

Water Pollution Control (Waste and Effluent Water Standards)
Regulations, 1971

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IT is hereby notified that the Minister of Water Development, after consultation with the Minister of Health and the Standards Association of Central Africa, has, in terms of section 135 E of the Water Act [*Chapter 268*], made the following regulations:—

Title

1. These regulations may be cited as the Water Pollution Control (Waste and Effluent Water Standards) Regulations, 1971.

Interpretation of terms

2. In these regulations—

"catchment area" means the area which naturally drains into a river, watercourse, lake or reservoir and from which it receives surface or underground flow which originates from rainfall;

"heavy metal" means a metal having a specific gravity greater than 5.0.

PART I

PREScribed STANDARDS OF WASTE OR EFFLUENT WATER

Applicability of regulations

3. Unless an exemption permit has been granted by the Minister of Water Development, in terms of section 135C of the Water Act [Chapter 268], waste or effluent water which has been produced by or results from the use of water for manufacturing, mechanical or mining purposes, for the generation of power or for the purposes of water-borne sanitation shall not be discharged or permitted to flow into any water, including private water, whether directly or through seepage or drainage, unless it conforms with the requirements as to standards of quality prescribed in these regulations.

Colour, odour or taste

4. Waste or effluent water shall not contain any colour, odour or taste capable of causing pollution.

Radioactive substances

5. Waste or effluent water shall not contain any radioactive substance capable of causing pollution.

Quality standards for particular river catchment areas

6. (1) Waste or effluent water shall conform with the standards of quality specified in subsections (2) to (10) for the particular river catchment areas, or portions of river catchment areas, as set out in the First Schedule hereto, in which discharge takes place.

(2) The pH of the waste or effluent water shall be, in—

(a) zone one catchment areas, between 6.0 and 7.5;

(b) zone two catchment areas, between 6.0 and 9.0.

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- (3) The temperature of the waste or effluent water at the point of discharge shall not exceed, in—
- (a) zone one catchment areas, 25° C;
 - (b) zone two catchment areas, 35° C
- (4) Waste or effluent water shall contain dissolved oxygen to the extent of at least, in—
- (a) zone one catchment areas, 75 per cent saturation;
 - (b) zone two catchment areas, (10 per cent saturation.
- (5) The chemical oxygen demand of the waste or effluent water, after applying the chloride correction, shall not exceed, in—
- (a) zone one catchment areas, 30 milligrams per litre;
 - (b) zone two catchment areas, 60 milligrams per litre.
- (6) The oxygen absorbed by the waste or effluent water shall not exceed, in—
- (a) zone one catchment areas, 5 milligrams per litre;
 - (b) zone two catchment areas, 10 milligrams per litre.
- (7) The total undissolved solids content of the waste or effluent water at the point of discharge shall not be greater than—
- (a) in the case of zone one catchment areas, 10 milligrams per litre;
 - (b) in the case of zone two catchment areas, 25 milligrams per litre.
- (8) The total dissolved solids content of the waste or effluent water at the point of discharge shall not, in the case of—
- (a) zone one catchment areas, increase the total dissolved content of the receiving water by more than 100 per cent, and the total dissolved solids content of the effluent shall not exceed 100 milligrams per litre;
 - (b) zone two catchment areas, exceed 500 milligrams per litre.
- (9) Waste or effluent water shall not contain soap, oil or grease in quantities greater than, in the case of—
- (a) zone one catchment areas, nil;
 - (b) zone two catchment areas, 25 milligrams per litre.

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(10) Waste or effluent water shall comply with the requirements given in the Second Schedule in regard to the maximum permissible concentrations of certain chemical constituents.

Calcium-magnesium ratio

7. The calcium-magnesium ratio of the waste or effluent water, when both these elements are expressed in milliequivalents per litre, shall not be less than 0.5.

Sodium absorption ratio

8. The sodium absorption ratio, of the waste or effluent water, shall not exceed—

- (a) 8 for waste or effluent water containing less than 150 milligrams per litre total dissolved solids; or
- (b) 4 for waste or effluent water containing more than 150 milligrams per litre total dissolved solids.

Poisonous residues

9. Waste or effluent water shall not contain any detectable quantities of pesticide, herbicide or insecticide, nor shall it contain any other substances not referred to elsewhere in these standards, in concentrations which are poisonous or injurious to human, animal, vegetable or aquatic life.

PART II

SAMPLING AND ANALYSIS

Suitable points for sampling

10. Suitable points, acceptable to the Director of Water Development, for the taking of samples of waste or effluent waters for the purpose of testing and analysis, shall be provided where requested by the Director of Water Development.

Sampling procedure

11. (1) A composite sample for the purpose of analysis for all tests, other than those for temperature, pH and dissolved oxygen, shall be taken by combining individual samples so that a minimum of five samples of equal volume of not less than 500 millilitres each of the waste or effluent water shall be taken, at the point of discharge, at approximately equal intervals of time

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over a minimum period of four hours within any twenty-four hour period.

