

Draft EAC weighing and measuring equipment regulations, 2011

1 (1) These regulations may be cited as the EAC weighing and measuring equipment *regulations*.

Citation

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

Interpretation

“absolute maximum permissible error” means the value of the maximum permissible error without regard to whether it is minus or plus;

“analogue indicating device” means an indicating device on which the value of the quantity measured is indicated by an indicator and a graduated scale one of which is fixed and the position of the other is a continuous function of the magnitude of the physical quantity being determined;

“automatic weighing machine” means a weighing instrument which accomplishes a weighing operation without intervention by an operator and which sets in motion an automatic process characteristics of the instrument;

“capacity”, in relation to a weighing instrument (other than a belt conveyor weigher or an egg grading machine), means the maximum load, excluding the additive tare marked or indicated on the instrument in accordance with the Act or these regulations:

“composite measure” means a measure of length where one of its principal graduations is an end surface or edge and the other is a line, hole or mark;

“correct” in relation to an instrument, means correct within the maximum permissible error specified for the instrument in these Regulations;

“dial” includes a dial carrying a linear fan chart or circular scales;

“digital indicator” means an indicator on which the value of a physical quantity is represented by a series of aligned digits which change abruptly such that no indications can be obtained between digits;

“dispensing measure” means any measure designed and intended for use in pharmaceutical dispensing;

“end measure” means a measure of length whose principal graduations are two end surfaces or edges of the measure;

“graduation” means lines or notches, the distance between which determines the scale division on analogue sales; and numbers on digital scales shall be considered as graduations;

“ initial verification’, in relation to a weighing or measuring equipment, means the verification of such equipment before it is sold or exposed for sale or put into use for the first time; and the verification of a repaired

equipment shall, for the purpose of these Regulations ,be considered as initial verification;

“initial zero-setting device” means the device for setting the indication of a weighing equipment to zero automatically at the time the equipment at the time the equipment is switched on and before it is ready for use;

“licensee” means a person who possesses a valid licence under these regulations;

“maximum permissible error” means the extreme value of an error as specified in these Regulations for weighers, measures, weighing and measuring instruments;

“maximum safe load” means the maximum static load which can be carried y the instrument without the instrument altering its metrological qualities;

“metrological characteristics” means those operational characteristics of weighing or measuring equipment which are evaluated during the testing of the equipment in accordance with these Regulations;

“minimum capacity”, in relation to a weighing instrument, means the value of the load below which the weigher results are subject to excessive relative errors;

“multiple weighing” means determining the mass of a load by totalizing the result of more than one static weighing operation during each of which the load is only partially supported by the load receptor;

“non-automatic weighing instrument” means a weighing instrument which, in order to accomplish a weighing operation, requires the intervention of an operator during the weighing process, especially to deposit loads on, or to remove loads from, the load receptor and also to determine the result of the weighing process and for the purposes of these Regulations shall include a weigh-price-labeler;

“non-self- indicating weighing instrument’ means a weighing instrument in which the position of equilibrium is obtained entirely by the intervention of an operator;

“partial totalization indicating device”, in relation to a belt conveyor weigher, means the device indicating the weight of the loads conveyed by the belt over a limited period of time;

“pattern” means the final physical representation of a weighing or measuring equipment in which all the components imparting to it the necessary metrological and technical characteristics are suitably assembled so that, subject to prescribed tolerances, every weighing or measuring equipment produced in accordance with such pattern may be similar as regards dimensions, construction, performance, and other metrological and technical characteristics;

“principal graduations” means two graduations, the distance between which represents the nominal lengths of a measure of length;

“range of self-indication” means the range within which the position of equilibrium is obtained without the intervention of an operator;

“reading distance” means the shortest distance at which an observer, is able to freely approach the indicating device on an instrument in order to take a reading under normal conditions of use; and the approach shall be considered to be free if there is a clear space of at least 0.8 m. in front of the indicating device;

“rejected”, in relation to a weighing or measuring equipment means examined and tested by an inspector and found not to comply with the requirements of the Act or these regulations;

“repaired”, in relation to a weighing or measuring equipment, means that the weighing or measuring equipment since it was last stamped has had some adjustment, other than balancing in the case of a weighing instrument, made to it and which has a bearing on its metrological characteristics;

“to repair”, includes making any adjustment to any weighing or measuring equipment other than the adjustment of the balance arrangement which is required under these regulations in respect of specified types of weighing or measuring equipment;

“repairer” means a person licensed to engage in the repair or overhauling of weighing or measuring equipment;

“re-verification” in relation to a weighing or measuring equipment, means the verification of a previously stamped weighing or measuring equipment with the object of ascertaining whether such weighing or measuring equipment still maintains the accuracy it had when it was first stamped;

“rounding error” means the difference between the indicated or printed digital value and the result the instrument would give if it were analogue;

