

Unvalidated References:

Public Health Act 1973

Public Health (Sewerage) Regulation 1973

Public Health (Sewerage) Regulation 1973

Interpretation Act 1975

Liquor (Licensing) Act 1963

Food Sanitation Act 1991

Liquor (Licensing) Act 1963

Public Health (Sewerage) Regulation 1973

Trade Licensing Act 1969

Liquor (Licensing) Act 1963

Building Act 1971

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Legislative Counsel
Dated 25 November 2006

INDEPENDENT STATE OF PAPUA NEW GUINEA.

Chapter 226H.

Public Health (Septic Tanks) Regulation 1973

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Public Health (Septic Tanks) Regulation 1973

MADE under the *Public Health Act 1973*.

Dated 200 .

PART I. – PRELIMINARY.

1. INTERPRETATION.

(1) In this Regulation, unless the contrary intention appears–

“**approved**” means approved by the Local Medical Authority;

“**aqua-privy**” means a sewage liquefaction and digestion tank in which sewage enters the tank by gravity through an opening in the tank cover;

“**closet**” means a chemical, mechanical or incinerator closet;

“**drain**” means a conduit, or any part of a conduit, laid through, under or on a street, way or land, whether public or private, for the carriage from any property of sewage to a sewer or to a septic tank;

“**fitting**” means any apparatus, together with the necessary appurtenances, for use in connection with a plumbing or drainage system, other than a fixture or straight piping;

“**fixture**” means any apparatus, together with the necessary appurtenances, that–

(a) is attached to a plumbing or drainage system; and

(b) is intended for the collection or retention of wastes or waste waters for ultimate discharge into a sewerage system,

such as a closet pan, urinal, bath, sink, basin or trough;

“**inspector**” means an Inspector of Health, a Sewerage Engineer or a Sewerage Inspector;

“**Inspector of Health**” means an Inspector of Health appointed under Section 8 of the Act;

“**property**” includes a house, building, tenement, land or premises;

“**recognized sewerage authority**” includes a governmental, local government, statutory or other body having authority to prescribe

materials for, or to superintend, control, construct or maintain sewerage works or installations in Papua New Guinea or Australia;

“**Sewerage Engineer**” means a Sewerage Engineer appointed under Section 6 of the *Public Health (Sewerage) Regulation 1973*;

“**Sewerage inspector**” means a Sewerage Inspector appointed under Section 7 of the *Public Health (Sewerage) Regulation 1973*;

“**soil pipe**” means a pipe conveying discharge from a water-closet, slop sink, urinal, mortuary or operating theatre to a drain;

“**waste pipe**” means a pipe conveying discharge (other than discharge from a water-closet, slop sink, urinal, mortuary or operating theatre) from a fixture to a drain.

(2) In this Regulation, a reference to works, apparatus, appliances, materials or other similar matter or thing shall be taken to be a reference to such works, or as the case may be, done or used in connection with a septic tank, closet or aqua-privy.

2. RELAXATION, ETC., OF REQUIREMENTS.

(1) Where the Head of State, acting on advice, is satisfied that—

- (a) it is desirable that, in their application to any building or class of buildings, any of the provisions of this Regulation should be relaxed or modified in any way; and
- (b) the relaxation or modification will not result in any lowering of standards of hygiene, safety or effectiveness,

the Head of State, acting on advice, may, by order, provide for the relaxation or modification, subject to such conditions as the Head of State, acting on advice, thinks proper.

(2) Section 76 of the *Interpretation Act 1975* applies to and in relation to an order under Subsection (1) as if it were a regulation.

PART II. – CONTROL OF INSTALLATION, ETC.

3. APPLICATION FOR PERMISSION TO INSTALL.

(1) Before commencing the installation of a septic tank, closet or aqua-privy on any property, the owner or occupier of the property must make written application to the Local Medical Authority for permission to make the installation.

Penalty: For a first offence, a fine not exceeding K10.00.

For a subsequent offence, a fine not exceeding K20.00.

In addition, a fine not exceeding K2.00 for each day during which the offence continues after the receipt of a written notification from the Local Medical Authority.

(2) An application under Subsection (1) shall be accompanied by–

(a) in the case of a septic tank or aqua-privy–

- (i) complete plans and specifications of the proposed work and connections to it; and
- (ii) a block plan, to scale, of the property and of the adjoining property, public ways or public places, on which the proposed position of the septic tank or aqua-privy and all connections to it are clearly shown; and
- (iii) a statement of–
 - (A) the manner in which it is proposed to dispose of the effluent waters; and
 - (B) the number of persons residing or likely to reside on the property; or

(b) in the case of a closet–

- (i) an illustration or sketch of the proposed type; and
- (ii) a block plan, to scale, of the property showing the proposed position of the closet; and
- (iii) a statement of–
 - (A) the method by which it is proposed to dispose of the contents; and
 - (B) the number of persons residing or likely to reside on the property.

(3) An application under Subsection (1) may be made on behalf of the owner or occupier by the installer acting as the agent of the owner or occupier.

4. UNAUTHORIZED INSTALLATION OR ALTERATION.

A person who, without first obtaining the written permission of the Local Medical Authority—

- (a) installs a septic tank, closet or aqua-privy; or
- (b) alters an existing septic tank, closet or aqua-privy,

is guilty of an offence.

Penalty: For a first offence, a fine not exceeding K10.00

For a subsequent offence, a fine not exceeding K20.00.

In addition, a fine not exceeding K2.00 for each day during which the offence continues after the receipt of a written notification from the Local Medical Authority.

5. NUMBER OF PERSONS TO BE SERVED.

(1) The Local Medical Authority shall specify in its permission the maximum number of persons to be served by the septic tank, closet or aqua-privy the subject of the permission.

(2) On application to the Local Medical Authority, the maximum number of persons to be served by a septic tank, closet or aqua-privy may be increased, with or without alteration, as the Authority approves.

6. DIRECTION TO INSTALL SEPTIC TANKS ON LICENCED PREMISES.

(1) The Local Medical Authority may, by written notice, direct—

- (a) the holder of a publican's licence, tavern licence or club licence under the *Liquor (Licensing) Act 1963*; or
- (b) the holder of a licence under the *Food Sanitation Act 1991* in respect of premises the subject of a restaurant licence under the *Liquor (Licensing) Act 1963*; or
- (c) the proprietor of a place of public entertainment within the meaning of the *Places of Entertainment Act (Papua) 1955* or a place of entertainment within the meaning of the *Places of Entertainment Regulation (T.N.G.)*,

to install on his premises a septic tank system approved by the Local Medical Authority.

7. NOTICE TO EFFECT REPAIRS OR REMOVE INSTALLATION.

Notwithstanding that permission has been obtained for the installation of a septic tank, closet or aqua-privy, if in the opinion of the Local Medical Authority a septic tank, closet or aqua-privy is in a condition that is prejudicial to public health,

decency or convenience, the Authority may notify the owner or occupier of the property on which the septic tank, closet or aqua-privy is situated—

- (a) to effect such repairs or alterations as it thinks necessary; or
- (b) to remove the septic tank, closet or aqua-privy,

within a time specified in the notice.

8. DE-SLUDGING AND CLEANSING.

(1) The Local Medical Authority may notify the owner or occupier of any property on which a septic tank or aqua-privy is situated to de-sludge or otherwise cleanse it, and may—

- (a) supervise the work; or
- (b) itself undertake the work.

(2) Where, in accordance with Subsection (1)(a), the Local Medical Authority supervises the de-sludging or cleansing of a septic tank or aqua-privy, it may charge a fee of—

- (a) K2.40 per hour if the supervision is carried out by an inspector; or
- (b) K1.20 per hour if the supervision is carried out by any other person.

(3) Where, in accordance with Subsection (1)(b), the Local Medical Authority undertakes the de-sludging or cleansing of a septic tank or aqua-privy, it may charge a reasonable fee for doing so.

