## Overview NIST Handbook 44 sections and OIML Recommendations for weighing instruments

| Instrument type  | NIST Handbook 44 section/Title |  | OIML Recommendation/Title |   | Remarks   |
|--|--------------------------------|--|---------------------------|---|---|
| Retail scale, laboratory scale                                   | 2.20                           | Scales   | R 76                      | Non-automatic weighing instruments  |   |
| Static weighing vehicle scale                                    | 2.20                           | Scales   | R 76                      | Non-automatic weighing instruments  |   |
| Weigh-in-motion vehicle scale for commercial application         | 2.20                           | Scales   | R 134                     | Automatic instruments for weighing road vehicles in motion and measuring axle loads |   |
| Weigh-in-motion vehicle scale for law enforcement application    | 2.25                           | Weigh-In-Motion Systems<br>Used for Vehicle<br>Enforcement Screening | R 134                     | Automatic instruments for weighing road vehicles in motion and measuring axle loads | section 2.25 is tentative and for vehicle screening purposes only |
| Coupled- and uncoupled-<br>in-motion railroad<br>weighing system | 2.20                           | Scales   | R 106                     | Automatic rail-weighbridges   |   |
| Livestock scale  | 2.20                           | Scales   | R 76                      | Non-automatic weighing instruments  |   |
| Dynamic monorail scale   | 2.20                           | Scales   | R 51                      | Automatic catchweighing instruments   |   |
| Forklift scale and front-end loader                              | 2.20                           | Scales   | R 51                      | Automatic catchweighing instruments   | No live weight indication   |
|  |                                |  | R 76                      | Non-automatic weighing instruments  | Live weight indication  |

| Instrument type  | NIST Handbook 44 section/Title  |                                    | OIML Recommendation/Title |  | Remarks   |  |  |
|--|---|------------------------------------|---------------------------|--|---|--|--|
| Belt conveyor scale and weigh-belt system for weighing bulk material | 2.21  | Belt-Conveyor Scale<br>Systems     | R 50                      | Continuous totalizing automatic weighing instruments (belt weighers).                              |   |  |  |
| Automatic multi draft hopper scale                                   | 2.22  | Automatic Bulk Weighing<br>Systems | R 107                     | Discontinuous totalizing automatic weighing instruments (totalizing hopper weighers)               | Batching scales do not fall under<br>Handbook 44, section 2.22  |  |  |
| Batching system  | A batching systems is not regarded as a single weighing instrument.  Each individual scale of a batching system is considered a separate weighing instrument and is subject to the applicable NIST HB 44 section and OIML recommendation. |                                    |                           |  |   |  |  |
| Non-automatic single draft hopper scale                              | 2.20  | Scales                             | R 76                      | Non-automatic weighing instruments   |   |  |  |
| Weigh labeler  | 2.24  | Automatic Weighing<br>Systems      | R 51                      | Automatic catchweighing instruments  | Category Y in OIML R 51   |  |  |
| Automatic checkweigher   | 2.24  | Automatic Weighing<br>Systems      | R 51                      | Automatic catchweighing instruments  | Category X in OIML R 51   |  |  |
| Automatic gravimetric filling instrument                             | 2.24  | Automatic Weighing<br>Systems      | R 61                      | Automatic gravimetric filling instruments  |   |  |  |
| Load cells   | 2.20  | Scales                             | R 60                      | Metrological regulation for load cells   |   |  |  |
| Weights as part of/in combination with a weighing instrument         | 2.23  | Weights                            | R 111                     | Weights of classes $E_1$ , $E_2$ , $F_1$ , $F_2$ , $M_1$ , $M_{1-2}$ , $M_2$ , $M_{2-3}$ and $M_3$ | Class M <sub>1</sub> , M <sub>1-2</sub> , M <sub>2</sub> , M <sub>2-3</sub> and M <sub>3</sub> in OIML R 111 for use with a class III weighing instrument |  |  |
| Arched chute weighers  | Not covered by NIST HB 44   |                                    | R 150                     | Continuous totalizing automatic weighing instruments of the arched chute type                      |   |  |  |

## Overview other NIST standards and OIML Recommendations for weighing applications

| Application  | NIST standard   | OIML F | Recommendation/Title   | Remarks |
|--------------|---|--------|--|---------|
| Test weights | Handbook 105-1, Specifications and<br>Tolerances for Field Standard Weights | R 111  | Weights of classes $E_1$ , $E_2$ , $F_1$ , $F_2$ , $M_1$ , $M_{1-2}$ , $M_2$ , $M_{2-3}$ and $M_3$ |         |
| Net contents | Handbook 133, Checking the Net<br>Contents of Packaged Goods                | R 87   | Quantity of product in prepackages   |         |