

TERMS AND CONDITIONS FOR THE SUPPLY OF WATER BY MIDSTREAM ELECTRICAL SUPPLIES (PTY) LTD (No 2003/018629/07) TO CONSUMERS IN ASCEND TO MIDSTREAM WITHIN THE LOCAL COUNCIL BOUNDARIES AND APPLICABLE BYLAWS WILL APPLY

TABLE OF CONTENTS

1. Definitions.

CHAPTER 1: PROVISIONS RELATING TO SUPPLY OF WATER BY MES

2. MES's sole right to supply water from water main
3. Prerequisites for supply of water by MES
4. Connections to other water supply systems
5. Unauthorised use of water
6. Damage to water supply system

CHAPTER 2: CONDITIONS FOR SUPPLY OF WATER

7. Application for supply of water
8. Payment of deposit
9. Termination of contract for supply of water
10. Removal of water connection
11. Suspension of water supply
12. Special water restrictions
13. General conditions of supply
14. Water pressure
15. Sale of water by consumer

CHAPTER 3: GENERAL PROVISIONS RELATING TO METERED SUPPLIES

16. Connection to water main
17. Provisions of common water connection for supply to several consumers on the same premises
18. Provision of water meter
19. Ownership of water connection pipe, water meter and isolating valve
20. Provision and position of stopcock
21. Cost of installing meter
22. Safeguarding of water meters
23. Tampering with or damage to water meter
24. Repair or substitution of water meter
25. Determination of quantity of water supplied
26. Payment for water supplied
27. Record of MES binding
28. Payment for water supplied upon amendment of charges
29. Objection to account rendered by MES for water supplied
30. Complete failure of meter to register supply of water
31. Unmetered non-fire connection pipe
32. Special condition relating to the temporary supply of water

CHAPTER 4: PREVENTION OF UNDUE WATER CONSUMPTION

33. Water audit
34. Waste of water
35. Use of water as heat exchange medium
36. Hot water distribution systems
37. Requirements in relation to flushing devices
38. Metering devices for taps and showers
39. Terminal water fittings outside buildings
40. Measures for conservation of water in relation to gardens and car washing facilities

CHAPTER 5: PREVENTION OF WATER POLLUTION

41. Pollution of surface water
42. Obligation of owner to prevent pollution of water
43. Installation and maintenance of back flow preventers
44. Protection of water installation

- 45. Use of tanks for water intended for human consumption
- 46. Measures to prevent development of *bacterium Legionella pneumophila*
- 47. Testing of water in a water installation

CHAPTER 6: PROVISIONS RELATING TO CONSUMER'S WATER INSTALLATION

- 48. Standard specifications and codes of practice applicable
- 49. Provision of water installation
- 50. Information and drawings
- 51. General requirement for design and construction of water installation
- 52. Design of a proposed water installation
- 53. Materials, fittings and components
- 54. Control over work on water installation
- 55. Cleaning, inspection, testing and disinfection of water installation
- 56. MES may require testing or disinfection of water installation
- 57. Covering of water installation
- 58. Leakage of taps or pipes
- 59. Pipes and stand pipes to be securely fixed
- 60. Taps for domestic use
- 61. Connection of sundry apparatus
- 62. Cistern or tank
- 63. Overflow pipe to cistern or tank
- 64. Capacity of cistern
- 65. Distance between water installations and electrical wires

CHAPTER 7: SPECIAL PROVISIONS RELATING TO FIRE EXTINGUISHING EQUIPMENT

- 66. Provision of water connection for firefighting purposes
- 67. Design of fire installation
- 68. General requirements for fire installation
- 69. Payment for supply of water to a fire installation
- 70. Inspection and approval of fire extinguishing system
- 71. Provision of pressure gauge
- 72. Installation of reflux valve
- 73. Sprinkler extinguishing installation
- 74. Header tank or double supply from mains
- 75. Sealing of private fire hydrants

CHAPTER 8: GENERAL PROVISIONS

- 76. Obstruction of access to water connection on premises
- 77. Power of entry and inspection
- 78. Notices
- 79. Penalties
- 80. Tariffs

DEFINITIONS

1. (1) For the purpose of these bylaws, unless the context otherwise indicates "accommodation unit", in relation to any premises, means a building or section of a building occupied or used or intended for occupation or used for residential, business or industrial purposes or any other purpose;

"**approved**" means approved by MES in writing;

"**commercial use**" means the use of water for trading purposes;

"**connection pipe**" means any pipe leading from a municipal main to the premises of any consumer as far as the outlet of the meter box case where the meter is installed outside the premises, or in the case where the meter is installed inside the premises of any consumer in terms of these bylaws, as far as the outlet of the meter box;

"**consumer**" means a person to whom MES has agreed to supply water or is actually supplying with water, or if there is no such person, the owner of the premises;

"**council**" means the Greater East Rand Metro trading as Ekurhuleni Metropolitan Municipality, established in terms of section 12(1) read with section 14(2) of the Local Government: Municipal structures Act, 1998 and promulgated in notice no. 6768 of 2000 in the Gauteng Provincial Gazette Extraordinary no 141 dated 1 October 2000;

“domestic use” means the use of water for every kind of household purpose;

“industrial use” means the use of water for mining manufacturing, generating electricity, land based transport, construction or any related purpose;

“local authority area”, means the area or district placed under the control and jurisdiction of the Council;

“metropolitan area” means the area indicated by map no. 1 in Provincial General Notice no. 6396 dated 13 September 2000 and amended from time to time;

“MES” means Midstream Electrical Supplies (Pty) Ltd (no 2003/018629/07) which may, for the purpose of these conditions, also be the service authority;

“normal flow” means between 50 % and 55 % of the maximum flow capacity of the meter;

“occupier”, in relation to any premises means –

- (a) the person in actual occupation thereof;
- (b) the person legally entitled to occupy the premises;
- (c) the person having the charge or management of the premises;

“owner”, in relation to any premises, means the person in whose name the premises is registered and includes (a) if the owner is deceased, insolvent, mentally ill, a minor or under any legal disability, the person in whom the custody or administration of such premises is vested as executor, trustee, curator, guardian or in any other capacity; (b) If the premises are leased and registration in a deed registry is a prerequisite for the validity of the lease, the lessee; (c) The owner's authorised agent or a person receiving the rent of the premises in question on behalf of the owner; or (d) Where the premises are beneficially occupied under servitude or similar right, the person in whom such right is vested;

“record” means reading taken on the premises over a nonfixed period either by MES or through contractors employed by MES;

“residential premises” means any premises used or intended for use solely for domestic purposes and which is not used for trade, business, manufacturing or industrial purposes;

“service pipe” means the pipe provided and installed on any premises by the owner or occupier or developer and which is connected or to be connected to a connection pipe to serve the water installation on the premises;

“service agreement” means a contract concluded between MES and any person in terms of section 7 for the supply of water by MES to such person;

“treasurer” means City, Town or Metro Treasurer or any other officer authorised to act on his behalf;

“water connection” means the stopcock, water meter and meter box provided at the end of a connection pipe for the supply of warm and cold water to any premises; a water connection provided by MES on a water main by means of a connection pipe, water meter and isolating valve for the supply of water to any premises;

“water installation” means the pipes and water fittings installed on, and vesting in the owner of any premises for the purpose of the use on the premises of water supplied by MES;

“water main” means a pipe forming part of MES's water reticulation system, but does not include a connection pipe;

“water service” means supply of water from a water main by means of an approved connection provided by MES pursuant to a service agreement;

“water tariff”, in relation to a local authority area, means the tariff of charges, fees and other moneys determined by the local authority concerned in terms of section 80(b) of the Local Government Ordinance, 1939 and applied by MES.

In these regulations "SABS" followed by a number or a number and a title, is a reference to the specification of the indicated number published by the Council of the South African Bureau of Standards, and all amendments thereof, and which are available for inspection at the office of MES at any time during official office hours. Domicillium document the address of the consumer recorded by MES shall be deemed to be the domicillium citandi of the consumer. Citandi – For the purpose of the service of any notice, order or other.

Infringement of Bylaws

– Any owner or occupier having or using upon his premises, and any person providing, installing, laying down or connecting, or permitting or causing to be provided, installed, laid down or connected upon any premises any service or part thereof which fail to comply with the requirements of these bylaws shall be guilty of an offence under these bylaws.

