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| **Calibration Program Description** |
| **Document Number:** | SRF-03-PD-001 | **Approval Date:** | DD Feb 2025 |
| **Revision Number:** | 2 | **Periodic Review Date:** | DD Feb 2028 |
| **Document Owner:** | Larry King | **Department Owner:** | SRF Operations |

# Purpose

Monitoring and measuring resources, such as equipment, tools, and instrumentation, are used to ensure that the products and services delivered to customers meet their requirements or acceptance criteria. Such resources must be valid, reliable, and accurate. This Calibration Program documents the strategy to ensure the measurements and monitoring activities deemed critical-to-quality by the organization are conducted in a manner which ensures valid results, confidence in equipment, and that documentation of these activities is retained.

# Scope

This Program applies to all operations performed within the work centers of SRF Operations.

The Program does not apply to equipment owned by, or used in support of work conducted for, any group other than SRF OPS, unless specified in planning documentation for the work.

# Program Description

## Equipment Types

SRF Operations uses a risk-based approach to determine two levels of calibrated resources and equipment:

 **Critical MTE** (Critical Measurement and Test Equipment), and

 **M&TE** (Measurement and Test Equipment).

### Critical MTE

Critical MTE is equipment used for measuring or monitoring a product or process, where reliability and traceability of the measurement is critical to ensure conformance to performance specifications, requirements, and product quality attributes.

A few examples of items that might be identified as Critical MTE include torque wrenches, micrometers, gas pressure or flow meters, vacuum leak detection systems, RF frequency counters or power meters. This list is not meant to be comprehensive or prescriptive.

### M&TE

Measurement and Test Equipment (M&TE) is a monitoring or measuring device used to determine the quantitative value of a physical property; it is not used in critical processes.

## Equipment Identification

SRF Operations identifies, develops, and maintains Calibration Registers of Critical MTE. The Calibration Register lists information enabling traceability between a calibration certificate and the calibrated equipment.

## Equipment Preservation

Instruments and equipment identified as Critical MTE will be installed, located, or otherwise protected in a manner that safeguards the equipment from damage and excessive wear.

## Calibrations

Critical MTE will be calibrated against reference standards, traceable to international or national measurement standards, using methods appropriate to its use. If reference standards are not available, the equipment owner must provide evidence to support an alternate calibration reference method.

## Verification

Verifications of equipment calibration are encouraged to minimize the impact of Critical MTE being found later to be out of calibration.

## Discrepancies

In the event Critical MTE fails a verification or is found to be out-of-calibration or damaged, the equipment is removed from service and the potential impact to completed work-in-process and final products is determined.

# Program Monitoring Methods

The Process Owner for Calibration monitors the Calibration Registers to identify evidence of participation, planning, and overall compliance. The results of the monitoring activities described below are provided as inputs to Management Review where they are retained in the Management Review Report.

## Calibration Scope:

This metric will show the quantity and functional types of Critical MTE being monitored by the program.

Number of Critical MTE in Calibration Register, grouped by functional type and work center.

## Calibration Activity:

This metric will show the level of participation of the Calibration Custodians.

Number of Critical MTE calibrated / total Critical MTE in Calibration Register

## Calibration Compliance:

This metric will show the times when the use of an un-calibrated tool is discovered.

Number of events in the reporting period

# Responsibilities and Authorities

1. **Calibration Custodian:** Monitors the condition of Critical MTE assigned to them. Maintains Calibration Register. Performs or schedules calibration and preventive maintenance, if applicable, on equipment.
2. **Work Center Lead:** Identifies critical-to-quality equipment. Performs or assigns verification activities as prescribed in the Calibration Register. Notifies the Quality Engineer when Critical MTE is found to be unfit for service.
3. **Work Center Technician:** Performs measurements using only Critical MTE, when specified. If Critical MTE is found to be damaged, out of calibration, or fails verification, the technician communicates the status to the Work Center Lead.
4. **Calibration Program Owner:** Monitors the program and reports status of the program in Management Review. Participates in internal audits of the Calibration Program. Works with Records Management Program Owner to ensure required records are maintained in compliance with both the Calibration and Records Management Programs.
5. **Records Management Program Owner:** Works with the Calibration Program Owner and Calibration Custodians to ensure required records are maintained in compliance with both the Calibration Program and Records Management Program requirements.

# References

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| **Document No.** | **Title** |
| SRF-03-PR-001 | Calibration and Verification Procedure |
| SRF-03-FM-001 | Calibration Variance Form |
| SRF-03-FM-002 | Calibration Register Template |
| SRF-11-FM-001 | Project Execution Plan Template |
| SRF-11-PR-001 | Project Execution Procedure |

# Release and Revision History

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| **Rev #** | **Major Changes** | **Effective Date:** |
| 1 | Initial version | 31 Mar 2022 |
| 2 | 1. Periodic review.
2. Clarified scope in Sec. 2.1 to SRF OPS.
3. Changed “MT&E” to “Critical MTE” in Sec. 5.1.
4. Clarified that examples in Sec. 3.1.1 are not prescriptive.
5. Removed “annually” from interval requirements of Sec. 3.4.
6. Added WCL duty (5.2) to notify QE if Critical MTE found unfit; to align with PR,
7. Updated Approval signature block 8.
8. Updated format to SRF-07-FM-001 Program Description Template, R2.
 | DD Feb 2025 |

# Approvals

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| --- | --- | --- | --- |
| **Approved by:** | **Name:** | **Signature:** | **Date:** |
| Document Owner | Larry King | In DocuShare |
| Quality Representative | Ashley Mitchell | In DocuShare |
| SRF Department Head | Tony Reilly | In DocuShare |