The following tables contain lists of existing NIST Handbook 44 paragraphs with approaching retroactive or nonretroactive enforcement dates or recently adopted requirements that are enforceable as of January 1, 2009. These requirements may require action by device manufacturers, owners/operators, or regulatory officials. This information is provided to alert interested parties to upcoming Handbook 44 requirements. Requirements in the tables may be paraphrased; therefore, the latest edition of Handbook 44 should be consulted for the complete text. Codes that were amended to provide greater clarity or make other editorial changes are not included in this information. A complete report of changes to the handbook is published annually in the Report of the National Conference on Weights and Measures. Changes to requirements are also referenced in the amendments table in each edition of Handbook 44. It is recommended that you contact the statutory authority in your weights and measures jurisdiction for specific details on the enforcement of these code requirements.

Retroactive requirements apply to *all* equipment in commercial service prior to, and in use at any time on or after, the enforcement date. Nonretroactive requirements are enforceable for equipment: (1) manufactured, (2) new and used brought into a jurisdiction, and (3) previously in noncommercial use, then placed into commercial use *after* the effective date. Note: Paragraphs designated with a bracketed superscript number one [[1]] include multiple requirements with various enforcement dates.

NIST Handbook 44 Codes (With Approaching Retroactive and Nonretroactive Enforcement Date)			
Code	**Paragraph**	**Requirement**	**Effective Date**
2.20 General Code	**G-S.8.1. Multiple Weighing or Measuring Elements that Share a Common Provision for Sealing**	**A change to any metrological parameter (calibration or configuration) of any weighing or measuring element shall be individually identified.** **Note: For devices that utilize an electronic form of sealing, in addition to the requirements in G-S.8.1., any appropriate audit trail requirements in an applicable specific device code also apply. Examples of identification of a change to the metrological parameters of a weighing or measuring element include, but are not limited to:** **(1) a broken, missing, or replaced physical seal on an individual weighing, measuring, or indicating element or active junction box;** **(2) a change in a calibration factor or configuration setting for each weighing or measuring element;** **(3) a display of the date of calibration or configuration event for each weighing or measuring element; or** **(4) counters indicating the number of calibration and/or configuration events for each weighing or measuring element.**	**Nonretroactive as of January 1, 2010**
2.20 Scales	**S.2.1.5. Initial Zero-Setting Mechanism**	**Scales of accuracy Classes I, II, and III may be equipped with an initial zero-setting device.** **For indicating elements not permanently attached to weighing and load-**	**Nonretroactive as of January 1, 2009**

NIST Handbook 44 Codes (With Approaching Retroactive and Nonretroactive Enforcement Date)			
Code	**Paragraph**	**Requirement**	**Effective Date**
		receiving elements covered on a separate CC, the maximum initial zero-setting mechanism range of electronic indicators shall not exceed 20 % of the configured capacity.	
3.31 Vehicle-Tank Meters	**S.5.7. Meter Size**	**Except for milk meters, if the meter model identifier does not provide a link to the meter size (in terms of pipe diameter) on an NTEP Certificate of Conformance, the meter shall be marked to show meter size.**	**Nonretroactive as of January 1, 2009**

