LAWS OF BARBADOS

WEIGHTS AND MEASURES ACT

CHAPTER 331

(SUBSIDIARY LEGISLATION)

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

SUBSIDIARY LEGISLATION INDEX

Weights and Measures

Weights and Measures

WEIGHTS AND MEASURES REGULATIONS, 1985

ARRANGEMENT OF REGULATIONS

PART I
Preliminary

REGULATIONS

PART II
National Standards

PART III
Commercial Measuring Devices

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

PART IV
Prepackaged Goods

REGULATIONS

PART V
Masses

PART VI
Weighing Instruments

REGULATIONS

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

PART X
Miscellaneous

REGULATIONS

FIRST SCHEDULE

SECOND SCHEDULE

THIRD SCHEDULE

FOURTH SCHEDULE

FIFTH SCHEDULE

SIXTH SCHEDULE

SEVENTH SCHEDULE

EIGHTH SCHEDULE

Weights and Measures

Cap. 331.

WEIGHTS AND MEASURES REGULATIONS, 1985

1985/217.

Authority: These regulations were made on 25th November, 1985 by the Minister under section 19 of the *Weights and Measures Act.*

Commencement: 23rd December, 1985.

PART I
Preliminary

1. These Regulations may be cited as the *Weights and Measures Regulations, 1985.* Short title.

2. In these regulations, Interpretation.

"examination" means the operations carried out to establish that a measuring device conforms to the requirements of these regulations;

"initial verification" means verification of a new measuring device that has never been verified;

"measuring device" means any weight, measure or measuring instrument used to determine the quantity or physical properties in commercial transactions;

"obliteration of the verification mark" means the obliteration of the verification stamp by a rejection mark when it is found that a measuring device no longer conforms to the requirements of these regulations;

"pattern approval" means the recognition by the Chief Inspector that

(a) the pattern of a measuring device conforms to the requirements of these regulations; and

(b) measuring devices built to that pattern may be accepted for verification;

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

"periodic, in-service verification" means verification at prescribed intervals of an initially verified measuring device;

"pre-packaged goods" has the meaning assigned to it by section 17(3) of the *Weights and Measures Act;* Cap. 331.

"rejection mark" means the official mark set out in the *First Schedule* and used to indicate that a measuring device does not conform to the requirements of these regulations; First Schedule.

"verification" means the stamping of a measuring device after it is ascertained by examination that the device satisfies the requirements of these regulations;

"verification mark" means the official mark set out in the *First Schedule* that is stamped on a measuring device First Schedule.

(a) to indicate that it has passed the examination; and

(b) to prevent certain components being removed, displaced, modified or altered.

PART II
National Standards

Functions of Barbados National Standards Institution.

3. The Barbados National Standards Institution shall

(a) be responsible for the custody and upkeep of the National Standards of Weights and Measures;

(b) ensure the accuracy and constancy of the National Standards;

(c) arrange the periodic calibration of the National Standards abroad so as to ensure their traceability to international standards;

(d) provide the suitable secondary and working standards to transmit the value of the units from the National Standards to the working standards used by Inspectors; and

(e) carry out the necessary calibration of working standards used by inspectors to ensure that the working standards preserve their accuracy within suitable tolerance limits.

PART III
Commercial Measuring Devices

Control of measuring devices.

4. (1) The measuring devices mentioned in Parts V to IX shall undergo pattern approval and initial verification before they are used for commercial transactions.

(2) All measuring devices that undergo pattern approval and initial verification shall undergo periodic, in-service verification once a year.

(3) Paragraph (2) does not apply to measuring devices made of glass.

Fees chargeable for verification of measuring devices. Second Schedule.

5. The fees chargeable for the verification of the measuring devices referred to in the *Second Schedule* are those specified in that Schedule.

Power of Minister.

6. (1) The Minister may by order include or delete a measuring device from among those that undergo pattern approval and initial verification.

(2) An order made under regulation 6(1) comes into operation 60 days after it is published.

Functions of Chief Inspector.

7. (1) The Chief Inspector shall organize and supervise

(a) the evaluation of patterns of measuring devices;

(b) the approval of patterns of measuring devices that conform to the requirements of these regulations;

(c) the checking of pre-packaged goods to ensure that they conform in quantity and computed price to the indications on their labels; and

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

(d) subject to regulation 7(2), the initial and in-service verification of measuring devices.

(2) The Chief Inspector shall

(a) cause records to be kept of all measuring devices used in commercial transactions and their periodic verification;

(b) divide the work load between inspectors; and

(c) ensure that inspectors are provided with

(i) the suitable working standards duly calibrated and traceable to the national standards;

(ii) stamp-dies bearing the official verification and rejection marks; and

(iii) any other accessories necessary for their work.

Prerequisites of sale of measuring devices.

8. No manufacturer or importer of measuring devices shall offer a measuring device for sale unless

(a) the pattern is approved by the Chief Inspector; and

(b) the device is verified.

Pattern approval.

9. (1) Subject to regulation 10, for the purpose of assessing the suitability of a measuring device, the manufacturer or importer of the device shall deposit 2 models of that device with the Chief Inspector.

(2) The Chief Inspector shall inform the manufacturer or importer of his assessment not later than 90 days after the deposit of the models.

Exemption from deposit of models.

10. (1) The Chief Inspector may exempt a manufacturer or importer of measuring devices from the deposit of models under regulation 9, after considering a request for exemption from the manufacturer or importer.

