

The Laws of Zambia

SECOND SCHEDULE

SUPPLEMENTARY UNITS OF SI

The supplementary units of the SI are defined as follows-

<i>Physical quantity</i>	<i>Name of unit</i>	<i>Unit Symbol</i>	<i>Definition</i>
1. Plane	radian	rad	The radian is the plane angle between two radii of a circle which cut off on the circumference an arc equal in length to the radius.
2. Solid	steradian	sr	The steradian is the solid angle which, having its vertex in the centre of sphere equal to that of a square with sides of length equal to the radius of the sphere.

The Laws of Zambia

THIRD SCHEDULE

(1) DERIVED UNITS OF SI

A derived unit means a unit derived only from the base units set out and defined in the First Schedule or the Supplementary Units set out and defined in the Second Schedule or both by the process of multiplication or division or both without the introduction of any co-efficients. The derived units of SI are defined as follows-

<i>Quantity</i>	<i>Nazme</i>	<i>Symbol</i>
Area	Square metre	m ²
Volume	Cubic metre	m ³
Speed Velocity	metre per second	m/s
Acceleration	metre per second squared	m/s ²
Wave number	1 per metre	m ⁻¹
Density, mass density	kilogram per cubic metre	kg/m ³
Specific volume	cubic metre per kilogram	m ³ /kg
Current density	ampere per square metre	A/m ²
Magnetic field strength	ampere per metre	A/m
Concentration (of amount of substance)	mole per cubic metre	mol/m ³
Luminance	candela per square metre	cd/m ²

(2) SI DERIVED UNITS WITH SPECIAL NAMES

The Laws of Zambia

<i>Quantity of Units</i>	<i>Name</i>	<i>Symbol</i>	<i>Expression in terms of other SI Units</i>	<i>Expression in terms of SI base</i>
Frequency	hertz	Hz		S^{-1}
Force	newton	N		$m\ kg\ S^{-2}$
Pressure				
Stress	pascal	pa	N/m ²	$m^{-1}\ kg\ S^{-2}$
Energy work quantity of heat	Double	J	Nm	$m^2\ kg\ S^{-2}$
Power, radiant, flux	watt	W	J/S	$m^2\ kg\ S^3$
Electric charge quantity of electricity	coulomb	C		SA
Electric potential difference, electro-motive force	Volt	V	W/A	$m^2\ kg\ S^{-3}\ A^{-1}$
Capacitance	farad	F	C/V	$m^2\ kg\ s^{-1}\ S^4\ A^2$
Electric resistance	ohm		V/A	$m^2\ kg\ s^{-3}\ A^{-2}$
Electric Conductance	siemens	S	A/V	$m^{-2}\ kg^{-1}\ s^3\ A^2$
Magnetic flux	weber	Wb	V/s	$m^2\ kg\ s^{-2}\ A^{-1}$
Magnetic flux	tesla	T	Wb/m ²	$kg\ s^{-2}\ A^{-1}$
Inductance	henry	H	Wb/A	$m^2\ kg\ s^{-2}\ A^{-2}$
Celsius temperature	degree	degreeC		K
Luminous flux	lumen	lm		cd sr (b)
Illuminance	lux	lx	lm/m ²	$m^{-2}\ cd\ sr\ (b)$
Activity (of a radio-nuclide)	becquerel	Bq		s^{-1}
Absorbed dose, specific energy	grey	Gy	J/kg	$m^2\ s^{-2}$
Imparted, kerma absorbed dose index dose equivalent index	sievert	Sv	J/kg	$M^2\ S^{-2}$

(3) SI DERIVED UNITS EXPRESSED BY MEANS OF SPECIAL NAMES

The Laws of Zambia

<i>Quantity</i>	<i>Name</i>	<i>Symbol</i>	<i>Expression in terms of SI base units</i>
Dynamic viscosity	pascal second	pas	$m^{-1} kg s^{-1}$
Moment of force	newton metre	Nm	$m^2 kg s^{-2}$
Surface tension	newton per metre	Nm	$kg s^{-2}$
Heat flux density, irradiance	watt per square metre	W/m ²	$kg s^{-3}$
Heat capacity, entropy	joule per kelvin	J/K	$m^2 kg s^{-2} K^{-1}$
Specific head capacity, specific entropy	joule per kilogram kelvin	J/(kg K)	$m^2 s^{-2} K^{-1}$
Specific energy	joule per kilogram	J/kg	$m^2 s^{-2}$
Thermal conductivity	watt per metre kelvin	W/(mK)	$m kg s^{-3} K^{-1}$
Energy density	joule per cubic metre	J/m ³	$m^{-1} kg s^{-2}$
Electric field strength	volt per metre	V/m	$m kg s^{-3} A^{-1}$
Electric charge density	coulomb per cubic metre	C/m ³	$m^{-3} s A$
Electric flux density	coulomb per metre square	C/m	$m^{-2} s A$
Permittivity	farad per metre	F/m	$m^{-3} kg^{-1} s^4 A^2$
Permeability	henry per metre	H/m	$m kg s^{-2} A^{-2}$
Molar energy	joule per mole	J/mol	$m^2 kg s^{-2} mol^{-1}$
Molar entropy, molar heat	joule per mole kelvin	J/(mol K)	$m^2 kg s^{-2} K^{-1} mol^{-1}$
Exposure (X and Y rays)	kilogram	C/kg	$kg^{-1} sA$
Absorbed dose	gray per second	Gy/s	$m^2 s^{-3}$

(4) SI DERIVED UNITS FORMED BY USING SUPPLEMENTARY UNITS

<i>Quantity</i>	<i>Name</i>	<i>Symbol</i>
Angular velocity	radian per second	rad/s
Angular acceleration	radian per second squared	rad/s ²
Radiant density	watt per steradian	W/sr
Radiance	watt per square metre	
Electric	steradian	$W m^{-2} sr^{-1}$

(5) SI UNITS TEMPORARILY ACCEPTED

The Laws of Zambia

<i>Name</i>	<i>Symbol</i>	<i>Approximate Value</i>
Angstrom	Å	1 Å = 10^{-10} m
Barn	b	1 b = 10^{-28} m ²
Curie	ci	1 ci = 3.7×10^{10} s ⁻¹ (exactly)
Gal	Gal	1 Gal = 10^{-10} m s ⁻²
Metric Carat	CM	1 CM = 2×10^{-4} kg
Rad	rd	1 rd = 10^{-2} J kg ⁻¹
Roentgen	R	1 R = 2.58×10^{-4} C kg ⁻¹
Quintal	q	1 q = 100 kg
Standard atmosphere	atm	1 atm = 101 325 pa
Are	a	1 a = 1 dam ² = 102 m ²
Hectare	ha	1 ha = 1 hm ² = 104 m ²
Nautical mile		1 nautical mile = 1852 m
Knot		1 knot = 1 nautical mile per hour

The Laws of Zambia

FOURTH SCHEDULE

Units, used with international system, whose values are obtained experimentally.

<i>Name</i>	<i>Symbol</i>	<i>Approximate Value</i>
Electron volt	eV	$1.602\ 19 \times 10^{-19}$ J
Unifical atomic mass	u	$1.660\ 57 \times 10^{-27}$ kg
Astronomical unit	AU	1AU = 149 597 870 x 106m
Parsec	pc	1 pc = 206 265 AU = 30857 x 1012m

The Laws of Zambia

FIFTH SCHEDULE

SI prefixes for multiples and sub-multiples

<i>Factor</i>	<i>Prefix</i>	<i>Symbol</i>
10^{18}	exa	E
10^{15}	peta	P
<i>Factor</i>	<i>Prefix</i>	<i>Symbol</i>
10^{12}	tera	T
10^9	giga	G
10^6	mega	M
10^3	kilo	k
10^2	hecto	h
10^1	deca	da
10^{-1}	deci	d
10^{-2}	centi	c
10^{-3}	milli	m
10^{-6}	micro	μ
10^{-9}	nano	n
10^{-12}	pico	p
10^{-15}	femto	f
10^{-18}	atto	a

* Not applicable to the base unit "kilogram" but applicable to the thousandth submultiple thereof, namely the "gram"

The Laws of Zambia

SIXTH SCHEDULE

These are internationally agreed units which are deviations from strict SI. They are permitted either because of their practical importance or because of their use in specialised scientific fields. The Units may be used together with SI units and their multiples and submultiples.

The names of the permitted units, the physical quantities they represent, their symbols and definitions are listed hereunder:-

<i>Physical Quantity</i>	<i>Name of Unit</i>	<i>Symbol</i>	<i>Definition</i>
1. Time	Minute	min	1 min = 60s
	Hour	h	1h = 60 min
	Day	dy	1d = 24h
	Week	wk	1wk = 7d
	Calendar year	yr	1 yr = 365 dys or 366 (leap yr)
2. Plane angle	Degree	0	1 degree = (π/180) radian
	minute	'	1 minute = (1/60) degree
	second	"	1 inch = (1/60) minute
3. Volume or capacity	litre	l	1l = 1 dm ³
4. Mass	tonne	t	1t = 1000 kg
5. Pressure Standard atmosphere	bar		1bar = 100, 000 pa
	atm		1 atm = 101325 pa
6. Area	are	a	1 are = 100m ²
	hectare	ha	1hectare = 10000 m ²
7. Temperature	degree celsius	°C	1 degree C = 273 K
8. Marine and aerial	nautical mile		1 nautical mile = 1852m
9. Aerial Navigation Knot	Knot		1 Knot = 1 nautical mile per hour

The Laws of Zambia

SEVENTH SCHEDULE

PART I

MEASUREMENT OF LENGTH

Kilometre	-	1000 metres
Metre	-	as defined in the First Schedule
Decimetre	-	1/10 metre
Centimetre	-	1/100 metre
Millimetre	-	1/1000 metre

PART II

MEASUREMENT OF AREA

Hectare	-	100 are
Decare	-	10 are
Are	-	100 square metres
Square metre measures one metre	-	a superficial area equal to that of a square each side of which

PART III

MEASUREMENT OF VOLUME

Cubic metre one metre	-	A volume equal to that of a cube each edge of which measures
Cubic decimetre	-	1/1000 cubic metre
Cubic centimetre	-	1/1,000,000 cubic metre

PART IV

MEASUREMENT OF CAPACITY

Litre measures one decimetre	-	The capacity equal to that of a cube each edge of which
Decilitre	-	1/10 litre
Centilitre	-	1/100 litre
Millilitre	-	1/1000 litre

PART V

MEASUREMENT OF MASS OR WEIGHT

The Laws of Zambia

Metric ton or tonne	-	1000 kilogram
Quintal	-	100 kilogram
Kilogram	-	Unit of mass as defined in the First Schedule
Hectogram	-	1/10 kilogram
Gram	-	1/1000 kilogram
Carat (metric)		1/5 gram
Milligram		1/1000 gram

PART VI

MEASUREMENT OF ELECTRICITY

The following units of measurements, that is to say-

- (a) The Ampere (as the unit of measurement of electrical current);
- (b) The Ohm (as the unit of measurement of electrical resistance);
- (c) The Volt (as the unit of measurement of electrical potential); and
- (d) The Watt (as the unit of measurement of electrical power):

shall have the meanings from time to time respectively assigned by order by the Minister, being the meaning appearing to the Minister to reproduce in English the international definition of the Ampere, Ohm, Volt or Watt as the case may be, in force at the date of making of the order.

1 kilowatt	-	1 000 Watts
1 megawatt	-	1 000 000 watts

PART VII

Hour	-	60 minutes
Minute	-	60 seconds
Second	-	as defined in the First Schedule

EIGHT SCHEDULE

The Laws of Zambia

Physical weights and measures lawful for use for trade

1. *Capacity measures of:*

10 litres	5 litres	2.5 litres
2 litres	1 litre	500 millilitres
250 millilitres	100 litres	50 millilitres
25 millilitres	20 millilitres	10 millilitres
5 millilitres	1 millilitre	

2. *Weights of:*

20 kilograms	10 kilograms	5 kilograms
2 kilograms	1 kilogram	500 grams
200 grams	100 grams	50 grams
20 grams	10 grams	5 grams
2 grams	1 gram	500 milligrams
200 milligrams	100 milligrams	50 milligrams
20 milligrams	10 milligrams	5 milligrams
2 milligrams	1 milligram	

3. *Metric carat weights of:*

500 carats	200 carats	100 carats
50 carats	20 carats	10 carats
5 carats	2 carats	1 carat
0.5 carat	0.2 carat	0.1 carat
0.05 carat	0.02 carat	0.01 carat
0.005 carat		

4. *Linear measures of:*

50 metres	30 metres	20 metres
10 metres	5 metres	3 metres
2 metres	1.5 metres	1 metre
0.5 metre	0.1 metre	0.01 metre

5. Square measures of, or any multiple of, 1 square decimetre

6. Cubic measures of, or any multiple of, 0.1 cubic metre

The Laws of Zambia

NINTH SCHEDULE

FORM A

FORM OF CERTIFICATE OF VERIFICATION OF SECONDARY STANDARDS

We hereby certify that the several secondary standards

.....
.....
.....
.....
.....

have been this day, duly compared in our presence and found to agree with the national standard.

.....
Wardens of the secondary standards.

.....
Dated thisday of19.....

FORM B

CERTIFICATE OF EXAMINATION OF WORKING STANDARDS

I hereby certify that the several working standards at Weights and Measures office viz

.....
.....
.....

have been this day duly compared by me and found to agree with the secondary standards

.....
Dated thisday of19.....

.....
Assizer of Weights and Measures

The Laws of Zambia

TENTH SCHEDULE

The manner in which certain goods shall be sold:

PART I: BY WEIGHT

1. Aerosol products.
2. All food stuffs, other than those specified elsewhere in this Schedule.
3. Animal and pet food.
4. Cement.
5. Cleaning and scouring powder, soap flakes, soap powder, detergents (other than liquid detergents and exceeding 5 litres).
6. Dentifrices.
7. Liquid petroleum gas.
8. Lubricant greases.
9. Nails.
10. Sisal.
11. Solid fertilisers, agricultural material and agricultural salt.
12. Solid fuel.
13. Solid insecticides and solid fungicides.
14. Solid polishes and dressings analogous to solid polishes.
15. Tobacco (including snuff).
16. Cotton.

PART II: BY WEIGHT OR NUMBER

1. Cassava root.
2. Cigars.
3. Cigarettes.
4. Eggs in shell.
5. Fresh fruits.
6. Maize on the cob.
7. Stationery and envelopes.
8. Sweetening tablets and soft drink tablets.

PART III: BY CAPACITY MEASURE

The Laws of Zambia

1. Castor oil.
2. Cream (not exceeding 1 litre).
3. Edible oil (not exceeding 1 litre).
4. Intoxicating drinks.
5. Liquid fuel excluding liquid petroleum gas; lubricating oil (not exceeding 20 litres); any mixture of liquid fuel and lubricating oil.
6. Liquid fungicides and liquid insecticides.
7. Liquid polishes and liquid dressings analogous to polishes.
8. Liquid soap; liquid detergents (not exceeding 5 litres).
9. Milk (not exceeding 5 litres).
10. Perfumes and toilet waters.
11. Soft drinks and mineral waters.
12. Squashes and fruit juices.
13. Thinners.
14. Vinegar.
15. Shoe polish.

PART IV: BY WEIGHT OR CAPACITY MEASURE

1. Charcoal.
2. Distemper.
3. Lubricating oil (exceeding 20 litres).
4. Maize grain.
5. Milk (exceeding 5 litres).
6. Paint, varnish lacquer and paint remover.
7. Sand and ballast.
8. Stainers.
9. Toilet preparations.

PART IV: BY WEIGHT OR LINEAR MEASURE

1. Bias binding.
2. Elastic.
3. Fencing wire.
4. Knitting and sewing thread.
5. Ribbon.
6. Rope.
7. Sisal twine.
8. String.
9. Tape.
10. Fabrics.

