

SAP 3
OWM PT Standard Administrative Procedure
for

Supplier Evaluation for PT Supplies and Calibration Services

1 Introduction

1.1 Purpose of the Procedure

This is the OWM Laboratory Metrology Program procedure for purchase, storage, and evaluation of supplies, measurement standards, and calibration services related to the PT program and Training program where possible and applicable to ensure that the products and services are sufficient for their applications in the PT or Training programs. Obtaining calibration services from organizations accredited to ISO/IEC 17025 is required where possible and shall be documented as a part of the purchasing statement of work or purchasing documents; however, this is no guarantee of acceptable quality. The Laboratory Metrology Program staff ensures applicable specifications and tolerances are including in purchasing specifications and inspects and evaluates all products or services and identifies any unique storage requirements when products are received or returned.

1.2 Scope

The Scope of this procedure covers writing all statements of work and purchasing specifications of measurement standards and calibration services purchased for use in the Laboratory Metrology Program within the Office of Weights and Measures to the extent purchases can be managed with local credit cards or through the NIST Office of Acquisition and Agreements Management (OAAM). Compliance with federal regulations governing purchase of supplies and services is overseen by the NIST OAAM which manages purchasing, contracts, and ensures compliance with the Federal Acquisition Regulations System (FARS). When applicable, in support with OAAM, Laboratory Metrology Program staff evaluate quotes to ensure compliance with purchasing requests prior to contracts or purchase orders being issued.

The Scope of this procedure also covers the evaluation of all measurement standards owned by PT participants where the items are loaned to the program for a PT scheme.

The OWM PT program does NOT purchase externally provided products or services for the following tasks:

- Design or planning of PT schemes;
- Evaluation of performance; or
- Final authorization of PT reports.

1.3 Applicable Documentary References

- ISO/IEC 17025:2017 is used and referenced for accreditation requirements when calibration or laboratory equipment maintenance services are obtained.
- ISO/IEC 17043:2023 (DIS 2022) is used and referenced for PT program compliance requirements when supplies or services can impact the quality of the PT program.
- Additional documentary standards which contain specifications and tolerances for measurement standards are used whenever possible and applicable (see examples in section 2.2.2).

1.4 Responsibility and Authority

1.4.1 Laboratory Metrology Program staff are all responsible for documenting purchasing requests to the extent required and allowed for credit card purchasing approvals, and contracts or purchases managed by OAAM, to ensure quality of measurement standards and quality and traceability of calibration services. The local staff authority is limited by Federal regulation. Purchasing requests include demonstration of compliance to meet requirements prior to signing off on payments as possible and prior to use in the PT or Training programs.

1.4.2 OWM staff are responsible for the impact of purchased products and services on the PT program outputs and outcomes and have the authority to refuse the use of products or services where they could jeopardize the quality of the PT or training programs.

1.4.3 OWM staff are responsible for evaluating loaned measurement standards for compliance to requirements in section 2.2 prior to use in a PT scheme.

1.5 Communications with Suppliers of Products or Services

To the extent possible, the Laboratory Metrology Program staff will communicate the requirements listed below to its suppliers. In the event that purchasing is completed through the OAAM, communication requirements are documented in federal regulations.

- Products and services to be provided;
- Acceptance criteria;
- Competency (including compliance with specifications, accreditation); and
- Any activities that are provided at alternative locations.

2 Methodology

2.1 Workflow

- 2.1.1 Credit card purchases are restricted to amounts of less than \$10,000 and handled locally through the Office of Weights and Measures and overseen by an Administrative Officer of the Physical Measurements Laboratory. Purchase requests are managed through internal OWM processes and approvals by the OWM Chief.
- 2.1.2 Purchasing of contracts or services through OAAM are constrained by the forms and workflow of government procurement requirements.
- 2.2 The following characteristics are considered when evaluating possible purchase of supplies and services, when documenting requests for purchase, or when considering the loan of a measurement standard for an individual PT scheme:
 - 2.2.1 Accreditation status to ISO/IEC 17025 with applicable Scope and Uncertainties.
 - 2.2.2 Compliance with latest applicable editions of documentary standards that include specifications and tolerances such as:
 - 2.2.2.1 Mass standards: OIML R111 or ASTM E 617;
 - 2.2.2.2 Mass field standards: NIST Handbook 105-1, 105-8;
 - 2.2.2.3 Volumetric field standards: NIST Handbook 105-2, 105-3, 105-4, 105-7;
 - 2.2.2.4 Timing Devices: NIST Handbook 105-5;
 - 2.2.2.5 Thermometers: ASTM E 1 or NIST Handbook 105-6; and
 - 2.2.2.6 Proving rings or Load Cells: ASTM E 74.
 - 2.2.3 Familiarity with the product, word of mouth experience from other laboratories (quality factor) as possible within government purchasing constraints.
 - 2.2.4 Prior relationship with supplier, supplier's reputation, and commitment to customer satisfaction as possible within government constraints.
 - 2.2.5 Cost and turn-around time and ability to meet OWM time requirements.
 - 2.2.6 Availability of product, parts, or services and willingness to quote on products or services.
 - 2.2.7 Stability and history available for measurement standards loaned to a PT scheme by a participating laboratory.
 - 2.2.8 Compliance any other OWM PT or Training program requirements that arise.

2.3 Acceptance and competency requirements are included in purchasing requests and statements of work whenever possible and incorporate demonstration of compliance with purchasing requests whenever allowed.

2.4 Inspection and Validation Prior to Use

All products and services may require demonstration of compliance to purchasing requirements and are inspected or validated prior to use. Whenever possible, final payment is linked to approvals for program use. In the case of loaned measurement standards, the history and stability of the standards is verified prior to acceptance for use and PT participants are included in the discussion regarding measurement standards to be used during the PT planning process.

2.5 Complaints or Failures to Comply with Purchase Requests

Any product or service that fails to comply with purchasing requirements will be documented. A complaint/resolution is implemented with the vendor and/or refusal of payment will be documented. Depending on purchasing methodology, complaints or failures may be direct communications with the vendor or may be required to go through the OAAM processes. Two examples follow.

2.5.1 An accredited calibration is purchased through credit card processing, but the calibration certificate is not compliant with ISO/IEC 17025 or includes unrequested “due dates”, but upon complaint, is amended by the vendor.

2.5.2 A new balance is purchased through OAAM federal purchasing processes and includes installation and demonstration of compliance before final payments. The balance does not meet the purchasing specifications. Laboratory Metrology Program staff indicate that the product does not comply with purchasing requirements, and payment is officially refused. An opportunity to replace equipment is usually included as part of resolution.

3 Records

3.1 Laboratory Metrology staff maintain copies of purchasing documents, evaluation and approval records, and any applicable complaints according to retention policies. Applicable communications and forms are retained where possible. The OAAM, OWM office staff, and the PML Administrative Officer also maintain primary copies of official purchases.

3.2 Calibration certificates received for standard calibration services are maintained electronically in the applicable sections of the OWM network system.

3.3 Lists of acceptable suppliers are not maintained or specified in the OWM PT program due to government purchasing limitations.