(2) A request for an exemption shall

(a) be in writing and addressed to the Chief Inspector;

(b) be accompanied by

(i) the technical drawings,

(ii) all necessary technical data,

(iii) proof of the approval of the pattern by a national body of legal metrology of a recognised high standard, if any,

(iv) the estimated cost of the measuring device, and

(v) the estimated number of devices likely to be sold in Barbados.

Provisional pattern approval.

11. (1) The Chief Inspector may issue provisional approval of patterns of measuring devices pending the results of further long term assessment of their quality and suitability for use.

(2) If provisional approval of a pattern is not revoked within 9 months from the date of its issue, that approval is final.

Voluntary registration of servicemen.

12. A person may apply to the Chief Inspector to be registered as a serviceman if he proves to the satisfaction of the Chief Inspector that he

(a) is qualified to install, service, repair or recondition a commercial measuring device;

(b) has a working knowledge of these regulations;

(c) possesses standards and test equipment traceable to the National Standards; and

(d) is able to procure spare parts for repair work.

Registration fees and certificates. Second Schedule.

13. (1) When the Chief Inspector accepts an application for registration under regulation 12, he shall issue a Certificate of Registration to the applicant on payment of the registration fee set out in the *Second Schedule*.

Second Schedule.

(2) A Certificate of Registration is renewable annually by the bearer of the certificate on payment of the annual fee set out in the *Second Schedule*.

Effect of certificate.

14. The bearer of a Certificate of Registration may place

(a) a new measuring device; or

(b) a measuring device carrying a rejection mark;

in service after making the necessary repairs or adjustments, until an official examination can be made.

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

Chief Inspector to be informed.

15. (1) A registered serviceman shall, on a form approved and issued to him by the Chief Inspector, inform the Chief Inspector of his having placed a measuring device in service within 24 hours after a device has been placed in service by him.

(2) A copy of the information sent to the Chief Inspector, shall be given to the operator or owner of the device that has been placed in service; and another copy retained by the registered serviceman.

Suspension or revocation of registration certificate.

16. (1) The Chief Inspector may suspend or revoke a Certificate of Registration.

(2) Where the Chief Inspector suspends or revokes a Certificate of Registration the bearer of the Certificate shall immediately return the Certificate to the Chief Inspector.

Lists of registered servicemen.

17. The Chief Inspector shall publish from time to time, and may supply on demand, lists of registered servicemen.

PART IV
Pre-packaged Goods

Checking quantity and price indications.

18. (1) Inspectors shall check periodically the accuracy of quantity and price indications marked on pre-packaged goods.

(2) A check under paragraph 1 shall be carried out by each inspector

(a) at the trade outlets in the area designated to the Inspector by the Chief Inspector; and

(b) in accordance with a plan approved by the Chief Inspector.

Measuring devices used for checking.

19. (1) For the purpose of checking the quantity of pre-packaged goods an Inspector may

(a) use his own measuring devices; or

(b) use measuring devices owned by the trade outlet provided that

(i) they have been officially verified, and

(ii) their accuracy is suitable for the type and quantity of the goods being checked.

(2) A measuring device used by an Inspector for the purpose of checking the quantity of pre-packaged goods shall read to about 1 percent or less of the measured quantity.

Method of checking quantity and price.

20. (1) For the purposes of checking the quantity and price of pre-packaged goods, the Inspector shall

(a) consider as one lot, as large a number as possible of the goods being offered for sale and in store;

(b) draw random samples of the goods according to the numbers given in the *Third Schedule;* and

Third Schedule.

(c) determine the net quantity of the goods by mass, volume or length.

(2) The tare weight shall be determined separately for each package.

Action to be taken in case of short weight or measure.

21. (1) If the Inspector finds packages with a net mass, volume or length less than the value labelled, in numbers exceeding the acceptable numbers indicated in the *Third Schedule,* he shall serve a warning notice on the owner of the trade outlet.

Third Schedule.

(2) If the owner of a trade outlet continues to exhibit for sale, offer for sale or sell pre-packaged goods of a type for which a warning has been served, the Inspector shall initiate proceedings under section 33 of the *Weights and Measures Act.*

Cap. 331.

PART V
Masses

Denominations.

22. (1) The denominations of masses used in commercial transactions shall be

(a) 50 – 20 – 10 – 5 – 2 – 1 kg;

(b) 500 – 200 – 100 – 50 – 20 – 10 – 5 – 2 – 1 g; and

(c) 500 – 200 – 100 – 50 – 20 – 10 – 5 – 2 – 1 mg.

(2) Metric carat masses used for weighing precious stones or pearls shall be of the denominations 500 – 200 – 100 – 50 – 20 – 10 – 5 – 2 – 1 – 0,5 – 0,2 – 0,1 – 0,05 – 0,02 – 0,01 – 0,005 carat (metric).

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

Shape.

23. (1) Masses of denominations 50 and 20 kilograms shall be in the form of a rectangular parallelepiped with corners rounded off and with non-protruding handles.

(2) Masses of denominations from 2 kilograms to 1 gram shall be in the form of a cylinder with a flattened knob.

(3) Masses from 2 kilograms to 100 grams may be in the form of a hexagonal prism.

(4) masses of 10 and 5 kilograms may be made either in the form of a rectangular parallelepiped or a cylinder.

(5) Masses from 500 to 1 milligram may be made in a flat or wire form.

Material and finish.