(4) Where the State has entered into a contract for the de-sludging or cleansing of septic tanks or aqua-privies, the Local Medical Authority may direct that the contractor de-sludge or cleanse a particular septic tank or aqua-privy.

(5) Where a septic tank or aqua-privy is ordered to be de-sludged or cleansed, the owner or occupier of the property on which it is situated is responsible for the contractor's charges.

PART III. – EXAMINATION AND TESTING.

9. NOTICE OF COMMENCEMENT AND COMPLETION OF WORK.

(1) The owner or occupier of any property on which it is proposed to install a septic tank, closet or aqua-privy, or the agent of the owner or occupier, must–

- (a) give not less than 48 hours' written notice to the Local Medical Authority before commencing work on the installation; and
- (b) report when the work is ready for inspection.

(2) All work must be left uncovered and convenient for examination until inspected and approved by the Local Medical Authority.

Penalty: For a first offence, a fine not exceeding K10.00.

For a subsequent offence, a fine not exceeding K20.00.

In addition, a fine not exceeding K2.00 for each day during which the offence continues after the receipt of a written notification from the Local Medical Authority.

10. EXAMINATION OF MATERIALS, ETC.

(1) If directed by the Local Medical Authority, materials, pipes, bends, junctions, fittings, fixtures and apparatus–

- (a) shall be submitted for examination or test; and
- (b) shall not be placed in position unless passed and stamped by the Local Medical Authority.

(2) An examination or test conducted under Subsection (1) shall–

- (a) be paid for by the person submitting the materials, or as the case may be; and
- (b) be carried out at such time and place as are ordered, and at such rates as are fixed, by the Local Medical Authority.

(3) This section does not prevent the Local Medical Authority from permitting the use of materials, pipes, bends, junctions, fittings, fixtures and apparatus that have been examined and stamped by any other Local Medical Authority or recognized sewerage authority.

11. TESTING OF DRAINS.

(1) Every drain shall be thoroughly tested by an inspector before being approved by the Local Medical Authority, and if a drain is altered or repaired it shall be thoroughly tested by the inspector before the alterations or repairs are so approved.

(2) The inspector may apply the water, smoke or air-pressure test.

(3) The owner or occupier of the property on which the septic tank, closet or aqua-privy is situated shall furnish such tools, apparatus, labour and assistants as are necessary for any test under Subsection (2).

(4) The water test may be applied to a drainage or plumbing system in its entirety or in sections.

12. TESTING OF SEPTIC TANKS AND AQUA-PRIVIES.

(1) Septic tanks and aqua-privies shall be tested by filling with clear, clean water to the level of the invert of the outlet pipe, and the water shall be left standing for 24 hours immediately before inspection.

(2) If at the end of the period referred to in Subsection (1) the level of water in the tank has dropped more than 75mm, the tank shall not be passed until it has been made waterproof.

13. USE OF APPARATUS, ETC., BEFORE TESTING.

A tank, drain, pipe or other apparatus must not be used, covered over or sealed up until the work has been inspected, tested and passed by an inspector and certified by him.

Penalty: For a first offence, a fine not exceeding K10.00.

For a subsequent offence, a fine not exceeding K20.00.

In addition, a fine not exceeding K2.00 for each day during which the offence continues after the receipt of a written notification from the Local Medical Authority.

14. DEFECTIVE WORK.

(1) Materials, pipes, bends, junctions, fittings, fixtures and tanks found to be defective shall be removed and replaced by sound ones, and all defective joints shall be made tight.

(2) Where in the opinion of the Local Medical Authority a defect found in any work within 12 months after the date of completion of the work is due to faulty workmanship or defective material, the person who executed the work must make good the defect at his own expense.

Penalty: For the first offence, a fine not exceeding K10.00.

For a subsequent offence, a fine not exceeding K20.00.

In addition, a fine not exceeding K2.00 for each day during which the offence continues after the receipt of a written notification from the Local Medical Authority.

15. INSPECTION OF WORKS GENERALLY.

An inspector or other authorized representative of the Local Medical Authority may—

- (a) inspect any drain, fixture, pipe, appliance or connection, or any other works connected with any such works; and
- (b) for that purpose enter, at all reasonable times in the day-time, any property through or into which a drain has been laid or on which a septic tank has been installed; and
- (c) with as little damage as may be, cause the ground to be opened in any place where he thinks it necessary for the purpose.

PART IV. – CONSTRUCTION GENERALLY.

16. MATERIALS, ETC.

Materials, pipes, bends, junctions, fittings, fixtures and apparatus shall be—

- (a) sound and free from defects; and
- (b) approved by the Local Medical Authority.

17. CONSTRUCTION OF SEPTIC TANKS AND AQUA-PRIVIES.

(1) A septic tank or aqua-privy tank shall be constructed of—

- (a) concrete cast on the site; or
- (b) bricks laid in cement mortar and internally rendered with cement plaster; or
- (c) other approved impervious materials.

(2) Except where so ordered or approved by the Local Medical Authority, a septic tank or aqua-privy tank shall be of single-chamber design, unless the length of the tank exceeds 3,600mm in which case it shall be subdivided into a primary and a secondary chamber.

(3) Where a septic tank or aqua-privy tank is subdivided, the capacity of the secondary chamber shall be approximately one third that of the primary chamber.

(4) The entrance from the primary chamber of a septic tank or aqua-privy tank to the secondary chamber may be over a weir or through a dividing wall, but in the latter case—

- (a) the total length of openings giving access of liquids from the primary to the secondary chamber shall be at least equal to 50% of the width of the tank; and
- (b) the width of the openings shall be not less than 75mm.

(5) The design of a septic tank or aqua-privy tank shall be such that the length is not less than 2.5 times, or more than three times, that of the width, but the Local Medical Authority may permit the use of cylindrical tanks if sufficient baffle plates are incorporated to prevent the direct flow of fresh sewage from the inlet pipe to the outlet pipe.

(6) Ingress to a septic tank shall be by means of a fibre-glass square junction or a standard earthenware, cast-iron or concrete square junction, of not less than 100mm diameter.

(7) Except in a tank fitted with a filter-bed, outlet from a septic tank or an aqua-privy tank shall be by means of a fibre-glass square junction or a standard earthenware, cast-iron or concrete square junction, so positioned that the invert of the horizontal leg is not less than 75mm vertically below the invert of the horizontal leg of the inlet square junction.

(8) In the case of an aqua-privy, the closet suite or seat (if any) shall be placed directly over the top of the tank.

18. CAPACITY OF SEPTIC TANKS AND AQUA-PRIVIES.

(1) The capacity of a septic tank or an aqua-privy tank, measured below the outlet level, shall be not less than the estimated 24-hours' sewage flow, plus—

- (a) 900*l* where a 4*l* flush water closet only is connected; and
- (b) 1,100*l* where a 4*l* flush water closet and other wastes are connected; and
- (c) 1,350*l* where a 9*l* flush water closet is connected.

(2) For the purposes of Subsection (1), the estimated 24-hours' sewage flow shall be based on—

- (a) in the case of a dwelling, boarding house, etc.—
 - (i) water-closet wastes only—45*l* per person per day; and
 - (ii) combined wastes—150*l* per person per day; and
- (b) in the case of a factory—
 - (i) water-closet wastes only—40*l* per person per day; and
 - (ii) combined wastes—70*l* per person per day, unless otherwise determined by the Local Medical Authority or the Sewerage Engineer; and
- (c) in the case of a day school—
 - (i) water-closet wastes only—30*l* per person per day; and
 - (ii) combined wastes—45*l* per person per day, unless otherwise determined by the Local Medical Authority or the Sewerage Engineer; and
- (d) in the case of a hotel—
 - (i) water-closet wastes only—120*l* per resident per day; and
 - (ii) combined wastes—250*l* per resident per day.

19. SIZE OF SEPTIC TANKS AND AQUA-PRIVIES.

(1) The depth of a septic tank or an aqua-privy tank below water level shall not be less than 1,000mm.

