



August 7, 2019

MEMORANDUM FOR: RMAP Participants and Laboratory Directors

From: Douglas Olson, Chief
Office of Weights and Measures

Subjects: 2020 Regional Measurement Assurance Programs (RMAP) Training

2020 Regional Measurement Assurance Program (RMAP) Training

Handbook 143, Program Handbook (2019) details the criteria used for OWM Laboratory Recognition. NIST Handbook 143, Section 4 and Table 2 notes that annual attendance at the RMAP training session is required for ongoing laboratory Recognition. Participation in OWM proficiency tests (PTs) requires completion of training requirements to the applicable levels for each procedure and requires attendance at the annual RMAP training sessions.

The 2020 Regional Measurement Assurance Program (RMAP) training events are scheduled as noted in the table below. Training topics (see attached detailed agenda and abstracts) are selected based on annual needs assessments; input is obtained during laboratory assessments, annual reviews of submitted data, laboratory requests, and input at prior regional training events.

Schedules and Locations:

The schedule, location, and contact host for each of the RMAP training is listed below. The agenda and detailed learning objectives are in the following sections. NIST will provide training content. Local hosts will provide details on hotel and local registration logistics as each training event approaches.

Region	Dates	City, State (City may change)	Host Contact
CaMAP	See separate Training Event(s) on OWM Training Calendar if applicable		
SEMAP	3/23 to 3/26, 2020	Frankfort, KY	Zach Waller Zach.Waller@ky.gov (502) 573-0282
WRAP	5/4 to 5/7, 2020	Sparks, NV	James Kellames jkellames@agri.nv.gov (775) 353-3788
NEMAP	9/14 to 9/17, 2020	Hartford, CT	Ana Maria Feliciano Ana.Feliciano@ct.gov (860) 713-6165
SWAP	9/28 to 10/1, 2020	Las Cruces, NM	Clay Ivey civey@nmda.nmsu.edu (575) 646-1551
MidMAP	10/5 to 10/8, 2020	Indianapolis, IN	Howard Wickersham HWickersham@isdh.in.gov (317) 356-7078

Registration:

TWO registrations are required for each event (one with OWM and one with the HOST). The OWM Contact System is used to generate attendee registration lists, name tags/tent cards, adequate training materials, and training certificates. The registration list is shared with each host. *Registration fees* for the RMAP training are determined by the local hosts. Every effort is made to keep registration fees to a minimum. Specific details about registration will be sent with information for each RMAP.

Agenda at a Glance

Sessions will be held from 8:30 am to 5:00 pm each day. Successful completion requires full attendance and participation in group activities. If any participants leave early, attendance certificates will be adjusted accordingly.

Monday	Tuesday	Wednesday	Thursday
Implementing the New ISO/IEC 17025 Standard: Internal Audits and Guidance for Resolving Potential Nonconformities <i>(Meeting November 2020 Deadlines)</i>	Laboratory Round Table <i>(Lab Reports)</i>	Implementing the new Handbook 105-1 (2019) <i>(Includes ASTM E617, OIML R111, and NIST Handbook 44 weight requirements and Associated Applications)</i>	Laboratory Technical Management – Special Topics
Lunch	Lunch	Lunch	Lunch
RMAP PT Presentations PT Reporting and Planning	NCSLI Workload Survey Report Lab Visit and Assessment	Software V&V for Lab Spreadsheets: NISTIR 8250, GLP 15 <i>(Bring your own SOP spreadsheets for evaluations and peer evaluations; OWM to identify top non-conformities and action needed from prior reviews)</i>	Laboratory Technical Management – Special Topics

Abstracts and Learning Objectives

Implementing the New ISO/IEC 17025 Standard: Internal Audits and Resolving Potential Nonconformities (*OWM Objective: Helping labs meet the November 2020 deadlines*). The updated Handbook 143, State Weights and Measures Laboratories Program Handbook, was published in 2019. Laboratories have been advised that the deadline for compliance is November 2020. Reviews of internal audits and supplementary management reviews during the 2019 OWM annual submission will identify top non-conformities and provide recommended guidance to help laboratories comply with the new Handbook and standard by the deadlines. Learning Objectives: After this session, using the standard, case studies, and tools provided, participants will be able to IDENTIFY potential non-conformities that may impact their laboratory and DESCRIBE action items they can take to ensure compliance with the new standard. Training to be provided by OWM staff, participants from accredited laboratories, and OWM instructors/teaching assistants.

Note: Laboratories must bring a copy of their ISO/IEC 17025:2017 standard.

RMAP PT Presentations, PT Reporting and Planning. This session will cover the annual reporting on PTs and planning for the next cycle. (*OWM Objective: Ensure compliance with the NIST Policy and Plan (NISTIR 7082 and HB 143).*) Each regional group is responsible for updating their 4-year PT plan with input from OWM. Regional participants will prepare draft reports and analysis prior to the training sessions. Final PT analyses and reports are prepared by OWM prior to the meeting. Each new coordinator is responsible for developing a PT Plan with inputs from participants and OWM to identify suitable objectives and to identify appropriate standards to be circulated. Learning Objectives: After this session, using the PT Plan, PT reports, and OWM PT Policy, participants will be able to IDENTIFY upcoming PTs for their laboratory and DESCRIBE action items they need to take to follow up prior PT results. Session to be facilitated by OWM staff, regional PT coordinators, and PT coordinators.

