evernment Notice No. 97 of 1990.

# THE LEGAL METROLOGY ACT Regulations made by the Minister under section 14 of the Legal Metrology Act 1985

- 1. These regulations may be cited as the Legal Metrology (Assise Regulations 1990.
  - 2. In these regulations-

"Act" means the Legal Metrology Act 1985;

- "approved", in relation to material, process or pattern, means approved by the Controller;
- automatic weighing machine" means a weighing instrument in which self-acting machinery carries out an automatic feed of the load and which does not require an operator for carrying out the weighing process;
- "beam scale" means an equal-arm weighing instrument with pans below the beam;
- "counter machine" means an equal-arm weighing instrument with pans above the beam, and of a capacity of not more than 50 kgs;
- "crane machine" means a suspended self-indicating, hydraulic or spring-actuated weighing machine of a capacity of 1000 kg or greater;
- "fuel" means liquid fuel, lubricants or any mixture of liquid fuel
- "general trade" means commercial transactions other than trade in valuable goods;
- "load receptor" means the part of a weighing instrument on which goods being weighed are placed or hooked;
- "oscillating weighing instrument" means a weighing instrument with a beam or steelyard which oscillates about or returns to the position of equilibrium when disturbed from that position;
- "petrol pump" means a measuring instrument for fuel which-
  - (a) has a meter or one or more measuring chambers; and
  - (b) is designed to measure individual deliveries of 500 L or less (even if the instrument can also make individual deliveries of more than 500L);

"platform machine" means a weighing instrument, other than weighbridge, with the load receptor being a platform 3m 2m in size or less, and a capacity of 5000kg or less;

"price indicator" means an indicator showing the value of goods delivered:

"self-indicating weighing machine" means a weighing instrument other than a spring balance, on which the whole or part of the weight of the goods being weighed is indicated by a pointer moving over a scale or chart graduated in units of mass; or a graduated chart moving in relation to a fixed pointer; or a digital display; or by means of a printed record;

"spring balance" means a mechanical weighing instrument in which the indication of weight depends on the extension or com-

pression of a spring;

"steelyard" means a suspended unequal-arm single-lever weighing instrument, the shorter arm of which carries a load-hook suspended from knife-edges whilst the longer arm has a poise weight moving over a graduated scale to indicate the weight of the load, and includes an instrument where it is part of a platform machine weighbridge or other similar weighing instrument;

"trade in valuable goods" means commercial transactions in precious metals, jewellery or pharmaceutical products;

"volume indicator" means an indicator showing the volume of liquid delivered;

"weighbridge" means a weighing instrument for weighing a load carried by a vehicle where the load and vehicle are supported on rails or a platform either of which is linked to a system of levers or load-cells

- 3. (1) The stamp of assize shall be a stamp of the coat of arms of the State of Mauritius.
  - (2) The rejection mark shall be a mark of a six-pointed star design.
- (3) An authorised Officer shall reject an instrument, weight or measure which-
  - (a) bears a stamp of assize, by obliterating the stamp with a rejection mark:
  - (b) does not bear a stamp of assize, by stamping the rejection mark in a suitable position on the instrument, weight or measure.

h'(1) A weight for general trade shall—

- (a) be a denomination specified in the First Schedule and have that denomination marked on its top surface;
- (b) be made of iron, brass, bronze or an approved material;
- (c) where it is made of iron, be of a denomination of 100g or greater;
- (d) be hexagonal or cylindrical in shape or where the weight is of 5 kg or a higher denomination, a rectangular block;
- (e) have no part which can be removed without breaking a ring, handle or seal;
- (f) be free from flaws and smooth on all surfaces except for markings of denomination or other identification;
- (g) where it is marked with the manufacturer's identification, have that marking without figures, and with no letters larger than one-half of the size of the letters or figures marking the denomination;
- (h) have not more than one adjusting hole, which must be sealed with lead; and
- (i) have, when new or readjusted, no error greater than the limit of error for its denomination specified in the second column of the First Schedule.
- (2) The authorised Officer shall test the limit of error with working standard weights calibrated to secondary standard weights within errors less than one-third of the limit of error specified in the second column of the First Schedule.
- (3) Where a weight for general trade is not in conformity with this regulation, it shall not be passed as correct at verification.
- (4) Subject to paragraph (5), where a weight for general trade is passed as correct at verification it shall be stamped—
  - (a) where the weight has an adjustable hole, on the lead in that hole; or
  - (b) in any other case, on the base surface of the weight.
- (5) No person shall use stamped weights for general trade which in service have errors exceeding the double of the limit of error specified in the second column of the First Schedule.