(2) The height of a septic tank or an aqua-privy tank above the invert of the outlet to the underside of the lid shall not be less than 300mm, and the top of the lid of the tank shall project at least 75mm above the surface of the surrounding ground.

20. FILTER-BEDS.

Filter-beds shall not be constructed except where the Local Medical Authority so directs, but where filter-beds are constructed they shall conform to the sizes and capacities laid down by the Local Medical Authority.

21. COVERS FOR SEPTIC TANKS AND AQUA-PRIVY TANKS.

(1) The cover of a septic tank or aqua-privy tank shall be so designed and constructed that the tank can be made gas-tight and water-tight after the cover has been removed and replaced.

(2) Subject to this section, the cover of a septic tank or an aqua-privy tank shall—

- (a) be made of rebated concrete slabs each being not more than 600mm wide; and
- (b) be at least 90mm thick.

(3) The cover of a fibre-glass septic tank or aqua-privy tank shall be made of fibre-glass of approved design and construction.

(4) The cover of a cylindrical septic tank or aqua-privy tank that is not made of fibre-glass and that is not more than 1,800mm in diameter may consist of two halves, each being a rebated concrete slab.

(5) The cover of a septic tank or aqua-privy tank may consist of a slab of any width if—

- (a) it is cast in concrete on the site; and
- (b) provision is made for a central man-hole—
 - (i) of sufficient size to permit access for cleaning and maintenance; and
 - (ii) fitted with a removable cover so designed and constructed that the tank can be made gas-tight and water-tight after the cover has been removed and replaced; and
- (c) the approval of the Local Medical Authority is first obtained.

(6) Rodding holes shall be made in the cover of every septic tank or aqua-privy tank over the centre of each square junction in the tank, and each such rodding hole shall be fitted with a removable cover so designed and constructed that the tank can be made gas-tight and water-tight after the cover has been removed and replaced.

22. KERBS AROUND FIBRE-GLASS TANKS.

(1) A kerb shall be erected around every fibre-glass septic tank or aqua-privy tank to protect the tank from damage.

(2) A kerb erected for the purpose of this section shall—

- (a) be made of reinforced concrete or some other approved durable material; and
- (b) be at least 200mm higher than the level of the surrounding ground, and at least 75mm thick; and
- (c) be not less than 75mm or more than 150mm away from the outer edge of the cover of the septic tank or aqua-privy tank.

23. WORKMANSHIP, ETC.

(1) All work shall be executed in a thorough and workmanlike manner and to the satisfaction of the Local Medical Authority.

(2) Where a septic tank, closet or aqua-privy is installed in a sewerage district declared under the *Public Health (Sewerage) Regulation 1973*, the person installing it must hold—

- (a) a licence under the *Trade Licensing Act 1969* as a sanitary plumber, if the work includes the installation of fixtures; or
- (b) a licence under that Act as a drainer if the installation of fixtures is not involved.

Penalty: For the first offence, a fine not exceeding K10.10.

For a subsequent offence, a fine not exceeding K20.00.

In addition, a fine not exceeding K2.00 for each day during which the offence continues after the receipt of a written notification from the Local Medical Authority.

PART V. – STANDARDS, ETC.

24. CONCRETE.

(1) Unless otherwise ordered by the Local Medical Authority, concrete shall–

- (a) consist of one part Portland cement, two parts clean sharp sand and four parts hard stone, shingle or gravel not exceeding 25.4mm gauge; and
- (b) be thoroughly mixed with clean water to such consistency as is ordered or approved by the Local Medical Authority.

(2) The interiors of concrete tanks and both faces of concrete baffles shall be steel-trowelled or otherwise finished to the approval of the Local Medical Authority.

25. CEMENT MORTAR.

Unless otherwise ordered by the Local Medical Authority, cement mortar shall–

- (a) consist of one part Portland cement and two parts clean, sharp sand; and
- (b) be properly mixed with an approved portion of clean water.

26. DRAINAGE MATERIALS.

Drain pipes, bends, junctions and fittings used shall be of glazed stoneware, concrete, cast-iron or other approved material, but the Local Medical Authority may prohibit the use of any of those materials where he thinks that the circumstances or conditions are unfavourable.

27. INSPECTION OPENINGS.

(1) Every line of drain shall be provided with an inspection opening–

- (a) at each junction not provided with an inspection chamber; and
- (b) at each change of direction; and
- (c) at each fitting; and
- (d) at intervals of not more than 12m,

and in paved areas inspection openings shall, if thought necessary by the Local Medical Authority, be brought to the surface and furnished with approved air-tight covers.

(2) The area of an inspection opening referred to in Subsection (1) shall not be less than the area of the cross-section of the drain at the place where the inspection opening is provided.

28. REPLACEMENT OR INSERTION OF PIPES.

(1) Where it is necessary to remove a pipe to clear a stoppage or to insert a pipe or branch in an existing stoneware or concrete drain, the pipe removed shall be replaced by an inspection pipe or inspection junction of the same length, by one of the following methods:—

- (a) the top half of the socket of the new pipe and of the existing downstream pipe may be removed, but the bottom half shall be left intact and the joints surrounded by concrete;
- (b) an approved split pipe with double collar surrounded with concrete may be used;
- (c) a length of not less than three pipes may be removed, the centre pipe replaced by an inspection pipe and the pipes dropped back into place without springing or cutting.

(2) Junctions shall not be made in existing metal pipes unless an approved downpipe is used in each case, and pipes shall not be sprung into position.

29. USE OF CONCRETE.

Concrete shall be used—

- (a) around and under yard gully basins, the exposed surfaces being rendered with cement mortar; and
- (b) around the tops of educt vent and induct vent pipe sockets where they are exposed; and
- (c) around interceptor trap covers and the tops of disconnecter traps where the surface is not paved; and
- (d) under and around bends rising vertically off oblique branches; and
- (e) around drains near tree roots and in such other places as the Local Medical Authority or an inspector directs.

30. DRAINAGE TRENCHES.

(1) The trench for a drain shall be dug so as to meet the inlet of the tank or of the junction provided or to be provided for the connection, in accordance with the drainage plan.

(2) In refilling the trench, sand, gravel or other approved material shall first be deposited around the pipe and to a depth of 300mm over the barrel of the pipe, and carefully consolidated, after which the remainder of the trench shall be filled in, in layers not more than 300mm in thickness, each layer being rammed or flooded as ordered or approved by the Local Medical Authority.

(3) After the trench is filled in, the surface material shall be restored, as nearly as possible, to the same condition as that in which it was before operations were

commenced, or otherwise in accordance with this Regulation and by arrangement with the owner of the property.

(4) The material from the trench shall be placed so as to cause the least possible obstruction and inconvenience to the public.

(5) A person who allows water, sand, earth or other prohibited discharge to enter the drain during the progress of the work is guilty of an offence.

Penalty: For a first offence, a fine not exceeding K10.00.

For a subsequent offence, a fine not exceeding K20.00.

In addition, a fine not exceeding K2.00 for each day during which the offence continues after the receipt of a written notification from the Local Medical Authority.

31. POSITION AND LINE OF DRAINS, ETC.

(1) A drain, and a fitting or appliance connected to a drain, shall be laid and fixed where ordered by the Local Medical Authority.

(2) Where a change of direction occurs in a drain, adequate provisions shall be made for inspection and cleaning by means of—

- (a) a manhole or inspection chamber; or
- (b) an oblique junction or suitably curved pipe with an inspection opening on each adjoining pipe.

32. OBLIQUE JUNCTIONS.

Where a drain joins another drain, the junction shall be made obliquely at an angle not greater than 45° with the direction of flow of the other drain.

33. GRADIENTS.

(1) A drain shall be laid on an even grade and, except with the permission of the Local Medical Authority, the gradient shall be not less than—

- (a) for a 100mm diameter drain—1 in 40, or 2.50%; and
- (b) for a 125mm diameter drain—1 in 50, or 2.00%; and
- (c) for a 150mm diameter drain—1 in 60, or 1.66%; and
- (d) for a 225mm diameter drain—1 in 90, or 1.11%.