The Laws of Zambia

ELEVENTH SCHEDULE

QUANTITIES IN WHICH CERTAIN GOODS SHALL BE PRE-PACKED

The Laws of Zambia

	(a) <i>Quantity when packed in rigid containers of glass, plastic or metal</i>	(b) <i>Quantity when packed in containers other than rigid containers of glass, plastic or metal</i>
1. Bacon and sausage	100g, 200g, 250g, 300g, 400g, 500g, 1kg, thereafter by steps of 1kg.	100g, 200g, 250g, 300g, 400g, 500g, 1kg thereafter by steps of 1kg.
2. Barley	-	100g, 200g, 250g, 300g, 400g, 500g, 1kg, thereafter by steps of 1kg.
3. Beans, peas	250g, 500g, 1kg, thereafter by steps of 1kg up to 10kg.	250g, 500g, 1kg, thereafter by steps of 1kg up to 10kg.
4. Beer	250ml, 300ml, 375ml, 400ml, 500ml, 600ml, 750ml.	-
5. Biscuits	50g, 100g, 150g, 200g, 300g, 400g, 500g, 1kg, thereafter by steps of 500g.	50g, 100g, 150g, 200g, 300g, 400g, 500g, 1kg, thereafter by steps of 500g.
6. Butter	100g, 200g, 250g, 300g, 400g, 500g, 1kg, thereafter by steps of 1kg.	250g, 500g, 1kg
7. Cashew nuts (in shell)	-	80kg
8. Cassava flour	-	500g, 1kg, 2kg, 4kg, 5kg, 60kg.
9. Castor oil	100ml, then by multiples of 100ml to 1 litre thereafter by steps of 1 litre.	100ml, then by steps of 100ml to 1 litre.
10. Castor seed	-	65kg
11. Cement	-	50kg
12. Coffee, tea (other than tea in chests), cocoa powder, chicory mixture	50g, 100g, 250g, 500g, 1kg, thereafter by steps of 1kg.	50g, 100g, 250g, 500g, 1kg, thereafter by steps of 1kg.
13. Cooking fat including dripping, lard and shredded suet.	100g, 250g, 500g, 1kg, thereafter by steps of 1kg.	100g, 250g, 500g, 1kg, thereafter by steps of 1kg.
14. Custard powder	50g, 100g, 250g, 500g, 1kg, thereafter by steps of 1kg.	50g, 100g, 250, 500g, 1kg, thereafter by steps of 1kg.
15. Charcoal	-	30kg.
16. Cream (not exceeding 1 litre)	100ml, 200ml, 300ml, 400ml, 500ml, 1 litre	100ml, 200ml, 300ml, 400ml, 500ml, 1 litre.
17. Edible oil	100ml, thereafter by steps of 100ml up to 1 litre; 2 litres, 2.5 litres; 3 litres, thereafter by steps of 1 litre.	100ml, thereafter by steps of 100ml to 1 litre.
18. Flour of oats, rice, beans,	100g, 250g, 500g, 1kg, thereafter by steps	100g, 250g, 500g, 1kg, thereafter by steps

The Laws of Zambia

The Laws of Zambia

TWELFTH SCHEDULE

GOODS REQUIRING STATEMENT OF WEIGHT OR MEASURE

The Laws of Zambia

DESCRIPTION OF GOODS

1. Paint (excluding paint packed in tubes, jars or boxes commonly sold as artists or children's paints).
2. Varnish.
3. Distemper.
4. Thinner.
5. Enamel paint.
6. Lacquer.
7. Strainer.
8. Sewing, knitting and embroidery cotton.
9. Bacon and sausages.
10. Barley.
11. Beans, gram peas.
12. Beer.
13. Biscuits.
14. Butter.
15. Cashew nuts (in shell).
16. Cassava.
17. Castor oil.
18. Castor seed.
19. Cement.
20. Coffee, tea (other than tea in chests) cocoa powder, chicory mixture.
21. Cooking fat including dripping lard and shredded suet.
22. Custard powder.
23. Charcoal.
24. Edible oil.
25. Cream (not exceeding 1 litre).
26. Flour of oats, rice, beans, rye, soya beans, self-raising flour.
27. Ghee.
28. Jam, marmalade, honey, jelly.
29. Liquid fuel.
30. Liquid fungicides and liquid insecticides.
31. Liquid soap, liquid detergent (not exceeding 5 litres).
32. Liquid polish.
33. Lubricating oil excluding grease (not exceeding 20 litres).
34. (a) Maize flour.
(b) Maize grain.
(c) Maize bran.
35. Margarine and mixture of butter and margarine.
36. Milk (not exceeding 5 litres) excluding evaporated unsweetened milk and sweetened condensed milk.
37. Milk powder including milk food and milk food substitutes for feeding infants.
38. Millet, groundnuts and sorghum.
39. Molasses, treacle and syrup.
40. Rich bran.
41. Rice.
42. Salt.
43. Rice paddy.
44. Soft drinks and mineral waters.
45. Soap.
46. Solid polish (other than shoe polish).
47. Shoe polish.
48. Squashes and fruit juices.
49. Spices.
50. Sweets (sugar confectionery).
51. Stout.
52. Sunflower seed.
53. Sugar.
54. Wheat bran.
55. Toilet paper.

The Laws of Zambia

The Laws of Zambia
THIRTEENTH SCHEDULE
(Section 14)

THE ASSIZERS COMMITTEE

1. (1) A member of the Committee referred to in paragraph (a) of subsection (1) of section *fourteen* shall hold office for a period of three years from the date of his appointment and may be reappointed for one further term of three years. Tenure office a vacanc

(2) A member referred to in paragraphs (a) of subsection (1) of section *fourteen* may resign upon giving one month's notice in writing to the organisation which nominated him and to the Minister.

(3) The office of a member of the Committee shall become vacant-

- (a) upon death;
- (b) if he is absent without reasonable excuse from three consecutive meetings of the Board of which he has had due notice;
- (c) on ceasing to be a representative of the organisation which nominated him;
- (d) if he is an undischarged bankrupt; or
- (e) if he contravenes section *fifteen* then revert to section *twelve*.

Act. 2. (1) The functions of the Committee shall be to do all such things as are necessary for the administration of this Act. Functio Commi

(2) Without derogation from the generality of subsection (1) the Committee may-

- (a) undertake checks and testing of instruments used for trade;
- (b) establish a laboratory and other facilities for carrying out its objectives;
- (c) make arrangements for the custody and maintenance of physical standards at various levels of accuracy;
- (d) provide for the assizing in a prescribed manner of all instruments used in trade and if found correct stamp such instruments with the official stamp;
- (e) control the sale of articles by quantity, weight or measure so that packaged goods are identified by quantity, weight or measure;
- (f) control both transportation and sale of petroleum products from ZIMOIL to various distribution points throughout Zambia by calibration of loading and aircraft refuelling motors and tankers carrying fuel;
- (g) approve new patterns of weighing and measuring instruments imported into Zambia so as to prevent importation of sub-standard instruments for use in trade;

The Laws of Zambia

- (h) examine mechanics for a certificate of competence to repair instruments, to ensure that high standards of repair of instruments are maintained;
 - (i) encourage or undertake educational seminars and workshops for the public and the industrial community in connection with instruments having application to trade;
 - (j) formulate, and recommend to the Government for its approval, a comprehensive weights and measures policy.
3. (1) Subject to the provisions of this Act, the Committee may regulate its own procedure. Procee
Commi
4. Members of the Committee may be paid such remuneration as the Committee may determine. Remur
of the
membe
5. (1) If a member is present at a meeting of the Committee at which any matter is the subject of consideration and in which matter the member or his spouse is directly or indirectly interested in a private capacity, he shall, as soon as practicable after the commencement of the meeting, disclose the interest and shall not, unless the Committee otherwise directs, take part in any consideration or discussion of, or vote on, any question touching the matter. Disclos
interes
- (2) A disclosure of interest made under this section shall be recorded in the minutes of the meeting at which it is made.
6. No member of the Committee shall be employed in or derive any profit from making or adjusting of weights, measures, weighing instruments or measuring instruments and in any such adjustment charge any fee for his services while he holds office. Restric
membe
Commi
from bu
selling
readjus
weight:
measu
7. The Committee shall be funded by such amounts as may be appropriated by Parliament. Funds
Commi

SUBSIDIARY LEGISLATION

WEIGHTS AND MEASURES

THE WEIGHTS AND MEASURES (ASSIZE) REGULATIONS

ARRANGEMENT OF REGULATIONS

PART I

PRELIMINARY

Regulation

1. Title
2. Interpretation

PART II

GENERAL

3. Exemptions from the Act
4. Stamp of assize
5. Seal of assize
6. Rejection mark
7. Marking of capacity or denomination
8. Graduations
9. Improper use of instruments, weights or measures
10. Conditions for refusal to assize

PART III

WEIGHING INSTRUMENTS

The Laws of Zambia

11. Testing of weighing instruments
12. Limits of error and sensitiveness
13. Paises
14. Counterpoise weights
15. Knife edges and bearings
16. Balance
17. Automatic weighing machines
18. Beam scales
19. Counter machines
20. Crane machines
21. Deadweight machines
22. Platform machines and weighbridges
23. Self-indicating weighing instruments
24. Spring balances
25. Steelyards and wall beams

PART IV

WEIGHTS

26. Weights
27. Weights not assizable

PART V

MEASURES

28. Dry measures of capacity
29. Liquid measures of capacity
30. Measures of length
31. Vehicle tanks

PART VI

MEASURING INSTRUMENTS

32. Bulk flowmeters
33. Fabric-measuring instruments
34. Liquid measuring devices
35. Petrol pumps
36. Automatic measuring instruments

The Laws of Zambia

FIRST SCHEDULE-Tables showing limits of error and sensitiveness:

- Table I Beam scales-Class 1
- Table II Beam scales-Class 2
- Table III Beam scales-Class 3
- Table IV Counter machines
- Table V Crane machines and weighbridges
- Table VI Deadweight machines
- Table VII Platform machines, bench platform machines, dormant platform machines, steelyards and wall beams
- Table VIII Weights
- Table IX Metric carat weights
- Table X Measures of length
- Table XI Measures of capacity
- Table XII Graduated glass measures

SECOND SCHEDULE-Abbreviations of denominations

THIRD SCHEDULE-Denominations of masses and measures which are permitted for use in trade:

Part I Masses

Part II Measures

SECTION 27-THE WEIGHTS AND MEASURES (ASSIZE)
REGULATIONS*(1)

Statutory Instrument
175 of 1971

Regulations by the Minister

*These Regulations are continued in operation by virtue of section 15 of the Interpretation and General Provisions Act (Cap. 2). Reference to a Section of an Act in these regulations means reference to the Repealed Act.

PART I

PRELIMINARY

1. These Regulations may be cited as the Weights and Measures (Assize) Regulations. Title

2. In these Regulations, unless the context otherwise requires- Interpretation

"approved" means approved by the Minister;

"assize" includes to re-assize;

"automatic measuring instrument" means a measuring instrument for the automatic measuring and filling of liquids into containers;

"automatic weighing machine" means a weighing instrument in which special self-acting machinery is used to effect all or some of the following:

- (a) an automatic feed;
- (b) the rapid weighing of pre-determined quantities;
- (c) the registration and summation of loads;

or other similar purposes;

"beam scale" means an equal-armed weighing instrument, the pans of which are below the beam;

The Laws of Zambia

"bulk flowmeter" means a measuring instrument designed to measure liquid for individual deliveries of 500 litres or more, whether or not individual deliveries of less than 500 litres may also be made by means of the same instrument;

"capacity" means-

- (a) in relation to a weighing instrument, the maximum load which it is constructed to weigh as marked on such instrument in accordance with the provisions of regulation 7;
- (b) in relation to a measure or measuring instrument, the maximum volume, quantity or length which it is constructed to contain or measure, as the case may be;

"compartment", in relation to a vehicle tank, means a subdivided portion of that tank;

*These Regulations are continued in operation by virtue of section 15 of the Interpretation and General Provisions Act (Cap. 2). Reference to a Section of an Act in these regulations means reference to the Repealed Act.

"counter machine" means an equal-armed weighing instrument of a capacity not exceeding 30 kg, the pans of which are above the beam;

"crane machine" means-

- (a) a suspended unequal-armed compound lever weighing instrument fitted with a loadhook suspended from knife edges, and provided with poises moving over graduated scales to indicate weight; or
- (b) a suspended self-indicating hydraulic or spring-actuated weighing instrument;

which has a capacity of not less than 1,000 kg;

"deadweight machine" means an equal-armed weighing instrument of a capacity exceeding 50 kg, the pans or platform of which are above the beam;

"difference chart", in relation to a weighing instrument, means a chart on which, by means of a pointer or other indicator, excess or deficiency from a pre-determined weight is indicated;

"error", in relation to an instrument, means the extent to which such instrument indicates in excess or deficiency of standard weight or measure;

The Laws of Zambia

"fabric-measuring instrument" means a measuring instrument designed and constructed to measure and to indicate the length of fabric or other material passed through it;

"liquid measuring device" means a measuring instrument provided with a measuring chamber or chambers designed for filling barrels, bottles, drums or other containers with pre-determined quantities of liquid or for dispensing liquids in small quantities from bulk;

"petrol pump" means a measuring instrument provided with either a meter or one or more measuring chambers, designed to measure liquid fuel or lubricating oil for individual deliveries of less than 500 litres, whether or not individual deliveries of more than 500 litres can also be made by means of the same instrument;

"platform machine" means an instrument other than a weighbridge used for determining the mass of a load supported on a platform not exceeding 3 m by 2 m in size and 5,000 kg load capacity, and shall include any instrument prescribed by the Minister as a platform machine;

"repaired", in relation to an instrument, means that the instrument has, since it was last assized, had an addition, replacement, repair or adjustment made to a part which is essential to the use of such instrument;

"self-indicating weighing instrument" means a weighing instrument other than a spring balance on which the whole or a part of the weight of the goods weighed is indicated by means of a pointer moving over a chart, or by means of a chart moving in relation to a fixed pointer, and shall include any instrument prescribed by the Minister as a self-indicating weighing instrument;

"sensitiveness", in relation to a weighing instrument, means the actual weight which causes the beam or steelyard to turn;

"spring balance" means a weighing instrument having a capacity of less than 1,000 kg in which weight indications are dependent on the extension of springs and which is so constructed that the load is below the springs and is suspended directly from them;

"steelyard" means-

- (a) a suspended unequal-armed single-lever weighing instrument, the shorter arm of which carries a loadhook suspended from knife edges, whilst the longer arm is provided with a poise moving over a graduated scale to indicate weight;
- (b) a steelyard provided on a platform machine, weighbridge or other similar weighing instrument;

as the context requires;

"Table" means the appropriate table of allowances prescribed in the First Schedule;

"vehicle tank" means a measure mounted on a motor vehicle or trailer and used for the measurement of liquid fuel;

"vibrating weighing instrument" means a weighing instrument so constructed that the beam or steelyard returns to or oscillates about the position of equilibrium when disturbed therefrom;

"wall beam" means an unequal-armed multi-lever weighing instrument designed to be affixed to a wall, having a loadhook suspended from knife edges on the lower lever, and provided with poises moving over graduated scales to indicate weight;

"weighbridge" means an instrument for determining the mass of a load carried by a vehicle for transport on a highway or railway, such load and vehicle being supported on a platform, or on rails fitted to a system of levers or load cells and indicating the mass by means of a steelyard, a spring or pendulum device or a digital counter, or printing mechanism which may be supplemented by a remote read-out or print-out mechanism in addition to any indicator at the actual weighbridge site, and shall include any instrument prescribed by the Minister as a weighbridge.

PART II

GENERAL

3. The provisions of the Act shall not apply to-

- (a) electricity meters;
- (b) gas meters;
- (c) taxi-meters;
- (d) water meters;
- (e) instruments used for grading or testing agricultural produce by weight.

Exemptions from the Act

4. The stamp of assize shall be a stamp incorporating the eagle of the Armorial Ensigns of Zambia, the letters "GRZ" and a stamp bearing a number signifying the year of assize.

Stamp of assize

5. (1) The seal of assize shall be a lead seal bearing a stamp incorporating the eagle of the Armorial Ensigns of Zambia, the letters "GRZ" and a letter of the alphabet.

Seal of assize

(2) Where use is made of a seal or seals of assize in terms of these Regulations, the removal of any such seal from an assized instrument shall be deemed to render that instrument unassized.

6. (1) The rejection mark shall be a mark of six-pointed star design.

Rejection mark

(2) For the purposes of section *fourteen* of the Act, an assizer shall reject an instrument, weight or measure-

- (a) if such instrument, weight or measure bears a stamp of assize, by obliterating such stamp with a rejection mark;
- (b) if such instrument, weight or measure does not bear a stamp of assize, by stamping the rejection mark in a suitable position thereon;
- (c) if such instrument bears a seal of assize, by the removal or defacing of such seal.

7. (1) The capacity of a weighing instrument shall be clearly and conspicuously stamped on the beam or steelyard or on a metal plate permanently secured to some prominent part of the instrument.

Marking of capacity or denomination

(2) The capacity of a fabric-measuring instrument shall be clearly and conspicuously stamped thereon.

(3) The denomination of a weight shall, except where the small size of it renders it impracticable, be clearly and conspicuously stamped on an upper surface of the weight.

(4) The capacity of a measure shall, unless otherwise prescribed, be clearly and conspicuously stamped on the outside of the measure or on a metal plate permanently secured thereto.

(5) When an instrument, weight or measure is marked with its capacity or denomination, as the case may be, the denomination of weight or measure shall be stated in full or, in respect of a denomination specified in the first column of the Second Schedule, in full or in the abbreviated form specified opposite thereto in the second column of the Second Schedule.

8. (1) The graduations on an instrument or measure shall-

Graduations

- (a) be indelible, clear, distinct and legible;

The Laws of Zambia

- (b) except in respect of a graduated glass measure, be uniformly spaced;
- (c) in the case of denominated graduations, be distinguished by longer lines than the intermediate graduations.

(2) The graduations on a steelyard shall-

- (a) consist of notches or incised or embossed lines so defined that the position of the poise with respect thereto is clearly indicated;
- (b) be cut, incised or embossed in one plane, at right angles to the steelyard and parallel to each other.

9. (1) No person shall use in trade an instrument which is erected or placed upon an unsuitable or insufficiently strong or stable base or foundation.

Improper use of instruments, weights or measures

(2) No person shall use in trade a platform machine or weighbridge to ascertain the weight of any vehicle or other article unless such instrument-

- (a) has a platform or platforms or a rail or rails, as the case may be, of sufficient size to support completely such vehicle or other article; and
- (b) is of sufficient capacity to permit of the weighing of such vehicle or other article when so supported on the platform or platforms, or rail or rails, as the case may be:

Provided that nothing shall prevent the use of any weighbridge to weigh one or more axles of a vehicle for the purposes of administering any law relating to road traffic.

(3) A person shall not use a counter machine or a self-indicating weighing instrument provided with a sliding or tare weight otherwise than for factory use.

(4) A person shall not use in trade a spring balance which is not of a type approved in accordance with section *twelve* of the Act.

(5) Where a person uses in trade a dry measure of capacity for the measurement of any article, he shall ensure that the article is neither heaped nor pressed in the measure, but is level with the brim.

The Laws of Zambia

(6) Where two or more measures of length are attached to a counter, no person shall use in trade such measures unless they are contiguous or are not less than one metre apart.