5. (1) A weight for trade in valuable goods shall-

(a) be of a denomination specified in the First Schedule and subject to subparagraph (e) have that denomination marked on its top surface:

(b) be made of brass, bronze, stainless steel or another approved

corrosion resistant material:

(c) where it is made of aluminium alloy, be of a denomination of 500mg or less;

(d) have no protective coating, other than a coating made of

corrosion and friction resistant material;

- (e) be cylindrical in shape, or where it is of a denomination of 500mg or less, be a wire shaped into one, two or five sections to indicate its denomination, or be a flat sheet;
- (f) have, when new or readjusted, no error greater than the limit of error for its denomination as specified in the third column of the First Schedule.
- (2) The authorised Officer shall test the limit of error with working standard weights calibrated to secondary standard weights within errors less than one third of the limit of error specified in the third column of the First Schedule.
- (3) Where a weight for trade in valuable goods is not in conformity with this regulation, it shall not be passed as correct at verification.
- (4) Subject to paragraph (5), where a weight for trade in valuable goods is passed as correct at verification, it shall be stamped—
  - (a) where it is of a denomination of more than 100g on its base surface:
  - (b) in any other case, on the identification plate on top of the storage box.
- (5) No person shall use precision weights for trade in valuable goods which are stamped in accordance with this regulation and have errors exceeding the double of the limits of error specified in the third column of the First Schedule.
- 6. (1) No person shall use for trade a weighing instrument other than-
  - (a) a beam scale, either suspended without arrestment device or otherwise supported with or without arrestment device; or

- (b) a counter machine of a pattern designed for equal load on each load receptor, other than a counter balance with sliding or tare weights; or
- (c) a steel-yard of capacity exceeding 50 kg but not exceeding 1000 kg for use only for weighing animals or bulk agricultural products; or
- (d) where individually approved by the Controller for a particular use, a spring balance, or a spring-actuated crane machine; or
- (e) one of the following where it complies with the specifications of the competent official authority in the country of manufacture—

a platform machine;

a weighbridge;

a precision balance;

- a self -indicating weighing instrument; (including a price computing and/or printing electronic balance); an automatic weighing machine.
- (2) A weighing instrument which is not for trade use shall be indelibly and clearly marked NOT FOR TRADE USE.
  - 7. A weighing instrument shall—
    - (a) be properly constructed;
    - (b) not be of or have any part of a material, mode of construction, nature or condition likely to make it unsuitable for use;
    - (c) not have unusual or novel features unless the Controller has confirmed that it is likely to be admitted for verification;
    - (d) be complete in itself;
    - (e) be sufficiently strong to withstand the wear and tear of normal use;
    - (f) be clean;
    - (g) not bear a manufacturer's or other mark which might be mistaken for a stamp of assize;
    - (h) not have interchangeable or reversible parts, unless interchange or reversal of the parts, as the case may be, does not affect its accuracy;
    - (i) not have removable parts if removal of the parts affects its accuracy, unless it is impossible to use the instrument for weighing without the removable parts;

- (j) not have a broken part (including a scoop, pan or a I if that part is essential for its use;
- (k) not have a load receptor of a size or shape which may cause incorrect weighing by fouling the housing of the instrument, or because contact between the knife edge and the bearings is disturbed;
- (1) not have a load receptor which is readily absorbent because of imperfect glazing, or extensive cracks or chips;
- (m) have any friction plate, friction stay, friction hook or friction loop made of hardened steel or an approved material;
  - (n) not have knife-edges which, in the opinion of the authorised Officer are loose, not properly aligned, worn out, or otherwise defective for proper operation of the instrument.
- 8. The capacity of a weighing instrument, expressed as "Maximum Load" or "Max" shall be clearly and conspicuously—
  - (a) stamped on the beam or on a metal plate permanently secured to an essential part of the instrument; or
  - (b) cast in the framework of the instrument; or
  - (c) in the case of a self-indicating weighing instrument or an electronic balance, permanently marked on the chart or display of the instrument.
  - 9. (1) The graduations on a weighing instrument snau-
    - (a) be distinct and clearly legible to the operator and the customer;
    - (b) be uniformly spaced; and
    - (c) be expressed in permitted units of mass corresponding to the figure 1, 2 or 5 divided or multiplied by 10 as appropriate;
    - (d) for self-indicating weighing machines, have scale intervals not greater than the limit of error on initial verification specified in the Second and Third Schedules provided that greater scale intervals are permitted for weighing machines used for animal weighing and weighing of bulk agricultural products on condition that the total number of scale intervals of the machine is not less than 500;