(2) If permission is given for the use of flatter gradients than those prescribed by Subsection (1), the Local Medical Authority may require special provision to be made to ensure regular and efficient flushing.

(3) Except with the permission of the Local Medical Authority, a drain shall not be laid at a steeper gradient than—

- (a) for a 100mm diameter drain—1 in 10, or 10%; and

- (b) for a 125mm diameter drain—1 in 15, or 6.33%; and
- (c) for a 150mm diameter drain—1 in 20, or 5%; and
- (d) for a 225mm diameter drain—1 in 25, or 4%.

(4) If permission is given for grades steeper than those prescribed by Subsection (3), concrete anchor blocks shall be placed at intervals of not more than 9m, each block—

- (a) having a minimum width of 300mm along the pipe; and
- (b) being of such thickness that it extends at least 225mm into the virgin ground at each side of the trench.

34. DEPTH OF DRAINS.

(1) Unless it is bedded on and encased in concrete of not less than 75mm thickness over any part of the drain, a drain of stoneware or concrete pipe shall, subject to Subsection (3), be laid at a depth to the top of the socket of the pipe of not less than—

- (a) in a public thoroughfare or right of way, or in any other open space subject to vehicular traffic—600mm; or
- (b) in private property not subject to vehicular traffic—300mm.

(2) Unless approved measures are taken to protect the drain, a person who alters the surface over a drain so as to deprive it of the minimum depth of cover prescribed by Subsection (1) is guilty of an offence.

Penalty: For a first offence, a fine not exceeding K10.00.

For a subsequent offence, a fine not exceeding K20.00.

In addition, a fine not exceeding K2.00 for each day during which the offence continues after the receipt of a written notification from the Local Medical Authority.

(3) Where in its opinion the nature of the soil or the traffic makes it necessary, the Local Medical Authority may require the depth of cover or the thickness of concrete to be greater than that prescribed by Subsection (1).

35. LAYING OF DRAINS.

(1) Pipes shall be laid to such lines and grades as are shown on the plans submitted under Section 3, or as ordered by the Local Medical Authority.

- (2) Except where otherwise ordered by the Local Medical Authority—
 - (a) holes shall be cut in the bottom of the pipe trench to receive the sockets of the pipe; and
 - (b) the pipe shall be carefully bedded with the barrel on the solid ground.

(3) In the case of a rock-bottomed trench or where ordered by the Local Medical Authority, the pipes shall be bedded up to the horizontal diameter on not less than 50mm thickness of approved sand or other approved material, measured from the barrel of the pipe.

(4) In water-charged ground or where the foundation is bad, or where ordered by the Local Medical Authority, the drain shall be formed of—

- (a) cast-iron pipes; or
- (b) stoneware or concrete pipes—
 - (i) bedded on and encased in concrete in such a manner that there is—
 - (A) not less than 75mm of concrete underneath the barrel of the pipe; and
 - (B) not less than 75mm of concrete extending on each side beyond the largest diameter of the barrel of the pipe; and
 - (ii) haunched so that the top line of the concrete meets the pipe not less than 25mm above the centre line of the pipe; and
 - (iii) if ordered by the Local Medical Authority, supported on approved foundations of timber or other approved material as so ordered.

(5) Drops or bends in vertically-inclined drains shall have 100mm of concrete placed under and around as ordered by the Local Medical Authority.

(6) Drains shall be laid in such a manner that the spigot of one section is centred in the socket of the succeeding section, ridges due to dropping or raising the spigot shall not be permitted and all mortar on the inside of any joints shall be removed before subsequent joints are made.

36. DRAINAGE UNDER BUILDINGS.

(1) A drain shall be constructed so as not to pass under a building except where no other mode of construction is practicable, and if a drain is constructed to pass under a building it shall—

- (a) be laid in a direct line for the whole distance beneath the building; and
- (b) have approved means of access for rodding—
 - (i) outside the walls of the building; and
 - (ii) if ordered by the Local Medical Authority, beneath the building.

(2) Where the underside of the floor of the building is at least 1,200mm above the ground surface, then either—

- (a) earthenware or concrete pipes—
 - (i) laid on continuous concrete cradling at least 100mm thick under the barrel of the pipe with at least 300mm of cover over the pipe; or

- (ii) completely surrounded in concrete of a minimum thickness of 100mm,

shall be used; or

- (b) cast-iron pipes shall be used as ordered by the Local Medical Authority.

(3) A drain pipe carried through a wall shall have a clear space of 75mm, filled with approved mastic, left around it.

(4) A pipe brought up inside a building to connect a water-closet or slop-hopper—

- (a) if it does not exceed 1,200mm in height—may be of stoneware or concrete, surrounded in 100mm of concrete; and
- (b) in any other case—shall be of cast-iron, or if approved by the Local Medical Authority, of copper.

(5) A building or outbuilding shall not be erected over an existing drain unless provision exists to comply with this section.

37. SALT GLAZED WARE AND CONCRETE PIPES.

(1) Joints of salt glazed ware and of concrete pipes shall be filled in solidly with—

- (a) cement mortar neatly splayed off; or
- (b) other approved material.

(2) The Local Medical Authority may order or approve the use of rubber ring joints with concrete pipes.

(3) Special jointing in very wet ground or for special discharges shall be as ordered or approved by the Local Medical Authority.

38. CAST-IRON PIPES.

(1) Joints in cast-iron pipes shall be—

- (a) stemmed with approved gaskets; and
- (b) so filled and caulked with lead or other approved material as to make them gas-tight and water-tight.

(2) Joints between cast-iron and stoneware or concrete pipes shall be made in the same way as joints between salt glazed ware or concrete pipes.

(3) Where cement jointing is used on cast-iron pipes, and in other cases where ordered by the Local Medical Authority, the protective coating shall first be removed from the portion of the cast-iron pipe that will be in contact with the cement.

39. TRAPPING OF INLETS.

(1) An inlet to a drain, other than an inlet provided for ventilation, shall be provided with an approved trap.

(2) An inlet to a drain connecting directly with a septic tank or an aqua-privy, other than an inlet that is necessary for the apparatus of a water-closet, urinal or slop sink, shall not be constructed within a building.

40. WATER SEALS.

Except with the approval of the Local Medical Authority, a drainage trap shall have a water seal not less than 50mm in depth.

41. VENTS ON MAIN DRAINS.

The main drain shall be ventilated at its upper end by a pipe ventilator erected vertically, and the ventilator may be a soil vent pipe.

42. VENTS ON BRANCH DRAINS.

A branch drain need not be vented if the drainage traps are within 6m of the main house drain.

43. SIZE OF DRAINAGE VENTS.

(1) Unless otherwise ordered by the Local Medical Authority, a drainage vent pipe shall not be less than—

- (a) 100mm in diameter in the case of an educt vent; and
- (b) 75mm in diameter in the case of an induct vent.

(2) Unless otherwise ordered or approved by the Local Medical Authority, a drainage vent pipe shall be provided with an approved basket end, educt or induct cowl or cast-iron grid, and all induct vents shall be made proof against ingress of mosquitoes and flies.

44. MATERIALS FOR DRAINAGE VENTS.

(1) A drainage vent pipe situated wholly outside buildings and outbuildings shall be of—

- (a) cast-iron, galvanized wrought-iron, galvanized sheet iron or other approved material above ground; and
- (b) salt glazed ware, concrete or other approved material beneath the surface of the ground.

(2) A galvanized sheet iron vent pipe shall be grooved and welded or riveted, and shall be not less than—

- (a) 0.9mm thick for a 75mm or 100mm diameter pipe; and

(b) 1.6mm thick for a 150mm diameter pipe,

and the first 1,800mm above ground shall be of cast-iron or other approved material.

(3) The circumferential joints of a galvanized sheet iron vent pipe shall be riveted and soldered.