CHAPTER 1

PROVISIONS RELATING TO THE SUPPLY OF WATER BY MES

2. **MES's sole right to supply water from water main**
No person shall obtain the supply of water or take any water from a water main other than by means of a water connection provided by MES pursuant to a service agreement concluded in accordance with the provisions of these regulations. Any person who uses water services provided by MES do so subject to any applicable condition as set by MES.
3. **Prerequisites for supply of water by MES**
MES shall not be obliged to supply water to any premises in the local authority area, whether household, business or industrial purposes, unless (a) the owner or occupier of such premises has concluded with MES a service agreement; and (b) all other requirements prescribed by these regulations for procuring such supply have been complied with by such owner or occupier. MES shall not be obliged to conclude with any person a service agreement if a water main is not available at a point within the close proximity of such premises of such owner or occupier from where it is reasonably possible to provide a service connection to the premises.
4. **Connections to other water supply systems**
No water installation pipe, tank, cistern or other apparatus for storing or conveying water supplied by MES shall be directly connected with any system or source of water supply other than that of MES.
5. **Unauthorised use of water**
No person who has not entered into an agreement with MES for the supply of water and otherwise complied with the requirements of these Bylaws, shall take any water from or make or cause to be made any connection with any main, standpipe, reservoir, hydrant, conduit pipe, cistern or other place containing water belonging to MES except, when written permission has been obtained from MES.
6. **Damage to water supply systems**
No person shall wilfully or negligently damage or cause to damage any main, standpipe, meter or other plant or apparatus belonging to MES and used or intended to be used by it in connection with the supply of water.

CHAPTER 2

CONDITIONS FOR THE SUPPLY OF WATER

7. **Application for the supply of water**
 - (1) No person shall gain access to water from the water supply system, unless he or she applied to MES on the prescribed form for such service for a specific purpose and to which such application has been agreed.
 - (2) Application may be made to MES by or on behalf of the owner or occupier of any premises (a) for the initial connection of any premises to a water main; or (b) for a reconnection of the supply of water where a previous service agreement in respect of the premises has been terminated, whether for the supply of water to the previous consumer or to any subsequent owner or occupier of the premises.
 - (3) An application in terms of subsection 7(1) shall be made in the form provided by MES for the purpose and shall be submitted to MES (a) in the case of an application for an initial connection, at least 21 days; and (b) in the case of an application for a reconnection, at least 14 days, before the date on which the supply of water to the premises in question is required.
 - (4) Where application is made for the initial connection of any premises to a water main, the applicant shall, if he or she is not the registered owner of the premises, lodge, together with the application, the written permission of the registered owner that such connection may be made.
 - (5) When submitting an application in terms of subsection 7(1), the applicant shall (a) sign a service agreement for the supply of water; and (b) pay to MES the fee determined by MES for an initial connection or a reconnection for the supply of water, whichever is applicable.
 - (6) If the requirements of subsection 7(5) have been complied with, the official authorised by MES shall sign on behalf of MES the service agreement bearing the applicant's signature.
 - (7) The supply of water by MES to a consumer shall be subject to the provisions of these regulations and the conditions contained in the relevant service agreement.
 - (8) Water services rendered to a consumer are subject to the provisions of these Bylaws and the conditions contained in the relevant agreement.
 - (9) If a service agreement is not in place between the consumer and MES, MES can discontinue the service after giving 7 days' notice to the consumer.

8. **Payment of deposit**

- (1) Every consumer, other than the Government of South Africa, shall before the supply of water is given by MES, deposit with MES a sum of money equal to the maximum as security in payment of charges which is due and payable or may become due and payable to MES. Such deposit shall not be regarded as being payment or part payment of any account due for the supply of water. The deposit amount shall be determined on a basis of the maximum consumption of water, which the applicant, in the treasurer's opinion is likely to use during any two consecutive months.
- (2) MES may from time to time review the sum of money to be deposited by a consumer in terms of subsection 8(1) and, in accordance with such review (a) require that an additional amount be deposited by the consumer; or (b) refund to the consumer such amount as may be held by MES in excess of the reviewed deposit.
- (3) Notwithstanding the foregoing provisions of this section MES may, in lieu of a deposit, accept from the applicant, guarantee for an amount calculated in accordance with or received in terms of and in the form prescribed by MES, as security for the payment of any amount that may become due by the applicant for, or in respect of the supply of water. Provided that no such guarantee shall be accepted unless the estimate monthly account in respect of the supply to the consumer concerned amounts to at least R200000.
- (4) If a consumer fails to deposit an additional amount in terms of subsection 8(2) within 30 days after being required by MES in writing to do so, MES may suspend the supply of water to such consumer until such additional amount and the fees determined in the water tariff for such suspension and the subsequent restoration of the supply, are paid.
- (5) An amount deposited with MES in terms of subsection 8(1) or 8(2) shall not be regarded as being in payment or part payment of an account due for the supply of water.
- (6) If, upon the termination of a service agreement of supply in terms of section 9, an amount remains due to MES in respect of water supplied to the consumer, MES may apply the deposit in payment or part payment of the outstanding amount and refund any balance to the consumer.
- (7) No interest shall be payable by MES on the amount of a deposit held by it in terms of this section.
- (8) MES shall refund any sum deposited by or on behalf of a consumer within 3 weeks after the termination of the service agreement, after deduction of any amount due to MES.
- (9) Subject to the provisions of subsection 8(8) any person claiming a refund or deposit or part thereof, shall either surrender the receipt which was issued for payment of the deposit, or if such receipt is not available, sign a receipt prescribed by MES for the refund to him of such deposit or part thereof, and satisfy MES that he is the person entitled to such refund.
- (10) If a deposit or part thereof has been refunded in accordance with subsection 8(9), MES shall be absolved from any further liability in respect thereof.
- (11) The service agreement, may contain a provision that any sum deposited by the consumer, shall be forfeited if is not claimed within 1(one) year after either such agreement having been terminated or for any reason that the consumer has ceased to receive a supply in terms of such agreement.

9. **Termination of service agreement for the supply of water**

- (1) A consumer may terminate a service agreement by giving MES not less than 7 days' notice in writing.
- (2) Subject to subsection 9(3) and 9(4), MES may terminate a service agreement for the supply of water if the consumer concerned (a) has not consumed any water during the preceding six months and has not made arrangements to the satisfaction of MES for the continuation of the service agreement; (b) has committed a breach of these regulations, and has failed to rectify such breach within 48 hours after being required in writing by MES to do so; or (c) receives the supply of water from another water supply authority by virtue of an arrangement between MES and such authority.
- (3) In the case of the termination of a service agreement in terms of subsection (2), MES shall give to the consumer concerned not less than 7 days' notice of its intention to terminate the service agreement.
- (4) MES may without notice terminate a service agreement for supply of water if the consumer concerned has vacated the premises to which such service agreement relates, without having made arrangements to the satisfaction of MES for the continuation of the service agreement for supply of water.

10. **Removal of water connection**

MES may disconnect and remove a water connection provided by MES to any premises if (a) the service agreement has been terminated in terms of section 9 and no subsequent application for the supply of water to such premises has been received in the period of 90 days following such termination; or (b) the building on such premises has been demolished.

11. **Suspension of water supply**

- (1) If a consumer before the expiry of the last day does not pay an account rendered by MES in respect of the supply of water for such payment specified in the account, MES may forthwith: (a) suspend the supply of water to such business consumer until the consumer together with the applicable charges referred to in subsection 11(3), pays the amount due; (b) restrict the supply of water to such domestic consumer, until the amount due is paid by the consumer, together with the applicable charges referred to in subsection 11(3)
- (2) If MES considers it necessary as a matter of urgency to prevent any wastage of water, unauthorised use of water, damage to property, danger to life or pollution of water, and national disaster or if sufficient water is not available for any other reason MES may, without prior notice and without prejudice to MES's power under section 9(2)(b) (a) suspend the supply of water to any premises; (b) enter upon such premises and carry out, at the owner's expense,

such emergency work, as MES may deem necessary; and (c) by written notice require the owner to carry out such further work, as MES may deem necessary within a specified period.

(3) If the supply of water to any premises is suspended or restricted under subsection 11(1) or 11(2), the consumer concerned shall, before such supply is restored by MES, pay both the charges determined for the suspension or restriction of the supply of water and for the restoration of such supply.

(4) After the charges under subsection 11(3) have been fully paid, MES shall be under obligation to restore the supply of water to the premises within 3 working days provided that no restoration of such water supply shall be done outside of normal working hours.

12. Special water restrictions

(1) MES may at any time, by public notification in a manner, as MES may consider expedient (a) restrict the supply of water in the whole or any part of its area of supply to such hours as it may determine; (b) prohibit or restrict the use of water (i) during specified hours of the day or on specified days; (ii) for any specified purpose or for any purpose other than that specified. (c) determine and impose (i) limits on the quantity of water, which may be consumed over a specified period; (ii) special charges, which shall be levied in respect of water, consumed in excess of the limit imposed under subsection 12(c)(i); (iii) a general surcharge on the prescribed charges in respect of the supply of water; or (d) impose restrictions or prohibitions on the use or manner of use or disposition of an appliance by means of which water is used or consumed, or on the connection of particular appliances to a water installation.

(2) A notification in terms of subsection 12(1) may be limited to apply only to specified areas or to specified categories of consumers, premises or activities.

(3) MES may (a) by written notice require a consumer to take at his or her own expense, such measures, including the installation of measuring devices or devices for restricting the flow of water, as may in the opinion of MES be necessary to ensure compliance with a notice in terms of subsection 12(1); or (b) suspend or, restrict the supply of water to any premises for such period, as MES may deem fit, in the event of a contravention of, or failure to comply with, the terms of a notice in terms of subsection 12(1) on such premises.

