

Developing Standards for Commercial Electric Vehicle Fueling and Submetering

**National Institute of
Standards and Technology
(NIST)**

Office of Weights and Measures
(OWM)

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Regulation of “Commercial” Weighing and Measuring Devices in the U.S.

- “Commercial” devices are devices used to make measurements on which a payment will be based for goods or services
- There is no Federal regulation of commercial weighing and measuring devices except for USDA

Weights and Measures Regulation in the U.S.

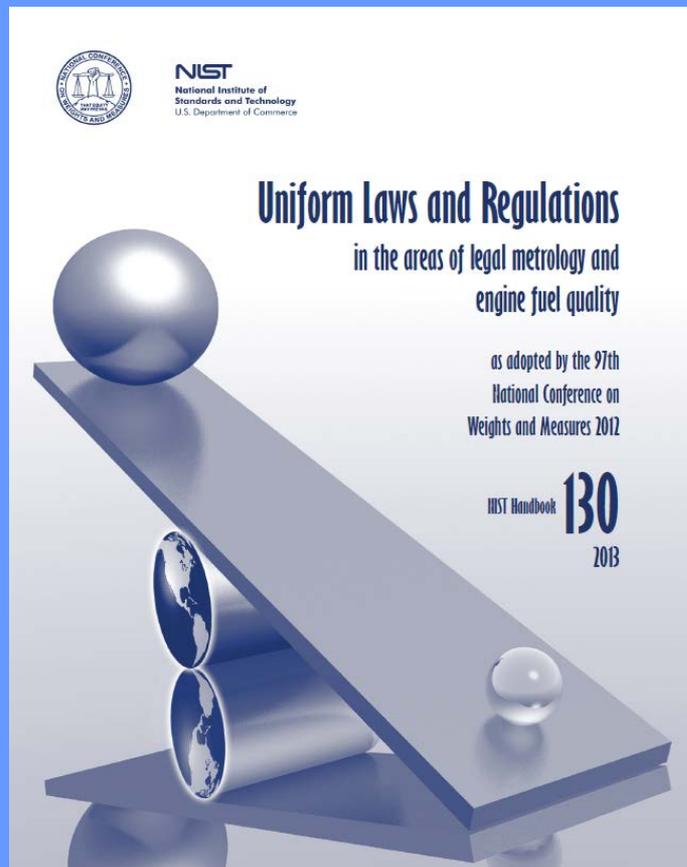
- Weights and measures regulations for devices are implemented at the State and local government level
 - Model method-of-sale requirements specified in NIST Handbook 130
 - Verify accuracy/maintenance of devices per NIST Handbook 44
- Goal of weights and measures requirements
 - Ensure consumers get what they pay for
 - Ensure businesses receive fair payment for what they sell
 - Ensure a level playing field for businesses competing in the marketplace