(4) Unless otherwise approved by the Local Medical Authority, a drainage vent pipe inside a building or outbuilding shall be of—

(a) cast-iron, of soil pipe strength; or

(b) galvanized wrought-iron.

45. MATERIALS FOR VENTS OF SOIL OR WASTE PIPES.

(1) Subject to Subsection (2), a vent pipe shall be of cast-iron, wrought-iron, lead, copper or brass.

(2) If it is entirely outside a building and is higher than 600mm above the level of the highest fixture served by the pipe, a vent pipe may be of grooved and welded or riveted galvanized sheet iron.

(3) A lead vent pipe for use with a water-closet, urinal or slop sink shall not be less than 2.8mm thick.

(4) External vent pipes of galvanized sheet iron shall not be less in thickness than the following:—

(a) 40mm, 50mm and 65mm diameter pipes—0.8mm; and

(b) 75mm and 100mm diameter pipes—1mm; and

(c) 150mm diameter pipes—1.6mm.

(5) A galvanized sheet iron vent shall be—

(a) coated on the inside with an approved bituminous coating; and

(b) painted on the outside.

46. SOIL VENT PIPES.

The upward extension from a soil pipe for ventilation shall pass in as direct a manner as possible above, and if necessary through, the roof.

47. HEIGHT OF VENT PIPES.

(1) Unless otherwise ordered by the Local Medical Authority—

(a) a vent pipe extending upwards from a soil or drain pipe shall be carried not less than 1,800mm higher than any door, window or other opening into a building within a distance of 9m from the vent pipe; and

(b) every educt vent shall be carried at least 3,600mm above ground level and 1,800mm above the level of the eaves or coping.

(2) A vent pipe under the roof or eaves of a building shall be carried at least 600mm above the point of intersection with the roof.

(3) Where necessary, vents shall be carried to such additional heights as are required to effectively prevent the escape of foul air into any building within the vicinity.

(4) Where necessary, a vent pipe shall be provided with sufficient clips and stays to support it effectively.

(5) Where a flat roof is used for any purpose other than as a covering to the building, vent pipes shall be carried at least 2,400mm above roof level.

48. USE OF CHIMNEYS AS VENTILATORS.

A chimney shall not be used as a ventilator to a soil or drain pipe.

49. VENTS NEAR CHIMNEYS, ETC.

(1) A vent shall be kept as far away as possible from a chimney or ventilating air shaft.

(2) Section 47 applies where a vent terminates 1,800mm or more from a chimney opening or ventilating air shaft, but where the distance is less than 1,800mm and the vent pipe is at least 3,600mm long it shall terminate not less than 600mm below the top of the chimney or air shaft.

50. VENT PIPE GRADES.

(1) A vertical line of vent pipe shall—

(a) connect, full size, at its base with a soil or drain pipe; and

(b) either—

(i) extend in undiminished size above the roof; or

(ii) be connected to the soil or vent stack, as prescribed by Section 51, on a grade not less than 1 in 40.

(2) An offset shall be at a grade not less than 45° to the horizontal.

(3) A vent pipe shall not be used as a waste or soil pipe.

51. COMBINING OF VENTS, ETC.

(1) A vent pipe may be combined or branched, or combined and branched, into a soil pipe above the level of the highest fixture.

(2) Where an additional branch is required to a galvanized sheet iron vent pipe, a brass saddle piece, bolted and soldered to the vent, shall be used.

52. PIPE CLIPS, ETC.

(1) There shall be at least one pipe hook or clip to each 1,800mm length of vent pipe.

(2) Approved coated wrought-iron clips shall be provided for cast-iron pipes without lugs, and for wrought-iron pipes.

(3) Galvanized band iron clips (40mm by 2mm thick) or approved pipe hooks shall be provided for galvanized sheet iron pipes.

(4) For cast-iron pipes with lugs, two 65mm by 15mm coach screws or dog nails shall be provided for each pair of lugs.

(5) Where it is necessary to fix a pipe clear of the wall, approved extension clips shall be used which, in the case of a cast-iron pipe, shall be placed tight up against the head or underside of the collar.

53. ATTACHMENT TO WALLS.

(1) Unless otherwise ordered by the Local Medical Authority, where a galvanized sheet iron pipe, with or without offset, is carried above the brick wall of a building or outbuilding a galvanized wrought-iron clip shall be used, leaded into the wall near the top wherever possible, and bolted against the vent pipe.

(2) A band iron clip of a vent pipe to a brick wall shall be fastened—

(a) with nuts and bolts, leaded in; or

(b) by means of T-headed bolts passed through the brick joints and turned at right angles to the joints.

54. SUPPORTING OF VENTS.

A vent pipe—

(a) the top of which is more than 3,000mm above the highest fastening to a structure; or

(b) that has an offset above the top holdfast,

shall be stayed by at least two approved stays set at right angles to each other.

55. VENTING OF COMBINED FITTINGS.

Where two or more sanitary fittings empty into a common soil pipe or drain, and otherwise where ordered, individual anti-siphonage vent pipes shall be installed on such fittings as the Local Medical Authority approves.

56. CONNECTIONS TO DRAINS.

(1) A waste pipe shall discharge under the grating of a yard gully or into disconnector trap.

(2) A soil pipe, including a soil pipe connected to a urinal or slop sink, shall be connected direct to a drain.

(3) A metallic waste pipe shall not be laid in the ground, whether inside or outside a building, without the approval of the Local Medical Authority.

57. PIPES PASSING THROUGH ROOFS.

Where a vent or soil pipe passes through a roof, a suitable lead collar or flashing out of 1.6mm thick lead shall be soldered or otherwise fixed to the pipe and the roof in such a manner that the roof is perfectly water-tight.

58. LOCATION OF SOIL PIPES.

A line of soil pipe shall be as direct as possible.

59. MATERIALS FOR SOIL AND WASTE PIPES.

(1) Material other than cast-iron, lead, copper or brass shall not be used for a soil pipe unless approved by the Local Medical Authority or a Sewerage Engineer.

(2) Material other than wrought-iron, cast-iron, lead, brass, copper, stoneware or other ceramic ware, or in the case of acid waste other materials approved by the Local Medical Authority or a Sewerage Engineer, shall not be used for a waste pipe.

60. LEAD SOIL PIPES.

The minimum permissible thickness of lead for soil pipes is 2.8mm.

61. GALVANIZED STEEL PIPES.

A galvanized steel pipe shall conform with Australian Standard Specification B105/1960, being medium class for sanitary plumbing and heavy class for water supply plumbing.

62. CAST-IRON PIPES.

(1) A cast-iron pipe shall be sound, free from holes and cracks and coated with approved bituminous composition or lined with glass enamel or other material to the approval of the Local Medical Authority.

(2) Where laid in the ground a cast-iron pipe shall conform to British Standard 1211-1958 Class B.

(3) A cast-iron pipe shall have a minimum thickness of 5mm, measured without the enamel or other lining, and its fittings shall correspond with it in weight and quality.

(4) A junction in a cast-iron pipe shall be curved, and a right-angled junction shall not be made.

63. USE OF LEAD PIPES.

A lead pipe shall not be used where it is liable to damage.

64. SUPPORTING OF LEAD PIPES.

(1) A lead pipe shall be supported by—

- (a) cast lead racks, wiped on to the pipe; or
- (b) other approved fastenings.

(2) The fastenings shall be arranged as nearly as possible as follows:—

<i>Type of pipe.</i>	<i>Centres.</i>
100mm vertical lead pipe	750mm.
100mm inclined lead pipe	600mm.
Less than 100mm vertical pipe	900mm.
Less than 100mm inclined pipe	675mm.

(3) The dimensions of the tacks shall be as follows:—

<i>Diameter of pipe.</i>	<i>Tacks.</i>
100mm	200mm x 6mm.
80mm	150mm x 5mm.