(7) Where a person in a shop or other place sells by retail by weight any article which is weighed in the sight and presence of the purchaser and delivered to him immediately thereafter, he shall use for such weighing a weighing instrument which is so sited that the weighing and the weight indicated by the instrument are clearly visible to the purchaser at all times.

(8) No person shall use in trade, for the sale of liquid fuel, a bulk flowmeter for other than the liquid indicated thereon in accordance with regulation 32 (1) (i):

Provided that a bulk flowmeter marked "C" or "Diesel" may be used for paraffin or petrol or a prescribed liquid and a bulk flowmeter marked "B" or "Paraffin" may be used for petrol or a prescribed liquid.

(9) No person shall use or keep for use in trade any type of instrument made or sold for domestic, educational or health purposes and all such instruments imported into, manufactured or assembled in, Zambia shall be clearly marked "ILLEGAL FOR USE IN TRADE".

(10) No person shall supply any new or repaired instrument unless it has been assized:

Provided that any instrument which cannot be assized for any reason shall be clearly marked "ILLEGAL FOR USE IN TRADE".

10. (1) An assizer shall refuse to assize an instrument, weight or measure which-

Conditions for refusal to assize

- (a) is not properly constructed or when, in his opinion, its material or mode of construction or any part thereof or its nature or condition appears likely to render it unsuitable for use in trade;
- (b) has unusual or novel features, unless it is of a design or pattern in respect of which a certificate has been issued in terms of section *two/ve* of the Act;
- (c) is not sufficiently strong to withstand the wear and tear of ordinary use in trade;
- (d) is not complete in itself;

The Laws of Zambia

- (e) is not in a clean state;
- (f) bears a manufacturer's or other mark which might be mistaken for the stamp of assize.

(2) An assizer shall refuse to assize an instrument which-

- (a) has interchangeable or reversible parts, unless the interchange or reversal does not affect the accuracy of the instrument;
- (b) has removable parts, the removal of which would affect the accuracy of the instrument, unless the parts are such that the instrument cannot be used without them.

(3) An assizer shall refuse to assize a weighing instrument which-

- (a) has a scoop, pan, plate or other part which is essential to its operation broken;
- (b) has a scoop, pan or plate of such size or shape as may lead to incorrect weighing either through its fouling the housing of the scale, or because proper contact between the knife edge and bearings is disturbed;
- (c) has a goods-plate which is readily absorbent on account of faulty glazing or on account of the extent to which it is cracked or chipped;
- (d) has a friction plate, stay, hook or loop which is not of hardened steel or an approved material;
- (e) has packing at the knife edges which, in the opinion of the assizer, is either excessive as to the number of pieces or is in other respects unsuitable for the purpose.

(4) An assizer shall refuse to assize an accelerating weighing instrument, other than an accelerating deadweight machine.

(5) An assizer shall refuse to assize-

- (a) a petrol pump driven by means of an electric motor unless the supply of electricity to such motor is controlled by switches, fuses or cut-out devices isolated from the pump and locked securely to prevent unauthorised use or interference;

The Laws of Zambia

- (b) a bulk flowmeter fitted with gravity and power delivery systems if the change-over valve leaks any quantity in excess of 0.5 litre when set in any position.

(6) An assizer shall refuse to assize and on inspection shall reject any instrument alleged to conform to an international specification until such specification is approved.

PART III

WEIGHING INSTRUMENTS

11. (1) Subject to the provisions of this regulation, a weighing instrument shall be tested by the direct application of standard weights. Testing of weighing instruments

(2) An automatic weighing machine shall be tested-

- (a) where practicable, by the direct application of standard weights; and
- (b) by comparing the load delivered against standard weights.

(3) Subject to the provisions of sub-regulation (5), a weighbridge shall be tested by the direct application-

- (a) of standard weights; or
- (b) of test weights provided by the owners, contractors or the Government.

(4) Subject to the provisions of sub-regulation (5), a weighing instrument kept in stock for sale which is tested on the premises of a dealer in or repairer of scales shall be tested by the direct application-

- (a) of standard weights; or
- (b) of test weights provided by the dealer or repairer, as the case may be.

(5) When a weighing instrument is tested and sufficient standard or test weights are not available, auxiliary material may be used to make weight.

12. (1) A weighing instrument shall be tested for error by ascertaining the weight required to overcome the error in that instrument. Limits of error and sensitiveness

(2) A vibrating weighing instrument shall be tested for sensitiveness by loading the instrument to its capacity, or as near thereto as is practicable, with the beam or steelyard in a horizontal position and ascertaining that the addition of the amount shown in the appropriate table for an instrument of that class and capacity causes the beam or steelyard to turn.

(3) An accelerating deadweight machine shall be tested for acceleration by loading the instrument to its capacity, or as near thereto as is practicable, with the beam at the extremity of its travel, and ascertaining that the subtraction of the amount shown in the third column of Table VI for an instrument of that capacity causes the beam to return to its initial position.

(4) The limit of error allowed and the sensitiveness required in a weighing instrument of a particular class shall be-

- (a) in the case of a new or repaired instrument, the appropriate limit of error and sensitiveness prescribed in this Part;
- (b) in the case of a weighing instrument, other than an automatic weighing or measuring instrument, which is not new or repaired, twice the appropriate limit of error and sensitiveness prescribed in this Part.

(5) The limit of error allowed and the sensitiveness required in a weighing instrument of a capacity not specified in the appropriate table shall be the limit of error and the sensitiveness which bear the same proportion to the capacity of that instrument as the limits of error and sensitiveness for a similar instrument of the next lower capacity specified in the table bear to the capacity of such latter instrument.

(6) Where a weighing instrument is tested at graduations below the capacity of that instrument, the limit of error allowed shall be-

- (a) below one-quarter of the capacity, one-quarter of the prescribed limit of error;
- (b) one-quarter of the capacity or over but not exceeding three-quarters of the capacity, one-half of the prescribed limit of error;
- (c) above three-quarters of the capacity, the prescribed limit of error.

13. (1) Where lead is used for adjusting purposes on any poise, it shall not come into contact with the beam or steelyard. Poises

(2) A poise shall be provided with an adjusting hole of such size, shape and design as to permit readily of necessary adjustment.

(3) A poise shall be so constructed that no part thereof can be detached without the use of a mechanical appliance.

14. (1) A counterpoise weight shall be marked in equivalents of 5 kg, 10 kg, 20 kg, 25 kg, 50 kg, or 100 kg. Counterpoise weights

(2) A counterpoise weight used, or intended for use, on a platform machine used for weighing corrosive articles, including hides and skins, shall be made of brass, nickel-steel, or other corrosion-resisting metal.

(3) A counterpoise weight shall have only one undercut adjusting hole containing fixed lead sufficient to cover adequately the bottom of such hole, and with room to permit future adjustments.

(4) A counterpoise weight of an actual weight of 100 grams or less shall be made of brass.

(5) Subject to the provisions of sub-regulation (6), where more than one platform machine, provided with counterpoise weights, is kept or used by any person on any premises or on a public market, each such counterpoise weight shall be identified with the weighing instrument to which it belongs by-

- (a) a number conspicuously and indelibly marked and corresponding to a number similarly marked on the pillar and on the counterbalance of the instrument; or
- (b) a band of paint, of a colour in distinct contrast to the colour of the weight, on the edge of the weight, corresponding to a band of paint of the same colour on the pillar and on the counterbalance of the instrument.

(6) The provisions of sub-regulation (5) shall not apply to any counterpoise weight adjusted to a ratio of 50:1 or 100:1 precisely.

(7) A counterpoise weight of metric denomination shall be distinctly different from any other counterpoise weights in shape or in colour.

15. (1) Knife edges shall-

Knife edges and bearings

- (a) be firmly secured in position;
- (b) be in true parallelism; and
- (c) bear throughout the entire length of the parts designed to be in contact with the bearings.

(2) Knife edges and bearings shall be of hardened steel, agate or an approved material and the load-carrying parts shall not show scratches when tested by means of the application of a superfine smooth file.

16. (1) A weighing instrument shall be in balance-

Balance

- (a) when unloaded; and
- (b) where a loose receptacle or frame is used in conjunction with such instrument, when the receptacle or frame is attached thereto.

(2) Balance shall be indicated-

- (a) in the case of a vibrating weighing instrument, by the beam or steelyard returning to the position of equilibrium when disturbed therefrom;
- (b) in the case of a self-indicating weighing instrument or a weighing instrument provided with a graduated indicating plate or a difference chart, by the pointer coming to rest at the position of equilibrium or zero graduation with the bubble of any spirit level provided in its true position;
- (c) in the case of a counter machine constructed on the Beranger principle, by two pointers, each attached to a subsidiary beam, coming to rest directly opposite each other;
- (d) in the case of an accelerating deadweight machine, by the beam, on being released from the stop under the weights-pan, falling gently to the stop under the goods-pan.

(3) Balance shall not be affected when the load is removed from the instrument.

(4) Where a weighing instrument is provided with a balance box or a balance or gravity ball, such device shall be capable of adjustment only by the use of a mechanical appliance.

17. (1) An automatic weighing instrument shall be-

Automatic weighing
machines

- (a) if of a pattern brought into use after the 30th October, 1959, certified by the Minister in terms of section *twelve* of the Act;
- (b) securely fixed in the position in which it will operate;
- (c) tested *in situ* with the material or produce it is intended to weigh;
- (d) fitted with seals to protect all adjusting devices or have all such devices operable only with a special detachable key;
- (e) marked with clear marks of identification on all parts that require to be dismantled for any purpose whatsoever, such marks to give a clear indication of the parts which are to match on reassembly;
- (f) provided with suitable means of extracting from any hopper or conveyor such loads or sample deliveries as the assizer may require for his tests;
- (g) tested by taking, subject to the provisions of regulation 11 (2), not less than twenty sample deliveries either at random or in sequence, such test to be repeated as many times as the assizer considers necessary;
- (h) marked with a stamp of assize upon a lead plug in a conspicuous place on the beam, main body or frame of the instrument.

(2) Subject to the provisions of regulation 12, the limits of error allowed on an automatic weighing machine shall be-

- (a) for instruments in excess of 100 grams capacity-
 - (i) maximum error in excess of the amount purported to be delivered-one-half per centum in any article of the twenty or more samples;
 - (ii) maximum error in deficiency of the amount purported to be delivered-one-quarter per centum;
 - (iii) such that the average error of a sample of twenty or more deliveries does not exceed one-quarter per centum in excess only;

- (b) for instruments of 100 grams or less in capacity, the errors allowed shall be double those specified in paragraph (a).

18. (1) Beam scales shall be classified as follows:

Beam scales

- (a) Class 1, comprising precision balances provided with means for relieving all the knife edges and bearings and including single pan balances, optical projection balances and balances with weight-loading devices;
- (b) Class 2, comprising cream test beams and beam scales, other than Class 1 beam scales, used for weighing chemicals, drugs, fine seeds or precious metals or stones;
- (c) Class 3, comprising beam scales other than Class 1 or Class 2 beam scales.

(2) A new or repaired Class 2 or Class 3 beam scale shall be stamped "Class 2" or "Class 3", as the case may be.

(3) Any device for adjusting the balance of a beam scale shall be permanently secured and so attached that it cannot readily be tampered with:

Provided that a Class 1 or Class 2 beam scale may be fitted with-

- (i) threaded balancing screws at the extremities of the beam;
- (ii) flags; or
- (iii) an approved balancing device.

(4) In a beam scale provided with a pointer moving across a graduated indicating plate or difference chart, the pointer shall travel beyond the extreme graduation on each side of the point of equilibrium or zero graduation; if the chart is graduated on the heavy side only, the pointer shall travel beyond the extreme graduation on that side and for a corresponding distance on the ungraduated side.

(5) A beam scale shall be tested-

The Laws of Zambia

- (a) with the pan loaded to half the capacity of the scale, and any difference in the accuracy of the instrument resulting from moving the knife edges or bearings laterally, or backwards or forwards, within the limits of movement, shall not exceed half the limit of error prescribed in sub-regulation (6);
- (b) at capacity.

(6) Subject to the provisions of regulation 12, the limit of error allowed and the sensitiveness required in a Class 1, Class 2 or Class 3 beam scale of a capacity specified in the first column of Table I, II or III, as the case may be, are those specified opposite thereto in the second column of Table I, II or III, as the case may be.

(7) On a beam scale the stamp of assize shall be stamped upon a lead plug inserted in the beam immediately under or over the fulcrum knife edge or as near thereto as is practicable or, where the beam is totally enclosed in a housing, upon a lead plug securely fitted in a cup riveted to that housing.

19. (1) In a counter machine-

Counter machines

- (a) the supports for the pans shall be of rigid structure;
- (b) the centre fork shall be so secured that it cannot twist or get out of place.

(2) A counter machine constructed on the Beranger principle shall, if it is-

- (a) a closed Beranger, have-
 - (i) its working parts totally enclosed in a housing;
 - (ii) pans which, if interchangeable, do not affect the balance when interchanged;

The Laws of Zambia

- (b) an open Beranger, have-
- (i) a capacity not exceeding 15 kg;
 - (ii) a number stamped on any loose pan and on the frame or beam, such number commencing with the final two digits of the year in which it was manufactured;
 - (iii) the weights-pan of integral construction or securely fixed to its cross by means of two or more rivets;
 - (iv) the support for the goods-pan of welded or riveted construction and without holes in its upper surface;
 - (v) a frame of cast iron or mild steel, which stands level upon a level plate without rocking;
 - (vi) in the case of a steel frame, not less than three spreaders between the two sides to stiffen them;
 - (vii) if it is provided with anchor links, such links irremovable without the use of a mechanical appliance, and hardened taper pins as guard pins for securing such links;
 - (viii) pans of such shape that no tipping of the pan occurs when weights equal to half the capacity of the machine are placed in any position on either pan.

(3) Material used for balancing purposes shall be contained in a balance box which is-

- (a) securely fixed to the under surface of a fixed weights-pan or of the support for a weights-pan;
- (b) capable of containing lead to a weight not exceeding one per centum of the capacity of the machine.

(4) On a counter machine the travel of the beam each way from the horizontal position shall be, where the capacity of the machine is-

- (a) not over 2 kg, not less than 6 mm;
- (b) over 2 kg and not over 5 kg, not less than 7 mm;
- (c) over 5 kg and not over 10 kg, not less than 8 mm;
- (d) over 10 kg and not over 20 kg, not less than 10 mm;
- (e) over 20 kg, not less than 12 mm.

(5) A counter machine shall be tested-

- (a) with the pan loaded to half the capacity of the machine and any difference in the accuracy of the instrument resulting from moving the knife edges or bearings laterally, or backwards and forwards, within their limits of movement, shall not exceed half the limit of error prescribed in sub-regulation (6);
- (b) with a weight or weights equal to half the capacity of the machine placed on the goods-pan anywhere within a distance from the centre equal to one-third the greatest length of the pan, or, if the pan has a vertical side, against the middle of that side, and a similar weight placed in any position on the weights-pan, and the machine shall indicate the same weight within half the limit of error prescribed in sub-regulation (6);
- (c) at capacity with the weights placed centrally on each pan, unless the goods-pan is in the form of a scoop in which case half the total weight shall be placed against the middle of the back of the scoop and the other half in any position on the scoop.

(6) Subject to the provisions of regulation 12, the limit of error allowed and the sensitiveness required in a counter machine of a capacity specified in the first column of Table IV are those specified opposite thereto in the second column of Table IV.

(7) The stamp of assize shall be stamped upon a lead plug inserted in a conspicuous and easily accessible part of the beam:

Provided that in the case of a closed Beranger it may be stamped upon the housing or upon a lead plug inserted therein.

20. (1) In a crane machine the range of balance shall not exceed two per centum of the capacity of the machine. Crane machines

(2) A crane machine shall be tested at as many numbered graduations as the assizer considers necessary.

(3) Subject to the provisions of regulation 12, the limit of error allowed and the sensitiveness required in a crane machine of a capacity specified in the first column of Table V shall be double those specified opposite thereto in the second column of Table V.

(4) The stamp of assize shall be stamped upon a lead plug inserted in a conspicuous part of the steelyard or, where the machine has no steelyard, of the housing.

(5) An assizer shall refuse to assize a crane machine not constructed on the lever principle unless it is of a design or pattern in respect of which a certificate has been issued in terms of section *twelve* of the Act.

21. (1) In a deadweight machine-

Deadweight machines

(a) any goods platform shall not exceed in length the length of the beam and in width double the width of the beam and shall not be fitted with folding wings which increase such dimensions by more than one-third in either direction;

(b) any platform shall be made of metal or an approved material.

(2) Material used for balancing purposes shall be contained in a balance box securely fixed to the under surface of a platform.

(3) The travel of the beam from the horizontal position shall be not less than-

(a) in the case of an accelerating deadweight machine, 20 mm;

(b) in the case of a deadweight machine which is not an accelerating deadweight machine, 15 mm either way.

(4) A deadweight machine shall be tested-

(a) with weights equal to half the capacity of the machine placed successively at the middle of the front and of the back of each platform and centrally over the knife edges on each side, and the machine shall indicate the same weight within half the limit of error prescribed in sub-regulation (5);

(b) at capacity, and the weights shall be distributed evenly on the platforms.

(5) Subject to the provisions of regulation 12, in a deadweight machine of a capacity specified in the first column of Table VI-

(a) which is an accelerating deadweight machine, the limit of error allowed and the weight required to bring the beam back from its position of maximum displacement are those specified opposite thereto in the second and third columns respectively of Table VI;

The Laws of Zambia

- (b) which is not an accelerating deadweight machine, the limit of error allowed and the sensitiveness required are those specified opposite thereto in the second column of Table VI.

(6) The stamp of assize shall be stamped upon a lead plug inserted in a conspicuous and easily accessible part of the beam.

