

GNR.509 of 8 June 2001: Regulations relating to compulsory national standards and measures to conserve water

DEPARTMENT OF WATER AFFAIRS AND FORESTRY

The Minister of Water Affairs and Forestry has under [sections 9 \(1\) and 73 \(1\) \(j\)](#) of the Water Services Act, 1997 (Act [No. 108 of 1997](#)), made the Regulations in [the Schedule](#).

SCHEDULE

ARRANGEMENT OF SECTIONS

- [1.](#) Definitions
- [2.](#) Basic sanitation
- [3.](#) Basic water supply
- [4.](#) Interruption in provision of water services
- [5.](#) Quality of potable water
- [6.](#) Control of objectionable substances
- [7.](#) Disposal of grey water
- [8.](#) Use of effluent
- [9.](#) Quantity and quality of industrial effluent discharged into a sewerage system
- [11.](#) Water and effluent balance analysis and determination of water losses
- [12.](#) Repair of leaks
- [13.](#) Measurement or control of water supplied
- [14.](#) Consumer installations other than meters
- [15.](#) Pressure in reticulation system
- [16.](#) Reporting of non-compliance

1. Definitions.—In these Regulations any word or expression to which a meaning has been assigned in the Act shall bear that meaning and, unless the context otherwise indicates—

“effluent” means human excrete, domestic sludge, domestic waste-water, grey water or waste water resulting from the commercial or industrial use of water;

“grey water” means waste water resulting from the use of water for domestic purposes, but does not include human excreta;

“supply zone” means an area, determined by a water services institution, within which all the consumer connections are provided with water supply services from the same bulk supply;

“the Act” means the Water Services Act, 1997 (Act [No. 108 of 1997](#));

“the National Water Act” means the National Water Act, 1998 (Act [No. 36 of 1998](#));

“user connection” means any connection through which a user can gain access to water services and includes any consumer installation and any bulk or communal connection.

“user sector” means the applicable category of users, being users categorised into at least either—

- (a) domestic;
- (b) industrial; or
- (c) commercial, sectors;

“water efficient device” means any product that reduces the excessive use of water.

2. Basic sanitation.—The minimum standard for basic sanitation services is—

- (a) the provision of appropriate health and hygiene education; and
- (b) a toilet which is safe, reliable, environmentally sound, easy to keep clean, provides privacy and protection against the weather, well ventilated, keeps smells to a minimum and prevents the entry and exit of flies and other disease-carrying pests.

3. Basic water supply.—The minimum standard for basic water supply services is—

- (a) the provision of appropriate education in respect of effective water use; and
- (b) a minimum quantity of potable water of 25 litres per person per day or 6 kilolitres per household per month—
 - (i) at a minimum flow rate of not less than 10 litres per minute;
 - (ii) within 200 metres of a household; and
 - (iii) with an effectiveness such that no consumer is without a supply for more than seven full days in any year.

4. Interruption in provision of water services.—A water services institution must take steps to ensure that where the water services usually provided by or on behalf of that water services institution are interrupted for a period of more than 24 hours for reasons other than those contemplated in [section 4](#) of the Act, a consumer has access to alternative water services comprising—

- (a) at least 10 litres of potable water per person per day; and
- (b) sanitation services sufficient to protect health.

5. Quality of potable water.—(1) Within two years of the promulgation of these Regulations, a water services authority must include a suitable programme for sampling the quality of potable water provided by it to consumers in its water services development plan.

(2) The water quality sampling programme contemplated in [subregulation \(1\)](#) must specify the points at which potable water provided to consumers will be sampled, the frequency of sampling and for which substances and determinants the water will be tested.

(3) A water services institution must compare the results obtained from the testing of the samples with SABS 241: Specifications for Drinking Water, or the South African Water Quality Guidelines published by the Department of Water Affairs and Forestry.

(4) Should the comparison of the results as contemplated in [subregulation \(3\)](#) indicate that the water supplied poses a health risk, the water services institution must inform the Director-General of the Department of Water Affairs and Forestry and the head of the relevant Provincial Department of Health and it must take steps to inform its consumers—

- (a) that the quality of the water that it supplies poses a health risk;

- (b) of the reasons for the health risk;
- (c) of any precautions to be taken by the consumers; and
- (d) of the time frame, if any, within which it may be expected that water of a safe quality will be provided.

6. Control of objectionable substances.—(1) A water services institution must take measures to prevent any substance other than uncontaminated storm water to enter—

- (a) any storm water drain; or
- (b) any watercourse, except in accordance with the provisions of the National Water Act.

(2) A water services institution must take measures to prevent storm water from entering its sewerage system.

7. Disposal of grey water.—A water services institution may impose limitations on the use of grey water if the use thereof may negatively affect health, the environment or available water resources.

8. Use of effluent.—(1) A water services institution must ensure that the use of effluent for any purpose does not pose a health risk before approving that use.

(2) Any tap or point of access through which effluent or non-potable water can be accessed, must be clearly marked with a durable notice indicating that the effluent or non-potable water is not suitable for potable purposes.

(3) A notice contemplated in [subregulation \(2\)](#) must be in more than one official language and must include the PV5 symbolic sign for non-potable water as described in SABS 1186: Symbolic Safety Signs: Part 1: Standards, Signs and General Requirements.