- (e) for spring balances have scale intervals, where the capacity of the chart is—
  - (i) under 1 kg, not exceeding 5 g;
  - (ii) 1 kg or over and under 5 kg, not exceeding 10 g;
  - (iii) 5 kg or over and under 10 kg, not exceeding 20 g;
  - (iv) 10 kg and over and under 20 kg, not exceeding 50 g;
  - (v) 20 kg or over and under 50 kg, not exceeding 100 g;
     (vi) 50 kg or over, not exceeding ½% of such capacity.
- (2) (a) The graduations on a steelyard shall be—
  - (i) notches or incised or embossed lines; and
  - (ii) in one plane at right angles to the beam and parallel to each other.
  - (b) The poise weight must show clearly the graduation.
- 10. (1) Balance shall be indicated on a weighing instrument in the manner set out in the Fourth Schedule.
- (2) Any balance box or balance screw or gravity ball on a weighing instrument shall be adjustable only by the use of a mechanical appliance.
  - 11. (1) No person shall use a weighing instrument which is—
    - (a) erected on a loose, weak or unstable base;
    - (b) not levelled as its construction requires;
    - (c) exposed to wind and draught which affects the indication.
- (2) No person shall use a weighing instrument for a load greater than its capacity.
- (3) No person shall use a weighing instrument for retail trade in the presence of a purchaser unless it is constructed and sited so that the weighing of the goods and the indicated weight are simultaneously clearly visible to the purchaser.
- (4) No person shall use a platform machine or weighbridge unless its platform or rails support the load completely.
- 12. (1) At verification of a new or repaired weighing instrument an authorised officer shall—
  - (a) visually inspect all parts of the instrument including those which may be dismantled without changing the operation;

- (b) check whether it conforms with these regulations;
- (c) carry out the applicable tests set out in the Fifth Schedule and such other tests as he may consider necessary in relation to the intended use of the instrument.
- (2) At in-service inspection (supervision) of a weighing instrument the authorised Officer shall carry out the applicable parts of inspection and testing under section (1) and shall in addition visually inspect any stamps and seals on the instrument and the verification certificate.
- (3) (a) Subject to paragraph (b), the authorised Officer shall verify a weighing instrument at the site of its intended use.
- (b) A pertable instrument shall be presented for verification at such place and at such time as may be fixed by the authorised Officer.
- (4) The authorised Officer shall test the limit of error of a weighing instrument with working standard weights calibrated to secondary standard weights within errors of less than one-third of the limit of error for that instrument.
- (5) Where a weighing instrument does not conform to these regulations an authorised Officer shall not pass it as correct at verification.
- (6) Where an authorised Officer passes a weighing instrument as correct at verification, he shall stamp it either on or on a lead plug inserted in a conspicuous and easily accessible part of the instrument, so as not to damage the instrument.
- (7) Where an instrument can be opened for adjustment, the authorised Officer shail also affix a seal to prevent access without breaking the seal.
- 13. (1) A measure of length other than calipers for use for trade shall—
  - (a) be made of brass, hardened steel, hardwood, woven tape or an approved material;
  - (b) be protected against corrosion;
  - (c) where it is a measure made of wood, have both ends capped with metal;
  - (d) be subdivided only in metres, centimetres or millimetres; and
  - (e) have all marks and inscriptions so arranged as not to interfere with the reading of lengths;

- (f) have, when tested in accordance with section (2), no error greater than the limit of error for its denomination or any intermediate value of graduation specified in the Sixth Schedule.
- (2) The authorised Officer shall test a measure of length on verification—
  - (a) against a working standard measure of length having errors not exceeding one half of the limits specified in the Sixth Schedule;
  - (b) at a temperature of not less than 10°C, but not exceeding 30°C;
  - (c) in the case of a tape measure, while it is supported horizontally over its complete length, and is subjected to the tensile force indicated on that measure or, if not indicated,—

