain by settlement or otherwise.

### Branch drains

10 A connection between a branch drain and any other drain shall be so made that the tributary drain or sewer joins the other drain or sewer obliquely in the direction of flow of that other drain or sewer.

### Ventilating pipes

11 (1) Provision shall be made for the adequate ventilation of all main and branch drains to the satisfaction of the Chief Environmental Health Officer.

(2) A drain for conveying foul water from a building shall be properly ventilated with at least one ventilating pipe not less than three inches in diameter situated as near as practicable to the head of the drain and as far as practicable from the point at which the drain empties into the sewer or other means of disposal. A fresh air inlet shall be provided on the building side of the running trap of the cesspit into which the drain discharges, and as near as possible to the running trap where provided.

(3) Nothing shall be deemed to prevent a soil pipe, or waste pipe connected directly to a drain, from serving as a ventilating pipe to the drain.

*[Regulation 11 para 1 amended by 2018 : 66 s.2 effective 10 January 2019]*

### Requirements for ventilating pipes and soil pipes

12 Every ventilating pipe to a drain and every soil pipe shall comply with the following provisions—

## PLUMBING AND DRAINAGE REGULATIONS 1965

---

- (a) the pipe shall be either cast iron, copper, or lead and shall be of adequate strength and corrosion proofed where necessary. No other material shall be used unless special permission in writing has been granted beforehand by the Chief Environmental Health Officer;
- (b) the pipe shall—
  - (i) be carried upwards to a height and position as effectually to prevent the escape of foul air from such pipe into any building; and
  - (ii) be fitted at its open end with a wire cage or other suitable cover made of durable materials admitting the free passage of air;
- (c) the diameter of a ventilating pipe shall be adequate for the number of fittings it serves and in any case shall not be less than three inches;
- (d) the pipe shall be capable of with standing after erection a reasonable smoke, water or air test;
- (e) the pipe shall not have a trap at its point of junction with the drain or elsewhere except where necessary as part of the apparatus of any watercloset or slop sink;
- (f) the pipe shall not have any bend except where unavoidable in which case the bend shall—
  - (i) have an obtuse angle as large as possible.
  - (ii) have the largest practicable radius of curvature; and
  - (iii) not change in any way the cross section of the pipe;
- (g) the pipe shall, if formed of lead or other material susceptible to external injury and if carried up inside the building, either be left uncovered (except where it passes through a floor or ceiling) or be adequately protected by enclosure in a covered duct or chase.

*[Regulation 12 para (a) amended by 2018 : 66 s.2 effective 10 January 2019]*

### Diameter of soil pipes

13 The internal diameter of a soil pipe (including any part of such pipe carried up as a ventilating pipe) shall be not less than that of any pipe discharging into it, and unless it is a waste pipe from urinals only, shall in no case be less than four inches.

### Discharge of rainwater

14 No rainwater pipe or gutter shall discharge into or connect with any soil pipe, ventilating pipe to a drain, or waste pipe used as a ventilating pipe to a drain.

### Waste pipes

15 Every waste pipe from a bath, sink (not being a slop sink), bidet, or lavatory basin, and every other pipe for carrying off dirty water shall comply with the following provisions—

## PLUMBING AND DRAINAGE REGULATIONS 1965

---

- (a) the pipe shall be of adequate strength;
- (b) the pipe shall have an internal diameter adequate for the duty it has to perform and not less than that of any pipe connecting it with the appliance it serves;
- (c) the pipe shall, if it is more than six feet in length, be provided with a suitable trap, and be provided with screw cap rodding eyes to allow rodding the full length of the pipe;
- (d) nothing in sub-paragraph (c) shall be deemed to prevent two or more lavatory basins fixed in a range from discharging without the interposition of any trap into a common waste pipe provided that common waste pipe (whatever its length) itself discharges through a trap and has adequate means of access for cleaning;
- (e) if the pipe discharges into a soil pipe, ventilating pipe to a drain, or a waste stack it shall be provided, whatever its length, with a suitable trap;
- (f) the pipe shall, if it discharges to the drain otherwise than as specified in sub-paragraph (e), be disconnected from the drain by a trapped gully with a suitable grating and the pipe shall discharge above the level of the water in the trap and in such a way as not to cause dampness in a wall or foundation of any building.

### Water seal

16 Such provision shall be made in the lay-out of drains, and soil pipes, waste pipes and ventilating pipes, as may be necessary to prevent, under working conditions, the destruction of the water seal of any drain trap or trap of a soil or waste appliance.

### Waterclosets and urinals

17 (1) In this regulation "watercloset" includes a urinal constructed in connection with a building and a room any part of which is partitioned or divided into cubicles, any one of which contains a receptacle, if the partitions or divisions are so constructed as to allow the free circulation of air through the room.

(2) A water-closet shall wherever possible be situated on an external wall and be provided with a window of not less than two square feet in area, exclusive of frame, in the external wall of which area half is made to open.

(3) Where it is impracticable to provide a closet with an external wall for natural lighting and ventilation then the closet shall be provided with sufficient ventilation by mechanical means to provide not less than ten air changes per hour and shall be adequately lighted.

### Codes of Practice

18 (1) The plumbing and drainage system of a building or structure shall be installed to conform with recognized good practice.

## PLUMBING AND DRAINAGE REGULATIONS 1965

---

(2) The requirements of this regulation shall be deemed to be satisfied if design and installation is in accordance with the recommendations of the relevant British Standard Codes of Practice or the American Standard plumbing Code where such requirements are not covered by these Regulations.

### Cesspits

19 (1) All premises shall be provided with sufficient and adequate cesspits or other means of disposal approved by the Chief Environmental Health Officer for the disposal of the drainage from the premises. Drainage from any kitchen appliance shall be kept separate from any foul drainage from the premises and shall be disposed of separately by draining into its own cesspit.

(2) Any cesspit into which a soil pipe discharges shall be situated at least 10 feet from any building, 20 feet from any water tank and 10 feet from the boundary of the property, provided that the Chief Environmental Health Officer may in special circumstances authorize the construction of a cesspit in any place if the cesspit is constructed in such a manner as the Chief Environmental Health Officer may direct.

(3) A cesspit shall have an area of not less than 24 square feet and a depth of not less than 6 feet below the invert of the drainage inlet to the cesspit.

(4) A cesspit shall be provided with a reinforced concrete cover. The cover shall extend 18 inches beyond the edge of the pit on all sides and this extension shall be increased in depth by at least 6 inches below the level of the underside of the main slab. The concrete cover shall also be provided with an access opening at least 18" x 18" centrally situated, and having a properly constructed and satisfactorily fitting airtight cover constructed either of concrete or cast iron.

*[Regulation 19 amended by 2018 : 66 s.2 effective 10 January 2019]*

20 *[omitted]*

21 *[omitted]*

---

*[Amended by:*

1970 : 390

2018 : 66]