24. (1) Parallelepipedic masses shall be made of grey cast iron with either a cast handle or a handle made of seamless steel tube.

(2) Cylindrical and hexagonal masses shall be made of a material having

(a) a density between 7 000 kg/m^3 and 9 500 kg/m^3;

(b) a hardness not less than that of cast brass;

(c) a corrosion resistance and brittleness not less than that of grey cast iron; and

(d) a surface finish comparable to that of grey cast iron carefully cast in a mould of fine sand.

(3) Masses of flat or wire form shall be made of stainless steel, aluminium, nickel-silver or nickel-chromium.

(4) For the purposes of inhibiting corrosion

(a) masses of denominations of 1 gram or more shall be painted, plated or otherwise treated;

(b) masses of denominations less than 1 gram shall be plated.

Adjustment hole.

25. (1) Masses of denominations exceeding 10 grams may be made with an adjustment hole.

(2) The adjustment hole

(a) may be an internal cavity in the mass or in the handle; and

(b) shall be closed by a threaded or a plain plug or disc made of brass or of mild steel.

(3) A plug or disc shall be secured by a lead pellet driven into an undercut recess over the plug.

Stamping.

26. (1) The official verification mark shall be stamped to the lead pellet used to secure a plug or disc.

(2) Masses that have no adjustment hole shall be stamped where practicable on the mass.

Marking.

27. (1) The mass denomination

(a) shall be marked in relief or engraved on

(i) the upper surface of cylindrical masses, or

(ii) the upper surface of the central part of parallelepipedic masses; and

(b) shall be marked in the form of a number followed by the symbol of the unit.

(2) The mass denomination on masses of flat form shall be stamped where practicable on the surface of the mass.

Condition on examination.

28. Masses submitted for examination must be in a clean condition.

Limits of error. Fourth Schedule.

29. The limits of error of the different types of masses in initial and in-service verification shall be as set out in the *Fourth Schedule*.

PART VI
Weighing Instruments

Weighing instruments subject to regulations.

30. The following weighing instruments used in commercial transactions are subject to these regulations:

(a) hanging beam scales with an equal armed beam and two hanging pans and no indicating device except a pointer to indicate equilibrium;

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

(b) Roberval or Beranger type counter scales with the pans above the weighing mechanism, whether or not they are

(i) non-graduated,

(ii) equipped with one or more poises sliding on graduated bars; or

(iii) graduated and partially or fully self-indicating;

(c) dead weight machines with the pans above the beam and having a capacity of 50 kilograms or more;

(d) hanging and counter dial spring balances;

(e) computerized scales that indicate weight or mass and total and unit price;

(f) steelyards with a single or double unequal armed lever, suspended by a hook or ring;

(g) portable and installed platform scales with

(i) an unequal armed beam,

(ii) a dial indicating head, or

(iii) another type of indicating device; and

(h) vehicle weighbridges that are to be used to weigh motor vehicles.

Quality of result.

31. (1) The size, shape and distinctness of the numbers constituting the indicated or printed result on a weighing instrument shall permit easy, unambiguous reading.

(2) If the result is formed by

(a) the combination of the reading of several dials, or

(b) the position of several poises

the combination shall be made by the juxtaposition of the individual numbers without any calculations.

Indication and printing of symbol of unit.

32. (1) The indicating device shall contain the name or symbol of the legal unit of mass.

(2) The legal unit of mass is the kilogram (kg) or its submultiples and multiples, the gram (g), the milligram (mg) or the tonne (t).

(3) If the result of weighing is printed on a document intended for contracting parties the name or symbol of the unit shall be printed together with the numbers giving the result.

Dual indication.

33. Dial and indicating instruments used directly for selling to the public shall have a dual dial and pointer or a dual indication that is visible to the buyer.

Marking of over/under zones.

34. In "over/under" scales the zones situated on either side of zero shall be distinctly marked by the symbols "+" and "–" or by the words "over" and "under" in English.

Marking of counterpoises and hangers.

35. (1) Hangers used to hang counterpoise masses at the end of weighbeams shall have the multiple or the ratio of the mass placed on the scale to the mass of the counterpoise that balances it clearly indicated on the beam directly over the hanger.

(2) On each counterpoise the mass value that it balances shall be marked in legible numbers.

(3) The mass value of the counterpoise may be marked in smaller numbers.

Adjustment of damping device.

36. (1) If the weighing instrument is provided with a device for damping the oscillations of the indicating element this damping device shall be adjusted to a value slightly lower than critical damping.

(2) Dead beat indication due to overdamping is not permitted.

Features facilitating fraudulent use.

37. (1) The weighing instrument shall be free from any features that are likely to facilitate fraudulent use.

(2) The indicating elements shall be such that they do not normally become immobile in positions not provided for in the design without rendering the indication or printing of results impossible.

Levelling devices.

38. (1) Weighing instruments that are not freely suspended or permanently installed shall be provided with a levelling device unless the effect on their metrological qualities of their being out of level by 2 percent in any direction does not exceed the

Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

maximum permissible error for the given load, the instrument being first adjusted to zero in the out-of-level position.

(2) The levelling device shall be affixed on the instrument in an irremovable manner in a place clearly visible to the user.

Mounting of knife-edges.

39. (1) The knife-edges shall be mounted on the beams of weighing instruments in such a manner as to ensure constancy of the ratios of the arms.

(2) The knife-edges shall not be welded, sealed or glued.