22. (1) In a platform machine or weighbridge-

Platform machines
and weighbridges

- (a) the upper surface or edge of the steelyard shall be in a straight plane from the zero graduation to the nose end;
- (b) there shall be no readily removable parts other than the counterbalance to support the counterpoise weights;
- (c) adequate stops shall be provided to prevent any poise from travelling behind the zero graduation;
- (d) provided with a load-carrying rail or rails, such rail or rails shall be distant from any other rail or rails not less than 10 mm: where such load-carrying rails overlap or have a bridging piece, a gap of 5 mm shall be maintained between such overlapping parts.

(2) A weighbridge shall have-

- (a) provision for adequate drainage and the pit kept free from any accumulation of water, mud or debris;
- (b) its approaches smooth, straight and level for a distance not less than the length of the platform at each end of such weighbridge;
- (c) the building housing the chart or steelyard so constructed that the operator has a clear and unobstructed view of the entire platform or platforms;
- (d) the platform so protected as to allow vehicles to pass on and off the platform at the ends only;
- (e) foundations of adequate strength to support, without change of position, both the mechanism and a load equal to the capacity of the weighbridge;
- (f) provision for adequate reinforcement in any concrete work to resist any point loading in any direction to the satisfaction of a competent civil engineer.

(3) Where a platform machine or weighbridge is not provided with a tare-beam, the weight of any loose receptacle or frame used in conjunction with the instrument shall be accurately compensated for by means of a counterpoise weight distinctive in shape from any of the ordinary counterpoise weights belonging to the instrument; such compensating weight shall have the words "TARE WEIGHT" legibly and conspicuously stamped on its edge.

(4) The range of balance-

- (a) in a platform machine, shall not exceed one-half per centum of the capacity of the machine and shall be not less than one-eighth per centum of such capacity each way from the centre of travel of the ball;
- (b) in a weighbridge, shall be double the range permitted in a platform machine.

(5) The travel of the steelyard each way from the horizontal position shall be not less than-

- (a) in a platform machine, 10 mm;
- (b) in a weighbridge, 12 mm.

(6) A platform machine or weighbridge shall be tested-

- (a) with a load which is equal to, or is as near as is practicable to, one-quarter of its capacity, and the machine shall indicate the same weight within half the limit of error prescribed in sub-regulation (7), whether the load is placed on the middle or near the ends or corners of the platform;
- (b) at as many numbered graduations of the steelyard or chart as the assizer considers necessary, and also each individual counterpoise weight, drop weight, tare bar, weigh bar, or any other device used to increase the capacity of the machine shall be tested;
- (c) at capacity, with the weights and materials evenly distributed on the platform;
- (d) and the instrument shall be correct whether the test is forward or backward;
- (e) in the case of a dormant platform machine, weighbridge or overhead weigher, *in situ*, and it shall be correct when the load is run on or off the platform or load-carrying rail, as the case may be;

- (i) and it shall, if fitted with a locking handle or relieving gear, be correct when the machine is put slowly out of and into action.

(7) Subject to the provisions of regulation 12, the limit of error allowed and the sensitiveness required are-

- (a) in the case of a platform machine of a capacity specified in the first column of Table VII, those specified opposite thereto in the second column of Table VII;
- (b) in the case of a weighbridge of a capacity specified in the first column of Table V, those specified opposite thereto in the second column of Table V.

(8) The stamp of assize shall be stamped upon a lead plug inserted in a conspicuous and easily accessible position on the instrument and the official date stamp shall be stamped upon the lead in the adjusting hole of any counterpoise or tare weight.

(9) An assizer shall refuse to assize-

- (a) an instrument of the type known as Union scales;
- (b) a platform machine having counterpoise weights which, when added to the full value of the steelyard reading, represent a weight greater or less than the capacity of the machine.

23. (1) In a self-indicating weighing instrument-

Self-indicating
weighing instruments

- (a) in which weight indications are dependent on the extension of a spring or springs, such spring or springs shall be iso-elastic or a temperature compensating device shall be incorporated;
- (b) other than a dormant platform machine, weighbridge, suspended self-indicating weighing instrument or a self-indicating weighing instrument specifically designed for use in an out-of-level position, a circular spirit level or cross spirit level shall be provided;
- (c) error due to parallax shall not exceed the value of the smallest subdivision;
- (d) the indicating wire or the extremity of the indicating pointer shall not exceed in width or thickness the width of any graduation, and the extremity of the pointer shall meet but not obscure the graduations;

The Laws of Zambia

- (e) which is new or repaired and is provided with a cylindrical or revolving chart, any indicating wire shall be a single wire;
- (f) in which the chart is partly enclosed, the aperture through which the indications are read shall be sufficiently large to permit the next lower numbered graduation to be read.

(2) The graduations on the chart shall-

- (a) in the case of a platform machine or weighbridge-
 - (i) not exceed 0.8 mm or 1.5 mm in width in a platform machine or weighbridge respectively; and
 - (ii) be not less than 3 mm apart, measured from centre to centre, whether or not they are on opposite sides of a dividing line;
- (b) in the case of a self-indicating weighing instrument other than a platform machine or weighbridge-
 - (i) not exceed 0.4 mm in width;
 - (ii) be not less than 1.5 mm apart, measured from centre to centre, whether or not they are on opposite sides of a dividing line:

Provided that a lens or other approved device may be fitted to the instrument for the purpose of magnifying the graduations so as to bring them into conformity with the provisions of this sub-regulation.

(3) The weight value of the smallest subdivision of the chart shall, where the capacity of the chart is-

- (a) not over 1 kg, not exceed 5 g;
- (b) over 1 kg and not over 10 kg, not exceed 10 g;
- (c) over 10 kg and not over 15 kg, not exceed 20 g;
- (d) over 15 kg and not over 25 kg, not exceed 50 g;
- (e) over 25 kg and not over 50 kg, not exceed 100 g;
- (f) over 50 kg and not over 100 kg, not exceed 200 g;
- (g) over 100 kg and not over 250 kg, not exceed 500 g;

The Laws of Zambia

- (h) over 250 kg and not over 500 kg, not exceed 1 kg;
- (i) over 500 kg and not over 1,000 kg, not exceed 2 kg;
- (j) over 1,000 kg and not over 2,000 kg, not exceed 5 kg;
- (k) over 2,000 kg and not over 5,000 kg, not exceed 10 kg;
- (l) over 5,000 kg and not over 15,000 kg, not exceed 20 kg;
- (m) over 15,000 kg, not exceed 50 kg.

(4) Paragraphs (a) to (m) shall apply to the value of steps in any digital or printing mechanism fitted to a self-indicating instrument, but where no dial is fitted to the instrument, weight values of half the amounts shown in this Part may be allowed in accordance with any certificate of pattern issued pursuant to section *twelve* of the Act.

(5) A self-indicating weighing instrument shall be tested-

- (a) to ensure that the graduations indicating value in money are in alignment with those indicating weight, and a sufficient number of computations shall be checked to establish their accuracy;
- (b) at as many graduations as the assizer considers necessary, and the instrument shall be correct whether the test is forward or backward;
- (c) to ensure that the instrument, if fitted with two charts indicating weight, shows the same indication on both;
- (d) if it is specifically designed for use in an out-of-level position, with the instrument in a level position and again with the instrument in an out-of-level position.

(6) Where a self-indicating instrument is designed to print tickets or provided with a digital read-out, any indication at zero shall show either a true zero or, if the balance is incorrectly set, then a false balance shall be indicated or printed, as the case may be.

(7) All self-indicating ticket printing instruments shall have an efficient stop fraud device to prevent the printing operation being performed before the indicator has come to rest or to prevent the printing of a ticket showing a weight that does not correspond with the weight indicated.

(8) Subject to the provisions of regulation 12-

- (a) the limit of error allowed on a self-indicating weighing instrument is the weight corresponding to one-half of the smallest subdivision on the chart;
- (b) the error on a self-indicating ticket printing or digital read-out shall not exceed plus or minus one division of the chart, one step of the printing series or one increment of the digital read-out, as the case may be.

(9) The stamp of assize shall be stamped upon a lead plug inserted in a conspicuous and easily accessible part of the instrument.

24. (1) In a spring balance-

Spring balances

- (a) the chart shall-
 - (i) be clearly and idelibly marked "TRADE SPRING BALANCE" or "FOR TRADE USE";
 - (ii) bear a statement of the weight value of the smallest sub-division;
 - (iii) be made of white enamel, polished brass, or an approved material so protected that the graduations and other markings are clearly visible;
- (b) the graduations on the chart shall not-
 - (i) exceed 0.8 mm in width; and
 - (ii) be less than 3 mm apart, measured from centre to centre, whether or not they are on opposite sides of a dividing line;
- (c) where a temperature compensating device or isoelastic spring or springs is incorporated, it shall be capable of compensating temperature variations of 10 degrees Celsius in balance and at load;
- (d) any ball-bearing unit shall be protected against dust and dirt;
- (e) the extremity of the indicating pointer shall not-
 - (i) exceed in width or thickness the width of any graduation; and
 - (ii) be more than 2 mm from the chart;
- (f) a suitable balancing device capable of adjustment only by the use of a mechanical appliance shall be provided;

The Laws of Zambia

- (g) back-balanced for use with a bag, sack, pan or other means of loading, such fact shall be clearly stated on the chart.

(2) The weight value of the smallest subdivision of the chart shall, where the capacity of the chart is-

- (a) under 1 kg, not exceed 5 g;
- (b) 1 kg or over and under 5 kg, not exceed 10 g;
- (c) 5 kg or over and under 10 kg, not exceed 20 g;
- (d) 10 kg or over and under 20 kg, not exceed 50 g;
- (e) 20 kg or over and under 50 kg, not exceed 100 g;
- (f) 50 kg or over, not exceed one-half per centum of such capacity.

(3) The range of balance shall not exceed one per centum of the capacity of the spring balance.

(4) A spring balance shall be tested-

- (a) at as many graduations as the assizer considers necessary, and it shall be correct whether the test is forward or backward; and
- (b) the assizer may test the balance for efficiency or ability to recover by leaving on the pan or hook a load equal to the capacity of the balance for a period not exceeding twenty-four hours, and after the expiration of a further four hours testing for accuracy.

(5) Subject to the provisions of regulation 12, the limit of error allowed on a spring balance is the weight corresponding to one-half of the smallest subdivision.

(6) The stamp of assize shall be stamped upon a lead plug inserted in the chart, or in a prominent position on the instrument.

25. (1) In a steelyard or wall beam-

Steelyards and wall
beams

The Laws of Zambia

- (a) the steelyard shall be made of wrought-iron, steel or an approved metal and shall be perfectly straight;
- (b) a stop to prevent excessive oscillation of the steelyard shall be provided;
- (c) any loadhook shall be securely attached to the instrument;
- (d) end fittings to prevent the pose-carrier riding off the steelyard shall be securely attached;
- (e) any poise shall move freely without risk of injury to the notches and there shall be a stop to prevent it travelling behind the zero graduation.

(2) In a wall beam-

- (a) the frame and bracket shall be of adequate strength to support, without deflection, both the wall beam and a load equal to the capacity of the wall beam;
- (b) on a swivel bracket, the steelyard shall be level in all positions;
- (c) the range of balance shall not exceed one-half per centum of the capacity of the wall beam.

(3) The travel of the steelyard of a wall beam each way from the horizontal position shall be not less than 10 mm.

(4) A wall beam or steelyard shall be tested at as many graduations as the assizer considers necessary, and the instrument shall be correct whether the test is forward or backward.

(5) Subject to the provisions of regulation 12, the limit of error allowed and the sensitiveness required are-

- (a) in the case of a steelyard of a capacity specified in the first column of Table VII, double those specified opposite thereto in the second column of Table VII;
- (b) in the case of a wall beam of a capacity specified in the first column of Table VII, those specified opposite thereto in the second column of Table VII.

The Laws of Zambia

(6) The stamp of assize shall be stamped upon a lead plug inserted in a conspicuous and easily accessible part of the instrument and a date stamp shall be stamped upon the lead in the adjusting hole of the poise.

(7) An assizer shall refuse to assize-

- (a) a counter steelyard;
- (b) a steelyard of a capacity of less than 50 kg;
- (c) a steelyard with three hooks.

PART IV

WEIGHTS

26. (1) A weight shall-

Weights

- (a) be free from flaws and, except for the marking of the denomination and the maker's name, be smooth on all its surfaces;
- (b) if it is a new iron weight, be galvanised, oxidised, painted or protected by an approved process.

(2) If a weight is marked with the maker's name or any property mark, code or symbol, the size of the letters thereof shall not exceed one-half the size of the letters marking the denomination.

(3) A weight shall be hexagonal, rectangular bar, cylindrical or, in the case of weights of 500 mg or less, may be in the form of wire.

(4) The adjusting hole of a weight shall-

- (a) be undercut, on the under surface of the weight, and shall not extend to the upper surface of the weight:

Provided that in the case of a cylindrical weight the assizer may accept arrangements for adjusting and stamping by means of a hole in the knob of the weight;

The Laws of Zambia

- (b) be plugged with lead which, in the case of an iron weight, is not less than 3 mm thick.

(5) A weight shall be tested on an assizer's balance or beam scale against a standard weight.

(6) The limit of error allowed-

- (a) on a weight of a denomination specified in the first column of Table VIII-
 - (i) which is made of iron, is that specified opposite thereto in the second column of Table VIII;
 - (ii) which is not made of iron, is that specified opposite thereto in the third, fourth or fifth column, as the case may be, of Table VIII;
- (b) on a metric carat weight of a denomination specified in the first column of Table X, is that specified opposite thereto in the second column of Table X.

(9) The stamp of assize shall be stamped-

- (a) if the weight is provided with an adjusting hole, upon the lead in that hole;
- (b) if the weight is not provided with an adjusting hole, upon the under surface of the weight.

27. An assizer shall refuse to assize-

Weights not assizable

- (a) a weight made of solder, tin or any other soft metal;
- (b) a weight made of aluminium or any other metal of low density of over 1 g denomination;
- (c) a cased weight or weight made of two or more unalloyed metals;
- (d) a weight marked with a trade mark other than a marker's name;
- (e) an iron weight under 100 g;
- (f) an iron weight with a removable or split ring;
- (g) a new ring weight;
- (h) a weight provided with more than one adjusting hole;
- (i) a weight of a denomination not specified in Part I of the Third Schedule.

PART V

MEASURES

28. (1) A dry measure of capacity-

Dry measures of capacity

- (a) shall be made of aluminium, brass, bronze, copper, nickel, sheet iron, steel, tin plate, or an approved material;
- (b) may be protected by electro-plating, galvanisation, or an approved process;
- (c) of 50 litres or under, shall be cylindrical in form with the internal diameter not differing by more than five per centum from the depth.

(2) The capacity of a dry measure of capacity shall be defined by the brim of the measure.

(3) A dry measure of capacity shall be tested either with water or in the following manner with fine seed:

- (a) the standard shall be filled with seed passed through a hopper, a distance of 150 mm being left between the bottom of the hopper and the top of the standard;
- (b) the seed in the standard shall then be passed through the hopper into the measure being tested, a distance of 150 mm being left between the bottom of the hopper and the top of the measure.

(4) The limit of error allowed in a dry measure of capacity of a capacity specified in the first column of Table XI is that specified opposite thereto in the second column of Table XI.

(5) The stamp of assize shall be stamped near the brim of the measure directly above the position where the capacity is marked.

(6) An assizer shall refuse to assize a dry measure of capacity of a capacity not specified in paragraph 1 of Part II of the Third Schedule.

29. (1) A liquid measure of capacity-

Liquid measures of capacity

- (a) shall be made of glass, aluminum, brass, bronze, copper, nickel, pewter, sheet iron, silver, steel, tin plate, white metal, or an approved material;

The Laws of Zambia

- (b) may be protected by anodising, electro-plating, enamelling, galvanisation, tinning or an approved process;
 - (c) made of brass, bronze or copper shall have the inside surfaces well tinned;
 - (d) which is electro-plated shall be uniformly coated and shall show no signs of peeling;
 - (e) shall not have a strengthening rib or ring which might be mistaken for a graduation;
 - (f) shall not have a false bottom;
 - (g) made of metal shall not have a bottom rim of a depth greater than is necessary to protect the bottom of the measure;
 - (h) shall not be provided with a lip or retaining edge which increases the capacity of the measure by more than ten per centum;
 - (i) shall drain completely when tilted to an angle of one hundred and twenty degrees from the vertical.
 - (j) if provided with a tap shall drain completely without a prolonged dribble when the tap is open and the measure is in a level position;
 - (k) shall have its capacity stamped on the upper part of the body of the measure or on a metal plate permanently secured to such part;
 - (l) made of glass which has its capacity defined by a line, shall have its capacity stamped near that line.
- (2) The capacity of a liquid measure of capacity shall be clearly defined-
- (a) if the measure is provided with a lip or retaining edge, by the bottom of the lip or retaining edge;
 - (b) if the measure is in the form of a milk can, by the bottom of the neck of the measure;

The Laws of Zambia

- (c) if the measure is a glass measure other than a graduated glass measure, by-
 - (i) the brim of the measure; or
 - (ii) an indelible line not less than 50 mm in length and distant not less than 15 mm and not more than 40 mm from the brim;
- (d) if the measure is a measure not referred to in paragraph (a), (b) or (c), by the brim of the measure.

(3) A metal dipping measure of capacity shall-

- (a) be of circular or elliptical section with vertical sides;
- (b) be provided with a long handle;
- (c) have sides the height of which do not differ by more than ten per centum from one and a half times the mean dimension of its section;
- (d) not exceed one litre in capacity.

