

ENVIRONMENTAL PUBLIC HEALTH ACT  
(CHAPTER 95, SECTION 113)

ENVIRONMENTAL PUBLIC HEALTH (COOLING TOWERS AND WATER  
FOUNTAINS) REGULATIONS

Rg 7

G.N. No. S 37/2001

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(31st January 2002)

[1st February 2001]

**Citation**

1. These Regulations may be cited as the Environmental Public Health (Cooling Towers and Water Fountains) Regulations.

**Definitions**

2. In these Regulations, unless the context otherwise requires —

“cooling tower” means any device in which atmospheric air is passed through sprayed water in order to lower the temperature of the water by evaporative cooling;

“designated area” means —

(a) any premises or part thereof to which members of the public or a section of the public have or would ordinarily have access, whether on payment of a fee, by membership or otherwise; or

(b) any common property of any residential premises;

“drift” means the water aerosol which emerges from the airflow outlet of a cooling tower;

“standard plate count” means the estimated number of viable micro-organisms per millilitre of water as determined by a 24 hour plate count at 37° Celsius;

“water fountain” means any water feature located in a designated area which is capable of generating water aerosol and having a capacity exceeding 0.25m<sup>3</sup>, measured to the overflow level of its pool, but does not include any water feature located in any reservoir maintained by the Public Utilities Board.

### **Cooling towers and water fountains in use**

**3.**—(1) The owner or occupier of any designated area where a cooling tower or water fountain is installed shall ensure that the cooling tower or water fountain which is in use has —

- (a) a standard plate count that does not exceed 100,000 colony-forming units per millilitre; and
- (b) a legionella bacteria count that does not exceed 10 colony-forming units per millilitre.

(2) Without prejudice to the generality of paragraph (1), the owner or occupier of any designated area where a cooling tower or water fountain is installed shall ensure that the cooling tower or water fountain which is in use is —

- (a) at all times kept in a good state of repair and free of any sludge, slime, algae, fungi, rust, scale, dust, dirt or any foreign matter;
- (b) thoroughly cleaned and disinfected at least once every 6 months;
- (c) inspected at least once a week for any physical defect, general cleanliness, organic fouling and presence of physical debris;
- (d) supplied with water only from the Public Utilities Board water mains or any source as may be approved by the Commissioner; and
- (e) provided with easy and safe access to allow for the maintenance, inspection and sampling of water required under these Regulations.

### **Cooling towers and water fountains not in use**

**4.** The owner or occupier of any designated area where a cooling tower or water fountain is installed shall ensure that the cooling tower or water fountain which is not in use is —

- (a) drained of any water and kept dry; and
- (b) in the event such cooling tower or water fountain has not been in use for more than 5 days, cleaned and disinfected before re-use.

### **Provision of drift eliminators for cooling towers**

**5.** The owner or occupier of any designated area where a cooling tower is installed shall ensure that the cooling tower is provided with effective drift eliminators and other structural features that minimise the formation and release of drift.

### **Test**

6. The owner or occupier of any designated area where a cooling tower or water fountain is installed shall arrange for water in the cooling tower or water fountain which is in use to be sampled and tested by a Government laboratory or any other laboratory approved by the Commissioner —

- (a) at least once a month for the purpose of determining the standard plate count; and
- (b) at least once every 3 months for the purpose of detecting legionella bacteria.

#### **Notice to carry out inspection, test or maintenance**

7. Notwithstanding regulations 3 and 6, the Commissioner may, by notice in writing, require the owner or occupier of any designated area where a cooling tower or water fountain is installed to carry out, in respect of a cooling tower or water fountain which is in use, such inspection, test or other works for the maintenance of the cooling tower or water fountain as may be specified by the Commissioner.

#### **Records**

8. The owner or occupier of any designated area where a cooling tower or water fountain is installed shall —

- (a) keep, in such manner as the Commissioner may specify, records of any remedial or maintenance work, inspection or test carried out under regulation 3, 6 or 7; and
- (b) make available such records for inspection by any public health officer.

#### **Notice to prohibit use**

9. Where it appears to the Commissioner that the use or operation of any cooling tower or water fountain is likely to endanger the health of any person, the Commissioner may, by notice in writing, require that the owner or occupier of any designated area where such cooling tower or water fountain is installed, do either or both of the following immediately or within a specified time:

- (a) cease using or operating the cooling tower or water fountain; and
- (b) cordon off the immediate vicinity of the cooling tower or water fountain.

#### **Penalty**

10. Any person who —

- (a) contravenes regulation 3, 4, 5, 6 or 8; or

(b) contravenes any notice made under regulation 7 or 9,  
shall be guilty of an offence and shall be liable on conviction —

- (i) for a first offence, to a fine not exceeding \$5,000; and
- (ii) for a second and subsequent offence, to a fine not exceeding \$10,000.

*[G.N. No. S 37/2001]*