(4) Where the supply of water to any premises has been suspended or restricted under subsection 3(b), it shall only be restored upon payment of the charges determined in the water tariff for the suspension or restriction and restoration of the supply of water.

(5) The provisions of this regulation and any notice in terms of subsection 12(1), unless otherwise specified in such notice, shall apply also in respect of water supplied by MES to consumers outside its area of jurisdiction, notwithstanding anything to the contrary in the conditions of any agreement governing such supply.

13. General conditions of supply

(1) The provision of a water connection by MES for the supply of water shall not constitute an undertaking by it to maintain at all times or at any point in its water supply system (a) an uninterrupted supply of water; (b) a specific pressure or rate of flow in such supply; or (c) a specific standard or quality of water.

(2) MES may specify the maximum height to which water will be supplied from a water main and the maximum rate of extraction from such main.

(3) A consumer who requires securing the maintenance of any of the conditions mentioned in subsection 13(1) on the premises occupied by such consumer might make the necessary provision for that purpose in the installation on such premises.

(4) MES may interrupt the supply of water to any premises without prior notice.

(5) If in the opinion of MES the consumption of water by a consumer adversely affects the supply of water to another person, MES may apply such restrictions as he or she may deem fit to the supply of water to the consumer in order to ensure a reasonable supply of water to such other person.

14. Water pressure

(1) Subject to the provisions of these bylaws, no undertaking or guarantee shall be presumed on the part of MES to maintain any specified pressure of water at any time at any point in MES's water supply system.

(2) Where application is made for a supply of water to or where a supply is required for any premises or part thereof situated above a level that can be served by the normal pressure in MES's main, it shall be the duty of the applicant or consumer to provide and maintain a supply to such premises or part thereof at the cost of the consumer. Provided that, subject to the provisions of section 14, MES may grant a supply to such premises from its main where such supply is available on such conditions as MES may impose.

15. Sale of water by consumers

Except in accordance with a special agreement entered into with MES, no person shall (a) sell or supply, or cause or permit to be sold or supplied, any water supplied by MES to any premises in terms of these sections; or (b) remove, or cause or permit to be removed, any of such water from such premises to any other premises for purposes of consumption on such other premises.

CHAPTER 3

GENERAL PROVISIONS RELATING TO METERED SUPPLIES

16. Connection to water main

(1) Where a service agreement has been concluded, MES shall, subject to section 4, (a) In the case of an initial connection, provide and install from the water main a water connection pipe to the premises at such position on the water main as MES may determine. (b) In the case of a reconnection of the supply of water, cause such reconnection to be made.

(2) MES may, either of its own accord or at the request of a consumer, alter the position of a connection on the water main at the expense of the consumer where the consumer requests such alteration.

(3) Where a water connection is provided by MES to any premises, it shall be the responsibility of the consumer concerned, and not of MES, to provide and install and maintain, in accordance with the provisions of these regulations, and at his or her own cost, the water installation on the premises.

(4) The charges payable for (a) The provision of a water connection, including a water connection pipe, isolating valve and water meter; (b) the alteration of the position of a water connection on the water main at the request of a consumer, shall subject to subsection 16(5), be as determined in the water tariff.

(5) Where MES is required to provide a water connection by means of a water connection pipe of a size or length for which no charge is determined in the water tariff, or if, because of any special circumstances, the amount so prescribed is insufficient to cover the actual costs of providing and installing such water connection pipe, water meter and isolating valve, the consumer shall be liable to pay MES an amount equal to the actual costs incurred by MES in respect of material, labour and transport for providing the water connection, plus 15% of the amount of such costs to cover additional indirect costs.

(6) Any charge payable in terms of subsection 16(4) shall be paid to MES in advance and, in a case contemplated in subsection 16(5), an amount estimated by MES to cover the sum payable in terms thereof shall be deposited by the consumer to MES before the work is commenced by MES.

17. Provision of single water connection for supply of several consumers on same premises (Common areas)

(1) Subject to subsection 17(4), only two water connection on the water main shall be provided for the supply of warm and cold water to any premises. Both supplies will be metered.

(2) Where the owner, or the person having the charge or management of any premises on which several accommodation units are situated, requires the supply of water to such premises for the purpose of supply to the different accommodation units, MES may, in its discretion, provide and install either (a) a common water meter in respect of the premises as a whole or any number of such accommodation units; or (b) separate water meters for the different accommodation units or any number thereof.

(3) where MES has installed a common water meter as contemplated in subsection 17(2)(a), the owner or the person having the charge or management of the premises, as the case may be, shall (a) if MES so requires, install and maintain on each branch pipe extending from the service pipe to the different accommodation units (i) a separate water meter; and (ii) an isolating valve; and (b) be liable to MES for the charges levied for all water supplied to the premises through such common water meter, irrespective of the different quantities consumed by the different consumers served by such common water meter.

(4) MES will meter the common usage and invoice the common usage to each individual user based on the same calculated levy charge as per square metre—**The common usage will after each financial year reconciled and any under or over charged will be invoiced / refunded to the HOA**

(5) An owner of any premises shall ensure that no interconnection exists between the water installation on the premises of such owner and the water installation on any other premises or, in the case of premises on which more than one accommodation unit is located, between the water installations of two or more of such accommodation units.

18. Provision of water meters (cold and warm water)

(1) The capacity of the water meter to be provided and installed by MES on a water connection to any premises shall be determined by MES.

(2) If so required by MES, the consumer shall indicate an acceptable position for the installation of the water meter.

(3) MES shall install all water meters (warm and cold) at the cost of the developer after payment as prescribed in the tariff has been paid to MES in full.

(4) If a meter must be replaced with a different size or different type of meter due to an increase or decrease in water consumption, changes in consumption pattern or on request of the consumer, the consumer shall be liable for the replacement cost of such a meter, as prescribed in the tariff.

19. Ownership of water connection pipe, water meter and isolating valve

The water connection pipe, water meter and isolating valve provided and installed by MES on any premises, shall at all times remain the exclusive property of MES and be under the sole control of MES.

20. Provision and position of stopcock

(1) MES shall, for its exclusive use, install a stopcock between the meter and the main.

(2) The consumer shall, at his own expense, or MES may in its discretion and at the consumer's expense and for his exclusive use, provide and install a stopcock at a suitable point on the communication pipe (a) immediately inside the boundary of the property in the case of a meter installed outside the boundary, and (b) in the case of a meter installed

on the premises at a suitable point on the consumer's side of such a meter. Provided that MES may, in its discretion and at such consumer's expense provide and so install such stopcock for the exclusive use of such consumer.

21. Cost of installing meter

The developer shall pay all charges in connection with the first installation of any meter on his water installation as prescribed in the water tariff.

22. Safeguarding of water meters

(1) Every consumer or property owner, if the property is rented out and no consumer can be traced, shall take such measures as are reasonably necessary to prevent any damage to be caused to the water meter installed by MES on the premises of the consumer.

(2) Where, by reason of any failure on the part of a consumer or property owner, if the property is rented out and no consumer can be traced, to comply with the provisions of subsection 22(1), the water meter installed on the premises of such consumer or property owner, if the property is rented out and no consumer can be traced, is damaged or destroyed, such consumer or property owner, if the property is rented out and no consumer can be traced, shall be liable to pay MES the amount prescribed in the water tariff list for the repair or substitution of such water meter.

(3) Every consumer shall ensure free and unimpeded access to the water meter, on the premises, at all times.

(4) Where, in the opinion of MES, the space where the water meter is installed is no longer reasonably accessible, the consumer shall, at the request of MES, provide a suitable space at a different approved position to which the water meter can be moved, and the consumer shall in such a case bear all costs incidental to such removal.

23. Tampering with or damage to water meter

(1) No person other than MES or a person duly authorised thereto by MES shall (a) disconnect or attempt to disconnect from the water connection pipe any water meter installed by MES; (b) where the supply of water to any premises has been disconnected or suspended by MES for any reason, make or attempt to make a reconnection of such supply or restore or attempt to restore the supply in any manner; or (c) in any other way tamper or interfere with the water meter installed by MES on any premises, and no owner or occupier of such premises shall cause or permit any other unauthorised person to disconnect or reconnect or in any other way tamper or interfere with such water meter.

(2) Where a contravention of any of the provisions of subsection 23(1) occurred on the premises of any consumer MES may, without prejudice to any other power conferred by these regulations (a) cause the water meter installed on such premises to be moved to a position on the sidewalk or any other place outside the premises; and (b) recover from the consumer concerned the cost thereof.

(3) Any person who (a) contravenes any provision of subsection 23(1); or (b) wilfully damages the water meter, the water connection pipe or isolating valve installed by MES on any premises, shall be guilty of an offence.

24. Repair or substitution of water meter

(1) In the event of any repairs to any water meter on any premises being found necessary, MES shall effect such repairs.

(2) MES may at any time replace the water meter on any premises which is suspected of not registering accurately the supply of water to the premises concerned, or due to any other reason.

