
INSPECTION PROCEDURE 35753

QA PROGRAM - CONTROL OF TESTS & MEASURING AND TEST EQUIPMENT

PROGRAM APPLICABILITY: 2504, 2700

35753-01 INSPECTION OBJECTIVES

01.01 Verify that the COL holder has developed and implemented a QA program relating to the control of tests that is in conformance with the NRC approved Quality Assurance Program Description (QAPD).

01.02 Verify that the COL holder has developed and implemented a QA program relating to the control of Measuring and Test Equipment (M&TE) that is in conformance with NRC approved QAPD.

35753-02 BACKGROUND

The regulatory basis for Test Control is found in 10 CFR 50, Appendix B, Criterion XI, "Test Control." In addition, 10 CFR 50.59 provides requirements for ensuring tests are within the licensing basis of a facility.

The regulatory basis for Control of M&TE is found in 10 CFR 50, Appendix B, Criterion XII, "Control of Measuring and Test Equipment." The method by which the COL holder will comply with this requirement is normally described in COL holder's QAPD.

NUREG 0800, Standard Review Plan, Section 17.5, "Quality Assurance Program Description - Design Certification, Early Site Permit and New License Applicants." provides extensive guidance concerning all phases of this procedure. Section 17 of the FSAR and Standard Technical Specifications describe test control measures.

The M&TE program for assuring and testing equipment applies to both on-the-shelf and installed gages, indicators, and other devices.

Factors such as equipment experience, inherent stability, purpose of use, and required accuracy are usually used to establish calibration frequency. If historical experience data is used to evaluate and adjust calibration intervals, the inspector should review the data to verify that the newly determined calibration frequency is justified by the data from which it is derived.

M&TE need not be calibrated for all ranges; however, this is rarely noted on the calibration sticker. Therefore, the COL holder's identification system should note this situation and the program shall provide sufficient control to prevent use outside the calibrated ranges.

Recalibration of M&TE equipment should be established based on periodic intervals and usage.

35753-03 INSPECTION REQUIREMENTS & GUIDANCE

03.01 Control of Tests.

- a. Verify that provisions have been made to assure that all tests for safety related and risk significant non-safety related systems, structures, and components (SSCs) will be performed in accordance with approved written procedures.

Guidance: Review applicable section(s) of the QAPD and any associated lower tier procedures.

- b. Verify that responsibilities have been assigned for (1) reviewing and approving test procedures and (2) reviewing and documenting test results.

Guidance: Review applicable section(s) of the QAPD and any associated lower tier procedures.

- c. Verify that a method for establishing test procedures includes:
 1. Defined criteria that specify when testing is required its purpose
 2. Criteria defining qualified test personnel
 3. Prerequisites (as required)
 4. Use of calibrated instrumentation
 5. Acceptance criteria
 6. Inspection hold points (as required)

Guidance: Review applicable section(s) of the QAPD and any associated lower tier procedures.

- d. Verify that personnel are aware of test controls for acceptance criteria and inspection hold points.

Guidance: Interview five QA personnel in regard to test controls for acceptance criteria and inspection hold points.

- e. Verify that tests were performed in conformance with the controls established in item 03.01.c.

Guidance: Select and review a sample of eight tests (include at least two system interface tests).

- f. Verify that the test control program includes provisions for, as appropriate, pre-installation tests, pre-operational tests, post maintenance tests, post modification tests, and operational tests.

Guidance: Review applicable section(s) of the QAPD and any associated lower tier procedures.

- g. Verify that test records include at least the following:
 - 1. Item tested
 - 2. Results and acceptability
 - 3. Corrective actions for noted deviations
 - 4. Tester (or data recorder)
 - 5. Name of evaluator

Guidance: Review the records for tests selected above in 03.01.e.

03.02 Control Of Measuring and Test Equipment.

- a. Verify that the M&TE procedures are in accordance with the QAPD requirements.

Guidance: Review applicable section(s) of the QAPD and any associated lower tier procedures.