(3) The line joining 3 knife-edges of a beam shall be straight and the edges of the knife-edges shall be parallel.

(4) The knife-edges shall be straight and sharp.

Mounting of bearings.

40. (1) The bearings of weighing instruments shall not be welded on their supports or in their stirrups.

(2) Retaining devices shall be provided to prevent unshipping of knife-edges and bearings.

Limiting stops.

41. (1) The longitudinal play of knife-edges shall be limited by stops.

(2) The contact between knife-edges and stops shall be exact and shall be located on the line of contact between knife-edges and bearings.

(3) The stops shall have a plane surface perpendicular to the line of contact between knife-edge and bearings.

(4) The stops shall not be welded to bearings or their supports.

Hardness of knife-edges, bearings and stops.

42. (1) The contact surfaces between knife-edges, bearings, stops, counter beam supports and stirrups shall have a hardness of not less than 58 Rockwell C.

(2) A protective coating may be applied to parts in contact with pivot components if it does not involve alteration of the metrological properties.

Marking of weighing instruments.

43. (1) Weighing instruments shall carry the following markings where applicable:

(a) the manufacturer's name or trade mark;

(b) the serial production number if it is a self-indicating or partially self-indicating instrument;

(c) the maximum weighing capacity; and

(d) the identification mark on each element of instruments consisting of a number of elements fitted together.

(2) If the markings in subsection (1) are not provided by the manufacturer the verification official shall mark them on at the time of the initial verification.

Location of official verification mark.

44. (1) Each weighing instrument shall have a suitable location for the affixation of the official verification mark.

(2) The location of the official verification mark shall conform to the following conditions:

(a) the part on which it is found shall not be capable of being removed from the instrument without damaging the mark;

(b) it shall enable easy affixation of the mark without altering the metrological qualities of the instrument;

(c) it shall be visible without moving the instrument when it is in use; and

(d) elements, the dismantling or adjustment of which by the user might lead to incorrect indications shall be capable of being sealed or shall be enclosed in a cabinet capable of being sealed.

Equal armed scales.

45. (1) The beam of non-self-indicating, equal-armed scales shall be symmetrical longitudinally and transversally.

(2) The beam shall be in equilibrium with or without the pans.

(3) The detachable parts which can be mounted on either end of the beam shall be interchangeable and have equal mass.

Balance adjustment in equal armed scales.

46. (1) Simple equal-armed beam scales not fitted into glazed cases shall not be provided with easily movable screws for adjusting balance.

(2) The device or cavity used for adjusting balance position in equal-armed scales, with the exception of those fitted into glazed cases, shall be capable of being sealed.

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

Steelyards and scales with sliding poises.

47. The sliding poises and weighing bars of steelyards and scales fitted with sliding poises shall conform to the following requirements:

(a) the graduation marks on the weighing bar shall be formed either by lines on the plane side or by notches on the upper edge of the bar;

(b) the sliding poises and minor bars shall not be loose on their respective bars;

(c) sliding poises shall have stops to limit their movement to the graduated portion of the bar;

(d) poises having a mass greater than 20 grams may be provided with a recessed adjustment hole;

(e) any lead inserted into a recessed adjustment hole shall be in one piece; and that adjustment hole shall be capable of being stamped;

(f) the head and poise of steelyards with removable poises shall bear the same identification marks; and

(g) the device provided for locking the weighbeam shall prevent coincidence of equilibrium indices in the locked position.

Self-indicating instruments.

48. Stops limiting the path of the indicating element in self-indicating and partially-self-indicating instruments shall permit the latter to traverse a distance equal to 4 times the length of the scale interval at least before the zero graduation and after the end of self-indication.

Dead weight machines.

49. (1) The weighing platform of dead weight machines shall not exceed in length the length of the weighing beam and in breadth double the breadth of the weighing beam.

(2) Folding wings if they are fitted shall not increase the dimensions of the weighing platform by more than one-third in either direction.

Vehicle weighbridges.

50. Weighbridges for road vehicles shall conform to the following requirements:

(a) the weighbridge shall be so sited that the approach roads are straight and level for such a distance as will enable

vehicles to pull on to the weighbridge without crossing the corners of the platform; and

(b) there shall be a by-pass route for vehicles not required to be weighed;

(c) the indicating mechanism shall be housed in a substantially built weatherproof hut or office provided with a glaze window to ensure that the operator has a clear view of the whole of the platform;

(d) means shall be provided for drawing away or pumping out water from weighbridge pits; and

(e) the pits shall be kept free of water and they shall be so constructed as to permit an inspector to examine the lower parts of the installation.

Metrological tests performed on weighing instruments.

51. The following tests shall be performed on all commercial weighing instruments:

(a) the test of accuracy of load indication;

(b) the eccentric loading test or shift test; and

(c) the discrimination test or sensitiveness test.

Indication accuracy test.

52. (1) The test of the accuracy of load indication shall be performed at the following loads:

(a) zero load;

(b) minimum capacity;

(c) capacity of self-indication or printing or load corresponding to the maximum limit of the movement of the poise;

(d) load corresponding to unit mass placed as counterpoise; and

(e) maximum capacity.

Fifth Schedule.

(2) The errors shall not exceed the maximum permissible values given in the *Fifth Schedule* for instruments

(a) of the ordinary class of accuracy, that is, maximum capacity divided by value of scale interval less than 1 000; and

(b) of the medium class of accuracy, that is, maximum capacity divided by value of scale interval greater than 1 000.

