Ordinance sanctioning the Byelaws made by the States Water Board for the prevention of Waste, Undue Consumption, Misuse or Contamination of Water, 1948.
(11th September, 1948)

THE COURT, upon the representations of the States Water Board, in pursuance of the powers thereunto enabling it in that behalf contained in Article 30 of the Law entitled " Loi ayant rapport à la Fourniture d'Eau par les Etats de cette Ile aux habitants de la dite Ile ", registered upon the Records of this Island of Guernsey on the 7th day of May, 1927, and having heard His

Majesty's Comptroller thereon, hereby sanctions the bye-laws set out in the Schedule hereto (which said byelaws were made by the States Water Board on the 27th day of August, 1948), and hereby orders: —

Ordinance XXXIX, 1938, repealed

1. The Ordinance entitled " Ordonnance provisoire approuvant un règlement fait par le Conseil des Eaux tendant à la Conservation d'Eau et à en empêcher la Contamination ", (No. XXXIX of 1938), is hereby repealed.

Citation

2. This Ordinance may be cited as " The Waterworks Byelaws Ordinance, 1948 "; this Ordinance and the Ordinance entitled " Ordonnance approuvant un Règlement fait par le Conseil des Eaux par rapport à la Conservation d'Eau ", (No. XX of 1938), may together be cited as " The Waterworks Byelaws Ordinances, 1938 and 1948 ".

SCHEDULE

Definitions

1. In these byelaws, unless the context otherwise requires —

" the Board " means the " States Water Board ";

" British Standard " means a standard or specification issued by the Briitsh Standards Institution;

" Capacity " in relation to a storage cistern means the capacity of the cistern measured up to the water-line;

" Corrosion-resisting alloy " means an alloy which is highly resistant to corrosion by the water supplied by the Board and has a tensile strength of not less than eleven tons per square inch of sectional area;

" Cylinder " means a cylindrical closed vessel capable of containing water under pressure greater than atmospheric pressure;

" Distributing pipe " means any pipe conveying water supplied by the Board from a storage cistern or from a hot water apparatus supplied from a feed cistern, and under pressure from such cistern;

" Feed Cistern " means any storage cistern used for supplying cold water to a hot water apparatus;

" House " means a dwelling-house, whether a private dwelling-house or not, and includes any part of a building if that part is occupied as a separate dwelling-house;

" Service pipe " means so much of any pipe for supplying water from a main of the Board to any premises as is subject to water pressure from that main, or would be so subject but for the closing of some tap;

" Stop tap " includes stopcock, stopvalve and any other device for stopping the flow of water in a line of pipes at will;

" Storage cistern " means any cistern, other than a flushing cistern, having a free water surface under atmospheric pressure from which water supplied by the Board is delivered for use otherwise than through a draw-off tap fixed to the cistern;

" Tank " means a non-cylindrical closed vessel capable of containing water under pressure greater than atmospheric pressure;

" Temporary purpose " in relation to the use of any pipe means building, demolition or constructional work during such period as the work is in progress or any other temporary purpose during a period not exceeding one month or such longer period as the Board may approve in any particular case;

" Warning pipe " means an overflow pipe so fixed that its outlet end is in an exposed and conspicuous position where the discharge of any water therefrom may be readily seen;

" Water fittings " includes pipes (other than mains), taps, cocks, valves, ferrules, meters, cisterns, baths, water-closets, soil pans and other similar apparatus used in connection with the supply and use of water;

" Water-line " in relation to a cistern means the top water level at which the cistern is designed to work.

2. Any requirement in these byelaws that a water fitting shall comply with a British Standard shall extend only to so much of that Standard as relates to the size, nature, materials, strength and workmanship of such fitting and shall be deemed to be satisfied, notwithstanding any departure from such Standard, if that departure does not adversely affect the efficiency or suitability of the fitting in relation to the purposes for which these byelaws are made.

Application of byelaws

3. A person shall not, for the purpose of conveying, delivering, receiving, or using water supplied by the Board

(*a*) use any water fitting which is of such a nature or is so arranged or connected as to cause or permit, or be likely to cause or permit, waste, undue consumption, misuse, erroneous measurement, or contamination of water, or reverberation in pipes;

(*b*) use any water fitting which is not in accordance with such of the particular requirements of these byelaws as may be applicable to it; nor

(*c*) arrange, connect, disconnect, alter or renew any water fitting in contravention of any requirement of these byelaws.