65. MINIMUM PERMISSIBLE GRADIENTS.

Except where the Local Medical Authority approves the use of flatter gradients, the minimum permissible gradient is as follows:—

<i>Diameter of pipe.</i>	<i>Minimum gradient.</i>
15mm	1 in 30, or 3.33%.
100mm	1 in 40, or 2.50%.
150mm	1 in 60, or 1.66%.

66. SHEET METAL BENDS AND OFFSETS.

(1) A sheet metal bend or offset for a flush or vent pipe shall be bent or pressed.

(2) Mitred elbows shall not be used.

67. CONCEALMENT OF PIPES.

Except where passing through a wall, partition or floor, a soil or main vent pipe or trap shall be reasonably accessible at all times for convenience of inspection and repair.

68. BRANCH FITTINGS.

Where a soil stack is branched into a graded soil or drain pipe—

- (a) the branch fitting shall have an angle of not less than 45° to the graded pipe; and
- (b) the length of the branch of the fitting shall be such that the vertical projection of the attached stack is wholly outside the junction with the graded pipe.

69. LEAD PIPE.

Joints of lead pipes, and between lead pipes and brass unions, ferrules and other corrosion-resistant metallic fittings, shall be—

- (a) plumbers' wiped joints; or
- (b) made by means of a fitting approved by the Local Medical Authority for the purpose.

70. WROUGHT-IRON PIPE.

(1) The screwed ends and sockets of each size of wrought-iron or wrought-steel pipe shall be so formed, and the threads so cut, that the ends of the pipe butt against each other when screwed home in the sockets.

(2) Bends, junctions and similar fittings shall be similarly formed and screwed, so that when the pipe ends are screwed home the bore is continuously uniform and without breaks or pockets.

(3) The burr shall be neatly filed off on the inner edge of all pipe ends.

(4) Screwed joints shall be made with approved jointing material.

(5) British Standard pipe threads shall be used.

(6) Wrought-iron pipes and fittings shall be—

- (a) of approved standard weight and quality; and
- (b) galvanized or lined to the approval of the Local Medical Authority or Sewerage Engineer.

71. WROUGHT-IRON PIPE TO LEAD PIPE.

Joints between wrought-iron and lead pipes shall be made by means of brass unions screwed to iron and wiped to lead.

72. BRASS OR COPPER PIPE.

- (1) A brass or copper waste pipe or inside vent pipe shall—
- (a) be a seamless solid drawn tube; and
 - (b) if brass, be not less than 1.6mm thick; and
 - (c) if copper, conform to Australian Standard Specification B158/1961,

and where ordered by the Local Medical Authority shall be protected from external injury.

(2) Joints of brass or copper pipes shall be made—

- (a) by means of brazing to the satisfaction of the Local Medical Authority; or
- (b) in accordance with Australian Standard Specification B36, “Compression Joints and Copper Alloy Screwed Fittings for Standard Copper Tubes”; or
- (c) by other approved means.

(3) All copper pipes, traps and other copper fittings used for the purposes of this Regulation shall conform to Australian Standard Specification B158/1961.

73. LEAD PIPE TO CAST-IRON PIPE, ETC.

The connection of lead pipe or a lead trap to cast-iron pipe shall be made by brass ferrules lined with and connected to—

- (a) the lead pipe or trap, by means of a wiped joint; and
- (b) the cast-iron pipe, by inserting the ferrule in the socket of the cast-iron pipe and making the joint in the same way as in cast-iron pipe.

74. SHEET IRON PIPE TO CAST-IRON PIPE.

Connections of galvanized sheet iron pipe to cast-iron pipe shall be made with molten lead, lightly but tightly caulked into the cast-iron socket.

75. SHEET IRON PIPE TO WROUGHT-IRON PIPE, ETC.

Galvanized sheet iron pipe or sheet steel pipe shall be connected to wrought-iron or steel pipe by means of—

- (a) brass unions or sleeves soldered to the sheet iron pipe and screwed to the wrought-iron pipe; or
- (b) wrought-iron sockets screwed to the wrought-iron pipe, into which the sheet iron pipe is lightly but tightly caulked with molten lead.

76. SHEET IRON PIPE TO LEAD PIPE.

Connections of sheet iron pipe to lead pipe shall be made by means of—

- (a) brass sleeves wiped to the lead pipe and soldered to the sheet iron pipe;
or
- (b) cast lead collars wiped to the lead pipe, into which the sheet iron pipe is caulked as ordered by the Local Medical Authority, or soldered and jacketed.

77. LEAD PIPE TO SALT GLAZED WARE PIPE.

Connections of lead pipe to salt glazed ware pipe shall be by means of a mortar joint as prescribed by Section 37 for joining salt glazed ware pipes, but the portion of the lead pipe that is covered by the joint compound shall first be coated with an approved bituminous compound.

78. CONCRETE OR STONEWARE TRAPS TO LEAD PIPE.

The connection of a concrete or stoneware trap to a lead pipe shall be by means of a cast lead or brass socket—

- (a) the joint being made with bitumen or other approved material; and
- (b) the lead pipe being connected to the tail end of the brass or lead socket by means of a plumber's wiped joint.

79. CONNECTION OF CLOSET PAN TRAPS TO SOIL OR DRAIN PIPES.

(1) Connection of a closet pan trap to a soil or drain pipe shall be made—

- (a) by means of a bituminous jointing material, consisting of a mixture of approved bitumen and finely graded inert mineral filler in equal proportions, filled in solidly into the socket of the soil or drain pipe and neatly splayed off; or
- (b) by some other approved method.

(2) In the case of a lead soil pipe, a cast lead or brass socket shall be used, connected to the lead pipe by means of a wiped joint.

80. CONNECTION OF CISTERN FLUSH PIPES TO CLOSET PANS.

(1) The flush pipe from a cistern shall be connected to the water-closet pan—

- (a) by means of a lead cap piece of lead not less than 1.6mm thick, packed with red lead or other approved material; or
- (b) by some other approved method.

(2) The cap piece shall be jointed—

- (a) to galvanized sheet iron, copper, brass or drawn steel pipe by means of a soldered joint; and
- (b) to lead flush pipe by means of a wiped or soldered joint.

(3) The connection of the flush pipe to the cistern shall be—

- (a) by means of a brass union, wiped to lead pipe or soldered to sheet iron pipe; or
 - (b) by some other approved method.
- (4) Copper or brass pipe shall be connected to the cistern—
- (a) by means of a brass ring, with nut, brazed to the pipe; or
 - (b) by some other approved method.

81. CONNECTION OF VENT PIPES TO CLOSET PANS.

- (1) A vent pipe shall be connected to the vent horn of the water-closet trap—
- (a) by a lead cap piece with red lead packing; or
 - (b) by some other approved method.
- (2) The cap piece shall be jointed—
- (a) to copper or brass pipe by means of a soldered joint; and
 - (b) to lead pipe by means of a soldered or wiped joint.

82. PROVISION FOR INSPECTION AND CLEANING.

(1) Inspection and cleaning eyes shall be provided in such positions on a soil and drain pipe as to provide access for proper inspection and cleaning of the entire length of pipe.

(2) Subject to Subsection (3), a trap for a sanitary fixture (other than a water-closet, urinal or housemaids' slop sink) shall be provided, for cleaning purposes, with an approved screwed brass plug fixed under the waterline of the trap.

(3) The Local Medical Authority or a Sewerage Engineer may dispense with the requirements of Subsection (2) where it or he is of the opinion that the wastes from the fixture should be discharged directly into a drain or soil pipe.

83. INSPECTION OPENINGS ON SOIL PIPES.

Where the vertical stack of a soil pipe provides for a closet 1,200mm or more above ground level, measured from the floor level of the water closet to ground level at the foot of the stack, an inspection opening, 225mm by 100mm, having a cover fixed to a flange with non-corrodible bolts or studs, shall be provided near the foot of the stack in such position as is ordered by the Local Medical Authority.

84. WASHERS FOR INSPECTION OR CLEANING OPENINGS.

Inspection or cleaning eyes on metal soil pipes shall be jointed with insertions of leather washers, or in some approved manner, so as to seal the joints effectively against the egress of gas or water.