(4) A graduated glass measure shall-

- (a) be of conical or cylindrical form;
- (b) have a level base at right angles to the axis of the measure;
- (c) have graduations which are-
 - (i) parallel to the base of the measure;
 - (ii) not less than 1.5 mm apart;
 - (iii) in the case of back graduations, coincidental with the front graduations when the measure is standing in a level position.

(5) A liquid measure of capacity shall be tested against a standard measure; when testing a glass measure, the capacity of which is defined by a line, the level of the water shall be taken at the bottom of the meniscus.

(6) The limit of error allowed on a liquid measure of capacity is-

The Laws of Zambia

- (a) in the case of a graduated glass measure with an internal diameter, at the graduation tested, of approximately that specified in the first column of Table XII, that specified opposite thereto in the second column of Table XII;
- (b) in the case of a measure other than a graduated glass measure of a capacity specified in the first column of Table XI, that specified opposite thereto in the second or third column of Table XI, as the case may be.

(7) The stamp of assize shall be stamped-

- (a) if the measure is a metal measure provided with a lip or retaining edge, at the bottom of the inside of the lip or retaining edge;
- (b) if the measure is not a metal measure provided with a lip or retaining edge, near the position where the capacity is marked.

(8) An assizer shall refuse to assize a liquid measure of capacity of a capacity not specified-

- (a) in the case of a graduated measure, in paragraph 1 of Part II of the Third Schedule;
- (b) in the case of a measure other than a graduated glass measure, in paragraph 2 or 3 of Part II of the Third Schedule.

30. (1) A measure of length shall-

Measures of length

- (a) be made of brass, hardwood, ivory, steel, woven tape or an approved material;
- (b) if it is a rigid measure, be straight and free from flaws;
- (c) if it is a wooden measure, have both ends capped with metal and the tips riveted, or fixed by an approved method;
- (d) if it is provided with hinges or sliding or caliper arms, have no more play than is required for easy movement.

(2) A measure of length shall not be subdivided otherwise than into decimetres, centimetres and millimetres.

(3) A measure of length shall be tested-

- (a) against a standard measure;
- (b) in the case of a tape measure, whilst supported as far as practicable throughout its entire length on a plane and even base and subjected-
 - (i) in the case of a tape measure made wholly of metal, to 5 kg;
 - (ii) in the case of a tape measure not made wholly of metal, to 1 kg;tension or pull.

X. (4) The limit of error allowed on a measure of length shall be as specified in Table

(5) The stamp of assize shall be stamped-

- (a) if the measure is a tape measure, upon a metal label or disc securely fixed thereto;
- (b) if the measure is not a tape measure, near the zero graduation.

(6) An assizer shall refuse to assize a measure of length of a denomination not specified in paragraph 5 of Part II of the Third Schedule.

31. (1) A vehicle tank or compartment shall-

Vehicle tanks

- (a) be of cylindrical or elliptical section;
- (b) be fitted with a fixed-quantity indicator or provided with a dipstick by means of which the liquid can be measured;
- (c) if of elliptical section, have the length of the major axis of the section not more than one and a half times the length of the minor axis of the section;
- (d) have a delivery outlet, pipe and valves which are completely separate from any other delivery outlet, pipe and valves on the same motor vehicle or trailer;

The Laws of Zambia

- (e) have the delivery piping connected thereto of such design and construction that when the motor vehicle or trailer on which it is mounted is standing in a level position the tank or compartment can be completely drained;
 - (f) be effectively ventilated to prevent the formation of air-pockets;
 - (g) if it is new, have the filler opening of such size and construction as to permit of internal inspection.
- (2) In a vehicle tank or compartment fitted with a fixed-quantity indicator-
- (a) the marking of the capacity on the tank or compartment shall be preceded by the word "CAPACITY" and followed by the words "TO INDICATOR";
 - (b) the tank or compartment shall be stamped with a number which corresponds to a number similarly stamped on the delivery outlet so as to identify it with that outlet;
 - (c) the indicator shall-
 - (i) be made of metal;
 - (ii) be fixed rigidly so as to indicate on the longitudinal axis and under the dome centrally situated on the top of such tank or compartment;
 - (iii) clearly and distinctly indicate, by means of a disc of at least 50 mm in diameter, the height to which the tank or compartment must be filled in order to contain its marked capacity;
 - (iv) be adjustable and so constructed that it can be sealed so as to prevent any change in its position without the seal being broken.
- (3) In a vehicle tank or compartment provided with a dipstick-
- (a) the tank or compartment shall have a guide tube for the dipstick, fixed centrally so that the dipstick indicates on the longitudinal axis;
 - (b) such dipstick shall be-
 - (i) made of metal;
 - (ii) graduated to indicate the actual contents of the measure in centimetres, an appropriate table of capacity being carried on the vehicle and identified with the vehicle tank concerned;
 - (iii) indelibly stamped with a number which corresponds to a number similarly stamped on the tank or compartment so as to identify it with that tank or compartment;
 - (iv) suspended from the upper rim of the guide tube by a metal crossbar, collar, or hilt.

The Laws of Zambia

(4) The volume of a vehicle tank or compartment shall exceed the marked capacity of such tank or compartment by not less than one and one-half per centum of such capacity.

(5) A vehicle tank or compartment shall be tested-

- (a) with the tank or compartment in a level position;
- (b) against standard measures or with a bulk flowmeter assized immediately prior to the testing of the vehicle tank or compartment;
- (c) if it is provided with an emergency valve for closing the delivery outlet, with such emergency valve open.

(6) The limit of error allowed on a vehicle tank, compartment or dipstick is one-half per centum of its capacity at the indication tested.

(7) The stamp of assize shall be stamped-

- (a) if the tank or compartment is fitted with a fixed-quantity indicator; upon a lead seal attached to the indicator;
- (b) if the tank or compartment is provided with a dipstick upon the metal at the top and bottom of the dipstick.

(8) An assizer shall refuse to assize a vehicle tank or compartment provided with a dipstick unless an accurate chart of the capacity identified with the tank or compartment and with the dipstick has been supplied to him.

(9) An assizer shall refuse to assize a vehicle tank or compartment which is deformed, dented, or otherwise damaged.

(10) An assizer shall refuse to assize a dipstick which strikes the bottom of the tank or guide tube.

PART VI

MEASURING INSTRUMENTS

32. (1) In a bulk flowmeter-

Bulk flowmeters

The Laws of Zambia

- (a) an air separator shall be provided which-
 - (i) prevents air passing through the meter to such an extent as to affect the accuracy of delivery; and
 - (ii) ensures non-registration when the supply of liquid fuel or oil fails;
- (b) there shall be no leakage;
- (c) the figures on any indicator shall be indelible, clear and legible;
- (d) the maker's name shall be stamped on the instrument;
- (e) the maximum and minimum rates of flow in litres, dekalitres or cubic metres per minute shall be shown;
- (f) an indication engraved on a metal plate of the liquid fuel the meter is adjusted to deliver consisting of-
 - (i) the name in full of the liquid fuel; or
 - (ii) one of the following code letters:
 - "A" Petrol;
 - "B" Paraffin or turbine fuel;
 - "C" Diesel or other fuel oil;

shall be fixed to the body of the meter.

(2) A bulk flowmeter shall be tested-

- (a) after any dry hose has been flushed and the instrument reset to zero;
- (b) to ensure that whenever the instrument is reset to zero, the indicating pointer is in alignment with the zero indication;
- (c) by passing the appropriate liquid through the meter into a standard measure in as many deliveries and of such quantities as the assizer considers necessary, or by comparison of the indication of the meter under test with the indication of an approved master meter or proving loop;
- (d) with varying heads of liquid or with varying bore by manipulation of the delivery valve so far as is practicable.

An assizer may require these tests to be carried out using different liquids.

When for any reason a bulk flowmeter is tested with a liquid other than that indicated on it in accordance with sub-regulation (1) (f), such meter, if adjusted for diesel fuel and tested with petrol, shall deliver not less than 0.3 per centum in excess of the quantity purported to be delivered or, if tested with paraffin, not less than 0.2 per centum in excess of the quantity purported to be delivered.

A meter adjusted for paraffin and tested with petrol shall deliver not less than 0.1 per centum in excess of the quantity purported to be delivered.

In any event the meter shall be correct within the allowances prescribed by these Regulations.

(3) The limit of error allowed on a bulk flowmeter is one-half per centum of the quantity tested, in excess only.

(4) The stamp of assize shall be stamped upon a lead plug inserted in a conspicuous and easily accessible part of the meter; a seal of assize shall be affixed where necessary to prevent access to the working parts or adjusting device without the seal being broken.

33. (1) In a fabric-measuring instrument-

Fabric-measuring
instruments

- (a) the measuring rollers shall, when in position for measuring, be in true parallelism;
- (b) a braking device shall be fitted which ensures non-registration when the supply of fabric fails;
- (c) the rollers shall be free when the instrument is reset;
- (d) the chart or charts shall, when the instrument is reset, return to zero either automatically or by the operation of a special handle or device provided for that purpose;
- (e) the indications shall be by means of graduations not less than-
 - (i) 20 mm apart in the case of graduations of a length value of 100 mm;
 - (ii) 3 mm apart in the case of graduations of a length value of 25 mm;

or by counters.

(2) A fabric-measuring instrument shall be tested-

- (a) by passing the standard or the fabric normally measured by that instrument through the instrument at right angles to the axis of the measuring rollers;
- (b) and if it is necessary to remove the standard or fabric during the test, this shall only be done when an integral number of metres of the standard or fabric has passed through the instrument and the standard or fabric shall be re-inserted at the zero or initial graduation of the standard or fabric;
- (c) and the instrument shall be correct whether the test is forward or backward;
- (d) to ensure that-
 - (i) the instrument, if fitted with two charts, shows the same indication of length on both;
 - (ii) any totalising meter functions properly and correctly;
 - (iii) the parts work freely throughout the range of the instrument;
 - (iv) there is no back-lash in the mechanism;
 - (v) any overrun brake fitted shall bring the indicator to a halt immediately the standard or fabric used for the test leaves the measuring roller.

(3) The limit of error allowed on a fabric-measuring instrument is, for each metre or portion thereof indicated, 2 mm in deficiency and 4 mm in excess.

(4) The stamp of assize shall be stamped upon a lead plug inserted in a conspicuous and easily accessible part of the instrument; a seal of assize shall be affixed where necessary to prevent access to the working parts or adjusting device without the seal being broken.

34. (1) In a liquid measuring device-

Liquid measuring devices

- (a) adequate provision to prevent the formation of airlocks shall be made;
- (b) there shall be no leakage;
- (c) any valve shall work freely.

(2) A liquid measuring device shall be tested-

The Laws of Zambia

- (a) after the device and any delivery hose or measure used in the test has been flushed;
- (b) in the case of each separate measuring chamber-
 - (i) by passing the liquid from the chamber into a standard measure or, where this is not practicable, into the barrel, bottle, drum or other container and then into a standard measure;
 - (ii) where it is not practicable to test the liquid with a standard measure, by ascertaining the net weight of the liquid delivered and converting such weight into volume, basing the computation on the specific gravity of the liquid.

(3) The limit of error allowed on a liquid measuring device is one-half per centum of the quantity purported to be delivered, in excess only:

Provided that the limit of error allowed on a 35 ml dispensing or measuring tap is 0.5 ml, in excess only.

(4) The stamp of assize shall be stamped-

- (a) upon a lead plug inserted in a conspicuous and easily accessible part of the device; and
- (b) if the device is provided with a metal displacer or displacers to alter the capacity of a measuring chamber, upon such displacer or displacers.

A seal of assize shall be affixed where necessary to prevent access to the working parts or adjusting device without the seal being broken.

35. (1) In this regulation-

Petrol pumps

"price indicator" means an indicator showing the value in money of the liquid fuel or oil delivered;

"volume indicator" means an indicator showing the volume of liquid fuel or oil delivered.

(2) A petrol pump shall-

- (a) be constructed to deliver liquid fuel or oil at one outlet only;
- (b) be provided with a clear and legible volume indicator;
- (c) not have a counting or totalising device which may be confused with the volume indicator;

The Laws of Zambia

- (d) not leak at any point;
- (e) not, unless written permission from an assizer has been obtained, be fitted with a delivery hose exceeding 5 metres in length.

When measuring the length of a delivery hose-

- (i) the length of the nozzle shall be included;
 - (ii) the length of any swing or radial arm shall be excluded;
 - (iii) which is retractable, the hose shall be measured from the point where it emerges from the housing and when fully extended;
- (f) if it is of fixed type-
- (i) be securely mounted on a solidly constructed, level base;
 - (ii) be so sited as to permit the purchaser to have a clear and unobstructed view of the volume indicator and any price indicator or measuring chamber provided;
 - (iii) be so sited that the adjusting mechanism and the plug for the stamp of assize are readily accessible;
- (g) if it is used to measure oil, have a delivery hose which is permanently filled to the nozzle.

(3) A petrol pump provided with a meter shall-

- (a) be incapable of operation until the volume indicator and any price indicator are reset to zero;
- (b) if it is used to measure liquid fuel, be-
 - (i) provided with a sight glass which clearly shows whether the delivery hose is completely filled before, during and after delivery; and
 - (ii) conspicuously marked "THIS GLASS MUST BE FULL BEFORE AND AFTER DELIVERY";
- (c) not be fitted with a swing arm unless such arm-
 - (i) has a radius of swing not exceeding 2 metres;
 - (ii) is provided with a sight glass of an approved pattern at the highest point of the swing arm or extension pipe immediately before the connection to the flexible hose;
- (d) have a clear indication on the housing or dial of the position of the lead seals and the plug for the stamp of assize;

The Laws of Zambia

- (e) be provided with an air separator or cut-off valve which ensures non-registration when the supply of liquid fuel or oil fails;
- (f) be provided with a delivery hose which is permanently filled to the nozzle.

(4) A petrol pump provided with one or more measuring chambers shall-

- (a) have any measuring chamber clearly visible and made of clear glass;
- (b) have the delivery hose so positioned as to allow complete discharge of the liquid measured from the delivery outlet of the pump;
- (c) if it has more than one measuring chamber, be provided with a valve to prevent the liquid flowing from one chamber into another;
- (d) have each measuring chamber denominated.

(5) In a petrol pump provided with a price indicator, the indicator shall incorporate a device which clearly indicates the price per litre and regulates the registration on such indicator.

(6) A petrol pump shall be tested-

- (a) if it is provided with one or more measuring chambers, after passing at least 5 litres of liquid through the delivery hose to prevent undue absorption during the test;
- (b) by passing the liquid into a standard measure in as many deliveries and of such quantities as the assizer considers necessary;
- (c) if it is provided with a meter, by a slow test which does not exceed a time limit of thirty seconds per 5 litres on any quantity delivered;

- (d) to ensure that-
- (i) back-drainage does not exceed 25 ml per hour;
 - (ii) it is correct, whether the pump is operated rapidly or slowly;
 - (iii) the indications on the volume indicator are in agreement with those on the price indicator and with the price per litre indicated by the device referred to in sub-regulation (5), and a sufficient number of computations shall be checked to establish their accuracy;
 - (iv) if it is fitted with a nozzle control valve, no liquid fuel or oil is delivered when such valve is open and the pump is at rest;
 - (v) if it is fitted with two volume indicators, after delivery it shows the same indication of volume on both such indicators;
 - (vi) if it is fitted with two price indicators, after a delivery it shows the same indication of value in money on both such indicators.

(7) The limit of error allowed on a petrol pump is one-half per centum of the quantity purported to be delivered, in excess only:

Provided that in a petrol pump used to measure lubricating oil, where a quantity of one litre or less is indicated, the limit of error allowed is 2 per centum of the quantity purported to be delivered, in excess only.

(8) The stamp of assize shall be stamped upon a lead plug inserted in a conspicuous and easily accessible part of the pump. A seal of assize shall be affixed where necessary to prevent access to the working parts or adjusting device without the seal being broken.

36. (1) An automatic measuring instrument shall be-

Automatic measuring
instruments

- (a) certified by the Minister in terms of section *fifteen* of the Act;
- (b) securely fixed in the position in which it will operate;
- (c) tested *in situ* with the liquid it is intended to measure;
- (d) fitted with seals to protect all adjusting devices or have all such devices operable only with a special detachable key;
- (e) marked with clear marks of identification on all parts that require to be dismantled for any purpose whatsoever, such marks to give a clear indication of the mating parts which are to be matched on reassembly;
- (f) tested at various heads and rates of delivery where these are not uniform;

The Laws of Zambia

- (g) tested by taking not less than twenty samples either at random or in sequence;
- (h) marked with the stamp of assize upon a lead plug on a conspicuous part of the instrument on the main body of the machine.

(2) The limits of error allowed on an automatic measuring instrument shall be-

- (a) maximum error in excess of the amount purported to be delivered into the container-one per centum;
- (b) maximum error in deficiency of the amount purported to be delivered into the container-0.5 per centum;
- (c) such that the average error of a sample of twenty or more deliveries does not exceed 0.5 per centum in excess only.

(3) The provisions of regulation 12 (4) (b) shall not be applied to automatic weighing or measuring instruments.

The Laws of Zambia

FIRST SCHEDULE

(Regulation 2)

TABLES SHOWING LIMITS OF ERROR AND SENSITIVENESS

TABLE I

BEAM SCALES: CLASS 1

<i>Capacity</i>	<i>Error allowed and sensitiveness</i>
10 g	1 mg
20 g	2 mg
50 g	3 mg
100 g	4 mg
200 g	5 mg
500 g	6 mg
1 kg	12 mg
2 kg	25 mg
5 kg	50 mg
10 kg	70 mg
20 kg	100 mg

Application of the sensitiveness allowance to a Class 1 beam scale in equilibrium shall cause a change of rest point of not less than 5 divisions of the scale.