4. These byelaws shall not apply so as to require any person to alter or renew any water fitting lawfully fixed at the date when these byelaws come into force or to provide any addition thereto unless such fitting is so defective or in such condition or position as to cause or be likely to cause waste, undue consumption, misuse, erroneous measurement or contamination of water supplied by the Board, or reverberation in pipes.

5. Where water is

(i) taken by meter,

(ii) discharged openly into a cistern from a point not less than six inches above the overflowing level thereof, and

(iii) conveyed therefrom for use in some industrial or research process,

the following byelaws, other than byelaw 31, shall not apply in relation to any water fitting supplied with water from such cistern and used solely in connection with such process in so far as the nature of that process renders compliance with the said byelaws impracticable.

Pipes of lead and lead alloy

6. Every service pipe, distributing pipe, flushing pipe and warning pipe of lead or lead alloy shall comply, in the case of lead pipes, with British Standard 602: 1939 for lead pipes for other than chemical purposes, and in the case of lead alloy pipes, with British Standard 603: 1941 for lead pipes (B.N.F. ternary alloy No. 2), or with British Standard 1085: 1946 for lead pipes (silver-copper-lead alloy) and shall in any case be of not less than the minimum weight per linear yard specified in the relevant Standard as appropriate for the maximum pressure to which the pipe will be liable to be subjected under working conditions.

7. Every joint in a lead or lead alloy pipe shall be made by means of a watertight wiped soldered joint of the type known as a plumber's joint or some other equally efficient and suitable watertight joint.

8. Every connection between a lead or lead alloy pipe and a pipe of any other metal shall be made by means of a screw-ferrule of corrosion-resisting alloy wiped on to the lead or lead alloy pipe or by means of some other equally efficient and suitable watertight joint.

9. Where any water fitting is connected to a lead or lead alloy pipe by means of a wiped joint not less than one-and-a-quarter inches of such fitting shall be included within the wiped joint.

Pipes of cast iron or asbestos cement

10. Every service pipe or distributing pipe of cast iron (vertically cast), spun cast iron or asbestos cement

shall be of sufficient strength to withstand a test pressure not less than double the pressure to which the pipe will be liable to be subjected under working conditions, and, subject thereto, shall comply with the appropriate British Standard as shown hereunder:—

Material of Pipe	*British Standard*
Cast iron (vertically cast).	78: 1938 for cast iron pipes (vertically cast) for water, gas and sewage.
Spun cast iron ...	1211: 1945 for centrifugally cast (spun) iron pipes for water, gas and sewage.
Asbestos cement ...	486: 1933 for asbestos cement pressure pipes.

11. (*a*) Every service pipe or distribution pipe of wrought-iron shall comply with the requirements for pipes of steam (heavy) quality contained in British Standard 788: 1938 for wrought-iron tubes and tubulars.

(*b*) Every service pipe or distributing pipe of steel shall comply with the requirements for Class 'B' pipes contained in British Standard 1387: 1947 for steel tubes and tubulars.

(*c*) Every malleable cast iron pipe fitting used in connection with any such wrought-iron or steel pipe shall comply with the relevant requirements of British Standard 143: 1938 or 1256: 1945 for malleable cast iron and cast copper alloy pipe fittings.

(*d*) Every such wrought-iron or steel pipe and every tubular and every wrought-iron, steel or malleable cast iron pipe fitting used in connection with any such pipe shall be efficiently protected against external corrosion and, unless forming part of a closed circuit

from which water is not drawn, against internal corrosion.

(*e*) Every such tubular and every such wrought-iron steel and malleable cast iron pipe fitting shall be of sufficient strength to withstand a test pressure of three hundred pounds to the square inch.

12. (*a*) Every service pipe or distributing pipe of copper connected by means of screw joints shall comply with British Standard 61: Part 1: 1947 for copper tubes (heavy gauge) for general purposes, and every such screw joint shall comply with British Standard 61: Part 2: 1946 for screw threads for copper tubes (copper tube thread and British Standard pipe thread).

(*b*) Copper-alloy unions and fittings for use with pipes complying with Table 1 of the said Part I and screwed in accordance with Table 1 (copper tube thread) of the said Part 2 shall comply respectively with British Standard 66: 1914 for copper alloy three-piece unions and British Standard 99: 1922 for copper alloy pipe fittings.

(*c*) Cast copper alloy fittings for use with pipes complying with Table 2 of the said Part 1 and screwed in accordance with Table 4 (British Standard pipe thread) of the said Part 2 shall comply with the relevant requirements of British Standards 143: 1938 (taper thread) or 1256: 1945 (parallel thread) for malleable cast iron and cast copper alloy pipe fittings.