NIST Office of Weights and Measures (OWM) Role



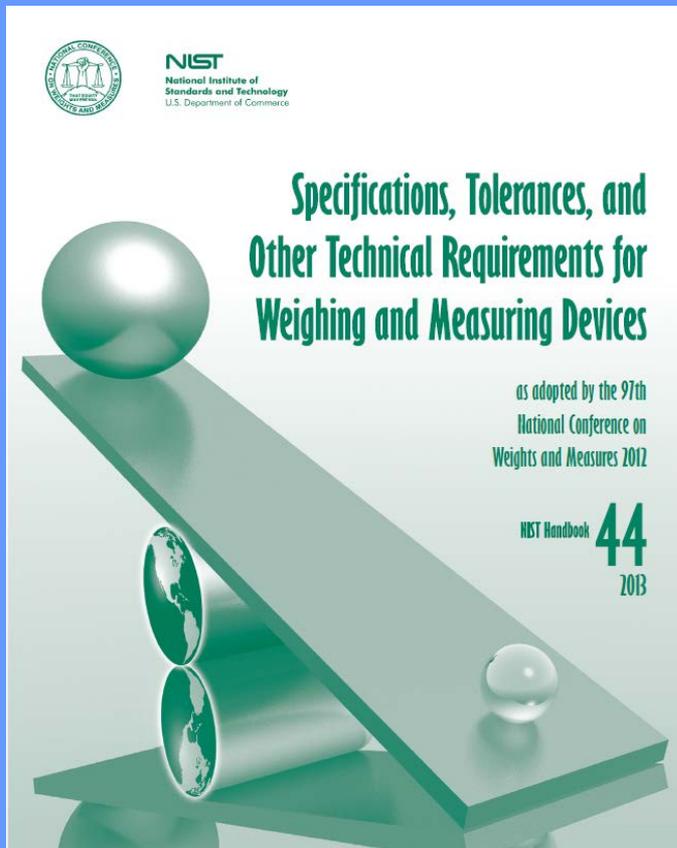
- To achieve uniformity in weights and measures standards and practices and provide traceability to U. S. national standards
- NIST is not a regulatory authority
- NIST OWM encourages uniformity among state and local jurisdictions
 - State laboratory program (metrology labs)
 - Device requirements (NIST Handbook 44)
 - Method-of-sale requirements and device labeling requirements (NIST Handbook 130)
 - Test procedures (NIST Examination Procedure Outlines)
 - Training

NIST Handbook 130 (HB 130) Uniform Laws and Regulations



- Published by NIST
 - Product of the weights and measures community
- Developed through the National Conference on Weights and Measures (NCWM)
 - Laws and Regulations (L&R) Committee responsible for considering proposed changes
 - Input from industry, regulatory officials, consumers
 - Available on NIST OWM website: <http://www.nist.gov/pml/wmd/pubs/hb130-13.cfm>
 - Hardcopy provided to NCWM members

NIST Handbook 44 (HB 44) Requirements for Devices



- Published by NIST
 - Product of the weights and measures community
- Developed through the National Conference on Weights and Measures (NCWM)
 - Specifications and Tolerances (S&T) Committee responsible for considering proposed changes
 - Input from industry, regulatory officials, consumers
 - Available on NIST OWM website: <http://www.nist.gov/pml/wmd/pubs/h44-13.cfm>
 - Hardcopy provided to NCWM members

Weights and Measures Community Needs

- Increase in calls to NIST OWM for assistance in regulating the growing number of commercial EVSE devices
 - Documentary standards for devices and method-of-sale
 - Test procedures
 - Training
- Uniform policies and standards are needed to ensure:
 - Value comparisons by consumers
 - Fair competition among fueling stations
 - Consistent weights and measures inspection/testing of devices

U.S. National Work Group (USNWG) on Measuring Systems for Electric Vehicle Fueling and Submetering (EVF&S)

- Established August 7, 2012 by NIST
 - Federal Register Notice issued
- First meeting August 29, 2012 teleconference
- Next meeting January 15-17, 2013 at NIST in Gaithersburg, MD
- 50 members
 - Represents industry, weights and measures officials, and consumers
 - Includes observers

USNWG EVF&S Tasks

- Develop a Proposed Change to NIST Handbook 130 (HB 130) Model Method-of-Sale Regulation to Address Electricity as Vehicle Fuel
 - NCWM L&R committee has a “Developing” item in process
- Develop a Proposed Change to NIST Handbook 44 (HB 44) to Address Electricity Measuring Devices
 - No code to address electric meters
 - Timing devices code exists, but may need enhancements to address EVSE
- Develop NIST Examination Procedure Outline (EPO) for Electricity Measuring Devices
- Develop and Implement Training for W&M Officials and Service Companies
- Promote Alignment of U.S. Standards with Relevant International Standards

Questions – OWM Technical Contact

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NIST

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NIST OWM Web Site:

<http://www.nist.gov/pml/wmd/index.cfm>

NIST Publications:

HB 44: <http://www.nist.gov/pml/wmd/pubs/h44-13.cfm>

HB 130: <http://www.nist.gov/pml/wmd/pubs/hb130-13.cfm>