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

(3) Non-graduated commercial weighing instruments are considered to be of the ordinary class of accuracy.

Eccentric loading test.

53. The eccentric loading or shift test is performed as follows:

(a) for instruments with load receptor supported on two bearing points or on four bearing points

(i) a load equal to nearly one-third of the maximum capacity, plus the additive tare effect, if any, is applied successively to the extremities of the pan or load receptor in two-bearing-point instruments from the sides nearest to and farthest from the fulcrum and the sides farthest from the beam,

(ii) for four-bearing point instruments a similar load is applied at the points of support of the load receptor,

(iii) the masses constituting the load shall not project over the edge of the pan or load receptor and shall not be excessively superposed, and

(iv) the range of variation of indication or printing shall not exceed the maximum permissible error for the given load; and

(b) for instruments with suspended load receptor

(i) a load equal to one-half of the maximum capacity, plus the additive tare effect, if any, is distributed successively on the different halves, longitudinally and transversally, of the load receptor without any excessive superposition of the masses or their projection over the edge,

(ii) the range of variation of indication or printing shall not exceed the maximum permissible error for the given load.

Discrimination test.

54. The discrimination or sensitiveness test is performed as follows:

(a) for non-self-indicating instruments, and extra load equal to 0,4 of the absolute value of the maximum permissible error is placed gently on the instrument in equilibrium at no load and when fully loaded, the pointer shall show a visible movement; and

(b) for self-indicating and partially-self-indicating instruments

(i) an extra load equal to the absolute value of the maximum permissible error is placed gently on the instrument in equilibrium at no load and when fully loaded, this extra load shall cause a permanent deflection of the pointer corresponding to not less than 0,7 of the value of the extra load; and

(ii) the extra load to which sub-paragraph (i) refers, is rounded up to the nearest 1,5 scale interval, in respect of digital instruments.

PART VII
Length Measures

Types of length measures.

55. The following types of length measures shall be verified if they are to be used in commercial transactions

(a) rigid length measures;

(b) folding length measures;

(c) measuring tapes; and

(d) other length measuring instruments made available due to technological innovation as the Minister may by order declare.

Materials, shape and construction of rigid measures.

56. (1) Rigid measures shall be made of brass, steel, hardwood or a similar dimensionally stable material.

(2) Wooden measures shall have both ends permanently capped with a metal at least as hard as brass.

(3) The measures shall be straight, smooth and free from flaws.

Construction of folding measures.

57. (1) Folding measures shall open to a definite stop, and when so opened, shall be straight.

(2) Folding measures made of hard wood shall be capped at the ends with a metal at least as hard as brass.

Material and container of tape.

58. (1) Only tape measures made of stainless steel or steel with a suitable rust-proof coating may be used in commercial transactions.

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

(2) Tape measures shall be provided with a suitable container.

(3) The container and the winding device if any, shall be so designed as not to cause permanent deformation in the tape.

Graduation of length measures.

59. (1) Graduation lines on length measures shall be straight, clear and of uniform thickness.

(2) Graduation lines shall be numbered in such a way as to ensure easy, unambiguous reading at any length.

Permissible errors of length measures and their calibration. Sixth Schedule.

60. (1) The maximum permissible errors on length measures shall not exceed the values given in the *Sixth Schedule*.

(2) The measures are to be calibrated against working standards when they are supported on their whole length on a plane surface.

(3) The calibration temperature shall be 27 ± 3°C.

(4) Measuring tapes and working standards with which they are compared shall be extended by a force of 50 Newtons during the calibration procedure.

PART VIII
Capacity Measures

Types of capacity measures.

61. (1) Capacity measures including pharmaceutical measures not exceeding 20 litres nominal capacity may be accepted for verification if they satisfy the conditions of regulations 62 and 63.

(2) The regulations in this Part do not apply to laboratory volumetric glassware not used for commercial transactions.

Materials of capacity measures.

62. Capacity measures shall be made of a suitable material that has sufficient strength, rigidity, corrosion resistance and durability to maintain its form and accuracy under ordinary conditions of use with the commodity for which they are intended.

Construction of capacity measures.

63. The shape and construction of capacity measures shall conform to the following requirements:

(a) capacity measures for liquids shall be fitted with a top lip, rim or spout;

(b) a top lip, rim or spout shall not increase the capacity of the measure by more than 15 percent;

(c) capacity measures shall not have
  (i) a strengthening rib or ring that might be mistaken for a graduation,
  (ii) a false bottom, or
  (iii) a bottom rim of a depth greater than is necessary to protect the bottom of the measure;

(d) capacity measures shall drain completely when tilted to an angle of 120° to the vertical;

(e) capacity measures fitted with a tap shall drain completely without a prolonged dribble when the tap is open and the measure is in a level position;

(f) capacity measures made of a transparent material shall have the level corresponding to their nominal value defined by means of a clear line not more than 40 mm from the brim;

(g) capacity measures made of an opaque material shall have their nominal value corresponding to the level of the brim or, where the measure is fitted with a lip or rim, corresponding to the bottom of the lip or rim; and

(h) opaque measures shall not have any sub-divisions.

Calibration of capacity measures.

64. (1) Capacity measures shall be calibrated at a standard temperature of 27°C or as near thereto as possible unless they are intended for use at another temperature.

(2) Capacity measures other than pharmaceutical measures shall be calibrated by volumetric comparison with working standards.

(3) Pharmaceutical measures shall be calibrated by the gravimetric method.