“scale division” means the smallest sub-division of the scale in the case of a continuous (analogue) indication, or the difference between two consecutive indicated or printed values in the case of discontinuous (digital) indication or printing;

“scale interval” means the value, expressed in units of measurement of mass, equal to-

- (a) in the case of a weighing instrument with an analogue indicating device, the smallest subdivision of the scale; or
- (b) in the case of a weighing instrument with a digital indicating or printing device, the smallest difference between two consecutive indicated or printed results;

“self-indicating instrument” means a weighing instrument which position of equilibrium is obtained without the intervention of the operator;

“semi-automatic zero setting device” means a device for setting the indication of an instrument to zero following a manual command by the operator;

“semi-self-indicating weighing instrument” means a weighing instrument in which the operator only intervenes above a certain range of self-indication or printing in order to re-establish the function of self-indication or printing;

“stamping station” means any place appointed under the Act;

“tare device” means a device for setting the indication of a weighing instrument to zero when a load is on the load receptor of the instrument and which-

- (a) in the case of an additive tare, does not alter the weighing range of the instrument;
- (b) in the case of a subtractive tare, reduces the weighing range of the instrument;

“test indicator”, in relation to a belt conveyor weigher, means an indicating device with a scale interval smaller than that of the totalization indicating device and intended for the testing of the belt weigher;

“verification scale interval” (e) means the metrologically significant value of the scale interval for the verification of a weighing instrument;

“totalization indicating device”, in relation to a belt conveyor weigher, means a device for indicating the over-all total weights of all loads conveyed by the belt;

“verification mark” means stamp, seal or tamper proof sticker;

“weighing mode” means one of the number of ways of operating a weighing instrument which is necessary to bring into use each of its indicating, printing and taring devices, load receptors and combinations of load receptors, weighing ranges and values of verification scale interval;

“weighing range” means the range between the maximum capacity of an instrument and –

- (a) the approved minimum load(“min”) as marked on the instrument ,
or
- (b) in the case where there is no approved minimum load marking, the lowest value of weights which can be indicated or printed;

“zero setting device” means a device for setting the indication of a weighing instrument to zero when there is no load on the load receptor;

“zero tracking device” means a device which is designed to automatically maintain the zero indication of an instrument within the zero-setting range;

Part I: General provisions

3. (1) Weighing and measuring equipment shall be submitted for testing and tested in a clean condition, and if necessary the inspector may call upon the owner or user to clean them.

(2) Weighing and measuring equipment may be examined on the premises of a repairer or dealer;

Provided that any expenses incurred by the inspector and the cost of

**Weighing and
measuring equipment
to be clean**

transporting standards shall be paid by the repairer or dealer.

(3) The inspector may require any person submitting any equipment for verification –

(a) to take it sufficiently apart to enable him to examine the working parts of the equipment; and

(b) to provide sufficient labour for the proper and expeditious handling of the standards or any material which is to be used in the testing of any such instrument.

4. The denomination of a weight or the capacity of an instrument; if not marked in full, shall be indicated only by one of the abbreviations specified in **the First schedule**.

Denomination

5. Weights, measures and weighing or measuring instruments may be examined on the premises of a repairer or dealer;

Examination on premises

Provided that the actual traveling expenses of the inspector and the cost of transport of standards shall be paid by the repairer or dealer.

6. The inspector may require any person submitting any weighing or measuring equipment for verification-

Duties of a person submitting weights, measure or instruments

(a) to take it sufficiently apart to enable him to examine the working parts; and

(b) to provide sufficient labour for the proper and expeditious handling of the standards or any materials which is to be used in the testing of any weighing or measuring equipment

7. The inspector shall not admit for verification-

(a) any weighing and measuring equipment which-

Weighing and measuring equipment not to be admitted for verification

(i) is not of a pattern approved by the Director, or which is not complete in itself;

(ii) bears any mark which might be mistaken for a stamp of verification or guarantee of accuracy;

(iii) is not sufficiently strong to withstand the ordinary wear and tear of use in trade;

(iv) is not properly constructed, or of which in his opinion, the material or mode of construction appears likely to facilitate the commission of fraud;

Provided that an inspector acting pursuant to this rule/regulation shall forthwith report the matter to the Head of Legal Metrology for a final decision;

(b) any weighing instrument which has-

(i) a broken scoop, pan or plate; or

(ii) a chain plate which is chipped, raked or porous to Such an extent that it has become readily absorbent; or

(iii) counterpoise weights representing a greater or less weight than the marked capacity of the instrument; or

(iv) 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; or

(v) reversible or interchangeable parts, the reversal or interchange of which would affect the accuracy of the instrument, unless such parts are clearly and indelibly marked to indicate their positions:

(c) double capacity measures;

- (d) micrometer scales unless of a pattern approved by the Head of Legal Metrology
- (e) Swan-neck beam-scales of a capacity less than 100 kg.

