Laboratory Accreditation

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RETLIF TESTING LABORATORIES
Put us to the test.™

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What We'll Cover

- Definitions
- History of Accreditation
- Why Accreditation?
- Current Accreditation Requirements
- Improvements to System

Definitions

- **Accreditation:**
  - Procedure by which an authoritative body gives ***formal recognition*** that a body or person is competent to carry out ***specific*** tasks.
- **Conformity:**
  - Fulfillment by a product, process or service of specified requirements.

Definitions

- **Conformity Assessment:**
  - Any activity concerned with determining directly or indirectly that relevant requirement are fulfilled.
- **Conformity Assessment Body:**
  - Body that conducts conformity assessment.

Definitions

- **Mutual Recognition Arrangement:**
  - An agreement between two or more parties by which each party accepts the accreditations granted by other signatories.

History of EMC Accreditation in the USA

- 1985
  - In January of 1985, Retlif was the first laboratory to petition the US Government to develop a laboratory accreditation program in EMC.
  - As a result, NIST expanded its NVLAP program to include EMC.

History of EMC Accreditation in the USA

- 1989
  - NAVAIR requires NVLAP accredited test facilities.

History of EMC Accreditation in the USA

- 1996
  - FCC General Docket 95-19
    - FCC deregulates approvals process for PCs and PC Peripherals.
    - Manufacturers Declaration of Conformity (“DoC”) added as an option to Commission Certification.
    - Requires use of a NVLAP accredited test facility.
    - Adopted May 9,1996.
  - A2LA expands scope to include EMC in response to newly opened market by FCC.

History of EMC Accreditation in the USA

- 1998
  - The US Department of Commerce designates EMC Directive CABs under the US-EU MRA.
    - Laboratory Accreditation Required.
  - FCC General Docket 98-68
    - FCC Privatizes Equipment Approval
    - TCBs required to be Accredited to both ISO Guide 58 and ISO Guide 25 (17025)
    - Adopted December 17, 1998
  - NACLA formed

History of EMC Accreditation in the USA

- 2000
  - Big 3 Automakers rely on AEMCLRP for EMC test data. (Automotive EMC Laboratory Recognition Program)
  - The US Department of Commerce designates R&TTE Directive CABs under the US-EU MRA.
    - Laboratory Accreditation Required.

Why Become an Accredited Laboratory?

- Required by Regulator
- Required by a Trade Agreement
- To Gain Access to or Recognition in a Market
- Desire for an Independent Audit
- Marketing Tool

Why Use an Accredited Laboratory?

- Required by Government Agency
- Required by Customer
- To Enhance Customers Confidence
- To Complement in House Quality Systems
- Decrease Time to Market
- Improve Acceptance of Test Data

Why Use an Accredited Laboratory?

- What do you consider when selecting a laboratory?
  - Staff
  - Equipment
  - Adequate QA procedures
  - Appropriate test procedures & methods
  - Traceability
  - Reporting procedures
  - Facilities

ISO/IEC 17025:1999

- General Requirements for the Competence of Testing and Calibration Laboratories
  - Replaced
    - IEC Guide 25
    - EN 45001

Scope of 17025

- 17025 is applicable to:
  - All organizations performing tests and/or calibrations.
    - Including 1st, 2nd and 3rd Party Laboratories
    - Regardless of:
      - Number of Personnel
      - Scope of Testing Services

What About ISO 9000?

- Testing and calibration laboratories that comply with ISO/IEC 17025 meet the requirements of:
  - ISO 9001
    - When performing tests using non-standard methods (Developed or designed within the laboratory)
  - ISO 9002
    - When using standard test methods (Industry accepted methods)

17025 Contents

- 1 Scope
- 2 Normative References
- 3 Terms and Definitions
- 4 Management Requirements
- 5 Technical Requirements

17025 Section 4 Management Requirements

- 4.1 Organization
- 4.2 Quality System
- 4.3 Document Control
- 4.4 Review of Requests, Tenders and Contracts
- 4.5 Sub Contracting of Tests and Calibrations
- 4.6 Purchasing services and Supplies

17025 Section 4 Management Requirements

- 4.7 Service to the Client
- 4.8 Complaints
- 4.9 Control of Non-Conforming Testing and/or Calibration Work
- 4.10 Corrective Action
- 4.11 Preventive Action
- 4.12 Control of Records

17025 Section 4 Management Requirements

- 4.13 Internal Audits
- 4.14 Management Reviews

17025 Section 5 Technical Requirements

- 5.1 General
- 5.2 Personnel
- 5.3 Accommodation and Environmental Conditions
- 5.4 Test and Calibration Methods
- 5.5 Equipment
- 5.6 Measurement Traceability

17025 Section 5 Technical Requirements

- 5.7 Sampling
- 5.8 Handling of Test and Calibration Items
- 5.9 Assuring the Quality of Tests and Calibrations
- 5.10 Reporting the Results

The Process

- Application to Accreditation Body (AB)
- Self Audit
  - Submit Results to AB
  - Resolve any deficiencies
- On Site Assessment
  - Resolve any Deficiencies
- Accreditation Granted or Denied
- Yearly Surveillance

Problems?

- US is unique in that Accreditation Bodies are in competition.
- Multiple Accreditation Bodies in the same sector results in inconsistencies in laboratory assessments.
- The proliferation of standards, especially within the EU.
- Lack of “Buy In” from Regulators and Specifiers.

Improvements

- Competition
- Inconsistencies in laboratory assessments
- Proliferation of standards
- Buy In

Why Accreditation?

- Laboratories:
  - Determines, Recognizes, Promotes and Maintains Technical Competence
- Specifiers:
  - Establishes and Ensures Confidence
- Users:
  - Identifies Sources of Reliable Testing Services

Thank You

- For More Information:
  - http://ts.nist.gov/ts/htdocs/210/214/214.htm
  - www.acil.org
  - www.a2la.org
  - www.nacla.net
  - www.ilac.org