(4) Capacity measures used for liquids shall be calibrated by determining their volume of containment or their volume of delivery according to the intended use of the measure.

(5) Capacity measures submitted for calibration shall be clean and free from any residues.

Permissible errors on capacity measures. Seventh Schedule.

65. The errors of volume of capacity measures shall not exceed the maximum permissible values indicated in the *Seventh Schedule.*

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

PART IX
Petrol Measuring Pumps

Types of pumps.

66. The regulations in this Part apply to measuring pumps for dispensing liquid fuel or lubricants or mixtures thereof by volume.

Indications of pumps.

67. (1) Measuring pumps shall give a clear and prominent indication of the volume delivered in litres and the price per litre.

(2) Measuring pumps may also be provided with an indication of the total price of the volume dispensed.

(3) Totalizing devices may be included in the pumps provided that their indication cannot be confused with the indications of the volume dispensed, the unit price or the total price.

Start of operation.

68. Measuring pumps used in the presence of the buyer shall be incapable of being operated until the volume indicator and any price indicator are reset to zero.

Priming indicator.

69. Sight glasses, observation windows and other devices for indicating that a measuring pump is primed or that discharge is taking place shall be clearly marked with the appropriate legends such as "THIS GLASS MUST BE FULL BEFORE AND AFTER DELIVERY".

Delivery hose and outlet.

70. (1) Measuring pumps shall not be fitted with a delivery hose exceeding 5 metres in length together with the nozzle.

(2) The limit in paragraph (1) does not apply to pumps for the delivery of liquid fuel or lubricants to aircraft or to ships.

(3) Measuring pumps for use in the presence of the buyer shall not be arranged to deliver at more than one outlet.

Examination and permissible errors of measuring pumps.

71. (1) Measuring pumps shall be examined for accuracy of indication and effect of speed variation on accuracy.

(2) If it is suspected that there is some leakage back to the storage tank, the measuring pump shall also be tested for leakage.

72. (1) The accuracy test is carried out by delivering into two working standards of capacity 5 litres and 20 litres. Accuracy test.

(2) The errors of indication shall not exceed the maximum permissible values given in the *Eighth Schedule*. Eighth Schedule.

(3) If the pump can be operated at different speeds it is additionally tested for accuracy at the limiting speeds of operation.

73. (1) The leakage test or optional test is performed by priming the pump fully then leaving it for 1 hour. Leakage test.

(2) The pump is again tested for accuracy by dispensing 5 litres without further priming.

(3) The errors shall not exceed the maximum permissible values given in the *Eighth Schedule*. Eighth Schedule.

PART X
Miscellaneous

74. The Minister shall Review.

(a) at least once in every 6 years cause the Schedules to be reviewed; and

(b) at least once in every 2 years cause the fees set out in the *Second Schedule* to be reviewed. Second Schedule.

FIRST SCHEDULE

(Regulation 2)

OFFICIAL VERIFICATION AND REJECTION MARKS

1.1 Official Verification Mark

Verification Year Designations of Inspector

1.2 Official Rejection Mark

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

SECOND SCHEDULE

(Regulations 13 and 74)

FEES FOR VERIFICATION WORK AND FOR REGISTRATION OF SERVICEMEN

1. Fees for Verification Work

The following fees are to be collected for the examination and stamping of the measuring devices indicated below:

The extra sum of $10.00 is to be charged if it is required of the inspector to issue a written certificate stating the conformity of the measuring device to these regulations without mentioning the true value of the measure or the true values of the indications of the measuring instrument.

In case the measuring device fails to pass the prescriptions of these regulations 50% of the relevant fees is to be collected for the examination.

The fees do not include the cost of transportation of the Inspector(s) and the verification equipment. If such costs have been incurred they are to be charged additionally according to the actual costs.

(a) Masses		
Commercial masses of nominal value not exceeding 2 kg	$	0.50 each
Commercial masses of nominal value greater than 2 kg	$	2.00 each
Masses used for precious stones and metals	$	2.00 each
(b) Weighing Instruments		
Hanging beam scales of ordinary accuracy and of maximum capacity not exceeding 25 kg	$	2.00 each

Hanging beam scales of ordinary accuracy and of maximum capacity greater than 25 kg	$	10.00 each
Hanging beam scales of medium accuracy and maximum capacity not exceeding 25 kg	$	20.00 each
Hanging beam scales of medium accuracy and maximum capacity greater than 25 kg	$	30.00 each
Counter balances and spring balances of ordinary accuracy and maximum capacity not exceeding 10 kg	$	3.00 each
Counter balances and spring balances of ordinary accuracy and maximum capacity greater than 10 kg but not exceeding 50 kg	$	10.00 each
Counter balances of medium accuracy including computerized types of maximum capacity not exceeding 50 kg	$	20.00 each
Deadweight machines	$	20.00 each
Steelyards	$	10.00 each
Platform scales of maximum capacity not exceeding 1 000 kg	$	50.00 each
Platform scales of maximum capacity greater than 1 000 kg	$	100.00 each
Vehicle weighbridges of maximum capacity up to 15 tonnes	$	300.00 each
Vehicle weighbridges of maximum capacity greater than 15 tonnes	$	500.00 each

