



Bulletin

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Document(s): Weights and Measures Regulations, paragraph 4(1)(n); bulletin M-08 (rev. 4); Specifications Relating to Non-automatic Weighing Devices (1998)	Issue Date: 2015-04-16	Effective Date: 2015-04-16
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Date from Which Measurement Canada Has Been Verifying Compliance with the *Specifications Relating to Non-automatic Weighing Devices (1998)*

1.0 Purpose

The purpose of this bulletin is to provide the necessary guidance for the enforcement of the *Specifications Relating to Non-automatic Weighing Devices (1998)* (hereafter referred to as the Specifications).

1.1 Effective date of the Specifications

The *Order Establishing Specifications Relating to Non-automatic Weighing Devices* was originally adopted on January 5, 1998, was published in Part II of the *Canada Gazette* and became effective on February 4, 1998.

The Order had to be amended for a technical reason related to the regulatory process. It was republished, as written, in Part II of the *Canada Gazette* and titled *Specifications Relating to Non-automatic Weighing Devices (1998)*. The Specifications became effective on June 15, 1998.

Measurement Canada has been verifying compliance with the Specifications since March 2, 1998.

2.0 General

2.1 Weighing devices approved on March 2, 1998, or after

Weighing devices or modules approved on March 2, 1998, or after are subject to the enforcement of the Specifications in their entirety. Devices or modules submitted for approval before March 2, 1998, but evaluated and/or approved on or after that date, are also subject to the enforcement of the Specifications in their entirety.

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2.2 Weighing devices approved before March 2, 1998, but initially examined after that date

Weighing devices approved before March 2, 1998, but initially examined after that date, do not require modification in order to meet the design, composition, construction or marking requirements of the Specifications. However, these devices must continue to comply with the design, composition, construction and marking requirements that were in force when they were approved. They must also be installed and used in accordance with the requirements of the Specifications, and meet the limits of error prescribed by the Specifications.

2.3 Weighing devices approved and initially examined before March 2, 1998

Weighing devices approved and initially examined before March 2, 1998, do not require modification in order to meet the design, composition, construction and marking requirements of the Specifications. However, these weighing devices must perform within the limits of error set out in the Specifications and must be used in compliance with the requirements prescribed by the Specifications.

Weighing devices that must be installed to be tested, such as vehicle scales, hopper scales, tank scales and on-board weighing systems do not have to be reinstalled to meet the installation requirements of the Specifications. When reinstalled however, they must comply with all installation requirements prescribed by the Specifications. Portable or mobile weighing devices must be installed in accordance with the requirements of the Specifications if they are relocated and reinstalled after March 2, 1998.

2.4 Weighing devices and modules modified and resubmitted to the Approval Services Laboratory for evaluation

Weighing devices and modules that are modified in such a way that they must be resubmitted to the Approval Services Laboratory for a complete or partial evaluation must comply with all the design, composition, construction, performance and marking requirements prescribed by the Specifications before a new or revised Notice of Approval can be issued.

3.0 Particular provisions

3.1 Limits of error applicable to weighing devices marked with a class designation

Weighing devices approved after March 2, 1998, as well as certain weighing devices approved before that date, are marked with a class designation. In such cases, inspectors will apply the limits of error corresponding to the class marked on the device.

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3.2 Limits of error applicable to weighing devices that are not marked with a class designation

Most models of weighing devices approved before March 2, 1998, are not marked with a class designation. For such devices, inspectors will establish the limits of error on the basis of the value of the verification scale interval of the device and the class required by the Specifications for the application in which the device is used or intended to be used. For example, the limits of error applied to a 10 kg x 5 g computing scale used or intended to be used in a retail application such as the weighing of meat, fruits or other similar products are those applied to class III devices. Consequently, the limits of error that inspectors will apply will be those for a class III device, calculated based on the 5 g scale interval.

Certain devices approved before March 2, 1998, may have been approved with a number of scale intervals that exceeds the maximum number permitted for the class. In such a case, the last step of the limits of error will be extended to capacity. For example, the in-service limit of error applied to a class III, 64kg x 5 g scale (12,800 intervals) will be 25 g from 20 kg to 64 kg.

When a weighing device, other than the type described in section 3.5, is used or intended to be used for an application described in Column 1 of the following table, the limits of error for the Class indicated in Column 2 of the table shall apply.