TABLE II

BEAM SCALES: CLASS 2

<i>Capacity</i>	<i>Error allowed and sensitiveness</i>
50 g	15 mg
200 g	25 mg
500 g	30 mg
1 kg	60 mg
2 kg	120 mg
5 kg	250 mg
10 kg	350 mg
20 kg	500 mg
50 kg	1 g

Application of the sensitiveness allowance to a Class 2 beam scale in equilibrium shall cause a change of rest point of not less than 5 divisions of the scale.

TABLE III

BEAM SCALES: CLASS 3

The Laws of Zambia

<i>Capacity</i>	<i>Error allowed and sensitiveness</i>
500 g	200 mg
1 kg	300 mg
2 kg	400 mg
5 kg	600 mg
10 kg	800 mg
20 kg	1,000 mg
50 kg	1,500 mg

Above 50 kg capacity add to the above 400 mg for each 20 kg of additional capacity.

Application of the sensitiveness allowance to a Class 3 beam scale shall cause a change of rest point of not less than 10 mm shown by the end of the indicator.

TABLE IV

COUNTER MACHINES

<i>Capacity</i>	<i>Error allowed and sensitiveness</i>
1 kg	2 g
2 kg	4 g
5 kg	5 g
7 kg	5 g
10 kg	10 g
15 kg	10 g
20 kg	15 g
30 kg	20 g

Application of the sensitiveness allowance to a counter machine shall show a change of position of the scales of not less than 10 mm or the full fall or travel specified in regulation 19 (4).

TABLE V

*CRANE MACHINES AND WEIGHBRIDGES

<i>Capacity</i>	<i>Error allowed and sensitiveness</i>
1,000 kg	400 gk
2,000 kg	800 gk
5,000 kg	1,500 gk
10,000 kg	2 kg
20,000 kg	4 kg
50,000 kg	6 kg
100,000 kg	8 kg
200,000 kg	15 kg

*The error allowed and sensitiveness for lever type crane machines are double the amounts shown above.

TABLE VI

DEADWEIGHT MACHINES

The Laws of Zambia

<i>Capacity</i>	<i>Error and sensitiveness</i>	<i>Recovery</i>
50 kg	20 g	50 g
100 kg	40 g	100 g
200 kg	80 g	200 g
500 kg	120 g	300 g

Deadweight machines include single lever coal scales and scales formerly known as "bob up" scales.

Recovery is the weight required to bring the beam back, from its position of maximum displacement, to the horizontal.

TABLE VII

PLATFORM MACHINES, BENCH PLATFORM MACHINES, DORMANT
PLATFORM MACHINES, STEELYARDS AND WALL BEAMS

<i>Capacity</i>	<i>Error allowed and sensitiveness</i>
50 kg	20 g
100 kg	40 g
200 kg	50 g
500 kg	100 g
1,000 kg	200 g
2,000 kg	400 g
5,000 kg	800 g

Steelyards commonly used as butchers' steelyards are allowed double the amounts shown above.

TABLE VIII

WEIGHTS

The Laws of Zambia

<i>Denomination</i>	FOR GENERAL USE		PRECISION WEIGHTS	
	<i>Errors in excess only</i>		<i>Errors in excess or deficiency</i>	
	<i>Iron weights</i>	<i>Others</i>	<i>Class I</i>	<i>Class II</i>
20 kgi	3 gm	1.5 gm	100 mg	500 mg
10 kgi	2 gm	1 gm	50 mg	250 mg
5 kgi	1 gm	500 mg	25 mg	125 mg
2 kgi	600 mg	300 mg	10 mg	50 mg
1 kgi	400 mg	200 mg	5 mg	20 mg
500 gm	200 mg	100 mg	2.5 mg	10 mg
200 gm	100 mg	50 mg	1.0 mg	10 mg
100 gm	40 mg	20 mg	0.5 mg	5.0 mg
50 gm	-	15 mg	0.25 mg	2.0 mg
20 gm	-	10 mg	0.1 mg	1.0 mg
10 gm	-	5 mg	0.05 mg	0.5 mg
5 gm	-	5 mg	0.05 mg	0.5 mg
2 gm	-	5 mg	0.05 mg	0.5 mg
1 gm	-	2 mg	0.05 mg	0.5 mg
500 mg	-	2 mg	0.05 mg	0.5 mg
200 mg	-	2 mg	0.05 mg	0.5 mg
100 mg	-	2 mg	0.05 mg	0.5 mg
50 mg	-	2 mg	0.02 mg	0.2 mg
20 mg	-	1 mg	0.02 mg	0.2 mg
10 mg	-	0.5 mg	0.02 mg	0.2 mg
5 mg	-	0.2 mg	0.02 mg	0.2 mg
2 mg	-	0.2 mg	0.02 mg	0.2 mg
1 mg	-	0.1 mg	0.02 mg	0.1 mg

NOTE-Class I precision weights comply with NPL. 1961 Spec.

Class II precision weights comply with old NPL. Class B Spec.

Errors above 100 g for precision weights are extrapolated. Weights below 10 mg will be tested only as parts of complete sets by special arrangement.

TABLE IX

METRIC CARAT WEIGHTS

<i>Denomination</i>	<i>Error in excess only</i>
500 CM (=100 g)	10 mg
200 CM	5 mg
100 CM	2 mg
50 CM (=10 g)	2 mg
20 CM	1.0 mg
10 CM	1.0 mg
5 CM (=1 g)	1.0 mg
2 CM	1.0 mg
1 CM	1.0 mg
0.5 CM (=0.1 g)	0.5 mg
0.2 CM	0.5 mg
0.1 CM or under	0.2 mg

NOTE-This series of weights is limited and should be used only when precision metric weights are not suitable.

TABLE X

The Laws of Zambia

MEASURES OF LENGTH

<i>Denomination</i>	<i>End Measures</i>		<i>Line Measures</i>	
	<i>Long</i>	<i>Short</i>	<i>Long</i>	<i>Short</i>
100 mm	-	-	20 mm	20 mm
50 mm	-	-	15 mm	15 mm
30 mm	-	-	10 mm	10 mm
20 mm	-	-	7.5 mm	7.5 mm
10 mm	-	-	5.0 mm	5.0 mm
5 mm	-	-	2.5 mm	2.5 mm
3 mm	3 mm	1.5 mm	1.5 mm	1.5 mm
2 mm	2 mm	1.0 mm	1.0 mm	1.0 mm
1 mm	1 mm	0.5 mm	0.5 mm	0.5 mm
500 mm	0.8 mm	0.4 mm	0.4 mm	0.4 mm

The above errors are to apply to metal measures. Other measures shall have double the above allowances.

TABLE XI

MEASURES OF CAPACITY

<i>Capacity</i>	<i>Errors in excess only</i>	
	<i>Conical Metal</i>	<i>Others Metal</i>
100 litres or over	0.1% of capacity	0.2% of capacity
50l	65 ml	125 ml
20l	50 ml	100 ml
10l	40 ml	75 ml
5l	25 ml	50 ml
2l	12.5 ml	25 ml
1l	7.5 ml	15 ml
500ml	5.0 ml	10 ml
200ml	2.5 ml	5 ml
100ml	1.5 ml	2.5 ml
50ml	1.25 ml	2.0 ml
35ml	1.00 ml	1.5 ml
25ml	0.65 ml	1.5 ml
20ml	0.5 ml	1.0 ml
10ml	0.25 ml	0.5 ml

Measures other than metal measures may have an error in excess only of 5 times the allowance for conical metal measures shown above.

TABLE XII

GRADUATED GLASS MEASURES

The Laws of Zambia

<i>Approximate internal diameter</i>	<i>Error allowed in excess or deficiency</i>
100 mm	1 ml
90 mm	1 ml
80 mm	0.8 ml
70 mm	0.8 ml
60 mm	0.6 ml
50 mm	0.6 ml
40 mm	0.4 ml
30 mm	0.3 ml
20 mm	0.15 ml
10 mm	0.05 ml

Burettes, pipettes, measuring flasks and cylinders shall conform to tolerances not less severe than an approved international standard specification.

The Laws of Zambia

SECOND SCHEDULE

(Regulation 7 (5))

ABBREVIATIONS OF DENOMINATIONS

<i>Denomination</i>	<i>Abbreviation</i>
---------------------	---------------------

MASSES

Kilogram	kg
Gram	g
Decigram	dg
Centigram	eg
Milligram	mg
Metric Carat	C.M.

MEASURES

Litre	l
Decilitre	dl
Centilitre	cl
Millilitre	ml
Metre	m
Decimetre	dm
Centimetre	cm
Millimetre	mm
Cubic centimetre	c.c. or c3
Cubic metre	cu.m or m3

The Laws of Zambia

THIRD SCHEDULE

(Regulations 27, 28 (6), 29 (8) and 30 (6))

DENOMINATIONS OF MASSES AND MEASURES WHICH ARE
PERMITTED FOR USE IN TRADE

PART I

MASSES

20 kilograms	5 grams
10 kilograms	2 grams
5 kilograms	1 gram
2 kilograms	0.5 gram
1 kilogram	0.2 gram
500 grams	0.1 gram
200 grams	0.05 gram
100 grams	0.02 gram
50 grams	0.01 gram
20 grams	0.005 gram
10 grams	0.002 gram
	0.001 (=1 mg)
500 metric carats	1 metric carat
200 metric carats	0.5 metric carat
100 metric carats	0.25 metric carat
50 metric carats	0.2 metric carat
20 metric carats	0.1 metric carat
10 metric carats	0.05 metric carat
5 metric carats	0.02 metric carat
2 metric carats	0.01 metric carat
	0.005 metric carat

PART II

MEASURES

The Laws of Zambia

1. GRADUATED GLASS MEASURES

2 litres	25 millilitres
1 litre	20 millilitres
500 millilitres	10 millilitres
250 millilitres	5 millilitres
200 millilitres	2 millilitres
100 millilitres	1 millilitre
50 millilitres	

2. MEASURES OF CAPACITY OTHER THAN GRADUATED MEASURES OF GLASS

20 litres	50 millilitres
10 litres	35 millilitres
5 litres	25 millilitres
2 litres	20 millilitres
1 litre	10 millilitres
0.5 litre or 500 ml	5 millilitres
0.2 litre or 200 ml	2 millilitres
100 millilitres	1 millilitre

3. MEASURES OF CUBIC CAPACITY OR VOLUME

1 cubic metre or multiples of 1 cubic metre
500 cubic decimetres
200 cubic decimetres
100 cubic decimetres
50 cubic decimetres
20 cubic decimetres
10 cubic decimetres

4. MEASURES OF AREA

1 square metre or multiples of 1 square metre
1 square decimetre or multiples of 1 square decimetre
1 square centimetre or multiples of 1 square centimetre

5. MEASURES OF LENGTH

1 metre and an integral number of metres not exceeding 100 metres.
1 decimetre and an integral number of decimetres not exceeding one metre.
1 centimetre and an integral number of centimetres not exceeding one metre.
1 millimetre and an integral number of millimetres not exceeding one metre.

SECTION 44-THE WEIGHTS AND MEASURES (ASSIZE FEES) REGULATIONS.

Statutory Instrument
1 of 1996

Regulations by the Minister

1. These Regulations may be cited as the Weights and Measures (Assize Fees) Regulations. Title
2. In these Regulations, unless the context otherwise requires- Interpretation
- "applicant" means a person referred to in section *fifteen* of the Act who having an instrument, weight or measure for use in trade, or in his possession or charge for use in trade notifies the Assizer in writing of the particulars of such instrument, weight or measure and the place where it is kept and requests that such instrument, weight or measure be assized at that place; and includes any person notifying an Assizer of the said particulars in a request for the assize of an instrument, weight or measure in advance of a notice published in terms of section *seventeen* of the Act;
- "assize station" means a place or an area specified in a notice where persons called upon must produce any instrument in use or possession or charge for use in trade for the purpose of its being assized;
- "special applicant" means a person, other than an applicant, who notifies the Assizer of the particulars of an instrument or measure and requests that such instrument or measure be assized at the place where it is kept; and shall include an instrument maker, repairer or seller.
3. Subject to regulation 5, there shall be charged in respect of the assizing or rejection of instruments the fees prescribed in the First Schedule. Testing fees
4. Subject to the provisions of regulation 5 there shall be charged in respect of- Adjusting and services fees
- (a) the adjustment of weights and measures, the fees prescribed in Part I of the Second Schedule;
- (b) the miscellaneous services mentioned in Part II of the Second Schedule, the fees prescribed in that Part.
5. Subject to paragraphs (a) and (b) of regulation 4, where an instrument is assized or rejected for an applicant at a place other than- Attendance fees
- (a) an assize office; or
- (b) an assize station;
- the appropriate fees chargeable in terms of regulations 3 and 4 shall be the appropriate fee increased by the attendance fee prescribed in Part III of the Second Schedule.

6. (1) Where an Assizer tests an instrument on the premises of a special applicant, there shall be charged, in respect of each journey made by the assizer to the premises-

Travelling and subsistence fees

- (a) where the journey is made by motor vehicle, a fee at the rate of 0.25 fee units per kilometre or part thereof in respect of the distance between the premises and the assize office at which the Assizer is stationed; or the attendance fees specified in Part III of the Second Schedule, whichever is the greater;
- (b) where the journey is made by air, road or rail, a fee equal to the cost of a return economy air fare, or first class return bus or train fare from the assize office at which the Assizer is stationed to the airport, bus station or railway station nearest to the premises, plus any costs incurred by the Assizer in travelling from the airport, bus station or railway station, as the case may be, to the premises; or
- (c) a fee of 500 fee units or the cost of accommodation, whichever is the greater, where the Assizer obtains sleeping accommodation away from the situation of the assize office at which the aforesaid Assizer is stationed.

(2) The fee prescribed in paragraph (a) or (b) of sub-regulation (1) shall not be charged where the special applicant provides suitable transport for the journey.

(3) When two or more special applicants are dealt with in one journey the fees laid down in sub-regulation (1) may be apportioned between such applicants.

7. Where an assizer with standard weights provided and carried by the government, tests a weigh-bridge, on the premises of an applicant or special applicant, there shall be charged in addition to any other fee prescribed in these Regulations-

Fees for the use and transport of test weights provided by Government

- (a) the total transportation costs of moving the standard weights to and from the premises of the applicant or special applicant and this shall include the cost of fuel, lubricants, subsistence allowances for the assizer and driver and mileage at the rate of 5 fee units per kilometre; or
- (b) a fee equal to the current daily pay and overtime for the truck crew.

8. (1) Where any testing is carried out for the mutual benefit of the owners or users of an instrument on one hand and the Assize Department, on the other hand, other than upon request made by the applicant, the testing fees, travel and subsistence fees and fees for carriage of standards set out for the applicants and special applicants may be charged.

Fees to be charged in other cases

(2) Where any person uses standard weights to test an instrument other than a weigh-bridge the fees shown in regulation 7 (a) and (b) shall be charged.

The Laws of Zambia

(3) Where any instrument is tested for a Government Department using standard weights, testing fees, travel and subsistence fees, or fees for the carriage standards set out for applicants or special applicants, shall be charged.

9. The Weights and Measures (Assize Fees) Regulations, 1979, are hereby
revoked.

Revocation of
S.I. No.
113 of 1979

The Laws of Zambia

FIRST SCHEDULE

(Regulation 3)

TESTING FEES

WEIGHING INSTRUMENTS

1. Testing a weighing instrument other than an automatic weighing instrument or a specified spring balance, of a capacity of-

	<i>Fee units</i>
(a) under 5 kilograms	50
(b) 5 kilograms or over but under 10 kilograms	100
(c) 10 kilograms or over, but under 20 kilograms	150
(d) 20 kilograms or over, but under 50 kilograms	200
(e) 50 kilograms or over, but under 100 kilograms	250
(f) 100 kilograms or over, but under 500 kilograms	300
(g) 500 kilograms or over, but under 2 tons	350
(h) 2 metric tons or over, but under 5 tons	400
(i) 5 metric tons or over, but under 10 tons	450
(j) 10 metric tons or over, but under 20 tons	500
(k) 20 metric tons or over, but under 50 tons	1,000
(l) 50 metric tons or over and under 100 tons	1,500
(m) 100 metric tons or over	2,000

The fees for self-indicating scale, including a spring self-indicating scale or a spring balance, other than a suspended spring balance listed in paragraph 2, shall be the above fees increased by 100 per centum.

The fees for an optical or electronic self-indicating price computing counter scale or an optical or electronic digital heavy duty scale shall be the above fees increased by 200 per centum.