(3) The costs incidental to any repairs in terms of subsection 24(1), or the replacement of a water meter in terms of subsection 24(2), shall be done by MES, but if the repairs or replacement is necessitated by reason of any failure on the part of a consumer to comply with the provisions of subsection 22(2) or because of an act performed in contravention of subsection 23(1), MES shall be entitled to recover the costs from such consumer.

25. Determination of quantity of water supplied

(1) The quantity of water registered by the water meter installed by MES on the premises of a consumer or, where applicable, estimated or determined by MES through volume controlled measurement or determined by MES under any provision of these Bylaws, shall, for the purposes of these Bylaws, be considered to be the actual quantity of water supplied by MES to the consumer.

(2) Where water supplied by MES to any premises is in any way taken by the consumer without such water passing through the water meter of MES, MES may for the purpose of rendering an account estimate, in accordance with subsection 25(3), the quantity of water supplied to the consumer during the period from the last previous reading of the water meter, back dated not longer than 36 months, until the date it is discovered that water is so taken by the consumer.

(3) For the purposes of subsection 25(2), an estimate of the quantity of water supplied to a consumer shall be based on, as MES may decide (a) the average monthly consumption of water on the premises during any three consecutive metering periods during the twelve months' period prior to the date on which the taking of water in the manner mentioned in subsection 25(2) was discovered; or (b) the average monthly consumption on the premises registered over three succeeding metered periods after the date referred to in subsection 25(3)(a). Interest calculations on account adjustments will not apply.

(4) Nothing in these regulations shall be construed as imposing on MES an obligation to cause any water meter installed by MES on any premises to be read at the end of every month or any other fixed period, and MES may estimate the quantity of water supplied in respect of a period within the interval between successive readings of the water meter and render an account to a consumer for the quantity of water so estimated.

(5) When so requested by a consumer, MES shall cause a special reading of the water meter to be made, in which event the consumer shall be liable to pay the charge determined in the water tariff for such a reading.

26. Payment for water supplied

(1) Water supplied by MES to a consumer shall be paid for by the consumer at the rate or charges determined in the water tariff for the particular category of use for which the supply was granted.

(2) A consumer shall be responsible for the payment for all water supplied to the premises of the consumer from the date of the relevant service agreement until the date of termination thereof in terms of these regulations.

(3) An account rendered by MES for water supplied to a consumer shall be paid not later than the last date for payment specified in such account.

(4) If payment of an account is received after the date referred to in subsection 26(3), interest as determined in the water tariff shall be payable by the consumer to MES, calculated from the date that the account became due and payable.

(5) If a consumer uses water for a category of use other than that for which it is supplied by MES in terms of the service agreement and as a consequence is charged at a rate lower than the rate which should have been charged, MES may make an adjustment of the amount charged in accordance with the rate which should have been charged and recover from the consumer the charges payable in accordance with such adjustment for a maximum preceding period of three years.

27. Record of MES binding

In the absence of evidence showing either that the record of MES has been incorrectly made or that the meter was at a time of such reading in default, every consumer shall be bound by the record of MES, and it shall not be necessary to produce the person who read the meter, or the person who recorded any particular entry, in order to prove such reading or entry.

28. Payment for water supplied upon amendment of charges

If amendments to the water tariff of MES in respect of the charges determined for the supply of water, or for the rendering of the service of water supply provided for in section 16, become operative on a date between meter readings (a) it shall be deemed, for the purpose of rendering an account for water supplied by MES, that the same quantity of water was supplied on every day during the interval between the meter reading.

29. Objection to account rendered by MES for water supplied

(1) If a consumer disputes the correctness of the quantity of water supplied as reflected on an account rendered by MES, the consumer may in writing object to such account and request that MES test the water meter.

(2) An objection and request in terms of subsection 29(1) shall (a) set out the reasons for the objection and the request; (b) be delivered to MES not later than 90 days after the receipt of the account in question; and (c) be accompanied by the deposit determined in the water tariff for the testing of a water meter.

(3) If the provisions of subsection 29(2) have been complied with, MES shall forthwith cause the water meter concerned to be tested in accordance with the section relating to water meters published under the Trade Metrology Act, 1973 (Act 77 of 1973).

(4) A meter to which the Bylaws referred to in subsection 29(1) shall be deemed to be defective if it is found to have a percentage error in over registration or under registration greater than 5% at any one of the rates of flow when tested at the following percentages of its designed maximum rate of flow (a) not less than 75%; (b) between 50% and 55%; and (c) not more than 20%.

(5) If, upon the testing of a water meter in accordance with subsection 29(3) or 29(4), it is found not to be defective, MES shall retain the amount deposited by the consumer, but if it is found to be defective, MES shall (a) refund to the consumer the amount deposited in terms of subsection 29(2)(c); (b) repair the water meter or install another meter which is in good working order, without charge to the consumer, unless the costs thereof are recoverable from the consumer in terms of section 22(2); and (c) determine the quantity of water for a maximum preceding period of three years for which the consumer shall be charged in lieu of the quantity registered by the defective water meter as calculated by MES, by taking as basis for such determination, and as MES may decide (i) the quantity representing the average monthly consumption of the consumer during the 3 months preceding the month in respect of which the reading is disputed and adjusting such quantity in accordance with the degree of error found at the rate of normal flow in the reading of the defective water meter; (ii) the average consumption of the consumer during the succeeding three metered periods after the defective water meter has been repaired or replaced; or (iii) the consumption of water on the premises recorded for the corresponding month of the previous year. Interest calculations on account adjustments will not apply.

30. Complete failure of meter to register supply of water

(1) MES shall repair or replace a water meter which has ceased to register the supply of water to the premises of any consumer and shall bear the costs in connection therewith, unless the provisions of subsection 22(2) are applicable.

(2) Where a water meter ceases to register the quantity of water supplied to a consumer, the quantity of water supplied during the period between the date of the last reading of the water meter (prior to the reading consequent on which the failure was discovered) and the date of its repair or replacement, shall be estimated by MES in accordance with subsection 30(3).

(3) An estimate for the purposes of subsection 30(2) shall be based on, as MES may decide (a) the average daily consumption of water registered by the water meter, which has ceased to register, calculated on the preceding three

metre readings taken before the meter ceased to register; (b) the average daily consumption of water registered by the replaced or repaired water meter, calculated on two successive meter readings taken after the repair or replacement of the defective water meter; or (c) the consumption of water at the same water connection recorded for the corresponding period in the previous year. Interest calculations on account adjustments will not apply.

31. Unmetered non-fire connection pipe

MES shall install a bulk water meter to register the supply of all water to the premises and where an unmetered connection is found; the use of water will form part of the energy reconciliation as described in section 17(4) the consumer shall bear the following costs; (a) payment of deposit as prescribed in section 8.

32. Special conditions relating to temporary supply of water

(1) Where a special agreement to that effect has been entered into, MES may supply water on a temporary basis from a fire hydrant or any other source of supply by MES.

(2) The supply of water in terms of subsection 32(1) shall be measured by means of a portable water meter provided by MES for that purpose.

(3) A portable water meter, and all other fittings and apparatus used for the connection of such portable water meter to a hydrant or other source of supply by MES, shall remain the property of MES.

(4) The consumer shall pay MES in advance the deposit determined in the water tariff in respect of each portable meter supplied by MES as security for its return in proper working order and for the payment of the charges in respect of water supplied to MES under an agreement referred to in subsection 32(1).

(5) The charges for water supplied and for the use of the portable meter in terms of this section shall be paid at the rate determined in the water tariff.

(6) An account rendered by MES for the charges referred to in subsection 32(1) shall be paid to MES within ten days of the date on which it is rendered.

(7) Where a consumer takes water from a hydrant, which is not measured by means of a water meter, the consumer shall be guilty of an offence.

(8) A consumer to whom a portable water meter is provided in terms of subsection 32(2) shall maintain and return such water meter and all other fittings and apparatus supplied in connection therewith, in a proper working order to MES.

(9) If the consumer fails to return the portable water meter, or returns it in a damaged condition, the consumer shall forfeit the deposit paid to MES, or MES may, where applicable, recover the cost of repairs or replacement of such water meter from the consumer, and may deduct such cost from such deposit.

CHAPTER 4

PREVENTION OF UNDUE WATER CONSUMPTION

33. Water audit

(1) Water users using more than 3 650 kl per annum, excluding those comprising multiple dwelling units, must within one month after the end of each financial year of MES undertake an annual water audit at their own cost –

(2) A copy of the audit must be available for inspection by officials from the Department of Water Affairs and Forestry, the Water Board and MES.

(3) The audit must contain details in respect of (a) the amount of water used during the financial year; (b) the amount paid for water for the financial year; (c) the number of people living on the stand or premises; (d) the number of people permanently working on the stand or premises; (e) the seasonal variation in demand through monthly consumption figures; (f) the water pollution monitoring methods; (g) initiatives to manage the demand for water; (h) estimates of consumption by various components of use; and (i) a comparison of the above factors with those reported in each of the previous three years, where available.

