SUBJECT:	Fermilab Assessment Manual – Chapter 4 Independent QA Assessment - Form 1	**NUMBER:**	**3902** **FORM 1**
RESPONSIBILITY:	Quality Assurance Manager	**REVISION:**	001.2
APPROVED BY:	Head, Office of Quality and Best Practices	**EFFECTIVE:**	**10/08/2010**

Fermilab Independent QA Assessment Plan

Assessment Number & Title: 11-IA-QA-013 CD Measurement & Test Equipment Assessment
Version 0A

Planned Dates of Assessment:

- 07/25/11 – 08/05/11 planning and desktop review of documentation
- 08/15/11 – 08/19/11 onsite activities (opening meeting, interviews, work process observations, closing meeting)
- 09/02/11 draft report
- 09/09/11 final report

Verification & validation of CAPs will be scheduled as appropriate.

Performing Organization: Office of Quality & Best Practices

Assessed Organization(s):
Computing Division (CD), Office of Enterprise Architecture and Configuration Management
CD, Electronic Systems Engineering, DAQ Controls & Timing
CD, Electronic Systems Engineering, Detector Instrumentation
CD, Electronic Systems Engineering, Fast Timing, Control & Support
CD, Network & Virtual Services, Network Services
CD, Facility Operations, Facilities Support Services

Purpose:

To assess the implementation and effectiveness of Integrated Quality Assurance (IQA) controls applied to M&TE within CD.

Scope:

The specific IQA criteria to be applied to this assessment are the measurement & test equipment requirements of IQA chapters 5.4 and 8.5 and all Fermilab or CD policies, processes, procedures, or work instructions related to M&TE.

Other IQA criteria, while not specifically included in the scope, may sometimes be assessed within the context of the main IQA criteria.

Scope limitations:

None.

Assessors' Names (Asterisk indicates Lead):

- John Dawson – ES&H Section
- Kurt Mohr* - OQBP

Assessment Review Areas: See Attachment 1, Selected Criteria, Controls and Checklist for the CD M&TE Assessment.

Assessment Tools to be Employed (Check all that apply below.):

Interview _X__ Document Review __X__ Observation __X___ Other_____

Reference Documents:

- None. Additional documents may be added to this list as the assessment progresses.

ATTACHMENT 1: QA Criteria, Controls, and M&TE Checklist

QA Criteria	**Controls**
M&TE: DOE O 414.1C	1001 IQA section 5.4.2, Maintenance (relative to M&TE)
	1001 IQA section 5.4.4, Calibration of Process Equipment
	1001 IQA section 8.5, Control of Measuring &Test Equipment

Reference	**Checklist Question**
IQA sec. 5.4.4 & 8.5	How is M&TE used for process monitoring or inspection and acceptance testing identified, calibrated, monitored, controlled & maintained?
IQA sec. 5.4.4	Are records of calibration kept?
IQA sec. 8.5	Describe the procedures that are used for testing, retesting, adjusting, and recalibrating M&TE. How are they created & maintained?
IQA sec. 8.5	How is equipment checked to ensure it is the proper type, range, accuracy, precision, and is uniquely identified and traceable to NIST standards?
IQA sec. 8.5	How are calibration standards traceable to NIST or equivalent? If no standard exists, how is the basis for calibration defined and documented?
IQA sec. 5.4.2	How are maintenance plans for M&TE developed? Are plans and records of maintenance performed available?
CRAD 2.8.13	How are tested items traced back to the M&TE used to verify their acceptability?
IQA sec. 8.5	Describe what is done when M&TE equipment is found to be out of calibration or not operating to specifications. How is this equipment identified and removed from service until passing calibration requirements?
IQA sec. 8.5	When M&TE is found to be out of calibration, describe the evaluations performed to assess the adverse impact on previous data collected using that M&TE. How is acceptability of items inspected or tested using this M&TE determined? How are these evaluations documented?
IQA sec. 8.5	What kind of consideration is given to computer programs that are part of equipment calibration when calibrating or checking the equipment for use?