(i) 50 newton in the case of a metal measure; or

- (ii) 10 newton in the case of a measure not made of metal.
- (3) Where a measure of length other than calipers does not conorm to this regulation, the authorised Officer shall not pass it as correct at verification.
- 14. (1) A caliper measure for the measurement of thickness or diameter shall—
  - (a) be made of steel, steel alloy or an approved material;

(b) have no more play than needed for easy movement;

- (c) except in the case of timber calipers, have no error greater than—
  - (i) 0.2 mm for calipers for measuring less than 200 mm; or
  - (ii) 0.5 mm for calipers for measuring 200 mm or greater but not more than 500 mm.
- (2) Calipers other than those used for trade are not subject to verification except on request.
  - 15. (1) A measure of volume of liquids for use for trade shall—
    - (a) subject to those regulations be of a denomination specified in the Seventh Schedule and have that denomination indelibly marked on the outside of such measure in legible figures or letters;
    - (b) when provided with subdivisions have any intervals of subdivisions only corresponding to the figures 1, 2 or 5 divided or multiplied by 10 as appropriate;

- (c) be made of glass, aluminium, brass, bronze, copper, nicker sheet iron, silver, steel (including stainless steel), tin plate white metal or an approved material, provided that for protection it may be anodised, electro-plated, enamelled, galvanised, tinned or otherwise protected by an approved process;
- (d) if made of brass, bronze or copper, unless otherwise coated, have the inside surface well tinned with pure tin;
- (e) if coated, have no signs of peeling;
- (f) be made of hard and sufficiently thick material;
- (g) not visibly deform during filling;
- (h) not be seriously damaged or deformed;
- (i) have no strengthening rib or ring which might be mistaken for a scale mark;
- (j) have no false bottom;
- (k) if made of metal, not have a bottom rim deeper than necessary to protect the bottom of the measure;
- (1) have no lip or retaining edge which increases its capacity by more than 10 per cent;
- (m) if it has no tap, drain completely when tilted to an angle of 30° below the horizontal;
- (n) if it has a tap, drain completely without a prolonged dribble when the tap is open and the measure is levelled;
- (o) have its capacity stamped on the upper part of its body or on a metal plate permanently secured to that upper part;
- (p) if it is made of glass and has the capacity defined by a line, have the capacity indelibly marked near that line;
- (q) have its capacity clearly defined in terms of this regulation;
- (r) if it is a graduated glass measure, conform to this regulation;
- (s) have no error greater in excess or deficiency than the limit of error for its denomination or for the graduation concerned as specified in the Seventh Schedule.
- (2) The capacity of a measure of volume, other than a graduated glass measure, shall be clearly defined as—
  - (a) in the case of a measure with lip or retaining edge, the bottom of the lip or retaining edge;
  - (b) in the case of a measure in the form of a milk can, the bottom of the neck of the can;

- (c) in the case of a glass measure which is not graduated the brim of the measure or an indelible line to mark the bottom of the meniscus of the liquid;
- (d) in any other case, the brim of the measure.
- (3) A graduated glass measure shall-
  - (a) be conical or cylindrical;
  - (h) have a level base at right angles to the axis of the measure; and
  - (c) have scale marks which are—
    - (i) parallel to the base of the measure;
    - (ii) not less than 1.5 mm apart; and
    - (iii) in the case of back scale marks, on the same horizontal plane as the front scale marks when the base of the measure is horizontal.
- (4) Au authorised Officer shall test a measure of volume—
  - (a) by filling it to its capacity with the liquid for which the measure is used, or, except when that liquid is oil or is of high viscosity, with water; and
  - (b) by emptying those contents into a working standard measure having limit of error not exceeding one-fourth of those specified in the Seventh Schedule, allowing a drainage time of 30 seconds.
- (5) Where a measure made of glass or having a denomination below 50 ml is used in laboratory, and conforms in shape, marking, denomination and limits of error to international standards, it shall not be subject to verification or stamping.
- (6) Where a measure of volume does not conform to this regulation, an authorised Officer shall not pass it as correct at verification.
- (7) When an authorised Officer passes a measure of volume as correct at verification, he shall stamp it—
  - (a) at the bottom of the inside of any lip or retaining edge of a metal measure; or
  - (b) in any other case near the marking of capacity.
  - 16. (1) A petrol pump shall—
    - (a) be of a pattern approved by the Controller;
    - (b) be constructed to deliver fuel at only one outlet;
    - (c) have a clear and legible volume indicator;