85. WATER-CLOSETS, URINALS AND HAND BASINS.

(1) In this section—

“**licensed**” means licensed under the *Liquor (Licensing) Act 1963*;

“**resident**” includes an employee of a resident employed on the property, whether or not living on the property.

(2) The owner of any property shall provide on the property water-closets, urinals and hand basins in accordance with the following scale:—

- (a) subject to Paragraph (b), for each house, flat or other form of tenement—
one closet; and
- (b) subject to Subsection (3), for a residential building used, or intended for use, as an apartment-house, boarding-house, boarding-school, hostel, lodging-house, motel, residential club or hotel or licensed hotel—
 - (i) where the number of resident male persons—
 - (A) does not exceed 100—one closet for every 20; or
 - (B) exceeds 100—five closets and one additional closet for every additional 25 above 100; and
 - (ii) where the number of resident female persons—
 - (A) does not exceed 100—one closet for every 20; or
 - (B) exceeds 100—five closets and one additional closet for every additional 25 above 100; and
- (c) in addition to the requirements of Paragraph (b) and Subsection (3), such number of separate water-closets, urinals and hand basins for the public frequenting the bars of a licensed club, hotel or motel, or other licensed premises, as are specified, generally or in a particular case, by the Local Medical Authority; and
- (d) subject to Subsection (4), for an office building (including a bank, broadcasting studio or doctor’s or dentist’s surgery), a shop (including a cafe, restaurant, retail store, espresso bar or service station), a warehouse (including a fire station, hangar, car park, showroom or display room), a factory or a day school—
 - (i) where the number of resident male persons—
 - (A) does not exceed 100—one closet for every 25; or
 - (B) exceeds 100—four closets and one additional closet for every additional 50 above 100; and
 - (ii) where the number of resident female persons—
 - (A) does not exceed 100—one closet for every 25; or
 - (B) exceeds 100—four closets and one additional closet for every additional 50 above 100; and

- (e) for a church—one closet for male persons and one closet for female persons; and
 - (f) for any other public building used, or intended to be used, for a recreational or other social purpose not specified in this subsection—in accordance with Schedule 1, and in addition such number of separate water-closets, urinals and hand basins for employees and performers as is ordered by the Local Medical Authority in any particular case; and
 - (g) for a building not otherwise specified in this subsection—such number of water-closets, urinals and hand basins as is ordered by the Local Medical Authority; and
 - (h) where the Local Medical Authority thinks it necessary in the interests of public health or convenience—such additional number of water-closets, urinals and hand basins as he orders, generally or in a particular case; and
 - (i) for male persons employed in the erection of buildings—such number of temporary water-closets, urinals and hand basins as is ordered by the Local Medical Authority, generally or in a particular case.
- (3) In a case to which Subsection (2)(b) applies—
- (a) there shall be at least two water-closets; and
 - (b) if the number of male persons exceeds 20, there shall be a urinal in place of every second closet.
- (4) In a case to which Subsection (2)(d) applies—
- (a) if the number of male persons exceeds 25, there shall be a urinal in place of every second closet; and
 - (b) if the number of persons does not exceed 10, there need be only one closet if—
 - (i) the door is fitted, for the purpose of privacy, with a latch of an approved type; and
 - (ii) the toilet-seat is of the “lift-up” type.

(5) A water-closet, urinal or hand basin that is required by this section to be provided on any property shall comply with the requirements of the *Building Act 1971*, and the regulations made under that Act, with respect to lighting, ventilation, air-locks and standards of construction.

86. FIXING OF CLOSET PANS.

- (1) A closet pan on a concrete floor or a floor of tiles set in concrete shall be—
- (a) securely bedded in concrete or cement mortar; and
 - (b) fixed with brass screws to approved lead dowels set in the floor, or by some other approved method.

- (2) Where a closet pan is fixed on a wooden floor—
 - (a) the floor shall be covered with lead or approved composition; and
 - (b) the base of the closet pan shall be secured with brass screws to a raised block covered with lead or approved composition finishing 32mm above floor level; and
 - (c) the block shall not extend beyond the base of the pan.

87. CLOSET PANS.

(1) A water-closet shall be furnished with a pan of non-absorbent material of such shape, capacity and construction as is approved by the Local Medical Authority.

(2) A water-closet pan and its fittings shall be entirely open to inspection and without any enclosure.

(3) A vent horn shall be provided on a pan even if an anti-siphonage vent is not required, but if it is not used for a vent the vent horn shall be sealed with a lead disk, bituminous filler and a lead cap piece, or by some other approved method.

88. “ASIATIC” TOILETS.

Notwithstanding anything in this Regulation, the Local Medical Authority may approve the installation of the “Asiatic” type of closet pan in a water-closet.

89. CLOSET PAN SEATS.

- (1) Where a seat is provided in a water-closet, it shall be—
 - (a) of approved size, shape, construction and material; and
 - (b) fitted with hinges and screws of non-corrosive metal.

(2) A one-piece seat constructed of wood shall be reinforced with two or more wood or brass clips let in flush on the underside.

(3) A multi-piece seat shall be glued and dowelled or bolted.

90. FLUSHING APPARATUS.

(1) Approved apparatus shall be provided for the effective flushing and cleansing of the pan of a water-closet.

(2) Subject to Subsection (3) and to Section 91, flushing apparatus for water-closet pans shall, unless otherwise approved by the Local Medical Authority, have a flushing capacity of 9l, plus or minus not more than 10%.

- (3) Where—
 - (a) a 25mm water seal pedestal pan is installed; and
 - (b) the maximum horizontal distance between the outlet of the pedestal pan and the inlet of the septic tank does not exceed 3,000mm,

a flushing apparatus may be installed with a flushing capacity of not less than 3.4*l* if the suite has been passed by the Local Medical Authority after testing it as a complete unit.

91. FLUSHING CISTERNS.

(1) A flushing cistern shall be fixed at such height as will effectively flush the pan but, unless otherwise approved, a cistern shall not be fixed at a height, measured from the top of the seat to the underside of the cistern, less than—

- (a) 1,500mm, where a 32mm flush pipe is used; or
- (b) 1,200mm, where a 40mm flush pipe is used,

and there shall be a space of at least 200mm between the top of the cistern and the ceiling of the closet.

(2) A low-level flushing cistern may be installed if—

- (a) the flush does not exceed 14*l*; and
- (b) the suite has been approved by the Local Medical Authority after testing it as a complete unit.

(3) A cistern shall be fixed—

- (a) on 40mm angle-iron bearers or approved iron brackets, properly supported; or
- (b) if approved by the Local Medical Authority, to a cistern board not less than 300mm deep and 32mm thick, fixed to the wall in an approved manner.

(4) The iron-work of a cistern shall be painted or galvanized to approval of the Local Medical Authority, and brackets shall be secured to the wall with 6mm bolts of the required length.

(5) A low-level cistern fitted with a flush pipe less than 65mm in internal diameter shall be placed so that the bottom of the cistern is not less than 200mm above the top of the seat.

(6) The water supply pipe to a cistern shall be adequate to fill the cistern at the rate of not less than 2*l* per minute when one other tap on the service is turned full on.

(7) A cistern shall have a separate stop tap, and an overflow of not less than 20mm diameter.

92. FLUSH PIPES.

(1) A flush pipe to a closet pan shall—

- (a) be of brass, copper, lead 2.4mm thick, seamless galvanized steel tube not less than 1.2mm thick, or other approved material; and
- (b) have a minimum diameter of 32mm.

(2) Where the closet pan is provided with a hinged seat, the flush pipe shall be fitted with an approved buffer and buffer block.

93. FLUSHING APPARATUS OTHER THAN CISTERNS.

(1) A flushing valve used in connection with a flushing apparatus other than a cistern shall be—

- (a) of an approved type; and
- (b) provided with a fullway stopcock fixed in such a position as to be readily accessible.