8. Every weighing or measuring equipment shall have-
- (a) the name or trade mark of the manufacturer or supplier; and
 - (b) an identifying serial number legibly and indelibly marked on a conspicuous part of the instrument:

Name, trade mark and serial number to be marked.

Provided that paragraph (b) shall not apply to weighing or measuring equipment stamped prior to the coming into operation of these Regulations.

9. No equipment shall be verified unless it has a suitable provision for the reception of a verification mark:

Provision for reception of stamp of verification

10. (1) Before stamping any weighing or measuring equipment, the inspector shall ascertain that it complies with the requirements of the Act and of these Regulations.

Testing procedure

- (2) A new or repaired weight, measure or instrument shall be verified in the manner prescribed for the class to which it belongs.
- (3) A stamped weighing or measuring equipment presented for re-verification may be dealt with as on inspection but the inspector need not, if he does not consider it necessary, test a glass measure unless the original stamp has been defaced:
- (4) For the purposes of this regulation, a repaired equipment presented for verification shall be dealt with as on initial verification.

11. Every equipment which is permanently fixed in the position, in which it is to be used, shall be verified and stamped only when completely erected and installed at the place of use.

Testing "in situ" and Design of stamp of verification

12. (1) The inspector shall stamp all weighing and measuring equipment which comply with the requirements of the Act and these Regulations.

(2) Design of stamp of verification may be as provided by partner states-

- (3) There shall be incorporated in this design a number which shall be personal to the inspector for so long as he remains appointed.

13. The following letters shall indicate the months allocated to them and, wherever possible, the letters shall be stamped in addition to the stamp of verification-
- A-January B-February C-March D-April

Date mark

E-May	F-June		
G-July	H-August	I-September	J-October
K-November	L-December		

14. (1) The year shall be indicated by stamping at least two of the last figures of the year; **Year of stamping**
- (2) The Head of Legal Metrology shall cause to be procured stamps of verification specified in Regulations 12 and 14. Stamps so procured shall be in the custody of the Head of Legal Metrology and he may issue or cause the same to be issued to inspectors for use.
 - (3) The stamps so issued shall be under the custody and care of the inspector and be subject to the conditions as may be given from time to time by the Head of Legal Metrology.
 - (4) The Head of Legal Metrology shall withdraw stamps so issued from persons vacating office either upon retirement or dismissal.
 - (5) The Head of Legal Metrology may also withdraw the stamps so issued from an inspector where he has evidence of their misuse.

15. A certificate of verification issued in respect of any weighing or measuring equipment which cannot be stamped by reason of its size shall be regarded as proof of verification or re-verification of that weighing or measuring equipment and shall remain valid for the period specified therein. **Certificate of verification**

16. (1) (a) The verification mark on a weighing or measuring equipment shall be obliterated only by means of an indelible six pointed star design- **Obliteration**

b) Upon such obliteration, the weighing or measuring equipment shall for all the purposes of the Act and of these Regulations be deemed to be unstamped.

- c) Where an equipment is stamped or sealed in more than one place, the obliteration of any one stamp or the breaking of any one seal or sealing device or invalidating any of the stickers shall render the equipment unstamped

- (2) The inspector shall obliterate the verification mark on any weighing or measuring equipment which does not comply with any relevant requirements of these Regulations, or whose error falls outside the limits of error specified in these Regulations: **Inspector to obliterate stamp on certain weighing or measuring equipment**

Provided that the inspector shall not obliterate the verification mark on any weight, measure or weighing and measuring instrument which satisfies the requirements of the rules in force prior to the coming into operation of these Regulations, if the error in such weight, measure or instrument falls within the limits of error specified in these Regulations

- (3) Where a weight, measure or instrument does not comply fully with the requirements of these Regulations, but the nature or degree of the non-compliance is not in the opinion of the inspector such as to require the immediate obliteration of the stamp or breaking of the seal or seals, he shall leave with the trader a notice calling upon him to have the weight,

measure corrected within twenty-eight days, and he shall obliterate the stamp or break the seal or seals if the correction has not been effected within that period.

17. Where any weighing or measuring instrument is found upon inspection or re-verification not to comply with the requirements of these Regulations and the degree of non-compliance is, in the inspector's opinion, of a serious nature the inspector may seal the instrument in such a manner as to prevent further use of instrument until it is repaired and re-stamped.

Sealing to prevent use of instrument pending repair

18. Any person who, unless authorized by an inspector-

- (a) breaks any seal or sealing device on any instrument;
- (b) obliterates or mutilates any stamp of verification; or

seals or re-seals or attempts to seal or re-seal any instrument, shall be guilty of an offence.

Offences in relation to breaking or mutilating stamp of verification