NIST Handbook 44 Codes Newly Adopted or Recently Modified (Applicable to All Equipment Effective January 1, 2009)				
Code	**Paragraph**	**Requirement**	**New or Modified Requirement**	**Effective Date**
1.10. General Code	**G-A.1. Commercial and Law-Enforcement Equipment**	**Composition (limited to meat and poultry) and constituent value (limited to grain) were added to the list of various applications in subparagraph (2) that define use of commercial weighing and measuring equipment and the application of NIST Handbook 44 requirements.**	**Modified paragraph**	**Applies to all equipment on January 1, 2009**
2.20. Scales Code	**S.1.1.1. Digital Indicating Elements**	**A "center-of-zero" indication may operate when zero is indicated for gross and/or net mode(s).** **Applies to equipment in use on or after January 1, 1993**	**Modified paragraph**	**Applies to all equipment on January 1, 2009**
2.20 Scales	**S.1.2.1. Weight Units**	**A new note was added to recognize the display and printing of net weight values in divisions other than the value of the scale division used in the display of gross weight on a multiple range or multi-interval scale. The note was added to permit net weight indications to be displayed and recorded in values other than 1, 2, or 5 (or a decimal multiple or submultiple of these values) in instances where the value of the scale division of a gross weight is different from the value of scale division of the tare weight.** **Applies to equipment in use as of January 1, 1989**	**Modified paragraph**	**Applies to all equipment on January 1, 2009**
2.20 Scales	**S.2.3. Tare**	**Exempts multi-interval scales and multiple range scales from having to comply with the requirement that a tare value be equal to the scale division value in instances where the value of tare is determined in a lower weighing range or weighing segment.**	**Modified paragraph**	**Applies to all equipment on January 1, 2009**
2.20 Scales	**T.N. 2.1. General**	**Paragraph modified in connection with the changes that were also made to Scales code paragraphs S.1.2.1. Weight Units and S.2.3. Tare to denote that when tare is in use, tolerance values apply to the net weight indication for any possible tare load using certified test loads.**	**Modified paragraph**	**Applies to all equipment on January 1, 2009**

NIST Handbook 44 Codes Newly Adopted or Recently Modified (Applicable to All Equipment Effective January 1, 2009)				
Code	**Paragraph**	**Requirement**	**New or Modified Requirement**	**Effective Date**
2.20 Scales	**S.2.1.5. Initial Zero-Setting Mechanism**	**Scales of accuracy Classes I, II, and III may be equipped with an initial zero-setting mechanism.** **Paragraph modification limits the maximum range of an initial zero-setting mechanism of electronic indicators not permanently attached to weighing and load-receiving elements or covered by a separate CC to 20% of configured capacity.** **Applies to equipment in use as of January 1, 2009**	**Modified paragraph**	**Applies to all equipment on January 1, 2009**
2.20 Scales	**S.2.4. Level Indicating Means**	**A portable scale (except for portable wheel-load weighers and portable axle-load scales) shall be equipped with a level indicating means if weighing performance is changed by and amount greater than the appropriate acceptance tolerance when it is tilted up to and including 5 % rise over run in any direction from a level position and rebalanced.**	**Modified requirement**	**Applies to all equipment on January 1, 2009**
2.20 Scales	**S.2.4.1. Vehicle On-Board Weighing Systems**	**A vehicle on-board weighing system shall operate within tolerance when the weighing system is tilted up to and including 5 % rise over run in any direction from a level position and rebalanced. If the accuracy of the system is affected by out-of-level conditions normal to the use of the device, the system shall be equipped with an out-of-level sensor that inhibits the weighing operation when the system is out of level to the extent that the accuracy limits are exceeded.**	**Modified requirement**	**Applies to all equipment on January 1, 2009**

NIST Handbook 44 Codes Newly Adopted or Recently Modified (Applicable to All Equipment Effective January 1, 2009)				
Code	**Paragraph**	**Requirement**	**New or Modified Requirement**	**Effective Date**
2.21 Belt-Conveyor Scale Systems	**N.2.3. Minimum Test Load**	**Except for applications where a normal weighment is less than 10 minutes, the minimum test load shall not be less than the largest of the following values.** **(a) 800 scale divisions,** **(b) the load obtained at maximum flow rate in one revolution of the belt, or** **(c) at least 10 minutes of operation.** **For applications where a normal weighment is less than 10 minutes (e.g., belt-conveyor scale systems used exclusively to issue net weights for material conveyed by individual vehicles and railway track cars) the minimum test load shall be the normal weighment that also complies with (a) and (b).** **The official with statutory authority may determine that a smaller minimum totalized load down to 2 % of the load totalized in 1 hour at the maximum flow rate may be used for subsequent tests provided that:** **1. the smaller minimum totalized load is greater than the quantities specified in (a) or (b), and** **2. consecutive official testing with the minimum totalized loads described in N.2.3. (a), (b), or (c) and the smaller minimum test load has been conducted that demonstrates the system complies with applicable tolerances for repeatability, acceptance, and maintenance.**	**Modified requirement**	**Applies to all equipment on January 1, 2009**
2.21 Belt-Conveyor Scale Systems	**UR.2.2. Conveyor Installation**	**Paragraph UR.2.2. (n) Belt Alignment modified to provide additional clarification regarding the position of the belt in relation to the outermost rollers (top of belt) and the conveyor structure (bottom side of the conveyor) as follows:** **(n) Belt Alignment.- The belt shall not extend beyond the edge of the outermost roller of any carry side (top) roller in any area of the conveyor nor touch the conveyor structure on the return (bottom) side of the conveyor.**	**Modified requirement**	**Applies to all equipment on January 1, 2009**

