



March 12, 2021

MEMORANDUM FOR: State Laboratory Metrologists and Laboratory Authorized  
Representatives

From: Micheal Hicks, Laboratory Metrology Program  
Office of Weights and Measures

Subjects: OWM Training Requirements

The OWM Recognition program follows requirements published in NIST Handbook 143, Program Handbook. Training requirements are referenced in Table 2 of Handbook 143 (see attachment of updated version). In the 2019 version of Handbook 143, Table 2 was inadvertently published with the footnotes from the 2007 version omitted. The attached Table 2 has been corrected to include the clarifying footnotes regarding the Legal Metrology designation, which is intended for laboratories in Conditional Recognition status only. The table has also been updated to reflect the waiver process for staff to achieve Conditional Signatory Status that was developed in 2020 due to the COVID-19 pandemic. OWM anticipates that upon rare occasions of unplanned staff loss, the waiver process may continue to be useful to weights and measures programs post-pandemic.

Some confusion has remained about who needs to comply with which requirements, how to evaluate compliance in the laboratory's Quality Management System, and how to ensure that job descriptions, hiring, probation, and promotion requirements are met.

Requirements for successful completion of training and Laboratory Auditing Program (LAP) problems are only *one* part of the OWM proficiency and competency evaluations. Additional evaluations may include, but are not limited to, the evaluation of any or all of the following: proficiency tests, quality of annual submission materials including quality and technical audits, on-site observations of calibrations, review of calibration certificates, evidence of training implementation, and ongoing monitoring of competency.

Please consider the following guidance in updating laboratory and personnel related documents. Note that staff *must* complete these requirements (and those noted above) for OWM to recognize them as an Approved Signatory for the laboratory.

1. Metrologists who successfully completed the pre-2011 Basic Metrology Seminar (2 weeks) and Intermediate Metrology Seminar (1 week) AND the corresponding LAP Problems will be considered to have successfully completed requirements for laboratory Recognition, including recognition for Mass Echelon II and Gravimetric Volume (Echelon I) calibrations. LAP Problems for these courses must have been successfully completed no later than December 31, 2015.
2. After 2011, metrologists must successfully complete the following "core" courses and the Fundamentals of Metrology LAP Problems to achieve the same level of full

Recognition as the former Basic and Intermediate Metrology Seminars: Fundamentals of Metrology, Mass Metrology, and Volume Metrology. Fundamentals of Metrology LAP problems are due within one year of seminar completion or additional refresher training will be required.

3. Any metrologist who has successfully completed the series of three core courses and associated LAP problems noted in items 1 or 2 must maintain proficiency through ongoing/regular work in the laboratory and through completion of applicable proficiency tests or additional refresher training will be required.
4. Metrologists must have additional records (i.e., evidence) for completing training in any area of the laboratory Scope that is outside the courses noted in items 1 and 2 above. This includes the following measurement areas: Advanced Mass, thermometry, stopwatches or other timing devices, length, LPG provers, small volume provers (compact displacement provers or closed loop provers), tuning forks, watt-hour meters, and so on. Advanced Mass LAP problems must be completed within two years of completing the seminar or additional refresher training will be required.

OWM is hoping to resume the in-person training seminars in August at the NIST campus in Gaithersburg, MD. This decision is contingent on when NIST will permit visitors and staff onto campus at regular capacity. OWM apologizes for the inconvenience and asks all laboratory management to continue to understand the limitations placed on the training program due to the pandemic. All laboratories should continue to take advantage of the Conditional Approved Signatory program and the Fundamentals and LAP problems Preparation online course. This online course is for new staff and those interested in refresher training. The course will be held this summer and possibly in the fall. Metrologists interested in this course or any of the postponed seminars should put in a request for training in the NIST OWM Contacts Management System. In addition, the Laboratory Administration Workshop is a strongly recommended seminar offered by the OWM training program and may be considered a “core” requirement of the program in the future based on numerous recommendations. OWM is in the process of planning the development of the Administration Workshop as an online semester course for late Fall this year. The online version of this course will replace the in-person seminar.