

Applicable Tolerances on Devices After Rejection and Corrective Service

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 [NIST Handbook 44 \(Sec. 1.10 General Code G-T.1. \(C\), Definition - Metrological Integrity\)](#)

Background

What constitutes corrective service of a device? What is official rejection?

NIST HB 44, G-T.1. Acceptance Tolerance - Acceptance tolerances shall apply to:

- (c) Equipment that has been returned to commercial service following official rejection for failure to conform to performance requirements and is being officially tested for the first time within 30 days after corrective service.

NIST HB 44 Definitions: Metrological Integrity (of a device) - The design, features, operation, installation, or use of a device that facilitates:

- (1) The accuracy and validity of a measurement or transaction,
- (2) Compliance of the device with weights and measures requirements, or
- (3) The suitability of the device for a given application. [1.10, 2.20] (Added 1993)

Code Interpretation

Official rejection means the device has been found upon inspection to be not in compliance with specifications and or tolerances, in which case the inspector /sealer would mark their report as either incorrect or rejected for failure to meet those requirements.

The acceptance tolerance should be applied when a service has been performed on the device that affects its metrological integrity, if tested within 30 days of service and after official rejection. Metrological integrity is defined in NIST HB 44 and is restated above.

For example, the acceptance tolerance would be applied to a device when an inspector is re-inspecting a device within 30 days after a service company had re-calibrated the device. Likewise, if the inspector is routinely inspecting the same device after a rebuilt or new meter was installed within 30 days of the inspection, acceptance tolerance would be applied. Applying acceptance tolerances include, but are not limited to, the above examples.

Maintenance tolerance would be applied during an official inspection, even with the knowledge that a service company was there within the last 30 days and performed routine maintenance. Furthermore, it would be incorrect to apply the acceptance tolerance when re-inspecting after corrective service, if that service did not affect the metrological integrity of the device. **IN THESE TWO INSTANCES MAINTENANCE TOLERANCE WOULD BE APPLIED.**