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Field Inspection Manual	Part: 3-STP	Section: 2	Page: 1 of 5
Non Automatic Weighing Devices	Issued: 2012-07-01	Revision Number: 3	

STP-2 Limitations and Conditions Listed in the Notice of Approval

Reference

Section 55 of the *Specifications Relating to Non-automatic Weighing Devices (1998)*.

Notices of Approval (NoA) provide limitations and conditions for the configuration, installation and use of devices and major elements. Inspectors ensure that weighing devices are configured, installed and used in accordance with those limitations and conditions. Such evaluation is normally performed when the device is initially inspected. The following is a list of the most common limitations, and conditions that appear in NoAs.

Class Designation

The class designation is the first indication of the device accuracy. The inspector ensures that the device (or the major element approved separately), is marked with the class designation specified in the NoA, and that the device is of a class authorized for the application in which it is used.

Maximum Capacity (*Max*)

The inspector ensures that the capacity (or weighing range) has not been set for a value higher than the maximum approved capacity of the device or the maximum capacity of one of the major elements that form the device.

Minimum Scale Interval (*d*) or Verification Scale Interval (*e*)

The inspector ensures that the device has not been set for a value of verification scale interval *e* or, if applicable, actual scale interval *d*, smaller than the minimum value authorized by the NoA.

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Value of the Minimum Verification Scale Interval (e_{min})

The inspector ensures that the device has not been configured for a value of verification scale interval smaller than the minimum value allowed by the NoA for the weighing element.

Note: Approvals without a specific division size listed (devices approved pre-NAWDS):

- use the following table to determine the smallest acceptable e_{min} or,
- if the configured e_{min} is already below this value, contact the Gravimetric Specialist for further information.

Max (Device Capacity)	e_{min} (finest interval)	Max (Device Capacity)	e_{min} (finest interval)
> 100 000 kg	20 kg	> 200,000 lb	50 lb
> 20 000 to 100 000 kg	10 kg	> 40,000 to 200,000 lb	20 lb
> 10 000 to 20 000 kg	5 kg	> 20,000 to 40,000 lb	10 lb
> 5 000 to 10 000 kg	2 kg	> 10,000 to 20,000 lb	5 lb
> 2 500 to 5 000 kg	1 kg	> 5,000 to 10,000 lb	2 lb
> 1 000 to 2 500 kg	0.5 kg	> 2,000 to 5,000 lb	1 lb
> 500 to 1 000 kg	0.2 kg	> 1,000 to 2,000 lb	0.5 lb
> 250 to 500 kg	0.1 kg	> 500 to 1,000 lb	0.2 lb
> 100 to 250 kg	0.05 kg	> 200 to 500 lb	0.1 lb
> 50 to 100 kg	0.02 kg	> 100 to 200 lb	0.05 lb
> 25 to 50 kg	0.01 kg	> 50 to 100 lb	0.02 lb
≤ 25 kg	0.005 kg	≤ 50 lb	0.01 lb

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Maximum Number of Scale Intervals (n_{max})

The inspector ensures that the device has not been configured for a maximum number of scale intervals (counts) that exceeds the maximum number allowed by the NoA for the indicating element.

Temperature Range

The inspector ensures that the scale is used within the temperature range for which it is approved. If the scale or the components of the scale are approved for the range from -10 °C to + 40 °C, or if there is no temperature range marked on the device, there is no use limitation.

If a restricted temperature range is marked on the device, the inspector ensures that the device is used within that temperature range. For example, a Class III device is approved for a temperature range from +5 °C to +35 °C. This device must be used within that temperature range only.

Installation - Environment

NoAs may contain some other requirements and restrictions related to the installation of certain models of weighing devices or related to the environment in which they may be used.

Mix/Match of Major Elements

Pursuant to the *Non Automatic Weighing Devices Specifications*, devices made of major detachable components may be tested by the Laboratory as a complete unit, or each major component of the device may be tested separately, according to the manufacturer's instructions. In the first case, the full acceptance limit of error (LOE) is allowed while in the latter case 0.7 times the acceptance limit of error is allowed. Section 10 of the *Non Automatic Weighing Devices Specifications* applies when major elements such as indicating or weighing elements are tested separately for approval by the Approval Services Laboratory (ASL). This LOE applies only to major components susceptible to produce measurement errors due to disturbances or influence factors. Only a portion of the full LOE (0.7 x LOE) is allowed when testing a major element separately. This ensures that the sum of errors that can be produced, when interfaced with other elements to form a complete weighing device, will not exceed the acceptance LOE.

Only major components tested separately can be mixed/matched to form other devices. For devices approved on or after the adoption of these specifications, NoAs indicate whether or not the major components of a device may be separated and matched with other approved components to form a new device.

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Device Usage

Weight Classifiers

Weight classifiers are configured to round the weight values up to the next scale interval. They are suitable for postal or courier applications where tariffs are set for ranges of weights; for instance, \$0.50 from 0 g up to and including 30 g. However, this type of scale is not suitable for general purposes where commodities are sold on the basis of weight as in grocery stores. On many scales, the turning point of the graduation (or the zone of uncertainty) can be set (moved up or down closer to the graduation). The inspector ensures that weight classifiers are used only in authorized applications

Devices not for use in direct sale

Certain devices are designed for industrial applications only. They do not incorporate all the features required normally for direct sale applications. For instance, requirements for tares are more stringent for scales intended to be used in direct sale applications than those for industrial applications.

NoAs will indicate if a device is not for direct sale applications. Industrial devices that resemble devices used in direct sale applications are required to be marked accordingly.

Counting Scales

A device whose sole function is to count items is not included in the definition of "measuring machine" and is not a device as defined by the Act. As such, this type of device is not subject to the Act and Regulations. It requires neither approval nor inspection and may be used in trade.

A device that is capable of both counting and weighing items must have its weighing functions approved and inspected if it is to be used in trade.

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Revision

Rev. 3

- changed e_{min} table values 20, 200 and 2000 kilograms to 25, 250 and 2500 kilograms respectively. This change was required to reflect common configuration practices.

Rev. 2

-added Max/ e_{min} table for pre-NAWDS devices.

Rev. 1

- delete "to the Public" form Direct Sales references.
- add Counting Scale requirements for approval and inspection.
- correct several inconsistencies and general formatting issues.
- correct references to *Specifications Relating to Non-automatic Weighing Devices (1998)*.