

1961/86



## THE WATER SUPPLIES PROTECTION REGULATIONS 1961

COBHAM, Governor-General

### ORDER IN COUNCIL

At the Government House at Wellington this 26th day of July 1961

Present:

HIS EXCELLENCY THE GOVERNOR-GENERAL IN COUNCIL

PURSUANT to the Health Act 1956, His Excellency the Governor-General, acting by and with the advice and consent of the Executive Council, hereby makes the following regulations.

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### REGULATIONS

#### PART I—PRELIMINARY

1. Title and commencement—(1) These regulations may be cited as the Water Supplies Protection Regulations 1961.

(2) These regulations shall come into force on the fourteenth day after the date of their notification in the *Gazette*.

2. Interpretation—(1) In these regulations, unless the context otherwise requires,—

“Air-gap separation” means a physical break between a service pipe and a receiving vessel which is not less than double the diameter of the service pipe measured vertically above the top rim of the vessel and in no case less than 1 inch:

“Auxiliary water supply” means any water supply on or available to any premises other than a public water supply:

“Backflow preventer” means a device described in subclause (1) of regulation 7 of these regulations:

“Cross connection” means a direct connection between any part of a public water supply and any system containing any substance which is likely to be injurious to health, or any other substance which would be objectionable but not necessarily injurious to health if introduced into a public water supply, or any water which is not wholesome drinking water:

“Engineer”, in relation to anything done or to be done in the district of a local authority, being a thing to which these regulations apply, means a person who:

(a) Is registered as an engineer under the Engineers Registration Act 1924 or holds a certificate of recognition issued by the Engineers Registration Board constituted under that Act or is qualified for appointment as an Inspector within the meaning of the Health Act 1956 in accordance with any regulations for the time being in force under that Act; and

(b) Is appointed by the local authority to perform the duties of an Engineer for the purposes of these regulations:

“Public water supply” means any mode, system, or works for the collection, supply, and distribution of wholesome drinking water in any district by a local authority or by any person or persons authorised by any enactment to undertake the supply of such water to the public:

“Service pipe” means so much of any pipe for supplying water from a main of the local authority to any premises as is subject to water pressure from that main or would be so subject but for the closing of some tap:

“Wholesome drinking water” means clear clean water which has been collected from a source or has undergone a process of treatment approved by a Medical Officer of Health, and subsequently to such collection or treatment has not been exposed to any danger of contamination.

(2) For the purpose of these regulations expressions defined in the Health Act 1956 have the meanings so defined.

3. Permits—(1) No person shall establish, construct, extend, alter, repair, or remove any type of backflow preventer unless he has received from the local authority under the hand of the Engineer a permit for the work in accordance with the provisions of this regulation.

(2) Application for any such permit shall be made to the local authority in the form No. 1 set out in the Schedule to these regulations and shall be signed by the owner of the premises to which the proposed work refers or by his agent.

(3) The application shall be accompanied by such particulars as to auxiliary water supplies, cross connections, toxic or other substances used on the premises, and any other information which the Engineer may require.

(4) When the Engineer has satisfied himself that the proposed work can be carried out in accordance with these regulations, he shall, on payment of the fee therefor, issue a permit in the form No. 2 set out in the Schedule to these regulations.

(5) The local authority shall keep a record of every backflow preventer installed on any premises; and such record shall include the date of installation, the type of fitting installed, and the date of each annual inspection.

(6) The Medical Officer of Health or any Inspector of Health may at any time inspect that record during office hours and may take extracts therefrom.

**4. Inspection and Fees—**(1) The local authority shall cause an inspection of all backflow preventers to be made at least once a year, and may require any alterations or improvements to be made to such devices so as to comply with the provisions of these regulations.

(2) Fees for permits and annual inspections of backflow preventer devices shall be payable to the local authority, and the amount of such fees shall be as the local authority by resolution decides.

**5. Maintenance of backflow preventers—**The owner or occupier of any premises on which backflow preventers are installed shall at all times maintain those devices in proper working order and in good condition to the satisfaction of the Engineer.