(*d*) Every such copper alloy union and fitting shall be of sufficient strength to withstand a test pressure of three hundred pounds to the square inch.

13. (*a*) Every service pipe or distributing pipe of copper to be connected by means of capillary fittings or compression fittings or by autogenous or bronze welding, if laid under the ground, shall comply with British Standard 1386: 1947 for copper tubes to be buried underground, and if not laid under the ground, shall comply with British Standard 659: 1944 for light gauge copper tubes.

(*b*) Every such capillary fitting or compression fitting shall comply with British Standard 864: 1945 for capillary fittings and compression fittings of copper or copper alloy for use with light gauge copper tube, and every such compression fitting on any pipe laid under the ground shall be of Type B.

Pipes of materials not mentioned.

14. Every service pipe or distributing pipe of any material not specifically provided for in these byelaws shall be of suitable material and of sufficient strength to withstand a test pressure not less than double the pressure to which the pipe will be liable to be subjected under working conditions.

Bends or curves in pipes.

15. No bend or curve in any pipe shall be made so as materially to diminish the waterway or alter the internal diameter of the pipe in any part.

Support of pipes.

16. Every pipe shall be adequately supported and shall be so aligned as to avoid air locks.

Protection of pipes.

17. Every pipe laid under the ground shall be reasonably protected from corrosion and risk of injury, and, when not beneath a building, shall, where practicable, be not less than one foot below the surface of the ground:

PROVIDED THAT this byelaw shall not apply to any pipe which is used only for a temporary purpose.

18. No service pipe or distributing pipe shall be laid so as to pass into or through any sewer, drain, or cesspool, or any manhole connected therewith, or into or through any ashpit or manure pit and, except where unavoidable, shall not be laid through or allowed to

remain in contact with any foul soil or any material of such a nature that it would be likely to cause undue deterioration of such pipe. Where the laying of any such pipe through foul soil or injurious material cannot be avoided the pipe shall be efficiently protected from contact with such soil or material either by being carried through an exterior corrosion-resisting tube or by some other suitable means.

Protection of water fittings.

19. Every water fitting, other than a warning pipe or other overflow pipe, laid or fixed in such a position, whether inside or outside a building, as to render it liable to damage by frost, or injury from other causes, shall be reasonably protected from such damage or injury:

PROVIDED THAT this byelaw shall not apply to any pipe which is used only for a temporary purpose.

Accessibility of water fittings.

20. Every water fitting within a building shall, so far as is reasonably practicable, be so placed as to be readily accessible for examination, repair or replacement:

PROVIDED THAT this byelaw shall not prohibit the enclosing of any pipe in a properly designed chase or duct so constructed that the pipe is reasonably accessible for examination, repair or replacement.

Provision of stop taps.

21. Every person who shall lay or use any service pipe shall permit the Board to fit thereon a stop tap enclosed in a covered box or pit of such size as may be reasonably necessary, and placed in such position as the Board deem most convenient:

PROVIDED THAT a stop tap in private premises shall be placed as near as is reasonably practicable to the street from which the service pipe enters those premises.

22. (1) In addition to any stop tap fitted by the Board in pursuance of the last preceding byelaw, every service pipe supplying water to any building, or to any part of a building the supply to which is separately chargeable, shall be fitted with a stop tap inside, and as near as practicable to the point of entry of such pipe into, the building or part thereof

(2) Where the last mentioned stop tap has an internal diameter of less than two inches it shall comply with the requirements for stop taps contained in British Standard 1010: 1944 for bib, pillar, globe and stop taps.

(3) Where the said stop tap has an internal diameter of more than two inches it shall comply with British Standard 1218: 1945 for sluice valves for waterworks purposes.

(4) Where the said stop tap has an internal diameter of two inches it shall conform with the requirements of one or other of the last two preceding paragraphs.

23. A stop tap shall be fitted on every outlet pipe, other than a warning pipe, from a storage cistern, and as near to the cistern as practicable.

Taps and valves.

24. (1) Every bib, pillar, globe and stop tap of the ordinary screw-down pattern and of a nominal size not exceeding two inches shall comply with British Standard 1010: 1944 for such taps.

(2) Every bib, pillar, globe and stop tap not being of the ordinary screw-down pattern, shall be capable of resisting a pressure of at least three hundred pounds to the square inch, and every valve, spindle, and other internal part and, where the nominal size of the tap does not exceed two inches, the body thereof, shall be made of a corrosion-resisting alloy:

PROVIDED THAT the requirements herein contained with regard to pressure shall not apply to a

control valve on a closed circuit from which water is not drawn.