2. A crane weigher or a suspended spring balance of a capacity of-

	<i>Fee units</i>
(a) under 50 kilograms	100
(b) 50 kilograms, but under 100 kilograms	150
(c) 100 kilograms, but under 200 kilograms	200
(d) 200 kilograms, but under 1,000 kilograms	250
(e) 1,000 kilograms or over	300

3. An automatic conveyor type weigher

500

4. An automatic weighing machine, when the capacity of each individual unit is-

(a) under 5 kilograms	100
(b) 50 kilograms, but under 100 kilograms	150
(c) 100 kilograms, but under 500 kilograms	200
(d) 200 kilograms, but under 1,000 kilograms	250
(e) 1,000 kilograms and over	300

WEIGHTS

The Laws of Zambia

	<i>Fee units</i>
(a) Any high precision weight of 1 kilogram and under	50
(b) Any high precision weight of over 1 kilogram	50
(c) Any weight of 5 kilograms and under	50
(d) Any weight of 5 kilograms and over	50
(e) Weigh bridge test weights	2,000

MEASURES OF CAPACITY

	<i>Fee units</i>
1. Any graduated measure of a capacity of 1 litre or under	50
2. Any ungraduated measure of capacity of:	
(a) 1 litre or 500 millilitres	75
(b) 1 litre or 500 millilitres	75
(c) 10.5 or 2 litres	75
(d) 20 litres or over, but under 50 litres	100
(e) 50 litres or over, but under 100 litres	150
(f) 100 litres or over, but under 200 litres	200
(g) 200 litres or over, but under 500 litres	250
(h) 500 litres or over, but under 1,000 litres	300
(i) 1,000 litres or over	350
3. Precision measure of capacity for use as a working standard:	
Any precision measure of capacity of:	
<i>Fee units</i>	
(a) below 20 litres	300
(b) 20 litres, to 25 litres	400
(c) 50 litres, to 100 litres	500
(d) 200 litres, to 225 litres	600
4. (1) A vehicle tank or compartment when tested, of capacity of:	
<i>Fee units</i>	
(a) for the first 500 litres	100
(b) Over 500 litres:	
(i) for the first 500 litres	100
(ii) for each additional 500 litres or part thereof	50
(2) The fee for an Assize seal fixed on each compartment of a tank lorry shall be	50
(3) (a) The fee for replacement of a valid tanker vehicle certificate shall be 50% of the fee in paragraph (4) (1).	
(b) When a vehicle tanker certificate is issued, the certificate number of that certificate shall be reflected on the Assize fees receipt so issued to the owner of the vehicle tanker.	
(c) At no time shall be a valid tanker vehicle certificate be issued without duty assizing the vehicle tanker and the relevant assize fees being charged.	

MEASURE OF LENGTH

1. Measure of length of:	
	<i>Fee units</i>
(a) over 3 metres	100
(b) 3 metres or under	50

The Laws of Zambia

MEASURING INSTRUMENTS

		<i>Fee units</i>
1.	(a) A bulk-flow metre with manual billing mechanism	500
	(b) A bulk-flow metre with automatic or set stop mechanism	500
	(c) A bulk-flow metre of 90 millimetres bore or less	750
	(d) A bulk-flow metre with automatic set stop billing mechanism	800
	(e) A bulk-flow metre with temperature compensation device	1,000
	(f) A bulk metre of over 20 millimetre bore	unspecified
	(g) Master metre of 90 millimetre bore	unspecified
	(h) A master metre of over 90 millimetre bore	unspecified
	(i) A proving loop	unspecified
	(j) A turbine meter	unspecified
	(k) A data recording pulsator or print-out device	unspecified
	(l) A remote read-out device	unspecified
2.	A liquid fuel or lubricating-oil measuring instrument, other than a bulk-metre:	
	(a) incorporating a flow meter	100
	(b) incorporating a flow meter and price computer	200
	(c) incorporating blending system	500
	(d) digital read out petrol pump	400
3.	(a) an instrument for measuring spirituous liquor of a capacity of 35ml	50
	(b) a beer measuring instrument	100
4.	A fabric-measuring instrument with or without a price computing unit:	
	(a) of 50 metres or over	100
	(b) under 50 metres	50

When fees are shown as unspecified, a charge covering the cost to the Assize Department on a time and expenses basis shall be made.

SECOND SCHEDULE

(Regulations 4, 5, and 6)

PART I

ADJUSTING FEES

The Laws of Zambia

	<i>Fee units</i>
1. Any weight of 5 kilograms and over	50
2. Any other weight	50
3. Any precision weight	100
4. Any poise	50
5. Any measure of capacity:	
(a) under 1 litre	50
(b) 1 litre, but under 5 litres	75
(c) 5 litres, but under 10 litres	80
(d) 10 litres, but under 50 litres	85
(e) 50 litres, but under 250 litres	90
(f) 250 litres, but under 1,000 litres	95
(g) 1,000 litres or over	100

PART II

FEE FOR MISCELLANEOUS SERVICES

	<i>Fee units</i>
1. Denominating a weight or measure	100
2. Affixing a solder pad, stud plug or seal	100
3. Permit for use of an unassized instrument	100
4. Examination of instrument for approval under section 15 in addition to the Appropriate fees, plus attendance fee, travelling allowance, etc.	1,500
5. Examination for and issue of certificate of competence	500
6. Renewal of certificate of competence	250
7. Replacement of lost or stolen die	1,000

PART III

ATTENDANCE FEE

	<i>Fee units</i>
1. Within an urban council	100
2. Outside an urban council, but not more than 20 kilometres from it	250
3. Outside an urban council, but not more than 40 kilometres from it	500
4. Where staff are required to attend at a distance exceeding 80 kilometres, such costs not exceeding the cost to Government of the service rendered, plus, lodging and mileage shall be charged in addition to any fee set out for assizing or adjusting as set out herein.	

PART IV

The Laws of Zambia

HIRE CHARGES AND DELAY CHARGES

Where a contractor, scale-maker, erector, repairer, fitter or any person contracts to hire the testing equipment and carrying facilities belonging to the Government without the attendance of an Assizer, a charge of 1,000 fee units per day, hire charge for the first 5 days and 2,000 fee units per day thereafter, shall be charged in addition to any subsequent test fee.

PART V

WEIGHBRIDGE

When a contractor, scale-maker, erector, repairer or any person acting for an applicant or a special applicant fails to complete the submission and assizing of a single weighbridge in a full working day a delay charge of 100 penalty units per day shall be charged for each day the work is not complete.

A full working day is a period of eight hours whether continuous or not on consecutive days.

The hirer shall have the services of a competent driver and crane hand and shall insure both equipment and staff for all risks during the period that they are engaged on his premises.

SECTION 27-THE WEIGHTS AND MEASURES
(ASSIZER'S CERTIFICATE) REGULATIONS

Statutory Instrument
177 of 1971

Regulations by the Minister

1. These Regulations may be cited as the Weights and Measures (Assizer's Certificate) Regulations. Title

2. The Minister may issue an assizer's certificate to a person who is the holder of- Assizer's certificate
 - (a) a certificate of qualification as an inspector of weights and measures issued by the Department in the United Kingdom responsible for the administration of the Weights and Measures Act, 1963, of the United Kingdom;
 - (b) any other equivalent qualification accepted by the Minister.

SECTION 27-THE WEIGHTS AND MEASURES
(CERTIFICATE OF COMPETENCE) REGULATIONS

Statutory Instrument
178 of 1971

Regulations by the Minister

1. These Regulations may be cited as the Weights and Measures (Certificate of Competence) Regulations. Title

2. Any person may apply to the Superintendent for a certificate of competence. Application for certificate

3. (1) The Superintendent shall cause an applicant for a certificate of competence to be examined as to his knowledge of the Weights and Measures Act and particular classes of instruments or measures for which the applicant wishes to hold a certificate of competence. Examination for certificate

(2) The examination mentioned in sub-regulation (1) shall be conducted in such a manner as the Superintendent sees fit, and the examination in the theory, construction, installation and repair of instruments or measures may be waived in the case of applicants who have served or undergone a recognised period of training in the repair of such instruments or measures.

4. (1) If the Superintendent is satisfied that an applicant for a certificate of competence has sufficient knowledge of the Weights and Measures Act and Regulations and is a person who can manufacture, install and repair instruments or measures, as the case may be, to comply with the requirements of the Weights and Measures Act and Regulations he shall, upon receipt of the prescribed fee, issue the applicant with a certificate of competence. Issue of certificate

The Laws of Zambia

(2) A certificate of competence may be issued for all or any particular class of instruments or measures.

5. A certificate of competence shall expire on the 31st December each year but may be renewed upon application to the Superintendent and on payment of the prescribed fee, and the Superintendent shall renew the certificate if he is satisfied that the work of the holder is satisfactory:

Duration and renewal of certificate

Provided that, where the Superintendent refuses to renew a certificate of competence he may, in writing, advise the applicant of the reasons for the refusal.

6. The Superintendent may at any time withdraw a certificate of competence if he is satisfied that the holder has failed to comply with the Weights and Measures Act and Regulations:

Withdrawal of certificate

Provided that, where a certificate of competence is withdrawn, the Superintendent may advise the holder in writing of the reasons for the withdrawal.

7. Any persons aggrieved by a decision of the Superintendent under these Regulations may appeal to the Minister whose decision shall be final.

Right of appeal to Minister

8. The Superintendent may delegate his powers under these Regulations in any special circumstances to any other officer of his Department.

Delegation of powers of Superintendent

9. The Superintendent and any other officer aforesaid shall not be required to give any reason for refusing the issue to any person of a certificate of competence

Refusal of certificate

THE WEIGHTS AND MEASURES (SALE OF ARTICLES) REGULATIONS

ARRANGEMENT OF REGULATIONS

Regulation

1. Title
2. Application
3. Interpretation
4. Exemption from section 19 (1) of the Act
5. Exemption from section 20 (1) of the Act
6. Marking of wrappers or containers
7. Standard weight per bag or pocket
8. Pre-packed articles
9. Cement
10. Coal and coke
11. Fertiliser
12. Firewood
13. Meat
14. Cheese
15. Spirituous liquor
16. Agricultural produce
17. Bread
18. Dried fish
19. Lime
20. Milk and cream
21. Cooking oil

FIRST SCHEDULE-Pre-packed articles which may be marked "Net Weight when Packed"

SECOND SCHEDULE-Abbreviations of denominations

THIRD SCHEDULE-Standard weight per bag or pocket

FOURTH SCHEDULE-Pre-packed articles to be sold by weight and in fixed quantities

FIFTH SCHEDULE-Pre-packed articles to be sold by measure of capacity and in fixed quantities

SECTION 27-THE WEIGHTS AND MEASURES (SALE OF ARTICLES) REGULATIONS

Statutory Instruments
182 of 1971
209 of 1972
91 of 1985
92 of 1985
197 of 1986

Regulations by the Minister

1. These Regulations may be cited as the Weights and Measures (Sale of Articles) Regulations. Title
2. The provisions of these Regulations shall not apply to the sale of- Application
- (a) any articles of food, other than intoxicating liquor, for consumption on the premises of the seller;
 - (b) any assortment of foods packed for sale as a meal and ready for consumption without cooking, heating or other preparation;
 - (c) articles intended for export which are so packed and marked and are consigned to a point outside Zambia;
 - (d) a single article, the retail price of which is not more than five ngwee.
3. In these Regulations, unless the context otherwise requires- Interpretation
- "agricultural produce" means-
- (a) beans, dhal, gram, lentils, onions or peas, when not in a green state;
 - (b) barley, buckwheat, cassava, maize but not including green maize on the cob, millet, munga, oats, paddy, rupoko, rice, rye, sorghum, wheat, or any other cereal;
 - (c) bean meal, bran, crushed maize, flour, hominy chop, sorghum meal, maize cones, maize grits, maize meal, maize offals, maize seconds, mealie rice, munga meal, pollard, rupoko meal, rye meal, samp, or any other meal or milled product of grain;
 - (d) chaff, fodder, forage, lucerne or teff grass;
 - (e) castor seed, groundnuts, linseed, potatoes, seed cotton, sesame, sweet potatoes, sunflower seed, or sunnhemp seed;
 - (f) beetroots, carrots, parsnips, tomatoes or turnips;
- "Board" means the Dairy Produce Board established under section *three* of the Dairy Produce Board (Establishment) Act; Cap. 235

The Laws of Zambia

"coke" includes any solid fuel derived from coal or of which coal or coke is a constituent;

"dried fish" means fish which has been sun-dried or smoked;

"dried fruit" includes candied peel and crystallised or glaze fruits;

"fertiliser" means any substance which is intended or offered for improving or maintaining the growth of plants or the productivity of the soil, but does not include-

- (a) farmyard, stable or village manure;
- (b) compost;
- (c) wood ash;
- (d) gypsum;
- (e) town refuse or night soil;

"meat" means the carcass, part of a carcass or offal of any animal or poultry being a carcass, part of a carcass or offal suitable for human consumption and whether fresh, frozen, chilled, pickled, cured, salted, dried, minced, cooked, or manufactured into brawn, polony, or sausages;

"milk" means cow's milk, whether pasteurised, separated, skimmed, or subjected to any other process, but does not include dried, evaporated, or condensed milk;

"spirituous liquor" means brandy, gin, rum, vodka or whisky;

"weight" includes mass;

"wool" means yarns-

- (a) of natural wool or synthetic fibres; or
- (b) of mixtures containing natural wool and additionally or alternatively synthetic fibres;

packed and intended for hand-knitting.

4. (1) Subject to the provisions of sub-regulation (2), the provisions of subsection (1) of section *nineteen* of the Act shall not apply to sweets and chocolates. Exemption from section 19 (1) of the Act

(2) When sweets or chocolates are sold by weight, the weight of only the immediate wrapping, if any, of each individual sweet or chocolate shall be included in the weight of the sweets or chocolates so sold.

5. The provisions of subsection (1) of section *twenty* of the Act shall not apply to- Exemption from section 20 (1) of the Act

- (a) any pre-packed article specified in the First Schedule if the wrapper or container of the article is marked in accordance with the provisions of regulation 6 with the net weight, at the time that it is pre-packed, of the article and the statement of the weight is preceded or followed by the words "net weight when packed";
- (b) any groundnuts, sorghum, maize, munga or rupoko, sold in quantities of not less than 15,000 kg, if the invoice or delivery note required in terms of subsection (2) of section *nineteen* of the Act contains a statement similar in all material particulars to the following:

"This sale of groundnuts/sorghum/maize/munga/rupoko, which is not less than 15,000 kg, is made by total net weight and the bags in which the articles are packed do not comply with the provisions of section twenty of the Weights and Measures Act; the purchaser of these articles who resells them by weight as pre-packed articles in quantities of less than 15,000 kg shall comply with the provisions of the said section."

6. (1) For the purposes of sections *eighteen* and *twenty* of the Act, the wrapper or container of an article shall be marked with a statement of the weight or measure, as the case may be, of the article in a manner complying with the provisions of this regulation. Marking of wrappers or containers

(2) The marking of the net weight or the measure of the article shall be clearly and legibly stamped, printed or written-

- (a) in a prominent position and so placed, whether upon an inner or outer wrapper or container or upon both, that it can easily be read without detaching or unwrapping any of the wrappers or containers;
- (b) in letters, or figures and letters, of a size not less than half the average size of the letters used to describe the contents nor less than 5 mm in height:

The Laws of Zambia

Provided that-

- (i) where the wrapper or container, or the label containing a printed description of the contents and affixed thereto, is so small as to preclude the marking in letters, or figures and letters, of the size prescribed, such marking may be in smaller letters, or figures and letters, if they are clear and legible;
 - (ii) where the average size of the letters used to describe the contents is greater than 75 mm, it shall not be necessary for the marking to be in letters, or figures and letters, more than 40 mm in height;
- (c) in terms of the largest denomination of weight or measure contained therein and, where necessary, of the next following smaller denomination.

(3) For the purposes of this regulation, denominations of weight shall be in grams or in kilograms and denominations of capacity shall be in millimetres or in litres.

(4) Subject to the provisions of regulation 5, the marking of the net weight or the measure on the wrapper or container of an article sold by weight or measure shall be without any qualification.

(5) The denomination of weight or measure shall be stated in full or, in respect of a denomination specified in the first column of the Second Schedule, in full or in an abbreviated form specified opposite thereto in the second column of the Second Schedule.

(6) For the purposes of this regulation, the wrapper or container of an article shall be deemed to be marked with a statement of weight or measure if the statement is marked on a label-

- (a) securely attached to the wrapper or container; or
- (b) inserted within the wrapper or container or, where more than one wrapper or container is used, within the outer wrapper or container, in such a manner that it cannot be removed without first breaking open the wrapper or container.

7. (1) The standard weight for a bag of any article specified in the first column of Part I of the Third Schedule shall be the net weight specified opposite thereto in the second column of Part I of the Third Schedule.

Standard weight per bag or pocket

(2) The standard weight for a pocket of any article specified in the first column of Part II of the Third Schedule shall be the net weight specified opposite thereto in the second column of Part II of the Third Schedule.

The Laws of Zambia

8. (1) Subject to the provisions of sub-regulation (3), no person shall sell any pre-packed article specified in the first column of the Fourth Schedule otherwise than by weight and in a quantity specified opposite thereto in the second column of the Fourth Schedule. Pre-packed articles

(2) No person shall sell any pre-packed article specified in Part I of the Fifth Schedule otherwise than by measure of capacity and in a quantity specified in Part II of the Fifth Schedule.

(3) The provisions of sub-regulation (1) shall not apply to any pre-packed article, other than wool-

(a) the weight of which does not exceed 50 g; or

(b) packed in a tube;

if the wrapper or container of the article is marked in accordance with the provisions of regulation 6, with the net weight of the article.

(4) The provisions of sub-regulations (1) and (2) shall not apply to any article pre-packed at any place outside Zambia, if the wrapper or container of the article is marked in accordance with the provisions of regulation 6-

(a) in the case of any article specified in the first column of the Fourth Schedule, with the net weight of the article; or

(b) in the case of any article specified in Part I of the Fifth Schedule, with the measure of capacity of the article.

(As amended by No. 209 of 1972)

9. No person shall sell pre-packed cement otherwise than by weight and in quantities of 50 kg or multiples thereof. Cement

10. No person shall sell coal or coke otherwise than by weight. Coal and coke

11. (1) Subject to the provisions of sub-regulation (2), no person shall sell any fertiliser otherwise than by weight. Fertiliser

(2) The provisions of sub-regulation (1) shall not apply to a fertiliser sold in liquid form.

The Laws of Zambia

12. (1) Subject to the provisions of sub-regulation (2), no person shall sell firewood otherwise than- Firewood

- (a) by weight; or
- (b) in quantities of 1 cubic metre or an integral multiple of 1 cubic metre.

