CONTROL OF INSPECTION, MEASURING, AND TEST EQUIPMENT

1.0 GENERAL

1.1 The Service Department of each branch is responsible for the control, calibration, preservation, and storage of testing and calibration equipment. The required measurement capability is determined by industry standards (see QP-1100 through QP-1130).

1.2 ISO/IEC 17025 Branches are required to implement a systematic control program and checks to ensure the quality of test results (see QP-1120, QP-1140, and QP-1150).

2.0 CONTROL PROCEDURE (see QP-1100 – QP-1110):

2.1 The test weights and equipment used are determined by the scale graduations and the customer’s application.

2.2 The test weights and equipment used are inventoried and calibrated, at prescribed intervals, against equipment or standards traceable to N.I.S.T.

2.3 The calibration source determines the calibration process employed, which is recorded on the test record, for calibrations done out-of-house. In house checks are done as defined in QP-1120. Acceptance criteria are defined by industry standards.

2.4 Test weights and equipment are identified with a unique number. Calibration status is indicated on the test records, which note the device identity, the as-found condition, traceability of the test standard, the method of calibration used, and any adjustments made.

2.5 The Service Managers retain calibration and test records.

2.6 The Service Managers conduct an investigation when a test weight or piece of equipment is found out-of-calibration (See QP-1130) including an assessment of the validity of prior calibration results. A determination is made on the effect of errors on calibrations provided to customers.

2.7 The test weights and equipment are used and calibrated within the conditions defined in industry standards (Handbook 44) and safeguarded from adjustments that would invalidate their calibration.
2.8 Service personnel are responsible to handle, **maintain** and store test weights and equipment in a manner to preserve their measurement capability.

2.9 Test weights contain plugs, which if removed, would indicate that the weight was damaged or tampered with.

2.10 Record of calibration results are maintained per QP-1600.

### 3.0 CONTROL PROGRAMS AND CHECKS

3.1 ISO/IEC 17025 Branches implement internal quality control programs and checks. The program includes a combination of the following:

- Laboratory Audits (see QM Section 17)
- Proficiency Testing (see QP-1140)
- Use of Internal Checks and Secondary Reference Checks (see QP-1120)
- Correlation of Results and the Application of Statistics to Determine Measurement Uncertainty (see QP-1150).