9. Quantity and quality of industrial effluent discharged into a sewerage system.—A water services institution is only obliged to accept the quantity and quality of industrial effluent or any other substance into a sewerage system that the sewage treatment plant linked to that system is capable of purifying or treating to ensure that any discharge to a water resource complies with any standard prescribed under the National Water Act.

10. Water services audit as a component in the Water Services Development Plan.—(1) A water services authority must include a water services audit in its annual report on the implementation of its water services development plan required in terms of [section 18 \(1\)](#) of the Act.

(2) A water services audit must contain details for the previous financial year and, if available, comparative figures for the preceding two financial years of—

- (a) the quantity of water services provided, including at least—

- (i) the quantity of water used by each user sector;
 - (ii) the quantity of water provided to the water services institution by another water services institution;
 - (iii) the quantity of effluent received at sewage treatment plants; and
 - (iv) the quantity of effluent not discharged to sewage treatment plants and approved for use by the water services institution;
- (b) the levels of services rendered, including at least—
- (i) the number of user connections in each user sector;
 - (ii) the number of households provided with water through communal water services works;
 - (iii) the number of consumers connected to a water reticulation system where pressures rise above 900 kPa at the consumer connection;
 - (iv) the number of households provided with sanitation services through consumer installations connected to the sewerage system;
 - (v) the number of households with access to basic sanitation services;
 - (vi) the number of new water supply connections made; and
 - (vii) the number of new sanitation connections made;
- (c) the numbers provided in compliance with [paragraph \(b\)](#) expressed as a percentage of the total number of connections or households;
- (d) cost recovery, including at least—
- (i) the tariff structures for each user sector;
 - (ii) the income collected expressed as a percentage of total costs for water services provided; and
 - (iii) unrecovered charges expressed as a percentage of total costs for water services provided;
- (e) meter installation and meter testing, including at least—
- (i) the number of new meters installed at consumer installations; and

- (ii) the number of meters tested and the number of meters replaced expressed as a percentage of the total number of meters installed at consumer connections;
- (f) the water quality sampling programme contemplated in [regulation 5 \(1\)](#), the results of the comparison set out in [regulation 5 \(3\)](#) and any occurrence reported in compliance with [regulation 5 \(4\)](#); and
- (g) water conservation and demand management, including at least—
 - (i) the results of the water balance as set out in [regulation 11](#);
 - (ii) the total quantity of water unaccounted for;
 - (iii) the demand management activities undertaken; and
 - (iv) the progress made in the installation of water efficient devices.

11. Water and effluent balance analysis and determination of water losses.—(1) Within two years of the promulgation of these Regulations, a water services institution must every month—

- (a) measure the quantity of water provided to each supply zone within its supply area;
- (b) determine the quantity of unaccounted for water by comparing the measured quantity of water provided to each supply zone with the total measured quantity of water provided to all user connections within that supply zone;
- (c) measure the quantity of effluent received at each sewage treatment plant; and
- (d) determine the quantity of water supplied but not discharged to sewage treatment plants by comparing the measured quantity of effluent received at all sewage treatment plants with the total measured quantity of water provided to all user connections.

(2) A water services institution must—

- (a) take steps to reduce the quantity of water unaccounted for; and
- (b) keep record of the quantities of water measured and of the calculations made.

12. Repair of leaks.—A water services institution must repair any major, visible or reported leak in its water services system within 48 hours of becoming aware thereof.

13. Measurement or control of water supplied.—(1) A water services institution must—

(a) within two years after promulgation of these Regulations, fit a suitable water volume measuring device or volume controlling device to all user connections provided with water supply services that are existing at the time of commencement of these Regulations; and

(b) fit a suitable water volume measuring device or volume controlling device to every user connection made after the commencement of these Regulations.

(2) If constructed or installed after promulgation of these Regulations, a suitable water volume measuring device or volume controlling device must be fitted to separately measure or control the water supply to every—

(a) individual dwelling within a new sectional title development, group housing development or apartment building;

(b) individual building, having a maximum designed flow rate exceeding 60 litres per minute within any commercial or institutional complex; and

(c) irrigation system with a maximum designed flow rate exceeding 60 litres per minute that uses water supplied by a water services institution.

(3) Where the water supplied is measured by way of a meter, that meter must comply with the Trade Metrology Act, 1973 (Act [No. 77 of 1973](#)), if of a size regulated under that Act.

14. Consumer installations other than meters.—Every consumer installation must comply with SABS 0252: Water Supply and Drainage for Buildings and SABS 0254: The Installation of Fixed Electric Storage Water Heating Systems, or any similar substituting re-enactment or amendment thereof if the consumer installation is of a type regulated by either standard.

15. Pressure in reticulation system.—(1) A water services institution must design and maintain every water reticulation system installed after promulgation of these Regulations to operate below a maximum pressure of 900 kPa.

(2) Where water pressure in a water reticulation system could rise above 900 kPa, a water services institution must install a pressure control device to prevent the pressure at any domestic consumer connection from rising above 900 kPa.

16. Reporting of non-compliance.—A water services institution must have a consumer service to which non-compliance with these regulations can be reported.