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

(c) Length Measures		
Rigid and folding measures not exceeding 1 m	$	1.00 each
Rigid and folding measures longer than 1 m but not exceedding 2 m	$	2.00 each
Rigid and folding measures of length greater than 2 m	$	3.00 each
Tape measures of length not exceeding 1 m	$	0.50 each
Tape measures of length greater than 1 m but not exceeding 2 m	$	1.00 each
Tape measures exceeding 2 m	$	0.50 per metre
(d) Capacity Measures		
Measures, other than pharmaceutical, not exceeding 1 litre capacity	$	0.50 each
Measures, other than pharmaceutical, greater than 1 litre but not exceeding 20 litres	$	2.00 each
Measures other than pharmaceutical, greater than 20 litres	$	4.00 each
Pharmaceutical measures not exceeding 0,5 litres	$	2.00 each
Pharmaceutical measures exceeding 0,5 litres	$	4.00 each
(e) Petrol Measuring Pumps		
Measuring pumps for dispensing one petroleum product for road vehicles	$	20.00 each
Blending pumps containing two measuring pumps	$	30.00 each

2. Fees for Registration of Servicemen

Registration fee per serviceman	...	...	$ 50.00 each
Annual fee per serviceman ...	...	...	$ 50.00 each

THIRD SCHEDULE

(Regulations 20 and 21)

SAMPLING PLAN FOR CHECKING PRE-PACKAGED GOODS

Ordinary Inspection

Size of Lot	Draw a sample of	Acceptable if number of short items equal to or less than	Serve warning if number of short items equal to or greater than	Doubtful (accept lot but inspect same product again later)
2 – 90	2	0	1	(-)
91 – 150	3	0	2	1
151 – 280	5	0	2	1
281 – 500	8	1	3	2
501 – 1 200	13	1	4	2 or 3
1 201 – 3 200	20	2	5	3 or 4
3 201 – 10 000	32	3	6	4 or 5
10 001 – 35 000	50	5	8	6 or 7

THE LAWS OF BARBADOS

Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

Inspection Following Warning or Doubtful Lot

Size of Lot	Draw a sample of	Acceptable of number of short items equal to or less than	Take legal action if number of short items equal to or greater than
2 – 8	2	0	1
9 – 15	3	0	1
16 – 25	5	0	1
26 – 50	8	1	2
51 – 90	13	1	2
91 – 150	20	2	3
151 – 280	32	3	4
281 – 500	50	5	6
501 – 1 200	80	7	8
1 201 – 3 200	125	10	11
3 201 – 10 000	200	14	15
10 001 – 35 000	315	21	22

FOURTH SCHEDULE

(Regulation 29)

TOLERANCE ON MASSES

Masses other than those used for Precious Metals and Stones

Mass Denomination	Maximum Permissible Error (mg)	
	Initial Verification	In-Service Verification
50 kg	+ 8 000 – 0	+ 8 000 – 8 000
20 kg	+ 3 200 – 0	+ 3 200 – 3 200
10 kg	+ 1 600 – 0	+ 1 600 – 1 600
5 kg	+ 800 – 0	+ 800 – 800

Mass Denomination	Maximum Permissible Error (mg)	
	Initial Verification	In-Service Verification
2 kg	+ 400 – 0	+ 400 – 400
1 kg	+ 200 – 0	+ 200 – 200
500 g	+ 100 – 0	+ 100 – 100
200 g	+ 50 – 0	+ 50 – 50
100 g	+ 30 – 0	+ 30 – 30
50 g	+ 30 – 0	+ 30 – 30
20 g	+ 20 – 0	+ 20 – 20
10 g	+ 20 – 0	+ 20 – 20
5 g	+ 10 – 0	+ 10 – 10
2 g	+ 5 – 0	+ 5 – 5
1 g	+ 5 – 0	+ 5 – 5

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

CARAT MASSES AND GRAM MASSES
Used for Precious Metals, Stones and Pearls

Mass Denomination In Carat (metric)	Mass in mg	Maximum Permissible Error (mg)	
		Initial Verification	In-Service Verification
500	100 000	+8 −0	+8 −4
-	50 000	+6 −0	+6 −3
200	(40 000)	+6 −0	+6 −3
100	20 000	+5 −0	+5 −2,5
50	10 000	+4 −0	+4 −2
–	5 000	+3 −0	+3 −1,5
20	(4 000)	+3 −0	+3 −1,5
10	2 000	+2 −0	+2 −1
5	1 000	+1 −0	+1 −0,5
-	500	+0,8 −0	+0,8 −0,4
2	(400)	+0,8 −0	+0,8 −0,4
1	200	+0,2 −0	+0,6 −0,3
0,5	100	+0,4 −0	+0,4 −0,2

Mass Denomination In Carat (metric)	Mass in mg	Maximum Permissible Errors (mg)	
		Initial Verification	In-Service Verification
-	50	+ 0,2 – 0	+ 0,2 – 0,1
0,2	(40)	+ 0,2 – 0	+ 0,2 – 0,1
0,1	20	+ 0,2 – 0	+ 0,2 – 0,1
0,05	10	+ 0,1 – 0	+ 0,1 – 0,05
-	5	+ 0,1 – 0	+ 0,1 – 0,05
0,02	(4)	+ 0,1 – 0	+ 0,1 – 0,05
0,01	2	+ 0,1 – 0	+ 0,1 – 0,05
0,005	1	+ 0,1 – 0	+ 0,1 – 0,05

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

FIFTH SCHEDULE

(Regulation 52)

MAXIMUM PERMISSIBLE ERRORS OF WEIGHING INSTRUMENTS

Weighing Instruments of Ordinary Accuracy

(a) Graduated Instruments (n <1 000) (1)