34. Waste of water

(1) No owner or occupier of any premises shall permit on such premises (a) the purposeless or wasteful discharge of water from any water installation and/or water main; (b) the use of maladjusted or defective water installations; or (c) an overflow of water to persist.

(2) An owner or occupier shall after written notice by MES, and within a period specified in the notice, repair or replace any part of the water installation on the premises of the consumer which is in such a state of disrepair that, in the opinion of MES, it is causing or is likely to cause an occurrence mentioned in subsection 34(1).

(3) If an owner fails to comply with a notice referred to in subsection 34(2), MES may, without prior notice, take such measures as MES may deem fit and recover the cost incidental thereto from the owner.

(4) A consumer shall ensure that any equipment or plant connected to the water installation on the premises of the consumer uses water in an efficient manner.

(5) MES may by written notice to any consumer prohibit such consumer from using any specific equipment in a water installation if, in the opinion of MES, its use of water is inefficient, and any such equipment shall not be returned to use until its efficiency has been restored and a written application to do so has been approved by MES.

(6) Any person who contravenes any of the provisions of subsection 34(1) or 34(4) or fails to comply with a notice referred to in subsection 34(2) or 34(5) shall be guilty of an offence.

35. Use of water as heat exchange medium

- (1) No person shall allow water, used as a heat exchange medium in any equipment or plant and supplied from a water installation, to run continuously to waste except for maintaining a required level of total dissolved solids in a recirculating plant.
- (2) Any person who contravenes subsection 35(1) shall be guilty of an offence.

36. Hot water distribution systems

- (1) A pipe conveying hot water directly from a fixed water heater, or from the point of draw off from a hot water circulating system, to terminal water fitting shall not be capable of containing more than 4 litres of water.
- (2) The central hot water system is of the circulating type, and the circulating pipes are insulated with material which (a) has a coefficient of thermal conductivity of not more than 0,04 Watt per metre degree Celsius; and (b) are capable of maintaining the temperature at its external surface under normal operating conditions at not more than 6 degrees Celsius above the ambient temperature.
- (3) Two cylinders are installed with a combined capacity of 4m³ heated primarily by gas heaters and secondly by a heating element. The electrical heating element is installed in such a manner that it can be removed without loss of water from the heater.

37. Requirements in relation to flushing devices

- (1) Subject to subsection 37(2) (a) no type of flushing device shall be used to serve a water closet pan or urinal other than a flushing device, which is actuated (i) manually by a person using such pan or urinal; or (ii) automatically by means of an approved apparatus which causes the flushing device to operate after each use of such pan or urinal; (b) a flushing device installed in a cistern serving a water closet pan shall not be capable of discharging (i) in the case of a single flush unit, more than 6 litres of water during one complete flush; or (ii) in the case of a dual flush unit, more than 6 litres of water during one complete flush when the full-flush level is actuated, and more than 3 litres of water during one complete flush when the low-flush lever is actuated and such a device shall only be connected to a type of water closet pan in which the trap is cleared in one flush; (c) an automatically operated flushing device shall be of such a design that no flush will take place if it malfunctions; (d) every wall mounted urinal or stall urinal shall be served by a separate flushing device and where any slab urinal installed on any premises exceeds 1,8 metre in length, a sufficient number of flushing devices shall be used so as to ensure that a single flushing device will not serve any part of such urinal exceeding 1,8 metre in length; (e) no flushing device used to serve any urinal shall be capable of discharging more than 2 litres or less than 1 litre of water during one complete flush; (f) no automatic cistern or tipping tank shall be used for flushing a urinal.
- (2) If, on the date on which these regulations become applicable to the Metropolitan area, there is installed on any premises in such area (a) any flushing device to serve any watercloset pan or urinal, not being a flushing device which conforms to the requirements of subsection 37(1); (b) any slab urinal which is not served by a flushing device or flushing devices in conformity with the requirements of subsection 37(2)(d) of subsection 37(1); or (c) an automatic cistern or tipping tanks to serve any urinal; The owner of such premises shall cause such steps to be taken or such adjustments to be made as may be necessary to ensure that the requirements of subsection 37(1), as may be applicable, are complied with not later than the date to be fixed by MES in accordance with subsection 37(3) as being the last day for compliance with the requirements of subsection 37(1).
- (3) The date to be fixed by MES for the purposes of subsection 37(2) (a) shall not be sooner than 2 years after the commencement of these regulations; and (b) shall, in a manner, which MES considers most expedient, be publicly announced by MES not less than 6 months before such date arrives.
- (4) The owner of premises who fails to comply with, the requirements of subsection (1) shall be guilty of an offence: provided that, in relation to any owner of premises referred to in subsection 37(2), this subsection shall not apply until a date as contemplated in that subsection has been fixed by MES in accordance with subsection 37(3) and such date has lapsed.

38. Metering devices for taps and showers

- (1) Subject to subsection 38(2) (a) each wash basin in a battery of three or more on any premises, other than residential premises, shall be fitted with a metering type of tap which limits the discharge of water in each usage to not more than 1 litre per operation; (b) each shower in a battery of showers of two or more on any premises, other than residential premises, shall be fitted with a metering valve which limits the discharge of water in each usage to not more than 2,5 litres per operation; (c) the maximum discharge rate of water of any showerhead installed on any premises, including residential premises, shall not exceed 10 litres per minute under maximum flow conditions.
- (2) If, on the date on which these sections become applicable to the local authority area there is installed (a) on any premises, other than residential premises (i) any tap serving any wash basin referred to in subsection 38(1), not being a tap which conforms to the requirements of that paragraph; or (ii) any showers referred to in subsection 38(1) which are not fitted with metering valves in conformity with the requirements of that paragraph; or (b) on any premises, including residential premises, any shower head which does not conform to the requirements of subsection 38(1), the owner of such premises shall cause such steps to be taken or such adjustments to be made as may be necessary to ensure that such requirements are complied with not later than the date to be fixed by MES in accordance with subsection 38(3) as being the last day for compliance with the requirements of subsection 38(1).
- (3) The date fixed by MES for the purposes of subsection 38(2) (a) shall not be sooner than 2 years after the commencement of these regulations; (b) shall, in a manner, which MES considers most expedient, be publicly announced by MES not less than 6 months before such date arrives.

(4) The owner (a) of any premises, other than residential premises who fails to comply with any of the requirements of subsection 38(1)(a) and 38(1)(b); (b) of any premises, including residential premises, who fails to comply with the requirements of subsection 38(1)(c); (c) shall be guilty of an offence: Provided that, in relation to an owner of premises referred to in subsection 38(2), this sub regulation shall not apply until a date as contemplated in that subsection has been fixed by MES in accordance with subsection 38(3) and such date has lapsed.

39. Terminal water fittings outside buildings

(1) No owner or occupier of any premises, other than residential premises, and no person to whom a temporary supply of water to any premises is provided in terms of section 32, shall install or use on such premises a terminal water fitting outside a building unless such fitting (a) incorporates a self-closing device; (b) has a removable handle for operating purposes; (c) is a demand type of tap which limits the quantity of water discharged in each operation; or (d) is provided with a lock to prevent unauthorised use.

(2) If, on the date on which these regulations become applicable to the local authority area, there is installed on any premises referred to in subsection 39(1) in such area any terminal water fitting outside a building which does not conform to the requirements of that subsection, the owner of such premises shall cause such steps to be taken or such adjustments to be made as may be necessary to ensure that such requirements are complied with not later than the date to be fixed by MES for the purposes of this subsection 39(3) as being the last day for compliance with the requirements of subsection 39(1).

(3) A date fixed by MES for the purposes of subsection 39(2) (a) shall not be sooner than 2 years after the commencement of these Bylaws; and (b) shall, in a manner, which MES considers most expedient, be publicly announced by MES not less than 6 months before such date arrives.

(4) The owner of any premises referred to in subsection 39(1), who fails to comply with the requirements of subsection 39(1) shall be guilty of an offence: Provided that, in relation to an owner of premises referred to in subsection 39(2), this subsection shall not apply until a date as contemplated in subsection has been fixed by MES in accordance with subsection 39(3) and such date has lapsed.

40. Measures for conservation of water in relation to gardens and car washing facilities

(1) The following requirements shall be applicable to every consumer within the local authority area: (a) No water shall be used for the irrigation or watering of any garden during such hours of day as MES may determine and announce publicly from time to time.

(2) Any person who contravenes subsection 40(1)(a) shall be guilty of an offence.

CHAPTER 5

PREVENTION OF WATER POLLUTION

41. Pollution of surface water

(1) No person shall (a) bathe in any stream, reservoir, aqueduct, or other place which contains water belonging wholly or partly to MES or under the control or management of MES and which is used for or in connection with the supply of water to the inhabitants in the MES's area of supply; (b) wash, throws, or cause or permit to enter any animal therein; (c) throw any rubbish, night soil, excreta, industrial waste, chemical substance, oil, dirt, filth, or other deleterious matter into such stream, reservoir, aqueduct, or other place within the catchments of a surface dam; (d) wash or cleanse in any such water any clothes, leather or any other material or object of whatever nature; (e) cause or permit the water from any sink, sewer, drain, engine, boiler or any other polluted water or liquid or oil for the control of which he or she is responsible, to run or be brought into any such stream, reservoir aqueduct, or other place; or (f) do any other act whereby the supply of water to the inhabitants of MES's area of supply may be polluted.