- (d) have no counter or totalizing device which might be a fused with the volume indicator:
- (e) have no leakage;
- (f) except with the approval of the Controller, have any delivery hose 5 m or less in length;

(g) where it is of fixed type, be-

- (i) securely mounted on a solidly constructed level base;
- (ii) sited so that a purchaser has an unobstructed view of the volume indicator, and of any price indicator and of any measuring chamber;
- (iii) sited so that the adjusting mechanism and the plug and seal for the verification stamp are readily accessible;
- (h) if used to measure lubricating oil, have its delivery hose permanently filled to the nozzle;
- (i) have any price indicator fitted with a device which clearly indicates the price per litre and regulates the registration on the indicator;
- (j) have the maker's name marked on the instrument.
- (2) The length of a delivery hose shall—
  - (a) include the length of the nozzle; but
  - (b) exclude the length of any swing or radial arm; and
  - (c) in the case of a retractable delivery hose, be measured when fully extended and from where it emerges from its housing.
- (3) A petrol pump equipped with a meter shall—
  - (a) not deliver fuel unless the volume indicator and any price indicator have been reset to zero;
  - (b) have an air separator and a cut-off valve which ensures non-registration if the supply of fuel stops; and
  - (c) have a delivery hose permanently filled to the nozzle.
- (4) A petrol pump which has one or more measuring chambers shall—
  - (a) except when fitted with valves for automatic filling and emptying the chambers, have visual indication that a chamber is full or is empty;
  - (b) have the delivery hose so positioned as to allow complete discharge of the liquid measured from the delivery outlet of the pump;

- (c) where it has more than one measuring chamber, have—
  - (i) a valve to prevent the liquid flowing from the chamber into another; and
  - (ii) each chamber denominated.
- (5) A petrol pump, when new or in service, shall have no error greater than  $\pm$  0.5% of the volume purported to be delivered or 50 ml whichever value is greater.
  - (6) The authorised Officer shall test a petrol pump—
    - (a) if it has a measuring chamber, after passing 5L or more of fuel through the delivery hose;
    - (b) using working standard measures having limits of error not exceeding 0.1%;
    - (c) by delivering the fuel into a working standard measure in such number and volumes of deliveries as he thinks necessary;
    - (d) if it has a meter, in addition to other tests, by a slow test at a rate of delivery not greater than 10L per minute;
    - (e) to ensure that the pump works correctly whether the fuel is delivered rapidly or slowly;
    - (f) to ensure that when a delivery has been completed and the dispenser switched off, no further operation can take place until the indicator for quantity has been reset to zero;
    - (g) to ensure that over a number of deliveries, the indications on the price indicator correspond with the indications on the volume indicator and with the price per litre;
    - (h) to ensure that, if it has nozzle control valve, no fuel is delivered when that valve is open and the pump is not operating;
    - (i) to ensure that where it has 2 volume indicators or 2 price indicators, both agree after a delivery.
- (7) Where a petrol pump does not conform to this regulation, an authorised officer shall not pass it as correct at verification.
- (8) Where an authorised Officer passes a petrol pump as correct at verification, he shall stamp it on a lead plug inserted in a conspicuous and easily accessible part of the pump and shall affix a seal to prevent access without breaking the seal to the working parts or adjustable device (provided that such seal may be broken by an authorised repair service on condition of immediately notifying the Controller).

- 17. For the purpose of section 14(2)(b) of the Act—
  - (a) electricity meters;
  - (b) water meters; and
  - (c) instruments used for grading or testing agricultural produce by weight.

are exempted from the provisions of the Act.

18. These regulations shall come into operation on the same day as the Act.

Made by the Minister on 21 June 1990.

## FIRST SCHEDULE (regulations 4 and 5)

## LIMITS OF ERROR FOR WEIGHTS USED FOR TRADE

|   | Limit of error (at stamping)  |   |  |
|---|---|---|--|
| Denomination (as marked)  | Weights for general trade ("3)  | Weights for trade (m) with valuable goods   |  |
| 10 mg — 20 — 50 — 100 — 200 — 500 — 1 g — 2 5 — 10 — 20 — 50 — 1 loo 20 — 50 — 1 kg 2 5 — 1 kg 2 | ± 20 mg 20 mg 50 50 50 100 100 (50) 57 100 250 500 1000 2500 5000 10000 | 1 mg 1 2 2 2 2 2 2 3 5 5 10 10 25 5 10 25 5 5 10 100 25 5 5 100 25 5 25 25 25 25 25 25 25 25 25 25 25 2 |  |