NIST Handbook 44 Codes Newly Adopted or Recently Modified (Applicable to All Equipment Effective January 1, 2009)				
Code	**Paragraph**	**Requirement**	**New or Modified Requirement**	**Effective Date**
2.24. Automatic Weighing Systems	**S.1.2. Value of the Division Units**	**A new note was added to recognize the display and printing of net weight values in divisions other than the value of the scale division used in the display of gross weight on a multiple range or multi-interval scale. The note was added to permit net weight indications to be displayed and recorded in values other than 1, 2, or 5 (or a decimal multiple or submultiple of these values) in instances where the value of the scale division of a gross weight is different from the value of scale division of the tare weight.**	**Modified requirement**	**Applies to all equipment on January 1, 2009**
2.24. Automatic Weighing Systems	**S.2.2. Tare**	**Exempts multi-interval scales and multiple range scales from having to comply with the requirement that a tare value be equal to the scale division value in instances where the value of tare is determined in a lower weighing range or weighing segment.**	**Modified requirement**	**Applies to all equipment on January 1, 2009**
2.24. Automatic Weighing Systems	**T.2.1. General**	**Paragraph modified in connection with the changes that were also made to AWS code paragraphs S.1.2. Value of the Division Units and S.2.3. Tare to denote that when tare is in use, tolerance values apply to the net weight indication for any possible tare load using certified test loads.**	**Modified requirement**	**Applies to all equipment on January 1, 2009**
3.31 Vehicle-Tank Meters	**S.5.7. Meter Size**	**The following new paragraph was added to provide a positive method of determining meter size so that correct tolerances may be applied:** **Except for milk meters, if the meter model identifier does not provide a link to the meter size (in terms of pipe diameter) on an NTEP Certificate of Conformance, the meter shall be marked to show meter size.** **Applies to equipment in use on or after January 1, 2009**	**New paragraph**	**Applies to all equipment on January 1, 2009**

NIST Handbook 44 Codes Newly Adopted or Recently Modified (Applicable to All Equipment Effective January 1, 2009)				
Code	**Paragraph**	**Requirement**	**New or Modified Requirement**	**Effective Date**
3.36 Water Meters	**UR.2. Accessibility of Customer Indication**	**The following new paragraph was added to clearly define the space to be made available in front of the indication of a water meter to enable a customer to read the indication:** **An unobstructed standing space of at least 76 cm (30 in) wide, 91 cm (36 in) deep, and 198 cm (78 in) high shall be maintained in front of an indication intended for use by the customer to allow for reading the indicator. The customer indication shall be readily observable to a person located within the standing space without necessity of a separate tool or device.**	**New paragraph**	**Applies to all equipment on January 1, 2009**
5.58 Multiple Dimension Measuring Devices	**A.1. General**	**Two bullets were added to paragraph A.1. to further define the type of objects measured by a multiple dimension measuring device as follows:** **This code applies to dimension and volume measuring devices used for determining the dimensions and/or volume of objects for the purpose of calculating freight, storage, or postal charges based on the dimensions and/or volume occupied by the object. A multiple dimension measuring device:** **(a) is generally used to measure hexahedron-shaped objects; and** **(b) may be used to measure irregularly-shaped objects.**	**Modified paragraph**	**Applies to all equipment on January 1, 2009**
5.58 Multiple Dimension Measuring Devices	**Table S.4.1.b. Multiple Dimension Measuring Systems Notes for Table S.4.1.a**	**"Spacing" and "minimum protrusion size" were added to the list of items that are required to be marked as a limitation of use in accordance with Note 7 as follows:** **7. Materials, shapes, structures, combination of object dimensions, speed, spacing, minimum protrusion size, or object orientations that are inappropriate for the device or those that are appropriate.**	**Modified Note**	**Applies to all equipment on January 1, 2009**

