

Handbook 143, Program Handbook, Excerpt Section 5.2

5.2 Personnel

5.2.1 The laboratory management shall ensure the competence of all who operate specific equipment, perform tests and/or calibrations, evaluate results, and sign test reports and calibration certificates. When using staff who are undergoing training, appropriate supervision shall be provided. Personnel performing specific tasks shall be qualified on the basis of appropriate education, training, experience and/or demonstrated skills, as required.

NOTE 1 In some technical areas (e.g., nondestructive testing) it may be required that the personnel performing certain tasks hold personnel certification. The laboratory is responsible for fulfilling specified personnel certification requirements. The requirements for personnel certification might be regulatory, included in the standards for the specific technical field, or required by the customer.

NOTE 2 The personnel responsible for the opinions and interpretation included in test reports should, in addition to the appropriate qualifications, training, experience and satisfactory knowledge of the testing carried out, also have:

- relevant knowledge of the technology used for the manufacturing of the items, materials, products, etc. tested, or the way they are used or intended to be used, and of the defects or degradations which may occur during or in service;
- knowledge of the general requirements expressed in the legislation and standards; and
- an understanding of the significance of deviations found with regard to the normal use of the items, materials, products, etc., concerned.

5.2.2 The management of the laboratory shall formulate the goals with respect to the education, training and skills of the laboratory personnel. The laboratory shall have a policy and procedures for identifying training needs and providing training of personnel. The training program shall be relevant to the present and anticipated tasks of the laboratory. The effectiveness of the training actions taken shall be evaluated.

5.2.3 The laboratory shall use personnel who are employed by, or under contract to, the laboratory. Where contracted and additional technical and key support personnel are used, the laboratory shall ensure that such personnel are supervised and competent and that they work in accordance with the laboratory's management system.

5.2.4 The laboratory shall maintain current job descriptions for managerial, technical and key support personnel involved in tests and/or calibrations.

NOTE Job descriptions can be defined in many ways. As a minimum, the following should be defined:

- the responsibilities with respect to performing tests and/or calibrations;
- the responsibilities with respect to the planning of tests and/or calibrations and evaluation of results;
- the responsibilities for reporting opinions and interpretations;
- the responsibilities with respect to method modification and development and validation of new methods;
- expertise and experience required;
- qualifications and training programs;
- managerial duties.

5.2.5 The management shall authorize specific personnel to perform particular types of sampling, test and/or calibration, to issue test reports and calibration certificates, to give opinions and interpretations and to operate particular types of equipment. The laboratory shall maintain records of the relevant authorization(s), competence, educational and professional qualifications, training, skills and experience of all technical personnel, including contracted personnel. This information shall be readily available and shall include the date on which authorization and/or competence is confirmed.

WMD NOTE 1 This requirement also applies to Approved Signatories.

WMD NOTE 2 The WMD provides training to State legal metrology laboratories. State metrologists are required to complete the appropriate level of training as indicated in Table 2, for the laboratory to be Recognized at designated levels. Information regarding the training program is maintained in the WMD.

Table 2. Training requirements

Recognition Level	Training Required	For Whom	How Often
Minimum (for legal metrological activities)	<ul style="list-style-type: none"> · Basic Laboratory Metrology Seminar (2 weeks) · Basic LAP problems - acceptable completion 	Usually all staff, at least one staff member	Once Initially Refresher recommended every 10 years Once
	<ul style="list-style-type: none"> · Attendance at Regional Measurement Assurance Program meeting annually 	At least one staff member	Annually
Calibration	<ul style="list-style-type: none"> · All of the above, plus: · Intermediate Laboratory Metrology Seminar (1 week) · Intermediate LAP problems - acceptable completion 	Usually all staff, at least one	Every 3 to 4 years unless attending RMAP annually
Advanced mass calibration	<ul style="list-style-type: none"> · All of the above, plus: · Advanced Mass Measurements Seminar · Advanced LAP problems completed 	At least one if working at this level	At least once; for updates as needed
Thermometry	<ul style="list-style-type: none"> · Attendance at a NIST Precision Thermometry Seminar 	At least one as needed	At least once; for updates as needed

NOTE: The Quality Manual Templates (NISTIR 5802 and NISTIR 7028) contain a form that can be used to document training and dates.