(2) A person, who contravenes any of the provisions of subsection 41(1), shall be guilty of an offence.

42. Obligation of owner to prevent pollution of water

(1) An owner of premises shall provide and maintain approved measures to prevent the entry of any substance which may be a danger to health or adversely affect the potability of water into (a) the water supply system of MES, or (b) any part of the water installation on the premises.

(2) The owner of any premises (a) on which a fire or combined installation is installed; (b) on which a general installation serves (i) any activity in relation to the medical treatment of people or animals, medical, pharmaceutical or chemical research or manufacturing, agriculture, including dairies and nurseries, photographic processing, laundering or dry cleaning, metal plating, or the treatment of hides and skins; (ii) any mortuary, abattoir, sewage purification works, refuse pulverising works, harbour, oil processing and storage facilities or any winery, distillery, brewery, or yeast or cold drink factory; or (c) to whom MES has given written notice to do so, shall provide and maintain approved measures in the water installation on such premises to prevent the back flow of water from such water installation to the water main.

(3) The measures required in terms of subsection 42(2) shall include (a) the discharge of water from the service pipe into a storage tank through an air gap in accordance with paragraph 7.5.3.2(a)(i) of SABS 02521: 1994; (b) the passing of such water through (i) a reduced pressure back flow preventer; or (ii) a doublecheck back flow preventer.

(4) An owner shall ensure that no connection is made to the service pipe on the premises of such owner between (a) the point of discharge from the pipe into the storage tank referred to in subsection 42(3)(a) ;(b) the backflow preventer installed in terms of subsection 42(3)(b).

(5) No consumer shall connect anything to a water installation or use it in a manner which may affect the potability of the water in it without first providing adequate measures or devices to prevent a deterioration in water quality in the water installation.

43. Installation and maintenance of back flow preventers

(1) Any back flow preventer installed on a water installation shall comply with the requirements as set out in paragraphs 5.4.1, 6.3 and 8.2.2 of SABS 0252 1994: Provided that (a) a back flow preventer shall be installed in a readily accessible position where it may be inspected and from which it may be removed for the purpose of servicing, repair or replacement without alteration to the water installation or the structure within which it is situated; and (b) a back flow preventer which provides for the discharge of water to the atmosphere shall be installed aboveground in such a position that it cannot be submerged in water or any other liquid.

(2) The owner of any premises on which a reduced pressure or a doublecheck back flow preventer is installed shall at his or her own expense ensure that the backflow preventer (a) is inspected and serviced by a registered plumbing contractor not less than once in every twelve months to ensure that it is in proper working order; and (b) is replaced or completely overhauled once in every 5 years. (3) The owner shall maintain a record of the inspections and services referred to in subsection 43(2) (a) stating the name and registration number of the registered plumbing contractor by whom it was carried out; (b) the date on which it was carried out; and (c) detail of repairs and replacements that were effected, and shall keep such record available for inspection by MES at any time during office hours.

44. Protection of water installation

(1) An owner shall, apart from the back flow preventers referred to in sections 42 and 43, provide and maintain the following additional measures to prevent the back siphonage into the water installation of any substance which is likely to be a danger to health or affect the potability of water; (a) The lowest point of discharge of the outlet of a terminal water fitting shall not be less than 25 millimetres above the flood level of a fixed receptacle into which such fitting discharges. (b) No interconnection shall be made between a general installation and a fire installation if they are supplied through separate water pipes.

(2) If MES is of the opinion that an activity carried out or intended to be carried out on any premises could give rise to a substance which would have a toxic effect if it gained entry into a water installation, MES may by written notice require from the owner to install a storage tank from which the water needed for such activity shall be drawn.

(3) The entry of water into a tank referred to in subsection 44(2) shall be solely from a pipe which discharges water at a height of not less than 75 millimetres or twice the diameter of the pipe, whichever is the greater, above the flood level of the tank.

45. Use of tanks for water intended for human consumption

(1) Except for a tap discharging water from a hot water system or serving any shower or bath, no tap used on any premises for the purpose of supply for human consumption shall be connected to any tank without the permission of MES, who in granting such permission may require that an apparatus be installed to maintain a free chlorine level of at least 0,2 milligram per litre at the furthest terminal water fitting.

(2) Where (a) any damage or danger to persons might arise from an interruption of the supply of water; or (b) the pressure in the service would be otherwise inadequate, a tank or tanks shall be provided which, with respect to size and level of installation, conform to the requirements prescribed in paragraph 7.4 of SABS 02521: 1994.

46. Measures to prevent development of *bacterium Legionella pneumophila*

(1) Every new water installation shall, for the purpose of preventing the development of *bacterium Legionella pneumophila*, comply with the requirements set out in paragraph 7.1.1.2 of SABS 02521: 1994.

(2) Every owner of any premises on which any installation for the storage of potable water or an air conditioning cooling water system is being used, whether installed before or after the commencement of these regulations, shall at intervals not exceeding 90 days, reckoned from the date of commencement of these regulations or the date of installation, whichever is applicable, cause every such water installation and every such system to be inspected by a professional engineer to evaluate such installation for conditions conducive to the development of *bacterium Legionella pneumophila*.

(3) A professional engineer who carries out an inspection referred to in subsection 46(2) shall provide the owner concerned with a written report on the result of his or her inspection and state whether or not the requirements referred to in subsection 46(1) are being complied with and, where applicable, particulars of any noncompliance with those requirements.

(4) If a report in terms of section 46(3) shows any noncompliance with the requirements referred in that subsection, the owner of the premises concerned shall, within 14 days after receipt of the report, take such steps as may be necessary to bring the installation in conformity with those requirements.

(5) Where the construction of any new water installation is completed on any premises where potable water is or will be stored, or upon the installation of any air conditioning cooling water system on any premises, the owner of the premises shall submit to MES a certificate issued by a professional engineer stating that such installation complies with the requirements referred to in subsection 46(1).

(6) Any person who (a) fails to comply with the provisions of subsection 46(2) or 46(4); or (b) puts into use any new water installation or an air conditioning cooling water system installed on any premises without having complied with the provisions of subsection 46(5), shall be guilty of an offence.

47. Testing of water in a water installation

(1) MES may at any time take samples of water from the water installation on any premises and cause the samples to be tested for compliance with the standards prescribed in SABS 241 (Water Domestic Supplies).

(2) If, after a series of follow up tests of samples of water taken from the water installation in terms of subsection 47(1), it is found that such water does not comply with the standards referred to in that subsection, and MES is of the opinion that the quality of such water is attributable to the condition of the water installation, the owner of the premises concerned shall, when so instructed by MES (a) cause the water installation to be tested and disinfected in accordance with the provisions of section 55 and 56; or (b) investigate the cause of the problem and rectify it within a period specified by MES.

(3) The owner of such premises shall clean any tank on any premises in which potable water is stored regularly at intervals not exceeding two years.

CHAPTER 6**PROVISIONS RELATING TO CONSUMER'S WATER INSTALLATION****48. Standard specifications and codes of practice applicable**

For the purpose of these regulations the relevant SABS standards and codes shall be applicable, but MES may also approve the use of any other specification and codes where in its opinion it is appropriate to do so, and it shall in considering any application for such approval be guided by accepted practice and international specifications and codes of practice.

49. Provision of water installation

Every owner or consumer shall, at his own expense, provide, install, lay down and maintain his own water installation.

50. Information and drawings

(1) In respect of every new water installation, or changes to an existing water installation necessitated by any alteration or extension of an existing building, the owner of such premises shall submit for approval to MES, in the format determined by MES, the information and drawings as provided for in Chapter 4 of SABS 02521: 1994: Provided that the information relating to a water installation to be installed on any premises may be indicated on the same drawing as the drainage installation.

(2) A complete set of approved drawings of the water installation shall be kept available at the premises.

(3) Where any installation work has been done in contravention of subsection 50(1), MES may by written notice require from the owner of the premises to comply within a specified period with the provisions of that subsection, in which event (a) Work in progress shall cease until the approval required by that subsection have been granted; (b) work that does not comply with these sections shall be removed from the premises.

51. General requirements for design and construction of water installation

(1) Any water installation or service pipe shall be designed and constructed in such a way that (a) velocities in pipes do not exceed 2 metre per second; (b) only pipes and fittings be specified and installed that will be able to withstand (i) the corrosion which may be caused by the water conveyed in the installation; and (ii) any corrosive conditions, which may be, related to the soil conditions on the premises; (c) the installation be functional to the users of the building taking due cognisance to the population and class occupancy of such building; (d) provide adequate fire protection where it is required in terms of any other law; (e) all components and materials used on the installation are watertight; (f) the installation will not cause any danger to the health of the users of the building; (g) that all pipes and fittings are able to withstand loads and forces which it may normally be subjected to and where necessary is properly protected against damage; (h) should a water leak or a water pipe burst occur, it would not jeopardise the structural safety of the building.