**6. Existing premises—**Where there is existing on any premises at the commencement of these regulations any conditions which fail to conform in any respect with these regulations, the owner of the premises shall, subject to these regulations and within one calendar month after the date of the receipt of a notice in writing under the hand of the Engineer in cases to which regulation 11 hereof applies and from the commencement of these regulations in every other case, cause to be executed, provided, and done all such works, appliances, and things whatsoever as are necessary to cause the premises to conform in that respect to the provisions of these regulations.

## PART II—BACKFLOW PREVENTERS

**7. Backflow preventers—**(1) For the purposes of these regulations—

- (a) Double check valve assemblies, reduced pressure principle backflow prevention devices, and vacuum columns, as described in paragraphs (b), (c), and (d) of this subclause, are backflow preventers:
- (b) A double check valve assembly is an assembly of at least two independently acting check valves including gate valves on each side of the check valve assembly and suitable leak detector drains together with connections available for testing the watertight efficiency of each check valve:

- (c) A reduced pressure principle backflow prevention device is a device that incorporates an automatically operating differential relief valve located between two check valves, and also incorporates two gate valves, and is equipped with the necessary appurtenances for testing, and complies with the following requirements:
- (i) It shall operate to maintain the pressure in the zone between the two check valves less than the pressure on the public water supply side of the device:
  - (ii) At cessation of normal flow the pressure between check valves shall be less than supply pressure:
  - (iii) In the case of leakage of either check valve the differential relief valve shall operate to maintain this reduced pressure by discharging to the atmosphere:
  - (iv) When the inlet pressure is 2 pounds per square inch or less the relief valve shall open to the atmosphere, thereby providing an air-gap in the device:
  - (v) The devices shall be readily accessible for maintenance and testing and be installed in a location where no part of the valve will be submerged:
- (d) A vacuum column is an arrangement of pipes which forms an inverted U extending upwards to a point not less than 35 feet above the highest point in the service pipe and in which there cannot be excess pressure on the property side of the column.
- (2) A check valve for the purpose of these regulations is one which seats readily and completely when closed, and which complies with the following requirements:
- (a) It must be carefully machined to have free moving parts and assured watertightness:
  - (b) The face of the closure element and valve seat must be bronze, composition, or other corrosion-resistant material which will seat tightly under all conditions:
  - (c) Pins and bushes shall be of bronze or other corrosion-resistant non-sticking material, machined for easy dependable operation:
  - (d) The closure element shall be internally weighted or otherwise internally equipped to promote rapid and positive closure.

**8. Point of installation**—Where an air-gap separation, double check valve assembly, reduced pressure principle backflow prevention device, or a vacuum column, is installed by any person on any premises in accordance with these regulations, it shall be installed by that person on the service pipe in an accessible position for inspection and servicing and at a point as near as practicable to the boundary of the premises:

Provided that where the Engineer so directs it shall be installed in such other position as the Engineer may specify.

**9. Sewage treatment plant**—An air-gap separation or a vacuum column shall be provided at every sewage treatment plant or sewage pumping station by the owner of that plant or station:

Provided that, where it is impracticable to instal an air-gap separation or a vacuum column, the Engineer may in any particular case permit the installation of a reduced nressure principle backflow prevention device.

10. Toxic substances—No person shall handle or store or contain any toxic substance or material likely to be injurious to health in any system in such a way that it is possible for the toxic substance or material to enter the public water supply unless there is provided on the premises an air-gap separation:

Provided that, where it is impracticable to instal an air-gap separation, the Engineer may in any particular case permit the installation of a reduced pressure principle backflow prevention device or a vacuum column.

11. Cross connections—An air-gap separation or a backflow preventer shall be provided by the owner of the premises in each of the following cases where in the opinion of the Engineer a cross connection could be made either accidentally or intentionally:

- (a) On premises having an auxiliary water supply:
- (b) On premises on which any substance or material (including any processed water, or water originating from the public water supply which is exposed to pollution or contamination) is handled or stored or contained in any system:
- (c) On premises where a connection is provided to any swimming pool or paddling pool:
- (d) On premises where a connection is provided for supplying water to any ship.

### PART III—MISCELLANEOUS

12. Hospital appliances—No Hospital Board, licensee of any private hospital, or any other person shall instal or permit to be installed or use or permit to be used in any hospital any bedpan sink, or bedpan washer, or bedpan steriliser that is directly connected to any service pipe.

