

Upcoming Changes to NIST HB 143

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The Laboratory Metrology Program is happy to announce the availability of the draft NIST Handbook (HB) 143:2018, *State Weights and Measures Laboratories Program Handbook*. When finalized, it will establish the general requirements under which OWM operates the recognition program for State legal metrology laboratories. Familiarity with upcoming changes are important because participating laboratories will incorporate the criteria in their quality management and technical systems that govern operations.

NIST HB 143, first published in 1985, has been updated multiple times over the years to keep step with international standards and best practices. In this revision, OWM will adopt ISO/IEC 17025:2017 and the technical requirements in NIST HB 150-2 Annexes.

Highlighted Changes

Major reorganization and updates have been made in the draft NIST HB 143:2018. When published, the new edition will supersede the 2007 edition. Editorial updates and clarifications have been made to ensure continued acceptance of State legal metrology laboratory measurement results and to consistency with the National Voluntary Laboratory Accreditation Program (NVLAP) and other accreditation bodies. Proposed changes that will impact laboratory recognition include:

- To effectively implement NIST HB 143:2018, each State legal metrology laboratory will be required to purchase an official copy of ISO/IEC 17025:2017.
- By submitting a *Recognition Application* (formerly known as Appendix B-D), the organization will agree to comply with all Program Handbook requirements. *Recognition Applications* will be accepted annually between October 1 and November 1. The deadline will be November 1.
- Refinements have been made to Sections 2 (General Information and Operational Requirements) and 3 (Recognition Process), which include policy and procedure information. Added emphasis has been placed on authorized representative(s) responsibility to respond in writing to an OWM onsite assessment within 30 days of receiving a final report.
- Section 2 now includes multiple requirements for laboratories that are concurrently recognized by OWM and accredited by NVLAP. Requirements related to the application for accreditation, adjustment of an accreditation scope, and the annual submission of NVLAP assessment letters and reports to OWM. Section 2 also describes how OWM considers requests for the recognition of remote facilities.
- Section 2 reinforces that each recognized laboratory is required to maintain an organizational chart and a quality manual that implements the requirements of ISO/IEC 17025:2017 and the recognition program.
- Section 3 now describes the recognition scoring model, which is used by OWM as a program quality index.
- The nature of *Conditional* (limited) recognition has been clarified throughout the Program Handbook to emphasize the restricted nature of the rarely used level. For instance, a *Conditionally* (limited) recognized laboratory will be required to communicate their restricted status to customers during the contract review process and prominently display a statement on all calibration certificates that “*Conditional* (limited) recognition only meets legal weights and measures requirements within this state (or jurisdiction).”
- Table 1 (Recognition Submission Requirements) and Table 2 (Training Requirements) are included as examples because they are periodically updated. Current versions will be maintained on the OWM website (www.nist.gov/labmetrology). The flow chart that illustrates major steps of the recognition process, has been updated (Figure 1).

- Sections 4 (Management), Section 5 (Technical), which contained the requirements of ISO/IEC 17025:2005, were eliminated and replaced with a reference to ISO/IEC 17025:2017. The related Appendix C (Checklist) has also been removed.
- Section 6 (Technical Guidelines) was eliminated and replaced with reference to the technical requirements published in NIST HB 150-2 Annexes for legal metrology, mass, and volume. Section 4 (OWM Supplemental Requirements) elaborates on program requirements.
- Section 7 (References) and Section 8 (Glossary) have been incorporated in Section 1 (Program Summary).
- Appendix A (List of NIST Services) has been revised to focus on only OWM services.
- Appendix B (Request for Recognition) and D (Summary of Services) have been replaced with a *Recognition Application* form that is available online (www.nist.gov/labmetrology).
- Appendix B (Recognition Parameter Summary) now contains an updated table of legal metrology recognition measurement parameters.
- Appendix C (Laboratory Assessment Checklist) has been eliminated and will be replaced with an Internal Audit job aid that will be made available online (www.nist.gov/labmetrology).
- Appendix E (Uncertainties) has been eliminated. Laboratories will now submit their measurement scope, including parameters, ranges, uncertainties, and methods to OWM in a separate file that is submitted along with each annual *Recognition Application*.

Most OWM recognition processes remain unchanged. The timing of recognition decisions and feedback will continue to be provided to “complete and on time” applicant laboratories between November 1 and December 31. *Certificate of Metrological Traceability* effective dates will continue to cover periods that typically begin on January 1 and expiring on December 31, based on the recognition level.

Opportunity to Submit Online Feedback

OWM encourages all State legal metrology laboratory personnel, authorized representatives, and other parties impacted by the recognition program to carefully review the draft HB 143:2018 and provide feedback. Recognition criteria is shaped through the feedback received. When submitting your comments, please provide justification and propose an alternative language suggestion, as appropriate.

Online feedback is being accepted between April 2018 through October 12, 2018 via the **OWM Contact System** (tsapps.nist.gov/WMD/default.aspx). The draft publication may be download from the OWM Contacts System or the NIST Handbooks publications webpage (<https://www.nist.gov/pml/weights-and-measures/publications/nist-handbooks>).

If you are a new user of the OWM Contacts System, first you must establish an account. The **Quick Guide for OWM Contacts System** describes the account registration steps and provides helpful instructions for establishing an account (www.nist.gov/sites/default/files/documents/2016/09/07/Quick-Guide-for-Requesting-Training.pdf). For those with a user account, log into the OWM Contact System and go to *My Items*. Then press the button *Request an Item* (this is located before the list of any previous requests you have made). Select the item and then press the *Download* button.

After logging in, follow these steps to submit your comments:

- Select *My Comments* from the menu bar (4th item in from the left).
- Select *Submit a Comment* radio button that is above any lists of comments you may have previously entered.

- Select the draft document title from the list.
- Enter your Section, Page, and Comment.
- Press *Continue*.
- Review your submission and press *Edit* or *Submit*.

The OWM Laboratory Metrology Program is here to help all State legal metrology laboratories achieve and maintain recognition. Please feel free to share your recognition questions. OWM staff contacts can be found at the online directory (www.nist.gov/pml/weights-and-measures/about-owm/staff-and-technical-experts-directory).