NIST Handbook 44 Codes Newly Adopted or Recently Modified (Applicable to All Equipment Effective January 1, 2009)				
Code	**Paragraph**	**Requirement**	**New or Modified Requirement**	**Effective Date**
5.58 Multiple Dimension Measuring Devices	**S.1.5.2. Devices Capable of Measuring Irregularly-Shaped Objects**	**For devices capable of measuring irregularly shaped objects, the value of the division size (d) shall be the same for the length axis (x) and the width axis (y) and may be different for the height axis (z), provided that electronic rotation of the object to determine the smallest hexahedron is calculated in only a two-dimension horizontal plane, retaining the stable side plane as the bottom of the hexahedron.**	**New paragraph**	**Applies to all equipment on January 1, 2009**
5.58 Multiple Dimension Measuring Devices	**N.1.2.1. Irregularly-Shaped Test Object Placement**	**Irregularly-shaped test objects must be measured while placed on a stable side. The rotation of the object to determine the smallest hexahedron should be calculated in a two-dimensional plane, retaining the stable side plane as the bottom of the hexahedron.**	**New paragraph**	**Applies to all equipment on January 1, 2009**
5.58 Multiple Dimension Measuring Devices	**N.1.4.2. Irregularly-Shaped Test Objects**	**For irregularly-shaped test objects, at least one angle shall be obtuse and the smallest dimension for an axis shall be equal to or greater than the minimum dimension for that axis.**	**New paragraph**	**Applies to all equipment on January 1, 2009**
5.58 Multiple Dimension Measuring Devices	**N.1.4.3. Test Objects with Protrusions**	**If the device is marked with a minimum protrusion dimension to be measured, a test object with protrusion shall be used to verify the marked limitation during type evaluation.**	**New paragraph**	**Applies to all equipment on January 1, 2009**

NIST Handbook 44 Codes Newly Adopted or Recently Modified (Applicable to All Equipment Effective January 1, 2009)				
Code	**Paragraph**	**Requirement**	**New or Modified Requirement**	**Effective Date**
5.58 Multiple Dimension Measuring Devices	**UR.3.3. Object Placement**	**If the object being measured must be transported (e.g., shipped) on a stable side, that irregularly-shaped object must be measured while placed on that stable side. The electronic rotation of the object to determine the smallest hexahedron shall be calculated in a two-dimensional horizontal plane, retaining the stable side plane as the bottom of the hexahedron.**	**New paragraph**	**Applies to all equipment on January 1, 2008**
Appendix D - Definitions	**equipment, commercial**	**Weights, measures, and weighing and measuring devices, instruments, elements, and systems or portion thereof, used or employed in establishing the measurement or in computing any basic charge or payment for services rendered on the basis of weight or measure. As used in this definition, measurement includes the determination of size, quantity, value, extent, area, composition (limited to meat and poultry), constituent value (for grain), or measurement of quantities, things, produce, or articles for distribution or consumption, purchased, offered, or submitted for sale, hire, or award.[1.10, 2.20, 2.21, 2.22, 2.24, 3.30, 3.31, 3.32, 3.33, 3.34, 3.35, 3.38, 4.40, 5.51, 5.56.(a), 5.56.(b), 5.57, 5.58, 5.59]**	**New Definition**	**Applies to equipment in Sections 1.10, 2.20, 2.21, 2.22, 2.24, 3.30, 3.31, 3.32, 3.33, 3.34, 3.35, 3.38, 4.40, 5.51, 5.56.(a), 5.56.(b), 5.57, 5.58, and 5.59.**
Appendix D - Definitions	**hexahedron**	**A geometric solid (i.e., box) with six rectangular or square plane surfaces.[5.58]**	**New Definition**	**Applies to equipment in Section 5.58.**
Appendix D - Definitions	**irregularly-shaped object**	**Any object that is not a hexahedron shape.[5.58]**	**New Definition**	**Applies to equipment in Section 5.58.**