- b. Verify that the following M&TE items have been procedurally addressed:
 - 1. Criteria and responsibility for determination of calibration frequency.
 - 2. A method of identification of each device and its calibration status. This includes a formal means to add new equipment to the M&TE calibration program and ensure that it is calibrated prior to being placed in service. It should also include a formal means to delete equipment from the M&TE calibration program.

Guidance: Review applicable section(s) of the QAPD and any associated lower tier procedures.

- c. Verify a method for documenting M&TE calibration history has been procedurally addressed and includes:
 - 1. Traceability to the calibration source.
 - 2. As-found data.
 - 3. Identification of standards used.
 - 4. Identification of calibration procedures used.
 - 5. Limitations on use.
 - 6. Date of calibration.
 - 7. Date of next required calibration.
 - 8. Name of person performing calibration.

9. Action taken when M&TE or reference standards are found out of calibration, including a documented evaluation of the validity of previous tests.
10. A recall system for assuring that each piece of equipment is calibrated on or before the date required.
11. A written requirement which prohibits the use of M&TE which is not currently calibrated and controls to prevent inadvertent use of such equipment.
12. Identification of the controls used to comply with environmental handling or storage requirements for M&TE and reference standards.
13. A system to control the issue of M&TE to only qualified, authorized personnel.

Guidance: Review applicable section(s) of the QAPD and any associated lower tier procedures.

- d. Verify that responsibilities have been assigned to assure that the M&TE equipment controls identified under 03.01.c, above, will be implemented.

Guidance: Review the personnel responsibility section(s) of the QAPD and any associated lower tier procedures.

- e. Verify that calibration records identify the items listed in 03.01.c.

Guidance: Review the calibration records for at least 10 M&TE items.

- f. Verify the following:

1. The instrument is properly stored, identified by a unique number, and calibration status is formally maintained (label, ledger, etc.).
2. The applicable calibration procedure is available and properly controlled.
3. The instrument has been calibrated in accordance with the established schedule.

Guidance: Review the records for 10 pieces of M&TE, five of which were selected in item 03.02.e.

- g. Verify that the M&TE program aspects are understood by I&C supervisory personnel.

Guidance: Interview a sample of five Instrument and Control supervisors and technicians.

- h. Verify that only M&TE covered by the QA program is being used.

Guidance: Review approximately ten completed surveillance test, maintenance, or other records.

- i. Verify the proper evaluation of calibration tests in which the item was found out of calibration.

Guidance: Review the evaluation records of at least four instances of out of calibration M&TE.

j. Verify M&TE users familiarity with M&TE control procedures.

Guidance: Interview at least five M&TE users to verify their familiarity with M&TE control procedures.

k. Verify that the training records of M&TE personnel reflect the QAPD requirements.

Guidance: Review at least six personnel training records to verify completion and documentation of required training.

l. Verify that M&TE calibration program audits have been performed at the required frequency and any findings are dispositioned and corrected as required by the QAPD.

Guidance:

1. Review audits from the previous three calendar years.
2. Review the disposition of five audit findings and the associated corrective actions

m. Verify that some type of log-out/log-in system is in use to control the use of M&TE.

Guidance: Review the system used to document the use and control of M&TE.

35753-04 RESOURCE ESTIMATE

The resource estimate for this inspection procedure is approximately 40 hours of direct inspection effort.

35753-05 REFERENCES

10 CFR 50, Appendix B, Criterion XI and XII.

NUREG 0800, Standard Review Plan, Section 17.5, "Quality Assurance Program Description - Design Certification, Early Site Permit and New License Applicants"

Chapter 17, SAR

END

Exhibit 1: Revision History

Exhibit 1

Revision History Sheet for IP 35753

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Ascension #
N/A	10/03/07 CN 07-030	<p>1. Initial issue to support inspections of operational programs described in IMC 2504, NON-ITAAC INSPECTIONS. Completed 4 year commitment search.</p> <p>2. Incorporates SRP 17.5 guidance</p> <p>3. A review for incorporation of generic requirements has been conducted. None identified.</p> <p>4. Combines information contained in IPs 35750, 35749 and 35745.</p>	N/A	N/A	N/A