(2) Temperature, pH and dissolved oxygen readings shall be taken on individual samples at the time of sampling and all samples shall comply with the prescribed standard for temperature, pH and dissolved oxygen.

(3) Where full laboratory facilities do not exist on the site for the determination of dissolved oxygen, the oxygen in the sample may be fixed at the time of sampling by adding the sulphuric acid, the permanganate, the oxalate, the manganese sulphate and the alkaline iodide only. The sample must be replaced and the solution well mixed.

(4) The remaining steps may be carried out later in the laboratory.

Pearl River (Section 6)

RIWER CATCHMENT AREA ZONES

1. Zone One

River	Locality
(1) The Okeani River and its tributaries	Iyanga District
(2) The Pungu River and its tributaries	Iyanga District
(3) The Bendi River and its tributaries	Iyanga District
(4) The Nyankwama River and its tributaries	Iyanga District
(5) The Iyunguaba River and its tributaries to its confluence with the Nyenzi River	Iyanga and Makindu Districts
(6) The Nyenzi River and its tributaries to its confluence with the Iyunguaba River	Iyanga District
(7) The Odoi River and its tributaries to its confluence with the Okeani River	Iyanga District
(8) The Okeani River and its tributaries to its confluence with the Odoi River	Iyanga District
(9) The Mwasini River and its tributaries	Usuki District
(10) The Uvurumuru River and its tributaries to its confluence with the Iyunguaba River	Mecherchar District
(11) The Iyunguaba River and its tributaries to its confluence with the Uvurumuru River	Mecherchar District
(12) The Nyanyuki River and its tributaries to its confluence with the Bati Wari River	Mecherchar District
(13) The Bati Wari River and its tributaries to its confluence with the Nyanyuki River	Mecherchar District
(14) The Lunda River and its tributaries	Mecherchar District
(15) The Bati River and its tributaries	Oyugya District

2. Zone Two

All river catchment areas other than those specified under Zone One above.

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SECOND SCHEDULE (Section 6)

MAXIMUM PERMISSIBLE CONCENTRATIONS OF CERTAIN
CHEMICAL CONSTITUENTS

Constituent	Maximum concentration in milligrams per litre	
	Zone One Catchment area	Zone Two Catchment area
Ammoniac Phos and Sulphur (as N)	0.5	0.5
Arsenic (as As)	0.05	0.05
Barium (as Ba)	0.1	0.5
Bismuth (as Bi)	0.5	0.5
Calcium (as Ca)	0.01	0.01
Chlorides (as Cl)	50	200
Chlorine Residual (as free Chlorine)	NE	0.1
Chromium (as Cr)	0.05	0.05
Copper (as Cu)	0.02	0.5
Cyanides and Related Compounds (as CN)	0.2	0.2
Detergents (as Manganese—OT)	0.2	1.0
Fluoride (as F)	1.0	1.0
Iron (as Fe)	0.3	0.3
Lead (as Pb)	0.05	0.05
Manganese (as Mn)	0.1	0.1
Mercury (as Hg)	0.5	0.5
Nickel (as Ni)	0.3	0.3
Nitrogen Total (as N)	10.0	10.0
Phenolic Compounds (as Phenol)	0.01	0.1
Phosphates Total (as P)	1.0	1.0
Sulphate (as SO ₄)	50	200
Sulphides (as S)	0.05	0.1
Zinc (as Zn)	0.3	1.0
Total Heavy Metals	1.0	2.0

[ACT 18/59 (FEDERAL)]

Weights and Measures (Sale of Articles) (Amendment)
Regulations, 1971 (No. 16)

It is hereby notified that the Minister of Commerce and Industry has, in terms of section 28 of the Weights and Measures Act, 1959, made the following regulations—

1. These regulations may be cited as the Weights and Measures (Sale of Articles) (Amendment) Regulations, 1971 (No. 16).

2. Section 11 of the Weights and Measures (Sale of Articles) Regulations, 1965, published in Rhodesia Government Notice No. 533 of 1965 (hereinafter called the principal regulations), is repealed and the following is substituted—

"Bread"

11. (1) Subject to the provisions of subsection (2), no person shall sell bread otherwise than—

- (a) by mass; and
- (b) in quantities of 425 g or an integral multiple of 425 g.

(2) The quantities prescribed in subsection (1) may be exceeded by a mass not exceeding 50 g for each 425 g of bread:

Provided that any quantity of bread the mass of which exceeds the mass permitted in terms of this subsection by more than 50 g for each 425 g of actual mass shall be deemed to have been sold as a quantity of the next higher multiple of 425 g.