#### SECOND SCHEDULE

(regulation 9)

## MINIMUM REQUIREMENTS FOR WEIGHING MACHINES USED FOR GENERAL TRADE

(excluding valuable goods such as precious metals, pharmaceutical products, etc.)

| Maximum capacity               |                   |  |
|--------------------------------|-------------------|--|
| equal to<br>or<br>greater than | and<br>lower than | Limit of error (at initial verification) |
| 100 g                          | 500 g             | ± 0.5 g                                  |
| 500                            | 1 kg              | ± 0.5 g                                  |
| 1 kg                           | 2.5               | 2  |
| 2.5                            | 10                | 2 5                                      |
| 10                             | 20                | 10                                       |
| 20                             | 50                | 20                                       |
| 50                             | 100               | 50                                       |
| 100                            | 200               | 100                                      |
| 200                            | 500               | 200                                      |
| 500                            | 1000              | 500                                      |
| 1000                           | 2000              | 1 kg                                     |
| 2000                           | 5000              | 2 5                                      |
| 5000                           | 10000             | 5  |
| 10000                          | 20000             | 10                                       |
| 20000                          | 50000             | 20                                       |
| 50000                          | 100000            | 50                                       |

### THIRD SCHEDULE

(regulation 9)

## REQUIREMENTS FOR WEIGHING INSTRUMENTS FOR VALUABLE GOODS

(precious metals, pharmaceutical products, etc.)

| Maximum capacity   |  |
|--|--|
| equal to or and greater than lower than                                      | Limit of error (at initial verification) |
| 2 g 50 g 100 200 200 500 1 kg 2.5 10 20 20 200 1 kg 2.5 10 20 100 (included) | ± 2 mg 5 10 20 50 100 200 500 1000       |

### FOURTH SCHEDULE

(regulation 10)

| Type of weighing instrument  | Indication of balance   |
|--|---|
| (a) Oscillating  | Beam returns to position of equi-<br>librium when disturbed from it.  |
| <ul> <li>(b) Self-indicating by pointer or with graduated indicating plate; or with difference chart</li> <li>(c) Indicating by digital display or printed.</li> </ul> | Pointer or plate comes to rest at<br>the position of equilibrium or zero<br>scale mark with the bubble of any |

#### FIFTH SCHEDULE

(regulation 12)

#### A. General tests at verification

The authorised Officer shall carry out the following tests on each weighing instrument at verification:

#### 1. Discrimination

- (a) When a weighing machine not equipped with digital indication is at rest and in balance and a load equal to half the limit of error specified in paragragh 6, is applied without shock to the load receptor, both at no load and at full load the machine shall show a clearly visible change of indication;
- (b) When a weighing machine with digital indication is at rest both at no load and at full load its indication shall change when an extra load of not more than one and a half scale intervals is applied without shock to the load receptor.

#### 2. Sensitivity

A non-self-indicating weighing instrument shall have a sensitivity such that, for any load, a change of load equal to the limit of error specified in paragraph 6 corresponds to a permanent displacement of the index of at least:

2mm for weighing instruments other than mechanical platform machines and weighbridges
5mm for platform machines and weighbridges

#### 3. Repetition of indication

When the same load is weighed 3 or more times, the difference between the indication of any two weighings shall not exceed the absolute value of the limit of error specified in paragraph 6.

#### 4. Position of load

When a load of one-third of the capacity of the instrument is displaced from the centre of the load receptor to a position off-centre, the indicated weight shall remain within the limit of error specified in paragraph 6.

#### 5. Interchangeability

When, for a balance equal-armed weighing instrument, the load and working standard weights are interchanged on the load receptors, the indicated weight shall not change by more than twice the absolute value of the limit of error specified in paragraph 6.

#### 6. Limit of error

(a) Initial verification

The error of a new or repaired weighing instrument shall, at any load, not exceed the limit of error specified in schedules 2 and 3, or for a self-indicating or an automatic weighing machine, I scale interval whichever value is the smaller provided that

- for a self-indicating weighing machine used for general trade, or an automatic weighing machine, having a capacity of more than 2,000 scale intervals the limit of error at initial verification shall be increased to 2 scale intervals for loads exceeding 2,000 scale intervals, and that
- for a self-indicating weighing machine used for trade with valuable goods having a capacity of more than 20,000 scale intervals the limit of error at initial verification shall be increased to 2 scale intervals for loads exceeding 20,000 scale intervals.