(3) Every sluice valve of a nominal size of two inches or more shall comply with British Standard 1218: 1945 for sluice valves for waterworks purposes.

25. (1) Every ball tap 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 tap shall be watertight against the highest pressure at which it may be required to work.

(2) Every ball tap shall comply with the following requirements: —

(*a*) every high pressure ball tap shall close against a test pressure of two hundred pounds to the square inch; every low pressure ball tap against a pressure of fifty pounds to the square inch; and every full-way ball tap against a test pressure of ten pounds to the square inch; and every such tap shall have the letters "H.P.", "L.P." or "F.W." respectively, cast or stamped on the body of the fitting;

(*b*) the valve shall be provided with a washer of good quality rubber or some other equally suitable material enclosed in an internally flanged cap screwed to the piston;

(*c*) the body and the piston shall be of a corrosion-resisting alloy; the lever shall be of a corrosion-resisting alloy or copper and shall be of sufficient rigidity not to bend permanently under working conditions, and the float shall be of copper or some other equally suitable material;

(*d*) if the float be a copper sphere its minimum thickness when finished bright shall be not less than twenty-six Standard Wire Gauge in cases where the external diameter of the sphere does not exceed six-and-a-half inches, and not less than twenty-four Standard Wire Gauge in cases where the external diameter of the sphere exceeds six-and-a-half inches;

if the float be of copper of some other shape it shall be of adequate thickness; and the jointing of copper floats shall in any case be effected by means of an efficient, solderless, compression seam, or by brazing.

26. Every ball tap or float-operated valve fitted to a storage cistern 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 tap or valve will be submerged when the cistern is charged to its overflowing level.

27. Where a ball tap or float-operated valve is 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 tap or valve above such level of a size sufficient to prevent siphonage of water back through the tap or valve.

28. No ball tap shall be fitted to a hot water storage cistern.

Prohibition of direct connection of supply system with receptacles used for water other than water supplied by the Board or with water-closets, etc.

29. (1) No service pipe or distributing pipe or cistern used for the reception or conveyance of water supplied by the Board shall be used or so connected that it can be used for the reception or conveyance of any water other than that supplied by the Board:

PROVIDED THAT where the water supplied from the Board's mains to any cistern is discharged into the air not less than six inches above the top edge thereof this byelaw shall not apply to such cistern or to any distributing pipe leading therefrom.

(2) For the purpose of this byelaw water supplied by the Board shall, after being used for any purpose, be deemed to be water not so supplied.

30. No pipe, other than a flushing pipe leading from a flushing apparatus, shall deliver water to the pan of any water-closet or to any urinal.

31. No service pipe shall be connected to a distributing pipe, nor to a pump delivery pipe unless in the latter case such connection will not be liable to cause waste, undue consumption, misuse, erroneous measurement or contamination of water. or reverberation in pipes.

Cisterns.

32. Every storage cistern shall be watertight, of adequate strength, properly supported and shall be constructed of slate, ceramic ware, asbestos cement, lead, galvanised iron or steel, copper or of a corrosion-resisting alloy or some other equally suitable material, or of wood lined with lead weighing not less than five pounds per square foot or with copper of not less than twenty-two Standard Wire Gauge or with some other equally suitable material.

33. Every storage cistern of mild steel and having a capacity not exceeding one thousand gallons shall comply with the requirements for grade A cisterns contained in British Standard 417: 1944 for galvanised mild steel cisterns, tanks and cylinders.

34. No storage cistern used in connection with a supply of water for domestic purposes shall be placed in such a position as to render the water therein liable to contamination, and every such cistern shall be suitably covered, but not so as to be air-tight, and shall be so placed and fitted that the interior thereof can be readily inspected and cleansed.

35. The inlet pipe of every flushing cistern or range of flushing cisterns, not being automatic flushing cisterns, and of every storage cistern or range of storage cisterns, shall be fitted with a ball tap, a float-operated valve or some other effective means of controlling the inflow of water so designed as to prevent overflow.

36. (1) Every storage cistern not used as a feed cistern shall have a capacity of not less than twenty-five gallons. and if used both as a feed cistern and as a storage cistern for other purposes, shall have a capacity of not less than fifty gallons.

(2) Every feed cistern supplying cold water to a hot water cylinder or tank not forming part of a self-contained water heating apparatus, shall have a capacity of not less than twenty-five gallons.