13. Sewer or drain flush tank—No person shall directly connect or permit to be directly connected to a service pipe any sewer flush tank, drain flush tank, or priming connection to any sewage pump.

14. Prohibition of ball-type fire hydrants—No local authority shall, after the coming into force of these regulations, instal or permit to be installed any ball-type of fire hydrant in any public water supply.

15. Prohibition of water other than wholesome drinking water in mains—(1) No person shall permit or suffer any water which is not wholesome drinking water to be drawn into any public water supply system.

(2) Before a newly constructed reservoir or reticulation system is brought into use, the local authority shall cause the reservoir or reticulation system to be disinfected to the satisfaction of the Medical Officer of Health and thereafter to be thoroughly flushed out with wholesome drinking water.

(3) After carrying out repairs, alterations, connections, replacements, or extensions to any existing water supply system the local authority shall cause any portion of the system that may have been contaminated to be disinfected to the satisfaction of the Medical Officer of Health and thereafter to be thoroughly flushed out with wholesome drinking water before it is again used for a public water supply.

16. **Covers for service reservoirs**—After the commencement of these regulations every new service reservoir installed for a public water supply shall be provided by the authority or person installing that reservoir with an adequate cover to protect the stored water from contamination.

17. **Identification of water pipes**—It shall be the duty of the owner of any premises on which an auxiliary water supply system or piping exists to ensure as far as practicable that all portions of the piping for water other than wholesome drinking water shall be exposed and shall be properly identified by painting the said piping green and the pipes containing wholesome drinking water aircraft blue:

Provided that it shall be sufficient compliance with this regulation if the piping is identified at sufficient intervals by an alternative system of branding or marking approved by the Engineer.

18. **Offences**—(1) Every person commits an offence, and is liable accordingly under sections 136 and 137 of the Health Act 1956, who makes a cross connection or who contravenes or fails to comply in any respect with any provisions of these regulations, or of any requirement, direction, or notice made or given under these regulations.

(2) For the purposes of this regulation, the continued existence of any work or thing in a state contrary to any of the provisions of these regulations shall be deemed to be a continuing offence.

#### SCHEDULE

Form No. 1

Regulation 3 (2)

##### APPLICATION FOR PERMIT TO INSTAL A BACKFLOW PREVENTER

To the Engineer, (Clerk)

..... Council (or Board)

I, the undersigned [*Name in full*], hereby apply for permission to have the work described herein carried out in the premises situated in [*Description of place*].

Name and address of person for whom work is to be carried out:

.....  
.....

Type of backflow preventer to be installed:

Location on supply line of proposed backflow preventer:

Permit fee:

Reason for installation:

1. Sewage treatment plant or sewage pumping station.
2. Toxic substance or material dangerous to health.
3. Auxiliary water supply.
4. Objectionable substance or process water.
5. Swimming or paddling pool.
6. Ships' water supply.

Signature: .....

Dated this ..... day of ..... 19 ..

FIRST SCHEDULE—*continued*

Form No. 2

Council (or Board) Regulation 3 (4)

## PERMIT FOR INSTALLATION OF BACKFLOW PREVENTER

Mr ..... is hereby authorised to instal a backflow preventer as specified herein on the premises owned by Mr ..... and situated in [Description of place].

Type of backflow preventer to be installed:

- \*A double check valve assembly
- \*A reduced pressure principle backflow prevention device
- \*A vacuum column
- (\*Delete as required)

Permit fee ..... received. Receipt No. ....

The backflow preventer shall comply with the requirements of the Water Supplies Protection Regulations 1961, and shall be installed on or before the ..... day of ..... 19....

.....  
Engineer

(or other officer authorised by the local authority)

T. J. SHERRARD,  
Clerk of the Executive Council.

## EXPLANATORY NOTE

*This note is not part of the regulations, but is intended to indicate their general effect.*

These regulations provide for the protection of public water supplies by requiring certain safeguards during the installation of reticulation systems and reservoirs by prohibiting cross connections and requiring backflow preventers to be installed where necessary.

Issued under the authority of the Regulations Act 1936.

Date of notification in *Gazette*: 26 July 1961.

These regulations are administered in the Department of Health.