The scale interval referred to in this schedule is the one marked on the chart, display or identification label and if not so marked the smallest value of the scale division or any other value decided by the Controller.

(b) In-service

It shall be permitted to use for trade a weighing instrument which in service has errors not exceeding the double of the limit of error at initial verification defined in (a) or, for self-indicating machines, 3 scale intervals whichever value is the smaller.

(c) Test loads

Except where otherwise provided in part B of this annex, tests are carried out for all weighing instruments at the following loads-

- zero load
- half load
- maximum load, including if applicable maximum additive tare
- loads at which the method of balancing is modified by addition or substraction of a unit weight.

Self-indicating weighing machines are in addition tested at-

- capacity of self-indication if different from maximum load - loads at which the limit of error defined in (a) changes
- at as many loads as the authorised Officer may consider desirable in view of the particular construction.
  - B. Tests on platform machines and weighbridges

1. The authorised Officer shall carry out the following tests on a platform machine or weigh bridge at verification.

(a) Linearity

The upper surface or edge of the steelyard must be in one plane from the zero scale mark to the nose end;

(b) Removable parts

The instrument must not have readily removable parts (except any counterbalance supporting counterpoise weights);

-(c) Stops

The instrument must have stops to prevent any poise weight from moving past the zero scale mark;

(d) Load rail

Any load rail must be not less than 10 mm from other rails and if two load rails overlap or have a bridging piece, there must be not less than 5 mm gap between overlapping or bridging parts;

(e) Travel of steelyard

The travel of the pointer of the steelyard each way from the horizontal position must not be less than 10 mm;

(f) Position of load

Tests for position of load are made in accordance with Section 4 of

part A of this schedule.

Provided that weighbridges may be tested using a vehicle with a total load not exceeding 80 per cent of the sum of the maximum capacity and maximum tare which is successively immobilized at different points of the load receptor.

(g) Limit of error

Tests for discrimination, sensitivity and limit of error are carried out according to Part A of this schedule provided that procedures and means for applying high test loads are established by the Controller according to the pattern of construction of the weighbridge and available test equipment;

2. The authorised Officer shall check that a weighbridge has:

(a) Drainage

Adequate drainage with no accumulation of water, mud or debris in the pit;

(b) Approaches

smooth, straight and horizontal approaches for a distance of at least half the length of the platform at each end of the weighbridge;

(c) Clear view

the building with the dial or steelyard so constructed that the operator has an unobstructed view of the whole platform;

(d) Platform protection

the platform so protected that vehicles can only go onto it or leave it at the ends:

(e) Foundations

adequate foundations to support it at maximum load without movement;

(f) Counterpoise weight

if not fitted with a tare-beam, a counterpoise weight (of distinctive shape from other counterpoise weights for the instrument) which accurately compensates for the weight of any loose receptor or frame used with the instrument and which has the words "TARE WEIGHT" legibly and conspicuously stamped on its edge.

#### SIXTH SCHEDULE

(regulation 13)

#### MEASURES OF LENGTH

| Denomination<br>or   | Limit of error             |   |
|--|----------------------------|---|
| value of graduation  | End Measurement            | Line Measurement  |
| 0.5 m<br>1 m<br>1.5 m<br>2 m<br>3 m<br>4 m<br>5 m<br>10 m<br>15 m<br>20 m<br>25 m<br>30 m<br>50 m<br>60 m<br>100 m | ± 1 mm 1 mm 2 mm 2 mm 2 mm | ± 0.5 mm 0.7 mm 1 mm 1 mm 2 mm 2 mm 2 mm 4 mm 6 mm 8 mm 10 mm 11 mm 11 mm 18 mm 22 mm 36 mm |

### SEVENTH SCHEDULE

(regulation 15)

## MEASURES OF VOLUME OF LIQUIDS

| Capacity of measure or value of graduation   | Limit of error  |
|--|---|
| 50 nL<br>100 nL<br>200 mL<br>250 mL<br>500 mL<br>1 L<br>2 L<br>5 L<br>10 L<br>20 L or more | ± 2 mL 3 mL 5 mL 10 mL 15 mL 25 mL 25 mL 20 mL 20 mL 20 mL 20 mL 80 mL 0.5 per cent |