Laboratory Round Table (Lab Reports). Ongoing standard reporting of sections 6.2, 6.3, 6.4, 6.5, in the ISO/IEC 17025 standard plus reporting on accreditation, economics, and any measurement issues that come up. Learning Objectives: After this session, participants will be able to IDENTIFY general issues facing laboratories within their region, DESCRIBE action items they may want to take based on sharing and feedback during this session. OWM staff will facilitate this session and be able to IDENTIFY unique issues that may require national-level coordination or assistance.

NCSLI 2018 Workload Survey Report. The 2018 report was prepared with the help of the members of the NCSL International Committee 156 - Legal Metrology Committee. During this session, the compiled data will be reviewed and any significant changes will be discussed. Plans will also be presented to gather the 2020 Workload Survey data. This will provide opportunity to review any data collection issues observed during the process of gathering the 2018 data and to plan changes to be made for the 2020 data collection cycle. Participants will identify and discuss ways that prior Workload Survey data has been useful for their organization. Learning Objectives: After this session, participants will be better able to IDENTIFY and APPLY the data presented for management of their own laboratories. Session to be facilitated by OWM staff.

Laboratory Visit/Assessment. (*OWM Objectives: provide opportunities for staff to visit laboratories and participants to gain critical evaluation skills in observing facilities and practices in other laboratories.*) Participants will be provided explicit guidance to observe specific laboratory components and identify at least one best practice or idea to implement in their own lab and/or to share with the host. Learning Objectives: After this session, participants will be able to IDENTIFY best practices and opportunities for improvement in laboratory facilities. Session will be facilitated by OWM staff and participants who have experience with accreditation assessments.

Implementing Handbook 105-1 (2019), ASTM E617, OIML R111 and Selection of Mass Standards for Legal Metrology Applications. (*OWM Objectives: Ensure adequate understanding and implications of the changes to Handbook 105-1, dispel confusion and miscommunications about the changes, and help/guide laboratories to expand their scope of recognition where/when possible*). The 2019 edition of NIST Handbook 105-1 adopts OIML R111 and ASTM E617 by reference and allows continued use of standards in place that are compliant with the 1990 edition of Handbook 105-1 where application requirements are met. New application requirements in legal metrology (e.g., using balances or scales better than Class III) require use of standards with lower uncertainties and tolerances to meet the Fundamental Considerations in NIST Handbook 44 for evaluation of balances and scales used in commerce. Participants will gain insight into evaluation and selection of suitable standards for field applications and what may be required in their laboratory recognition or accreditation to perform appropriate mass calibrations. Learning Objectives: After this session, participants will be able to DESCRIBE changes in NIST Handbook 105-1 to others, IDENTIFY weight classifications that may be needed for weights and measures applications, SELECT suitable mass standards based on needs; IDENTIFY laboratory recognition requirements for performing precision mass calibrations to meet requirements for Mass Echelon II; and PREPARE to expand their laboratory recognition/accreditation or IDENTIFY alternative sources for precision mass calibrations. Training to be provided by OWM staff and OWM instructors/teaching assistants.

Software V&V for Lab Spreadsheets: NISTIR 8250, GLP 15

(*OWM Objectives: Ensure laboratories used appropriate procedures for verification and techniques for software validation records, identify which criteria in ISO/IEC 17025 address requirements for computer systems*). An introduction on Software Verification and Validation will be provided following Good Laboratory Practice GLP 15. The remainder of this session will be a facilitated activity where participants will be divided into teams by SOP or measurement area. A mock on-the-job training session will be provided by each person to a peer from another laboratory with the goal of identifying questions and answers that are not clear during training and software inspection. At the end of this session, using notes and reference materials and practical experience, participants will be able to IDENTIFY which criteria in ISO/IEC 17025 address computer system requirements; LIST examples of Verification and Validation techniques; PERFORM software verification and validation techniques as part of a peer-evaluation team. Participants will also be able to IDENTIFY, DESCRIBE, and PRACTICE essential components of an on-the-job training exercise. Training to be provided by OWM staff and OWM instructors/teaching assistants.

Note: Laboratories must bring copies of their Calibration Spreadsheets along with validation evidence.

Technical Management

A series of six to eight modules will be selected from the following technical management topics based on collected input from laboratories during the planning phase of this session:

- 1) Publications resources available to laboratory managers;
- 2) Human resources: job descriptions, hiring, and staffing from strengths;
- 3) Mentoring, motivating, and on-the-job training;
- 4) Measuring and communicating laboratory impact (using laboratory data and workload survey);
- 5) Decision making methods (including scenarios for risk assessments);
- 6) Laboratory and staff communications;
- 7) Personal and professional development;
- 8) Leadership skills (leading versus managing);
- 9) Laboratory budgeting;
- 10) Purchasing, requests and justifications (Contract Review)
- 11) Ethics and integrity;
- 12) Critical thinking and analysis; and
- 13) Strategic planning.

Through presentations, case studies, team work, sharing, and discussions, participants will gain valuable knowledge and skills about laboratory management that can be applied in their laboratory whether they are a laboratory manager, for professional development, and for effective communications with supervisors. Learning objectives will be tailored for each selected module. Training to be provided by OWM staff and OWM instructors/teaching assistants.