(2) A flushing apparatus other than a cistern shall be fed only from a storage tank that is supplied from the main through a ballcock.

(3) A storage tank referred to in Subsection (2) shall have a head of water—

- (a) of not less than 4,500mm, measured vertically from the top water level of the tank to the point of discharge; or
- (b) such that the flush valve operates to the tests required by the Local Medical Authority.

94. VENTING OF CLOSET PANS, SLOP HOPPERS AND URINALS.

(1) Subject to Subsection (2), unless otherwise ordered or approved by the Local Medical Authority, a closet pan, slop hopper or urinal on an upstairs floor shall discharge into a soil vent pipe.

(2) Where there are no other fixtures connected to the soil stack, a pan may be vented by an anti-siphonage vent only and discharge into a soil pipe without extension as a vent pipe.

(3) Subject to Subsection (4), an external closet pan in which siphonage occurs, and an internal closet pan, shall be vented by an anti-siphonage vent sufficiently close to prevent siphonage and not more than 450mm from the trap.

(4) Where there is only one closet pan on the branch and the pan is not more than 1,200mm from a soil vent pipe (measured horizontally between the centre of the soil vent pipe and the centre of the pan), the anti-siphonage vent may be omitted.

95. GROUPED EXTERNAL CLOSETS.

Where there are more than two external wall closet pans grouped on the ground floor or in the yard of any premises, the drain or soil pipe shall be separately ventilated for every group or part of a group of two pans.

96. URINALS.

(1) A urinal shall not be installed without the approval of the Local Medical Authority, and the type of construction, method of connection and flushing shall be as so approved.

(2) The Local Medical Authority may order that urinals to a sufficient number and of an approved type be installed in such premises as it thinks proper.

(3) Where urinals are provided, the position, approaches, lighting and ventilation shall comply as nearly as possible with the provisions for water-closets, but the ventilation shall be such that at least 300cm² clear opening is provided for each stall.

97. SLOP HOPPERS.

(1) A slop hopper shall be—

- (a) made in one piece, of approved impervious material; and
- (b) provided with approved flushing apparatus of 9l capacity, as prescribed for water-closets.

(2) A slop hopper shall be placed, lighted and ventilated as prescribed for water-closets.

(3) A bibcock shall be placed directly over, and at least 450mm above, each slop hopper.

98. SAFES.

(1) Unless the floor is constructed—

- (a) of concrete not less than 100mm thick, properly graded and drained; or
- (b) of other approved impervious material,

safes of lead or other approved impervious material shall be fitted under—

- (c) a slop hopper or water-closet; and
- (d) a bath or washtrough where, in the opinion of the Local Medical Authority or a Sewerage Engineer, there is a danger of damage by its overflowing.

(2) A lead safe shall be laid with sheet lead not less than 2mm thick, and where the whole floor is not covered with lead the safe shall extend 300mm beyond the side and 375mm beyond the front of the fixture.

(3) A safe shall extend back to the wall and 75mm up it, and the roll of the safe shall be 50mm wide and 18mm high and constructed to the approval of the Local Medical Authority.

(4) Unless otherwise approved by the Local Medical Authority, a safe—

- (a) shall be drained by a separate 50mm diameter pipe provided at the inlet with a brass grating and at the outlet into the open air with a flap valve of brass or other approved metal; and
- (b) shall not connect with a waste pipe, soil pipe, drain or sewer.

PART VI. – SPECIAL PROVISIONS RELATING TO AQUA-PRIVIES.

99. INSTALLATION OF CLOSET SUITES.

A closet suite with a flushing device of at least 1 l capacity and incorporating a sealing flap shall be installed on an aqua-privy when ordered by the Local Medical Authority.

100. SEATS.

If seats are used with an aqua-privy tank, they shall be of an approved type.

101. VENTING.

(1) An aqua-privy tank shall have an educt vent of not less than 100mm diameter connected above the top water level.

(2) The vent shall–

- (a) comply with the provisions of this Regulation concerning vents; and
- (b) be made proof against the entry of mosquitoes and flies.

102. SITING.

(1) An aqua-privy suite or seat shall not be installed inside a house or other premises.

(2) An aqua-privy cubicle shall–

- (a) be detached from any house or premises; or
- (b) have at least two sides on external walls and be properly ventilated with no opening to the interior of the house or premises.

103. DISPOSAL OF WASTE INTO AQUA-PRIVY TANKS.

Subject to the approval of the Local Medical Authority, an aqua-privy tank used for the disposal of faecal waste may be used for the disposal of ablution and laundry wastes, but shall not be used for the disposal of kitchen wastes or wastes containing fats and grease.

PART VII. – EFFLUENT, ETC.

104. WATER LEVELS, ETC.

Septic tanks and aqua-privy tanks shall be filled with water before being placed in operation, and extra water required to maintain water level or for reduction of effluent density shall be added by an approved method.

105. DISPOSAL OF EFFLUENT.

(1) Effluent from septic tanks or aqua-privy tanks shall be disposed of as ordered by the Local Medical Authority.

(2) The method of disposal may be–

- (a) by means of discharge (after any treatment that is ordered by the Local Medical Authority) into storm-water channels; or
- (b) by means of absorption trenches, absorption wells or transpirational areas; or
- (c) by retention in an impervious tank from which it can be pumped and removed.

106. REMOVAL OF CONTENTS OF SEPTIC TANKS.

(1) The Local Medical Authority may–

- (a) remove the contents of a septic tank or aqua-privy tank, or an impervious tank in which effluent from a septic tank or aqua-privy tank is retained; and
- (b) charge fees in accordance with Schedule 2, for the removal.

(2) The Local Medical Authority may authorize a person to empty septic tanks or aqua-privy tanks and to charge for the services.

107. ABSORPTION TRENCHES.

An absorption trench shall be to the length ordered by the Local Medical Authority, but shall not be less than 6m long.

PART VIII. – PENALTIES, ETC.

108. GENERAL PENALTY.

A person who contravenes or fails to comply with a provision of this Regulation, or a condition of a notification, direction, order, prohibition, requirement, approval or permission under this Regulation, for which no other penalty is provided is guilty of an offence.

Penalty: For a first offence, a fine not exceeding K10.00.

For a subsequent offence, a fine not exceeding K20.00.

In addition, a fine not exceeding K2.00 for each day during which the offence continues after the receipt of a written notification from the Local Medical Authority.

109. LIABILITY OF OFFENDER FOR EXPENSES OF LOCAL MEDICAL AUTHORITY.

In addition to any penalty provided for by this Regulation, a person who is convicted of an offence against this Regulation is liable for all expenses incurred by the Local Medical Authority in consequence of the offence.

**SCHEDULE 1 – WATER-CLOSETS, URINALS AND HAND BASINS IN
PUBLIC BUILDINGS.**

Regs., Sec. 85(2)(f).

PART A – WATER-CLOSETS AND URINALS.

Number of seats in building.	Water-closets for male persons.	Urinals.	Water- closets for female persons.
Not exceeding 200	1	1	2
Exceeding 200 but not exceeding 400	1	2	3
Exceeding 400 but not exceeding 600	2	2	4
Exceeding 600 but not exceeding 1,000	2	3	5
Exceeding 1,000-for each additional 1,000 or part of 1,000	1	1	2

PART B – HAND BASINS.

Number of seats in building.	Hand basins for male persons.	Hand basins for female persons.
For each 500 or part of 500	1	1.

**SCHEDULE 2 – CHARGES FOR CLEANSING OF SEPTIC TANKS AND
AQUA-PRIVIES.**

Regs., Sec. 106(1)(b).

<i>Effective Capacity of Tank.</i>	<i>Fees.</i>
	K.
Not exceeding 2,700l	17.00
Exceeding 2,700l but not exceeding 4,500l	18.00
Exceeding 4,500l but not exceeding 6,800l	19.00
Exceeding 6,800l	19.00 for the first 6,800l and a rate of 0.05 per 100l thereafter.

Public Health (Septic Tanks) Regulation 1973