Maximum Capacity	Load Range	Maximum Permissible Error	
		Initial Verification	In-Service Verification
All Capacities	(2) 10 d to 50 d > 50 d to 200 d > 200 d	(2) ± 0,5 d + d ±1,5 d	± d ± 2 d ± 3d

(b) Non-graduated Instruments

Maximum Capacity (3)	Load Range	Maximum Permissible Error	
		Initial Verification	In-Service Verification
Up to and including 2 kg	50 g to 250 g > 250 g to 1 kg > 1 kg	± 2,5 g ± 5 g ± 7,5 g	± 5 g ± 10 g ± 15 g
4 kg	100 g to 500 g > 500 g to 2 kg > 2 kg	± 5 g ± 10 g ± 15 g	± 10 g ± 20 g ± 30 g
10 kg	250 g to 1 250 g > 1 250 g to 5 kg > 5 kg	± 12,5 g ± 25 g ± 37,5 g	± 25 g ± 50 g ± 75 g

Maximum Capacity	Load Range	Maximum Permissible Error	
		Initial Verification	In-Service Verification
20 kg	500 g to 2,5 kg	± 25 g	± 50 g
	> 2,5 kg to 10 kg	± 50 g	± 100 g
	> 10 kg	± 75 g	± 150 g
40 kg	1kg to 5 kg	± 50 g	± 100 g
	> 5 kg to 20 kg	± 100 g	± 200 g
	> 20 kg	± 150 g	± 300 g
100 kg	2,5 kg to 12,5 kg	± 125 g	± 250 g
	> 12,5 kg to 50 kg	± 250 g	± 500 g
	> 50 kg	± 375 g	± 750 g

(1) n is the maximum capacity divided by the value of scale interval d.
(2) d is the value of the scale interval in units of mass.
(3) For the maximum capacities other than those listed the next smaller capacity is taken.

Weighing Instruments of Medium Accuracy.

(c) Graduated Instruments (n > 1 000) [1]

Maximum Capacity	Load Range	Maximum Permissible Error	
		Initial Verification	In-Service Verification
All Capacities	(2)	(2)	
	10 d to 500 d	± 0,5 d	± d
	> 500 d to 2 000 d	± d	± 2 d
	> 2 000 d	±1,5 d	± 3d

(1) n is the maximum capacity divided by the value of the scale interval d.
(2) d is the value of the scale interval in units of mass.

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

SIXTH SCHEDULE

(Regulation 60)

MAXIMUM PERMISSIBLE ERRORS OF LENGTH MEASURES

Rigid and Folding Measures

Maximum Permissible Error	
Initial Verification	In-Service Verification
$\pm$ (0,6 + 0,5 D) mm	$\pm$ (1,2 + 1,0 D) mm

Where D – distance between the two tested graduation lines in metres rounded to the nearest higher 0,5 m.

Steel Measuring Tapes

Accuracy Class	Maximum Permissible Error	
	Initial Verification	In-Service Verification
A	$\pm$ (0,3 + 0,3 D) mm	$\pm$ (0,6 + 0,6 D) mm
B	$\pm$ (0,6 + 0,5 D) mm	$\pm$ (1,2 + 1,0 D) mm

Where D – distance between the two tested graduation lines in metres rounded to the nearest higher whole number of metres.

SEVENTH SCHEDULE

(Regulation 65)

MAXIMUM PERMISSIBLE ERRORS ON CAPACITY MEASURES

Errors on Capacity Measures other than Pharmaceutical Measures

Nominal Capacity	Maximum Permissible Error, mL	
	Initial Verification	In-Service Verification
20 L	+ 100 – 0	+ 200 – 100
10 L	+ 75 – 0	+ 150 – 75
5 L	+ 50 – 0	+ 100 – 50
2 L	+ 30 – 0	+ 60 – 30
1 L	+ 15 – 0	+ 30 – 15
500 mL	+ 10 – 0	+ 20 – 10
200 mL	+ 5 – 0	+ 10 – 5
100 mL	+ 3 – 0	+ 6 – 3
50 mL	+ 2 – 0	+ 4 – 2
25 mL	+ 1 – 0	+ 2 – 1
20 mL	+ 0,8 – 0	+ 1,6 – 0,8
10 mL	+ 0,4 – 0	+ 0,8 – 0,4

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados

(Regulation 65)

Pharmaceutical Capacity Measures

Nominal Capacity or Graduation Tested or	Maximum Permissible Error on Initial In-Service Verification
500 mL	± 5,0 mL
200 mL	2 mL
100 mL	± 1 mL
50 mL	± 0,5 mL
25 mL	± 0,25 mL
20 mL	± 0,2 mL
10 mL	± 0,1 mL
5 mL	± 0,05 mL
2 mL	± 0,02 mL
1 mL	± 0,01 mL

EIGHTH SCHEDULE

(Regulations 72 and 73)

MAXIMUM PERMISSIBLE ERRORS ON MEASURING PUMPS

Quantity Delivered	Maximum Permissible Error, mL	
	Initial Verification	In-Service Verification
1 L	+ 10 – 0	+ 20 – 10
5 L	+ 25 – 0	+ 50 – 25
20 L	+ 100 – 0	+ 200 – 100

THE LAWS OF BARBADOS
Printed by the Government Printing Department, Bay Street, St. Michael,
by the authority of the Government of Barbados