37. Every cold water storage cistern of a capacity not exceeding one thousand gallons shall comply with the following requirements: —

(*a*) it shall be fitted with an efficient warning pipe and with no other overflow pipe;

(*b*) the internal diameter of the warning pipe shall be greater than the internal diameter of the inlet pipe and in no case less than three-quarters-of-an-inch; and

(*c*) the overflowing level of the warning pipe shall be set—

(i) below the top edge of the cistern at a distance of not less than twice the diameter of the warning pipe; and

(ii) above the water-line at a distance of not less than one inch or not less than the internal diameter of the warning pipe, whichever is the greater.

38. Every cold water storage cistern of a capacity exceeding one thousand gallons shall comply with the following requirements: —

(*a*) it shall be fitted with an efficient overflow pipe, and, if such overflow pipe is not a warning pipe, shall also be fitted with an efficient warning pipe or some other effective device so arranged as to indicate when the water in the cistern reaches a level not less than two inches below the overflowing level of the overflow pipe;

(*b*) where a warning pipe, but no other overflow pipe is fitted the warning pipe shall comply with the requirements of (*b*) and (*c*) of byelaw 37;

(*c*) where both a warning pipe and an overflow pipe other than a warning pipe are fitted the internal diameter of the warning pipe shall be not less than one inch.

39. No storage cistern shall be buried or sunk in the ground:

PROVIDED THAT this byelaw shall not apply if—

(*a*) the water to be stored in the cistern is supplied by meter and is discharged into the air not less than six inches above the top edge of the cistern; and

(*b*) the cistern is fitted with an efficient warning pipe or other effective device as may be required by byelaw 37 or byelaw 38 as the case may be.

Hot water apparatus, etc.

40. Where any boiler, geyser or other hot water apparatus, or any gas producer, gas engine, oil engine or other apparatus in or by which water supplied by the Board is heated is not supplied with cold water from a feed cistern the supply shall be controlled by a bib tap or stop tap and shall not be connected directly to the water contained in the apparatus but shall be discharged into the air above the overflowing level of the apparatus:

PROVIDED THAT this byelaw shall not apply in the case of—

(*a*) a thermostatically controlled electric storage water heater of a capacity not exceeding three gallons;

(*b*) a gas geyser or multipoint heater of a capacity not exceeding three gallons fitted with an inlet valve automatically controlling both gas and water so that no gas can be released (otherwise than through a by-pass) by the apparatus unless water is flowing through the geyser or heater, and not fitted with a

packed gland or spindle through which any leakage between the gas and water spaces could occur; if in either case, the apparatus is not thereby subjected to a working pressure higher than that for which it is designed and if every draw-off point is in the open air above the overflowing level of any bath, lavatory basin, sink or other appliance supplied therefrom.

41. No geyser or other hot water apparatus connected to a service pipe shall have any connection on its outlet side with any water fitting containing water supplied otherwise than through the geyser or other hot water apparatus.

42. Where cold water is supplied to any geyser or other hot water apparatus from a feed cistern the outlet from the cistern to such apparatus shall be two inches above the bottom of the cistern, or such greater distance as may be made necessary by the mode of construction of the cistern, and water shall be delivered therefrom to the hot water apparatus only.

43. Where a feed cistern, in addition to supplying cold water to a geyser or other hot water apparatus, is used as a storage cistern for other purposes, any outlet for those other purposes shall be at the same level as the outlet to the hot water apparatus.

44. No mixing valve or combination tap assembly in which hot water and cold water are mixed, other than any such valve or assembly forming part of an electric or gas water heater permitted by byelaw 40 to be connected directly to a service pipe, shall be supplied with cold water directly from a service pipe.

45. Every pipe used for conveying hot water shall be of galvanised steel or galvanised wrought iron, lead, copper or of some corrosion-resisting alloy:

PROVIDED THAT this byelaw shall not prohibit the use of cast iron pipes of not less than two inches internal diameter if suitable provision for their expansion is made, nor the use of non-galvanised

steel or wrought iron pipes if they form part of a closed circuit from which water is not drawn.

46. No tap used for the purpose of drawing hot water shall be fixed at a greater distance (measured along the axis of the pipe by which the tap is supplied) from a hot water apparatus 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 feet*
Not exceeding	$\frac{3}{4}$ inch	40
Exceeding $\frac{3}{4}$ inch but not exceeding	1 inch	25
Exceeding	1 inch	10

47. Every hot water cylinder or tank not forming part of a self-contained water heating apparatus shall be of such a size that it will hold not less than twenty-five gallons, shall be constructed of galvanised mild steel or of copper or of some other equally suitable material and shall be adequately supported:

PROVIDED THAT in the case of a hot water system comprising more than one hot water cylinder or tank at different levels, the requirements of this byelaw as to size shall apply only to the lowest cylinder or tank.