(3) The provisions of subsection (1) shall not apply to bread which does not exceed 350 g in mass."

3. Section 16 of the principal regulations is repealed and the following is substituted—

"Fire-wood"

16. (1) Subject to the provisions of subsection (2), no person shall sell fire-wood otherwise than—

- (a) by mass; or
- (b) in quantities of 1 m³, or an integral multiple of 1 m³.

(2) The provisions of subsection (1) shall not apply to fire-wood sold in quantities of less than 100 kg."

ACT 18/59 (FEDERAL)]

**Weights and Measures (Sale of Articles) (Amendment)
Regulations, 1971 (No. 16)**

4. The Seventh Schedule to the principal regulations is amended—

(a) by the deletion, under the appropriate headings, of—

Article	Quantity	Commencing date	Compulsory date
"Cream and drinking chocolate	Any quantity up to and including 42.5 g, 125 g, 250 g, 500 g, 1 kg, and integral multiples of 1 kg	1-3-1971	1-8-1971
and			
"Instant coffee and dietary mixtures	Any quantity up to and including 50 g, 42.5 g, 100 g, 400 g, 500 g, 1 kg, and integral multiples of 0.5 kg above 1 kg up to 50 kg	1-3-1971	
and			
"Pure instant coffee	Any quantity up to and including 25 g, 42.5 g, 125 g, 250 g, 500 g, 1 kg, and integral multiples of 0.5 kg above 1 kg up to 50 kg	1-3-1971	30-6-1971
and			
"Tea (including bulk tea)	Any quantity up to and including 42.5 g, 125 g, 250 g, 500 g, 1 kg, and integral multiples of 1 kg	1-3-1971	

(b) by the insertion, under the appropriate headings, of—

Article	Quantity	Commencing date	Compulsory date
"Beverages or other similar products not otherwise provided	50 g, 100 g, 200 g, 500 g and 1 kg	30-6-1971	
Salt tea and molasses tea	50 g, 100 g, 200 g, 500 g	30-6-1971	30-12-1971
Cream and drinking chocolate	Any quantity up to and including 42.5 g, thereafter 125 g, 250 g, 500 g, 1 kg and integral multiples of 1 kg	1-3-1971	1-8-1971
Coffee	5 kg, 10 kg, 20 kg, 50 kg	30-6-1971	
Dated fruit	Any quantity up to and including 42.5 g, thereafter 125 g, 250 g, 370 g, 500 g, 1 kg and integral multiples of 0.5 kg above 1 kg	30-6-1971	1-8-1971
Bottle oils	Multiples of 5 ml up to 25 ml, multiples of 25 ml up to and including 375 ml, thereafter 710 ml, 730 ml, 750 ml, 1 l, 2.5 l, 5 l and integral multiples of 1 l above 5 l	30-6-1971	
Flour	200 g, 1 kg, 2 kg, 5 kg, 10 kg, 20 kg, 50 kg and 90 kg	30-6-1971	1-8-1971

[ACT 1659 (FEDERAL)]

Weights and Measures (Sale of Articles) (Amendment)
Regulations, 1971 (No. 16)

Article	Quantity	Commencement date	Compliance date
Full cream dried milk powder	200 g, 500 g, 1 kg and integral multiples of 1 kg	20-6-1971	1-6-1972
Golden syrup and treacle	250 g, 500 g, 1 kg, 25 kg, 250 kg	20-6-1971	20-6-1971
Ground coffee	Any quantity up to and including 20 g, thereafter 500 g, 250 g, 500 g, 1 kg and integral multiples of 1 kg	20-6-1971	1-6-1972
Instant coffee and dietary substitutes	Any quantity 10 g to and including 20 g, thereafter 500 g, 250 g, 500 g, 1 kg and integral multiples of 0.5 kg above 1 kg up to 20 kg	1-3-1971	1-6-1972
Jams and jellies (jam type) and marmalades	Any quantity up to and including 113 g, thereafter 226 g, 340 g, 453 g, 680 g, 5.77 g, 3-423 kg, 22-48 kg <i>Any quantity when proposed separately for distribution</i>	20-6-1971	
Margarines and other animal and vegetable cooking fats (including butter and ghee)	125 g, 250 g, 500 g and integral multiples of 500 g	1-6-1971	1-7-1972
Pure instant coffee	Any quantity up to and including 25 g, thereafter 62.5 g, 125 g, 250 g, 500 g, 1 kg and integral multiples of 0.5 kg above 1 kg up to 20 kg	1-3-1971	1-6-1972
Tea (including both tea and rooibos tea)	Any quantity up to and including 62.5 g, thereafter 125 g, 250 g, 500 g, 1 kg and integral multiples of 1 kg	1-3-1971	1-6-1972
Wool	50 g, 20 g, 25 g and integral multiples of 20 g or 25 g	20-6-1971	20-12-1971