Column 1 Application or Device Type	Column 2 Device Class
Scales approved for weighing precious metals or gemstones; scales used or intended to be used to weigh precious metals or gemstones.	Limits of error for Class II devices
Scales with capacities of less than 4 000 kg (10 000lb), such as bench scales, floor scales, point of sale systems, retail computing scales, overhead track scales, etc.	Limits of error for Class III devices
Scales with capacities of 4 000 kg (10 000 lb) or more, such as large floor scales, vehicle scales, large hopper scales, large tank scales, railroad scales, etc.	Limits of error for Class III HD devices

3.3 Devices composed of weighing elements that are covered by the Class Approval Program

A Class Approval is granted to manufacturers for the approval of their large capacity and/or large dimension weighing devices that cannot be tested in the laboratory.

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The following marking and installation rules apply to such devices when submitted to initial examination:

Weighing elements, whether already in existence or newly installed, shall be marked in the manner prescribed with the manufacturers' name, the model number, a serial number, the generic (class) approval number, the appropriate class designation and the values of maximum capacity (Max) and minimum verification scale interval (e_{min}), as determined by the device manufacturer, for the type or design of device;

Indicating elements approved before March 2, 1998, shall be marked in the manner then prescribed with the manufacturer's name, the model number, a serial number and the approval number;

Indicating elements approved on or after March 2, 1998, shall be marked in the manner prescribed by the Specifications with the manufacturer's name, the model number, a serial number, the approval number, the accuracy class designation and the maximum number of verification scale intervals (n_{max}).

Note: In all cases, the maximum capacity (Max) and the value of the scale interval(s) for which the device is certified must be located near the weight display, as required by the Specifications.

Newly installed or reinstalled weighing devices must comply with all installation requirements prescribed by the Specifications. Weighing devices, whether the model has been sold before or after March 2, 1998, must be configured in terms of the minimum and maximum number of scale intervals and the value of the verification scale interval, in compliance with the Specifications and the limitations prescribed in the Notice of Approval.

3.4 Configuration and limits of error applicable to weighing devices whose indicating elements bear a dual-class designation

Usually, indicating elements are approved separately and tested for their compliance to Class III and Class III HD requirements and, as such, can be marked with a dual-class designation. These indicating elements are designed for devices of small and medium capacity as well as large capacity scales.

When a weighing device is equipped with an indicating element marked with a dual-class designation (Class III/III HD), the characteristics of the weighing element will be used to establish the class of the device and the limits of error to apply. For example, a weighing device equipped with an indicating element marked Class III/III HD and a Class III weighing element, will be considered a Class III device and Class III limits of error will apply. The obliteration of the III HD portion of the marking is not necessary.

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3.5 Application of Class III limits of error to vehicle scales, hopper scales and railroad scales used exclusively to weigh gravel, land fill and other raw materials for road construction

Class III limits of error only apply to scales in this category that meet the following criteria:

- (a) the scale is marked with the Class III designation;
- (b) the scale is configured in compliance with the minimum (100) and maximum (1,200) number of verification scale intervals for a Class III device; and
- (c) the scale is used exclusively to weigh gravel, land fill or other raw materials for road construction.

In all other cases, Class III HD limits of error apply.

3.6 Scales used to weigh precious metals and commodities of comparable value

As indicated in section 3.2, Class II devices are required for weighing precious metals and commodities of comparable value. For the purposes of calculating the number of scale intervals and the applicable limit of error for some of these devices, the second last digit will be considered as the verification scale interval (e) when the following conditions exist:

- (a) the device was approved before March 2, 1998, or was examined and certified compliant prior to December 31, 1981, as required by paragraph 4(1)(n) of the *Weights and Measures Regulations*;
- (b) the device makes no distinction between the verification scale interval and the actual scale interval (e=d); and
- (c) the finest scale interval is 1 mg.

This means that a 100 g x 0.001 g scale approved March 2, 1998, that makes no distinction between “e” and “d”, will be considered as having a 0.01 g verification scale interval for the purposes of establishing the applicable limits of error.

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4.0 Revisions

Effective date of the original issue of this bulletin: 1998-02-11.

4.1 The purpose of revision 1 (1998-09-24) was to:

(a) update the marking requirements in section 3.3 to reflect those found in bulletin M-08 (rev. 1); and

(b) make minor revisions to the text.

4.2 The purpose of revision 2 (1999-09-07) was to add provisions for scales used to weigh precious metals and commodities of comparable value (section 3.6).

4.3 The purpose of revision 3 (2006-04-01) was to:

(a) add references to the amendment made to subsection 2(2) to the Specifications, which refers to June 15, 1998, as the day on which the Specifications came into force, as well as to state the official title of the Specifications; and

(b) clarify the expression "effective date of the Specifications" wherever it occurs in the bulletin.

4.4 The purpose of this revision is to:

(a) eliminate any misunderstanding about the effective date of the Specifications, which is March 2, 1998; and

(b) replace "inspection" with "examination" in order to maintain consistency with the terminology now used in the Act and the Regulations, and make minor revisions to the text.