(2) An isolating valve shall be installed in the service pipe of a water installation not more than 1,5 metres inside the boundary of the premises concerned.

(3) The requirements of subsection 51(1) shall be accepted to be satisfied where the water installation complies with the requirements of (a) SABS 02521: 1994 (Water supply installations for buildings); (b) paragraph PP 13(2) of SABS 04001990 P relating to the number of the sanitary fittings with adequate water supply required for the population of the building; (c) SABS 04001990 Part W in relation to any fire installation.

(4) No person shall connect to a water installation a water fitting or apparatus, which causes or is likely to cause damage to the water supply system or another water installation as a result of pressure surges.

52. Design of a proposed water installation

(1) MES may require that a professional engineer designs a proposed water installation or other approved competent person in cases where MES is of the opinion that a detail design is necessary due to the complexity of the installation.

(2) Any designer of a water installation shall take the necessary care in the detail design that the water installation shall fully comply with the requirements as set out in these regulations and in Chapters 2,3,4,5,6 and 7 of SABS 02521: 1994.

53. Materials, fittings and components

- (1) Only SABS approved materials, fittings and components as listed in Chapter 2 and discussed in Chapter 5 of SABS 02521: 1994 or similar pipes, joints and fittings approved by MES shall be used on any water installation.
- (2) Notwithstanding anything to the contrary in these regulations or any relevant SABS standards and codes, MES may determine that only pipes, joints and fittings of specified materials resistant to or adequately protected against corrosion shall be used should the water be corrosive or aggressive soil conditions occur in the Metropolitan area.
- (3) Solar water heating systems shall be installed in accordance with SABS 0106.

54. Control over work on water installation

- (1) Subject to subsection 59(2), the installation of a water installation shall be carried out (a) according to drawings approved in terms of section 55 and detail specification for the installation; and (b) in conformity with the requirements of Chapter 8 of SABS 02521: 1994.
- (2) Every person carrying out or exercising control over the installation of any water installation shall ensure that (a) where copper pipes are used in the installation (i) such pipes shall be properly inspected and cleaned before installation so as to prevent any carbonaceous film being present in such pipes; (ii) only solder of copper tin or silver tin is used in capillary soldered joints on such pipes; (b) no lead chalked joints are used on any cast iron pipe; (c) no solvent cement welded joints is used on any unplasticised polyvinyl chloride (uPVC) pipes; (d) no underground pipe is laid more than 1 metre below the finished ground level on the premises or shallower than 400mm; (e) no pipe is installed within the cavity of a wall, except where it crosses the wall.

55. Cleaning, inspection, testing and disinfection of water installation

- (1) Subject to sub regulation 55(2), every water installation shall be properly cleaned, inspected, tested and disinfected in accordance with Chapter 9 of SABS 02521: 1994.
- (2) Every water installation shall on completion (a) be properly cleaned to remove any foreign matter; (b) be inspected by the representative of MES; (c) be tested under pressure in accordance with paragraph 9.2 of SABS 02521: 1994; and (d) be disinfected in accordance with paragraph 9.3 of SABS 02521: 1994.
- (3) At least 2 working days' notice shall be given to MES for the purpose of any inspection to be carried out in terms of subsection 55(2)(b).

56. MES may require testing or disinfection of water installation

- (1) MES may by written notice require any owner to employ a registered plumbing contractor to test and disinfect the water installation on the premises of such owner.
- (2) The owner of the premises concerned shall bear the costs incidental to the testing and disinfection of any water installation required in terms of subsection 56(1).

57. Covering of water installation

When any water installation is being or has been installed or any alteration or extension of any existing water installation is being or has been carried out, no person shall cover any part of such installation, alteration or extension or cause, permit or suffer it to be covered until it has been inspected and approved by MES.

58. Leakage of taps or pipes

- (1) No person shall cause or permit any pipe, tap or fitting to leak, and no tap or fitting shall be installed in such position that any leakage cannot readily be detected.
- (2) No consumer shall be entitled to any rebate in respect of the wastage of water due to faulty fittings or undetected leakage in any part of the water installation.
- (3) Any work or repair, digging or replacement, or any other operation which MES undertakes to enable a consumer to carry out repairs or other work to his own water installation, shall be undertaken by MES at the consumer's expense.

59. Pipes and stand pipes to be securely fixed

- (1) All pipes, except those laid in the ground, shall be securely fixed at frequent intervals to that portion of the wall or other rigid portion of the structure along which they pass.
- (2) All stand pipes or other pipes projecting above the ground and not otherwise secured to any structure shall be securely fixed to a stake securely driven into the ground, or by other means approved by MES, in such a manner as to prevent undue movement of such stand pipes or pipes.

60. Taps for domestic use

Other than those discharging from the hot water system, taps to supply water for domestic purposes in dwelling houses or residential buildings or for drinking purposes on any other type of premises shall be connected to a water installation pipe at a point before such pipe enters a cistern or tank and shall not be supplied from any cistern or tank: Provided that in buildings where a water supply is required at a level at which a regular and adequate supply is not available from the mains, it may be taken from a tank or cistern which shall be constructed in accordance with the provisions of these Bylaws.

61. Connection of sundry apparatus

- (1) No person shall cause or permit any water installation pipe to be connected directly to any water closet, urinal, steam boiler or trade vessel or apparatus.
- (2) Every water closet, urinal, steam boiler, trade vessel or apparatus shall be fed separately and directly from a cistern installed solely for that purpose: Provided that MES may approve of any such fitment, except a water closet being connected direct to the water installation without the interposition of a cistern or break pressure tank.
- (3) The inlet to every such cistern referred to in subsection 61(2) shall discharge above the overflow level or maximum water level, as the case may be, of the cistern: Provided that in the case of a cistern supplying a water closet or urinal, a silence pipe discharging below the normal water level of the cistern may be fitted: Provided further that an approved antisiphonic device is incorporated in the inlet valve.
- (4) No pump of whatever nature shall be connected to a water installation for the purpose of pumping water directly from MES's mains, unless prior written authority is obtained from the engineer.
- (5) Where water is supplied to a bath, or washbasin, or tank, swimming pool, dam, animal drinking trough, or any other water containing structure by a pipe in direct communication with the water installation, such pipe shall discharge above the maximum water level of such water containing structure.

62. Cistern or tank

- (1) No person shall install, fit, use or cause or permit to be installed, fitted or used upon any premises a cistern or tank for the reception or storage of water, other than a cistern used for flushing water closets or other sanitary fittings, unless – (a) the cistern or tank is constructed of a material which in the opinion of the engineer is sufficiently strong for the purpose and capable of resisting corrosion; (b) the cistern or tank is watertight, vermin proof, and properly covered and ventilated; (c) the cistern or tank provided with access covers which shall be bolted down locked in position at all times, except when opened for inspection; (d) the inlet pipe to the cistern or tank discharges above the overflow level of the cistern or tank, and is provided with a stopcock located near the cistern or tank, and a float valve or similar device of a type approved by the engineer; (e) the cistern or tank is so placed that it may be readily drained and inspected and cleansed inside and outside; (f) a stopcock is fitted to the outlet pipe near to each cistern or tank so that repairs to any pipe leading from or to apparatus fed by the cistern or tank can be effected without emptying the latter; (g) a brass sampling cock is fitted to the cistern or tank to enable the engineer to draw samples of the water stored therein when necessary for testing purposes; (h) the cistern or tank is provided with an adequate drainage system to ensure that the premises are not flooded in the event of leakage or accidental overflow, the capacity of such drainage system to be such that it will be capable of discharging water at a rate at least equal to the rate of flow of the incoming supply and the outlet of the drainage discharge pipe to be so situated that the discharge of water may be readily detected.
- (2) In the event of water stored in the cistern or tank becoming contaminated in any way, the consumer shall on instructions from MES take immediate steps to drain the cistern or tank, cleanse it and disinfect it to the standards set by MES before refilling and replacing in service.
- (3) When a cistern or tank on account of age or deterioration or for any other reason, no longer complies with the requirements of this section, the consumer, shall adequately repair or entirely replace the tank or cistern within 60 days of receipt of written notice from MES to do so.
- (4) When a continuous, supply of water to the premises is required, the required cisterns or tanks shall be provided in duplicate.

63. Overflow pipe to cistern or tank

Every cistern or tank shall be provided with an overflow or waste pipe, the position of which shall admit the discharge of water being readily detected.

64. Capacity of cistern

Every steam boiler and any premises, which require, for the purpose of the work undertaken on the premises, a continuous supply of water, shall have a cistern holding not less than half a day's supply calculated according to the average daily consumption.

