UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
Gaithersburg, Maryland 20899-

October 21, 2020

MEMORANDUM FOR: RMAP Participants and Laboratory Directors
From: Isabel Chavez, Laboratory Metrology Program
Office of Weights and Measures

Subjects: 2021 Regional Measurement Assurance Programs (RMAP) Training

**2021 Regional Measurement Assurance Program (RMAP) Training**

**NIST Handbook 143, Section 5.2, Table 2 notes that annual attendance at the RMAP training session is required for ongoing laboratory Recognition.** Handbook 143, Program Handbook details the criteria used for OWM Laboratory Recognition. In addition, participation in ongoing RMAP proficiency tests (PTs) requires completion of training requirements to the designated level and attendance at the annual RMAP training sessions.

The 2021 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:**
The schedule is listed below. The agenda and detailed learning objectives are in the following sections. NIST will provide training content. There will be no Local Hosts this year due to ongoing pandemic responses to training and the need to continue virtual meetings, at least through the first half of 2021. To ensure consistency among all laboratory training, NIST will host the virtual training for all Regional Measurement Assurance Programs through 2021. NIST will invite laboratories within each region to share "virtual lab visits" through video or photographs related to new laboratories or laboratory renovations within each region.

| Region | Event Number | Time (ET) | Dates | Virtual Lab Visit/Host |
|---|---|---|---|---|
| SEMAP | 5702 | 1:00 pm to 5:00 pm | March 22 to 25, 2021 | NC—Sharon W. |
| WRAP | 5703 | 1:00 pm to 5:00 pm | May 3 to 6, 2021 | LAC—Lina N. |
| NEMAP | 5704 | 1:00 pm to 5:00 pm | August 2 to 5 2021 | CT—Ana Maria F. |
| SWAP | 5705 | 1:00 pm to 5:00 pm | August 30 to September 2, 2021 | CO—Kate S |
| MidMAP | 5706 | 1:00 pm to 5:00 pm | October 4 to October 7, 2021 | SD—Ron P. |

**Registration:**
Only ONE registration is required for 2021. The OWM Contact System will be used to generate attendee registration lists, training communications, and training certificates. There will be no registration fees for the 2021 Virtual RMAP training.

**Agenda at a Glance:**
Sessions will be held from Monday to Thursday for four hours each day with a 15-minute break between the modules. Successful completion requires full attendance, participation in group activities. If any participants leave early, attendance certificates will be adjusted accordingly. However, if these measurements are on the laboratory Scope, State lab participants are expected to stay for the full session.

| Monday | Tuesday | Wednesday | Thursday |
|---|---|---|---|
| **Laboratory Round Table** *(Lab Reports)* | **Internal Audits and Objective Evidence** | **Traceability Assessments** – GMP 13 | **Succession Planning:** *Knowledge Transfer Methods* |
| **15 min break** | **15 min break** | **15 min break** | **15 min break** |
| **PT Reporting and Planning**<br><br>Virtual Lab Visit: "Presentation and/or Live Video" | **Management Reviews** | **Calibration Intervals** (Programs) – GMP 11 and Extensions | **Planned and Unplanned Events** – *Restoring Services* |

**Abstracts and Learning Objectives (in order of appearance on the agenda):**
**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
- IDENTIFY unique issues that may require national-level coordination or assistance.

**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.

**Internal Auditing Best Practices. Implementing ISO/IEC 17025 Standard: Internal Audits and Submitting Objective Evidences** (*OWM Objective: Review the most recent internal audit documentation (e.g., audit checklist and objective evidence*). Reviews of internal audits and supplementary management reviews during the 2020 OWM annual submission will identify top non-conformities and OWM will provide recommended guidance to help laboratories comply with ISO/IEC 17025 and Handbook 143. Learning Objectives: After this session, using the standard, case studies, and tools provided, participants will be able to

- IDENTIFY potential non-conformities that may still impact their laboratory; and

- DESCRIBE action items they can take to ensure compliance with the new standard. Training to be provided by OWM staff and participants from accredited laboratories.

**Management Reviews** *(OWM Objective: Review an important tool to expand the communication between top management and laboratory personnel to improve laboratory operations to produce quality calibrations and highly satisfied customers).* Learning Objectives: After this session, using notes, ISO/IEC 17025:2017, and NIST Handbook 143, participants will be able to

- IDENTIFY management review criteria (Section 8.9) in ISO/IEC 17025, NIST Handbook 143, and laboratory quality manual and related procedures;
- LIST the personnel that should participate in a management review;
- LIST the 11 elements that are typically discussed during a management review;
- SELECT sources of objective evidence that are used during a management review;
- DISCUSS the value and benefits of management reviews; and
- APPLY the management review and process to laboratory scenarios.

**Assessing Traceability and Calibration Intervals for Weights and Measures.** This session will cover the essential elements of metrological traceability and the documentary evidence required to support traceability and calibration intervals. It will use NISTIR 6969, GMP 11 and GMP 13 as the baseline for instructions and will also cover policies used by accreditation bodies. This session will provide an outline for applying metrological traceability assessment concepts to Recognition/Accreditation Applications that are not part of the current laboratory Scope. At the end of this session, participants will be able to:

- DESCRIBE the essential components that are required to support metrological traceability;
- EXPLAIN traceability in simple terms to anyone - even someone not familiar with metrology;
- COMPLETE documentation requirements for traceability and calibration intervals; and
- ENSURE laboratory documents completely reference requirements for ensuring metrological traceability.

**Succession Planning: Knowledge Transfer Methods**. This session will review various *approaches used by OWM and State laboratories to address training plans, succession plans, knowledge transfer, and on the job training.* Learning Objectives: After this session, using notes, examples/case studies, ISO/IEC 17025:2017 and NIST Handbook 143, participants will be able to:

- IMPLEMENT and EVALUATE staff training and succession plans and IDENTIFY locations in laboratory Quality Management Systems that address this topic;
- LIST the personnel that should participate in succession planning;
- SELECT sources of objective evidence that are/should be used in training and on-the-job training records; and
- DISCUSS the value and benefits of succession planning and knowledge transfer.

**Planned and Unplanned Events – Restoring Services**

Laboratory renovations and moves usually provide adequate time for laboratory staff to plan for communicating with customers, ceasing services, and restoring recognition/accreditation, and restoring calibration services for customers. The discussion will build on a 2014 NCSLI Publication (LM 15): Lab Recovery Planning; Disasters and Planned Events. The global pandemic of 2020 provided little warning across the United States, yet impacted availability and methods of service for most calibration laboratories. This session will discuss the similarities and differences between a planned event such as a laboratory renovation or move, and an unplanned event such as a disaster like a flood, hurricane, forest fires, or a global pandemic. The discussion will focus on how laboratories can plan for expected and unexpected events, and still provide ongoing consistent calibration services. Participants with

experience in responding to events described here will be asked to share their lessons learned and best practices. Learning Objectives: After this session, participants will be able to:

- IDENTIFY resources for creating plans for planned and unplanned events;
- CREATE risk assessments and mitigation strategies that can be shared with management and incorporated into the laboratory Management Reviews; and
- EVALUATE a laboratory plan for a planned or unplanned event.