(2) The provisions of sub-regulation (1) shall not apply to firewood sold in quantities of less than 50 kg.

13. (1) Subject to the provisions of sub-regulation (3), no person shall sell any meat otherwise than by weight. Meat

(2) The invoice or delivery note required in terms of subsection (2) of section *nineteen* of the Act shall, in respect of the sale of any meat sold by weight, specify-

- (a) the name and address of the seller;
- (b) the name and address of the purchaser;
- (c) the weight, grade and designation of each cut of meat delivered; and
- (d) the price per kilogram of, or the total price charged for, each cut of meat delivered.

(3) The provisions of sub-regulation (1) shall not apply to the sale of brains, head or feet.

(4) In the case of the retail sale of pre-packed meat, the wrapper or container shall be clearly marked showing the weight, designation and price of each cut of meat.

14. No person shall sell cheese otherwise than by weight. Cheese

15. (1) For the purposes of this regulation, "sell from bulk" means to sell from a bottle or other container any quantity which is less than the original quantity contained in such bottle or other container. Spirituuous liquor

The Laws of Zambia

(2) Subject to the provisions of sub-regulation (3), no person shall sell from bulk for consumption on his premises any spirituous liquor otherwise than-

- (a) by measure of capacity; and
- (b) in quantities of 35 millilitres or 70 millilitres.

(3) The provisions of sub-regulation (2) shall not apply to spirituous liquor sold in the form of a cocktail.

16. (1) Subject to the provisions of sub-regulation (2), no person shall sell any agricultural produce otherwise than by weight or by measure of capacity. Agricultural produce

(2) The provisions of sub-regulation (1) shall not apply to the sale by auction of any agricultural produce which is-

- (a) not contained in a sack or container; and
- (b) sold in quantities not exceeding 15 kg in weight.

17. A person shall not sell bread or other wheat products set out in the Sixth Schedule otherwise than- Bread

- (a) by weight; and
- (b) in quantities respectively specified therefor in the Sixth Schedule, or an integral multiple of such weight:

Provided that such quantities may be exceeded by a weight not exceeding proportionally 50 g for each 40 g.

(As amended by S.I. No. 92 of 1985)

18. No person shall sell dried fish otherwise than by weight. Dried fish

19. No person shall sell lime otherwise than by weight. Lime

The Laws of Zambia

20. (1) Subject to the provisions of sub-regulation (2), no person shall sell milk or cream- Milk and cream

- (a) otherwise than by measure of capacity and in quantities of 0.1 litre, 0.25 litre, 0.5 litre, 1 litre or an integral multiple of 1 litre;
- (b) in a container having a capacity which exceeds the quantity of milk or cream sold in that container by more than five per centum of such quantity.

(2) The provisions of sub-regulation (1) shall not apply to-

- (a) milk or cream sold to a creamery, dairy or factory for manufacturing purposes;
- (b) tinned or bottled cream sold by weight.

(3) Any can used for the delivery of milk or cream sold by weight to a creamery, dairy or factory for manufacturing purposes shall have its tare weight conspicuously stamped on the side or neck thereof.

(4) Where the quantity of milk in terms of measure of capacity sold to a creamery, dairy or factory is to be determined by weighing, the basis of computation shall not exceed 1,080 grams per litre, nor be less than 1,070 grams per litre.

21. (1) A person shall not sell any edible oil which is pre-packed in Zambia otherwise than by measure of capacity and in a quantity specified in the Sixth Schedule. Cooking oil

(2) Where any edible oil is sold by decanting-

- (a) a certified standard measure shall be used;
- (b) the seller shall satisfy the buyer that the correct quantity is being decanted;
- (c) reasonable time shall be allowed for the oil to drain out of the measure;
- (d) the quantities in which such oil may be sold shall be specified in the Sixth Schedule.

(As amended by S.I. No. 91 of 1985)

The Laws of Zambia

FIRST SCHEDULE

(Regulation 5)

PRE-PACKED ARTICLES WHICH MAY BE MARKED "NET WEIGHT WHEN PACKED"

1. Carbonate of soda, sulphate of soda, or Epsom salts
2. Soap made in bar or tablet form and packed in cases
3. Tobacco
4. Dried fruit
5. Cheese in its original wrappings
6. Ham in its original wrappings or preserving materials
7. Fertilisers
8. Compound feeding stuffs for animals
9. Seed potatoes
10. Yeast
11. Any grade of ferrous sulphate other than the exsiccated variety, zinc sulphate, copper sulphate, sodium sulphite, sodium thiosulphate or lead nitrate
12. Wool

The Laws of Zambia

SECOND SCHEDULE
(Regulation 6 (5))

ABBREVIATIONS OF DENOMINATIONS

WEIGHTS

<i>Denomination</i>	<i>Abbreviation</i>
Kilogram	kg
Gram	g
Decigram	dg
Centigram	cg
Milligram	mg
Metric carat	C.M.

MEASURES

Litre	1 or lit
Decilitre	dl
Centilitre	cl
Millilitre	ml
Metre	m
Decimetre	dm
Centimetre	cm
Millimetre	mm
Cubic centimetre	c.c. or cm ³
Cubic metre	cu.m or m ³

The Laws of Zambia

THIRD SCHEDULE
(Regulation 7)

PART I

STANDARD WEIGHT PER BAG

<i>Article</i>	<i>Net Weight</i>
Barley	70 kg
Beans, all varieties	90 kg
Bran, maize	32 kg
Bran, wheaten	45 kg
Buckwheat	70 kg
Bullrush millet	90 kg
Bullrush millet meal	90 kg
Coal	50 kg
Coke	25 kg
Cow peas	90 kg
Finger millet	90 kg
Flour, wheaten	90 kg
Gram	90 kg
Groundnut cake	70 kg
Groundnut meal	90 kg
Groundnuts, shelled	80 kg
Groundnuts, unshelled	30 kg
Hominy chop	70 kg
Maize, crushed, seconds or grits	90 kg
Maize, dried and off the cob	90 kg
Maize flour	90 kg
Maize germ meal	70 kg
Maize meal	90 kg
Oats, crushed	50 kg
Oats, uncrushed	70 kg
Pollard	45 kg
Rice paddy	80 kg
Rye	90 kg
Rye meal	45 kg
Sorghum	90 kg
Sorghum meal	90 kg
Sunflower seed	70 kg
Sunnhemp seed	90 kg
Sweet potatoes	55 kg
Wheat	90 kg

PART II

STANDARD WEIGHT PER POCKET

<i>Article</i>	<i>Net Weight</i>
Maize flour	45 kg
Maize meal	45 kg
Onions	12 kg
Potatoes	15 kg
Wheat flour	45 kg

FOURTH SCHEDULE

(Regulation 8 (1) and (4))

PRE-PACKED ARTICLES TO BE SOLD BY WEIGHT AND IN FIXED QUANTITIES

Pre-packed Articles Quantity

1. Butter, dripping, lard, margarine or any other animal or vegetable cooking fat not in liquid form, but excluding peanut butter.	100 g, 250 g or an integral multiple of 500 g.
2. Tea, including bush tea, ground coffee, cocoa and other beverages in flaked, granulated or powdered form, but excluding-	100 g, 250 g, 500 g or an integral multiple of 500 g.
(a) dried or evaporated milk; and	
(b) soluble coffee extracts; and	
(c) soluble coffee and chicory extracts; and	
(d) soluble tea compounds; and	
(e) fruit flavoured drinks in dried form.	
3. Soluble coffee extracts, soluble coffee and chicory extracts and soluble tea compounds.	100 g, 250 g, 500 g, 750 g, 1 kg or an integral multiple of 500 g.
4. Honey, jam, jelly, marmalade, syrup or treacle, but excluding jelly crystals.	100 g, 200 g, 300 g, 400 g, 450 g, 500 g, 1 kg or an integral multiple of 1 kg.
5. Breakfast foods manufactured from a cereal.	100 g, 150 g, 200 g, 300 g, 500 g, or an integral multiple of 500 g.
6. Macaroni, spaghetti, vermicelli or any similar product or substitute therefor, whether flavoured or not, which is not tinned.	100 g, 200 g, 500 g, 1 kg or an integral multiple of 1 kg.
7. Cornflour, self-raising flour, rice, sago, semolina or tapioca.	100 g, 200 g, 500 g, 1 kg or an integral multiple of 1 kg.
8. Flour, but excluding flour of a type specified in paragraph 7 or 9.	500 g or integral multiples of 500 g, not exceeding 5 kg, 10 kg, 20 kg, 45 kg or 90 kg.
9. Maize meal or maize flour.	20 g, 50 g, 100 g, 200 g, 500 g, 1 kg, 2 kg, 5 kg, 10 kg, 20 kg, 45 kg, or 90 kg.
10. Maize germ meal.	An integral multiple of 500 g not exceeding 5 kg, 10 kg, 20 kg, 45 kg or 70 kg.
11. Meal, but excluding meal of a type specified in paragraph 9 or 10.	An integral multiple of 500 g not exceeding 5 kg, 10 kg, 20 kg, 45 kg or 90 kg.
12. Salt, but excluding rock or flavoured salt.	100 g, 200 g, 500 g, or an integral multiple not exceeding 5 kg, 10 kg, 20 kg, 50 kg, or 100 kg.
13. Castor, cube, icing, loaf or tablet sugar.	200 g, 1 kg or an integral multiple of 1 kg.
14. Sugar, but excluding sugar of a type specified in paragraph 13.	200 g, 500 g, 1 kg or an integral multiple of 1 kg up to 10 kg, 20 kg or 50 kg.
15. Dried fruit.	100 g, 200 g, 500 g, 1 kg or an integral multiple of 1 kg.
16. Peanut butter.	100 g, 200 g, 400 g, 1 kg or an integral multiple of 1 kg.
17. Nuts, including peanuts, nuts and dried fruit mixtures, potato crisps, chips and puffs.	20 g, 25 g, 50 g, 100 g, 125 g, 200 g, 250 g, 300 g, 500 g, 1 kg or an integral multiple of 1 kg.

The Laws of Zambia

The Laws of Zambia

FIFTH SCHEDULE

(Regulation 8 (2) and (4))

PRE-PACKED ARTICLES TO BE SOLD BY MEASURE OF CAPACITY AND IN FIXED QUANTITIES

PART I

PRE-PACKED ARTICLE

1. Brake fluid
2. Benzine, paraffin, petrol, turpentine or turpentine substitute
3. Lubricating oil
4. Linseed oil
5. Creosote or creosote substitute
6. Methylated spirits
7. Liquid paint, enamel or lacquer, in a condition ready for use
8. Varnish, wood stain or wood preservative
9. Revoked by S.I. No. 91 of 1985
10. Vinegar
11. Liquid fertiliser

PART II

QUANTITY

10 ml or an integral multiple of 10 ml not exceeding 100 ml.

20 ml or an integral multiple of 20 ml not exceeding 500 ml.

25 ml or an integral multiple of 25 ml not exceeding 375 ml.

50 ml or an integral multiple of 50 ml not exceeding 1 litre, 2 litres, 2.5 litres, 3 litres,

5 litres or an integral multiple of 5 litres.

SIXTH SCHEDULE

(Regulation 21)

QUANTITIES IN WHICH EDIBLE OIL MAY BE SOLD

100 ml, 200 ml, 250 ml, 600 ml, 750 ml, one litre, 2.5 litres and 5 litres.

(As amended by S.I. No. 91, 92 of 1985 and No. 197 of 1986)

SECTION 27-THE WEIGHTS AND MEASURES (STANDARD) REGULATIONS

*Statutory Instrument
176 of 1971*

Regulations by the Minister

The Laws of Zambia

1. These Regulations may be cited as the Weights and Measures (Standards) Regulations. Title
2. (1) A national standard shall be authenticated by a certificate issued by the National Physical Laboratory of the United Kingdom or by the Standard Weights and Measures Department of the United Kingdom responsible for the administration of the Weights and Measures Act, 1963, of the United Kingdom, or any other equivalent authority recognised by the Minister which- National local and working standards
- (a) describes and identifies the standard;
 - (b) states the actual error found on verification; and
 - (c) specifies any special conditions applying during the verification.
- (2) A local standard shall be authenticated by a certificate issued by the Superintendent which-
- (a) describes and identifies the standard; and
 - (b) states the actual error found on verification.
- (3) A working standard shall be authenticated by a certificate issued by an assizer which-
- (a) describes and identifies the standard; and
 - (b) states that the error found on verification is within the limits laid down by these Regulations.
3. All working standards shall be verified in comparison with local standards at intervals not exceeding- Verification of standards at certain intervals
- (a) in the case of standards of mass, one year;
 - (b) in the case of metric carat standards of mass, five years;
 - (c) in the case of standards of length, five years;
 - (d) in the case of measures of capacity, one year.

The Laws of Zambia

4. In local standards, the limit of error allowed-

Limit of error allowed
in local standards

- (a) on a mass of a denomination specified in the first column of Part I or II of the First Schedule, is that specified opposite thereto in the second column of Part I or II respectively of the First Schedule;
- (b) on a measure of capacity of a capacity specified in the first column of Part I or II of the Second Schedule, is that specified opposite thereto in the second column of Part I or II respectively of the Second Schedule;
- (c) on a measure of length of a capacity specified in the first column of the Third Schedule, is that specified opposite thereto in the second column of the Third Schedule.

5. (1) Subject to the provisions of sub-regulation (2), a working standard shall, when verified, be adjusted to agree with the local standard with which it is compared.

Adjustment of working
standards

(2) The limit of error allowed on an iron working standard of mass of a denomination of 1 kg or over which is used for the testing of weighing instruments shall be 100 mg per kilogram in excess only, but the limit of error on a 500 kg roller mass shall be 100 grams in excess only.

6. (1) The local standards shall be kept at the Weights and Measures offices established at Lusaka and Ndola.

Location of standards

(2) The national standards of mass, length and capacity shall be kept at the Weights and Measures office in Lusaka.

The Laws of Zambia

FIRST SCHEDULE

(Regulation 4 (a))

LIMITS OF ERROR ON LOCAL STANDARDS

PART I

MASSES

<i>Denomination of mass</i>	<i>Error allowed in excess or deficiency</i>
20 kilograms.	150 milligrams
10 kilograms.	100 milligrams
5 kilograms.	50 milligrams
2 kilograms.	30 milligrams
1 kilogram.	20 milligrams
500 grams.	10 milligrams
200 grams.	10 milligrams
100 grams.	4 milligrams
50 grams.	3 milligrams
20 grams.	2 milligrams
18 grams.	2 milligrams
10 grams.	1 milligram
9 grams.	1 milligram
5 grams.	1 milligram
2 grams.	1 milligram
1 gram.	0.4 milligram
5 decigrams.	0.4 milligram
2 decigrams.	0.4 milligram
1 decigram.	0.4 milligram
5 centigrams.	0.4 milligram
2 centigrams.	0.2 milligram
1 centigram.	0.1 milligram
5 milligrams or under.	0.04 milligram

PART II

METRIC CARAT MASSES

The Laws of Zambia

<i>Denomination of mass</i>	<i>Error allowed in excess or deficiency</i>
200 metric carats or over.	1 milligram
100 metric carats.	0.4 milligram
50 metric carats.	0.4 milligram
20 metric carats.	0.2 milligram
10 metric carats.	0.2 milligram
5 metric carats.	0.2 milligram
2 metric carats.	0.2 milligram
1 metric carat.	0.2 milligram
0.5 metric carat.	0.1 milligram
0.25 metric carat.	0.1 milligram
0.2 metric carat.	0.1 milligram
0.1 metric carat or under.	0.04 milligram

The Laws of Zambia

SECOND SCHEDULE

(Regulation 4 (b))

LIMITS OF ERROR ON LOCAL STANDARDS

PART I

MEASURES OF CAPACITY

<i>Capacity</i>	<i>Error allowed in excess or deficiency</i>
20 litres	10 millilitres
10 litres	5 millilitres
5 litres	2.5 millilitres
2 litres	1.25 millilitres
1 litre	0.5 millilitre
500 millilitres	0.4 millilitre
200 millilitres	0.3 millilitre
100 millilitres	0.2 millilitre
50 millilitres	0.15 millilitre
20 millilitres	0.1 millilitre
10 millilitres	0.08 millilitre
5 millilitres	0.06 millilitre
2 millilitres	0.04 millilitre
1 millilitres	0.04 millilitre

The above table shall apply to all forms of local standard measures of capacity excepting measures of cubic content.

PART II

GRADUATED GLASS MEASURES

<i>Capacity of measure</i>	<i>Error allowed in excess or deficiency</i>
above 100 millilitres	0.5 millilitre
above 20 millilitres and not exceeding 100 millilitres	0.3 millilitre
above 5 millilitres and not exceeding 20 millilitres	0.2 millilitre
above 2 millilitres and not exceeding 5 millilitres	0.1 millilitre
not exceeding 2 millilitres	0.05 millilitre

The Laws of Zambia

THIRD SCHEDULE

(Regulation 4 (c))

LIMITS OF ERROR ON LOCAL STANDARDS

MEASURES OF LENGTH

<i>Denomination</i>	<i>Error allowed in excess or deficiency</i>
50 metres.	4.0 millimetres
30 metres.	4.0 millimetres
20 metres.	2.5 millimetres
10 metres.	2.5 millimetres
5 metres.	2.5 millimetres
3 metres.	2.5 millimetres
2 metres.	0.5 millimetres
1 metre	0.25 millimetres
1 decimetre.	0.1 millimetres
1 centimetre.	0.05 millimetres

Endnotes

1 (Popup - Popup)

These Regulations are continued in operation by virtue of section 15 of the Interpretation and General Provisions Act (Cap. 2). Reference to a Section of an Act in these regulations means reference to the Repealed Act.