65. Distance between water installation and electric wires

- (1) No portion of the water installation shall, except where it is part of a specifically approved water installation, be laid, installed or maintained within 300 mm of, or be in metallic contact with, any electrical apparatus: Provided that this requirement shall not be taken as preventing electrical bonding as required by any bylaws or regulations for the supply and use of electrical energy and for the wiring of premises.
- (2) No tap, valve or similar apparatus shall be laid, installed, fixed or maintained within 2 m of an electrical socket outlet, appliance or distribution board without the prior written approval of MES.

CHAPTER 7

SPECIAL PROVISIONS RELATING TO FIRE EXTINGUISHING EQUIPMENT

66. Provision of water connection for firefighting purposes

(1) Notwithstanding anything to the contrary contained in these regulations, MES may, where a special agreement therefor has been concluded with the owner of any premises, provide a water connection on a water main for the purposes of any fire extinguishing installation on such premises, subject to the provisions of this Chapter.

(2) The costs incidental to the provision by MES of water connection for a fire installation, including a water meter, isolating valve and other ancillary fittings, shall be borne by the owner concerned and shall be as determined in the water tariff.

(3) The pipes necessary for providing the water connection shall be installed by MES up to the boundary of the premises concerned, and which shall not be used for any purpose other than to serve the fire installation on the premises.

(4) No branch connection of any kind shall be made from a water connection pipe, except for the purpose of serving automatic sprinklers, drenchers, hydrants or a pressure tank.

(5) A water meter capable of handling the design flow for fire extinguishing purposes and normal water use shall be provided by MES on the water connection pipe provided for the premises.

(6) Every water connection pipe for a fire installation shall be fitted with an approved isolating valve provided by MES, which shall (a) be of the same nominal diameter as the water connection pipe; (b) be placed in such position as may be determined by MES; and (c) be installed in front of the water meter.

67. Design of fire installation

(1) In any fire installation adequate pumping connections and means to measure water pressure shall be provided, with enough isolating valves to control the flow of water to points within the installation, at the required quantity and pressure to ensure enough flow of water to any hose reel, hydrant or sprinkler system connected to the installation.

(2) The requirements of subsection 67(1) shall be considered as being satisfied where a fire installation is designed by a professional engineer or other approved competent person according to a detailed design or where the fire installation complies with paragraph 3 of Part W of SABS 0400, and approved by MES.

(3) The discharge from any pressure tank shall be controlled by a suitable ball valve.

68. General requirements for fire installations

(1) Where an existing sprinkler installation has been connected to the water main, no additional sprinkler heads shall thereafter be connected to such sprinkler installation, without the written consent of MES.

(2) No extension or connection from any existing fire installation to premises other than that for which it was approved, shall be made, and in the event of any such connection or extensions being made MES may take any steps necessary to disconnect such a connection or extension and recover the costs incidental thereto from the owner or any other person responsible for such connection or extension.

(3) No supply of water shall be made or given until the fire installation has been inspected and MES has certified in writing that such installation is in accordance with these regulations and the work in connection therewith has been carried out to his or her satisfaction.

(4) Any existing unmetered water connection provided by MES to the water main for the purposes of a fire installation shall be at the pleasure of MES, which shall be entitled to discontinue the service providing such connection at any time after at least 30 days' notice of its intention to do so had been given to the owner concerned and if such owner has failed to show good cause for the retention of such connection.

(5) All fittings provided by an owner of any premises for firefighting purpose, including hose reels, hydrants and sprinkler systems shall comply with MES's regulations on fire protection.

(6) Any person who contravenes the provisions of subsections 68(1), 68(3) and 68(5) or who makes or causes or permits to be made any connection or extension in contravention of the provisions of subsection 68(2), shall be guilty of an offence.

69. Payment for water supply to a fire installation

The charges for the supply of water to a fire installation shall be as determined in the water tariff.

70. Inspection and approval of fire extinguishing system

No water shall be supplied to any fire extinguishing system until it has been inspected and MES or his duly authorised representative has certified in writing that such water installation complies with the requirements of these Bylaws and the work has been carried out to his satisfaction.

71. Provision of pressure gauge

A pressure gauge indicating the water pressure in kPa shall be fixed on all fire extinguishing systems inside the premises of the consumer.

72. Installation of reflux valve

(1) When a fire extinguishing installation includes a fire pump connection, a reflux valve of a type approved by MES shall be fitted on the premises in an accessible position permitting of its ready inspection, repair and removal.

(2) The said reflux valve shall be used to shut off the domestic supply from MES's main whenever or for so long as the fire pump connection is in use.

(3) The said reflux valve shall be serviced at least once annually by a registered bona fide firm approved by the engineer as being capable of undertaking such work.

(4) When called upon to do so by MES, the consumer shall produce a certificate from the said firm that the service has been done.

73. Sprinkler extinguishing installation

A sprinkler installation may be installed in direct communication with the main, but MES shall not be deemed to guarantee any specified pressure of water at any time.

74. Header tank or double supply from mains

(1) Unless a duplicate supply from a separate main is provided for the sprinkler installation, the consumer shall install a header tank at such an elevation as will compensate for any cessation or reduction of pressure in MES's main.

(2) The main pipe leading from the header tank to the sprinkler installation may be in direct communication with the main: Provided that in such case it is fitted with a reflux valve which will close against the main and open to the main pipe leading from the tank should the pressure in the main not be available for any reason.

(3) An overflow pipe shall be fitted to such tank, which pipe shall discharge in such a position as to be readily observable, and shall not be led away by any down pipe to any drain.

(4) Where a duplicate supply from a separate main is provided, each supply pipe shall be fitted with a reflux valve situated on the premises.

(5) The reflux valves installed in terms of subsection 74(2) and 74(4) shall be serviced annually and should also comply with subsections 72(3) and 72(4).

75. Sealing of private fire hydrants

(1) MES shall seal all private hydrants and no person shall break such seal except in case of fire.

(2) The cost of resealing such hydrants shall be born by the consumer except when such seals are broken by MES's officers for testing purposes.

(3) Any water consumed after the breaking of the seal, other than in the course of testing by MES or in case of fire, shall be paid for by the consumer at the rates prescribed in the water tariff. MES shall determine the quantity thus consumed.

(4) Until a fire connection has been metered, the fire connection shall not be used for any other purpose other than fire fighting purpose.

(5) Any person who fails to comply with subsection 75(3) and 75(4) will be guilty of an offence.

CHAPTER 8

GENERAL PROVISIONS

76. Obstruction of access to water connection on premises

(1) No person shall prevent or restrict MES or any duly authorised official of MES from gaining access to any part of the water connection on any premises.

(2) If it is not reasonably possible for MES or an official referred to in subsection 76(1) to gain access to the relevant part of the water connection on the premises by reason of any object, including any construction of bricks, stone, iron, wood or any other material obstructing such access, MES may by written notice to the consumer concerned, and without prejudice to MES's power under section 77, require that the consumer removes such object and restores such access within a period specified in the notice.

(3) If, in a case contemplated in subsection 76(2), MES is of the opinion that the situation is a matter of urgency or if reasonable grounds exist for suspecting that a contravention of any provision of these regulations has been or is being committed, MES may cause the object concerned to be removed and any other steps to be taken to gain access, and MES may recover from the consumer the cost incurred for that purpose.

(4) MES shall not be liable for any damage resulting from any action taken under subsection 76(3), but shall restore such premises to the former condition should no breach of these regulations be discovered.

(5) A consumer who refuses or fails to comply with a notice referred to in subsection 76(2) shall be guilty of an offence.

77. Power of entry and inspection

(1) An officer may for any purpose connected with the implementation or enforcement of these regulation, at all reasonable times or in an emergency at any time, enter premises, request information and carry out such inspection and examination as he or she may deem necessary, and for those purposes operate any water fitting of the water installation.

(2) If MES considers it necessary that work be performed to enable an officer to perform a function referred to in subsection 77(1) properly and effectively, it may (a) by written notice require the owner of occupier of the premises at his or her own expense to do specified work within a specified period; or (b) if in its opinion the situation is a matter of urgency, without prior notice do such work or cause it to be done at the expense of the owner.

(3) If the work referred to in subsection 77(2) is carried out for the sole purpose of establishing whether a contravention of these regulations has been committed and no such contravention is established, MES shall bear the expense connected therewith together with that of restoring the premises to their former condition.

(4) If an officer requires the presence of (a) an owner at an inspection of his or her water installation; or (b) a registered plumber doing installation work at an inspection of such work; he or she give such person written notice of not less than five working days to that effect, indicating the date and time when and the place where he or she proposes to carry out the inspection.

78. Notices

(1) MES may, by written notice, order a person who by act or omission commits a breach of these regulations or of any condition imposed thereunder to remedy such breach within a period specified in the notice.

(2) If a person fails to comply with a written notice served on him or her by MES in terms of these regulations within the specified period, it may take such action or do such work as in its opinion is necessary to ensure compliance, and recover the cost of such action or work from the person.

79. Penalties

Any person convicted of an offence under these regulations shall be liable to a fine not exceeding R20 000 or to imprisonment for a period not exceeding 6 months.

80. Tariffs

Water tariff as determined from time to time, by MES in terms of the relevant legislation.