48. Every hot water cylinder or tank of such a size that it will hold not less than twenty-five gallons shall—

(*a*) if made of mild steel, comply with the requirements for cylinders or tanks, as the case may be, of British Standard 417: 1944 for galvanised mild steel cisterns, tanks and cylinders; and

(*b*) if made of copper, comply with British Standard 699: 1944 for copper cylinders for domestic purposes (Grades 1, 2 and 3).

49. No tap or other means of drawing water (other than a tap with a removable key for emptying the system for cleaning or repair) shall be connected to any part of a hot water system below the top of the hot water storage cistern, cylinder or tank in such a way that the level of the water in the cistern, cylinder or tank can be lowered more than one-fourth of its depth:

PROVIDED THAT—

(*a*) in the case of a hot water system in which water is heated only by thermostatically controlled gas or electricity and the storage cistern, cylinder or tank has a capacity of not less than two hundred gallons this byelaw shall apply with the substitution of the fraction "three-fourths" for the fraction "one-fourth";

(*b*) in the case of a hot water system comprising more than one hot water cylinder or tank at different levels this byelaw shall apply only to the lowest cylinder or tank;

(*c*) this byelaw shall not apply in the case of an open vessel in which water is directly heated.

Baths, lavatory basins, sinks, etc.

50. Every inlet to a fixed 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.

51. The level of the point of discharge of the hot or cold water to a fixed 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.

PROVIDED THAT this byelaw shall not apply to any bidet, sitz-bath, slop or sluicing sink or similar apparatus if every pipe conveying hot or cold water to such apparatus is connected to

(*a*) the hot or cold distribution system at a point not less than six feet above the level of any inlet to such apparatus; or

(*b*) a storage cistern supplying water to such apparatus only; or

(*c*) a flushing cistern.

Flushing apparatus for waterclosets and urinals.

52. Every watercloset and every urinal shall be provided with a flushing cistern or with some other equally efficient and suitable flushing apparatus.

53. Every flushing cistern serving a watercloset shall be so designed as to give a flush of not exceeding three gallons with a permitted variation of plus or minus five per cent. and, subject thereto, shall comply with British Standard 1125: 1945 for w.c. flushing cisterns.

54. Every hand operated flushing cistern serving a urinal shall be so designed as to give a flush of one gallon per stall or per two feet three inches width of slab with a permitted variation of plus or minus five per cent. and, subject thereto, shall comply with British Standard 1125: 1945 for w.c. flushing cisterns.

Taps on service pipes.

55. An efficient draw-off tap in a position convenient for drawing drinking water shall be provided on the service pipe in every house.

Standpipes.

56. Every standpipe which is used by the occupants of more than one house shall be provided with non-concussive self-closing or other suitable waste-preventing tap.

Water-troughs.

57. Every pipe supplying water to a watering-trough for animals shall be fitted with a ball tap or some other effective means of controlling the inflow of water so

designed as to prevent overflow, fixed in a separate compartment and protected by a cover which can be locked by a removable key.

Disconnection of water fittings.

58. Where any water fitting is to be permanently disconnected so much of any pipe which supplies water to that fitting only, and is not required to supply water to any other fitting, shall also be disconnected.

Notices to be given to the Board.

59. Before fixing or altering (otherwise than by way of repair or renewal) any water fitting in connection with any existing supply of water from the Board a person shall give to the Board at least *three days'* notice in writing of his intention so to do.

Penalties.

60. Where any person supplied with water by the Board does or causes or permits to be done anything by contravention of any or all of these byelaws, the Board may, without prejudice to its rights to recover damages from that person in respect of any loss or damage arising out of the contravention which is sustained by the Board, for the purpose of preventing waste or contamination discontinue the supply of water to that person until after the rectification, to the reasonable satisfaction of the Board, of the fitting or arrangement of fitting, fixed, fitted or used in contravention of any one or all of these byelaws.

61. Every person who shall offend against any of these byelaws shall be liable on conviction to a fine not exceeding the sum of *twenty pounds*, and in the case of a continuing offence to a further fine not exceeding *five pounds* for each day during which the offence continues after conviction therefor. All such fines shall be payable to the Crown.