National Voluntary Laboratory Accreditation Program's (NVLAP) Approach to Laboratory Accreditation

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The National Voluntary Laboratory Accreditation Program (NVLAP)

- A process for accreditation of testing and calibration laboratories
- Established in 1976
- Procedures set out in the U.S.Code of Federal Regulations (Part 285, Title 15)
- Linked to NIST measurement research
- Based on ISO/IEC standards
- Available to any qualifying laboratory

The National Voluntary Laboratory Accreditation Program (NVLAP) Mission Statement

- To deliver high quality, value-driven accreditation services to testing and calibration laboratories by:
- meeting or exceeding customer expectations;
- operating to globally accepted requirements for accreditation bodies;
- promoting world-wide acceptance of test and calibration results of NVLAP-accredited laboratories; and
- pursuing organizational and technical excellence.

NVLAP programs support several federal agency programs

- U.S. Department of Energy (DOE) and the Environmental Protection Agency's (EPA) Energy Star Program;
- Department of Homeland Security (DHS) for Biometrics and also Radiation Detection
- National Institute of Justice (NIJ) for body armor protection
- DOE's Nuclear Weapons Program; the Nuclear Regulatory Commission (NRC) programs for commercial grade calibration services and testing of personnel dosimetry performance;
- National Information Assurance Partnership (NIAP), a partnership between NIST and the National Security Agency (NSA), for testing encryption/decryption products that ensure information security;
- Federal Communications Commission's (FCC) implementation of Part 15 requirements and its designation responsibilities in support of various Mutual Recognition Arrangements covering telecommunications and electromagnetic compatibility testing;
- Department of the Navy (DON) for electromagnetic compatibility testing; and

The National Voluntary Laboratory Accreditation Program (NVLAP)

- Fee supported program
- Accreditation offered in 16 fields of testing; 8 areas of calibration, covering 90 parameters.
- Our labs are located in North America, Europe, and Asia Pacific
- Nearly 800 testing and calibration laboratories
  - Laboratory accreditation is renewed annually
  - On-site assessment is performed every other year

Reasons Labs Become Accredited

- Improved Laboratory Operations
- Reduction Of Second Party Audits
- Required by Regulator for QPL listing
- International Acceptance Of Calibrations, Measurements, and Testing Results

LABORATORY ACCREDITATION

- Independent, third party evaluation of a laboratory's technical competence.
  - Evaluation is based on a standards
    ISO/IEC 17025:2005
    Specific technical requirements
  - Evaluation of specific scope of accreditation
  - Evaluation by peer technical experts
  - Results in formal recognition

NVLAP

What is NVLAP?

- NVLAP is:
  - A system for accrediting laboratories found competent to perform specific tests or calibrations or types of tests or calibrations
- NVLAP is not:
  - A certifier of test data
  - A certifier of products
  - An operator of a certification program

NVLAP

Basis for Accreditation

- Documented Quality system
  - Quality Manual
  - Quality Procedures
  - Instructions (Test methods, calibration procedures
  - Records (Equipment maintenance, personnel training, complaints, etc.)

Basis for Accreditation (Cont.)

- On-site assessment (Every 2 years)
  - Environmental conditions
  - Test and measurement equipment
  - Trained personnel
  - Reporting capabilities
  - Traceability
  - Validation of quality system

Basis for Accreditation (Cont.)

- Proficiency testing
  - Acceptable characterization of test sample
  - Acceptable value for an artifact (if used)
  - Written Exam in certain cases
  - Pass/fail criteria
    - comparison with group mean (test lab)
  - Used as data point to aid in decision whether or not to accredit

Other Factors

- Review of test methods (or calibration) procedures by technical experts
  - Validity of technical approach
  - Traceability to national standards
- International Laboratory Comparisons (ILCs) conducted with accredited labs in other countries **(not associated with Biometrics Program)**

Accreditation Decision

- Based on results obtained during each step of the process
  - Documentation review
  - On-site assessment
  - Proficiency testing
  - Appropriate corrective action if applicable
- Results reviewed by independent subject matter experts

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nNVLAP General Procedures and Requirements

3 General Information
3 Accrediting a Laboratory
3 Conditions and Criteria for Accreditation

3 Sections 4 and 5 contain the managerial and technical requirements of ISO/IEC 17025:2005

International Recognition

- International Laboratory Accreditation Cooperation (ILAC)
  - Global Mutual Recognition Arrangement (MRA) among accreditation bodies
  - Based on evaluation of competence
  - 47 signatories from 38 economies
- Asia Pacific Laboratory Accreditation Cooperation (APLAC)
  - 27 signatories from 15 economies
  - Membership roughly parallel to APEC
  - Designated as Specialist Regional Body by APEC

NVLAP

Thank You

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