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NVLAP Glossary of Terms for Laboratory Accreditation, Product Certification and Standardization

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NEW BOOK SHELF

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LABORATORY ACCREDITATION,
PRODUCT CERTIFICATION AND
STANDARDIZATION**

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PREFACE

The National Voluntary Laboratory Accreditation Program (NVLAP) was established by the Department of Commerce on February 25, 1976. The administration and procedures of NVLAP are governed by Title 15, Part 7 of the Code of Federal Regulations. The intended goal of NVLAP is to serve the needs of industry, consumers, government and others by accrediting testing laboratories that comply with criteria established for a particular testing area.

The development of a laboratory accreditation program (LAP) involves a variety of technical principles, procedures and evaluations that must be carefully planned and administered in order to provide an accreditation system that is acceptable and reliable. General and specific criteria, examination methodology and proficiency testing programs are developed for each LAP. The first two LAPs established under NVLAP are for laboratories that test thermal insulation materials (NVLAP-01) and freshly mixed field concrete (NVLAP-02).

In many instances during the development of these LAPs, the use of specific terms and acronyms associated with laboratory accreditation lead to misunderstandings between the program administrators, criteria committee members, laboratory personnel and product manufacturers. In an effort to eliminate these misunderstandings, this glossary of terms and definitions relating to laboratory accreditation was prepared. Since there is some overlapping of the areas of laboratory accreditation, product certification and standardization, a decision was made to establish a NVLAP glossary of terms that covers all these areas.

Some of the definitions were derived from those presented in publications by the American Society for Quality Control (ASQC), the American Society for Testing and Materials (ASTM), the American National Standards Institute (ANSI), the Technical Association of the Pulp and Paper Industry (TAPPI) and the National Bureau of Standards (NBS) with some of the wording (but not the meaning) altered to emphasize a principle. Other definitions were contributed by personnel in the Office of Testing Laboratory Evaluation Technology of NBS and the Office of Product Standards of the Department of Commerce. Those definitions which were obtained from other references without alteration are identified in the glossary by the acronym for the respective organization appearing directly after the definition. These acronyms are used to identify the specific references in the Bibliography appearing at the end of the glossary.

As additional LAPs are initiated for other classes of products, it may become necessary to amend or expand this glossary to include terms that are pertinent to these new LAPs.

TERMS AND DEFINITIONS

ACCREDITATION

- (a) A formal determination and recognition that a laboratory has the capability to carry out specific tests or types of tests. (ILAC-2)
- (b) A formal determination and recognition that a laboratory has the capability to carry out a specific test(s) in accordance with a prescribed procedure(s).

ACCREDITATION AUTHORITY (AGENCY)

An organization which conducts and administers an accreditation system in order to evaluate, judge, and convey in some manner that testing laboratories are competent to conduct specific tests.

ACCREDITATION BODY

An organization which conducts and administers an accreditation system. (ILAC-2)

ACCREDITATION SYSTEM

A system having its own rules of procedure for evaluating, judging, and recognizing testing laboratories that have demonstrated a competency to conduct specific tests. Such systems include -- (1) initial assessment of all aspects of laboratory management and operation by panels of expert assessors; (2) reassessment at prescribed intervals; and (3) proficiency testing programs on a regular basis. (ILAC-2)

ACCURACY

- (a) A measure of the ability of a laboratory to obtain a test result in agreement with the "true" or target test result. (ILAC-1)
- (b) A measure of the capability of an instrument or system to produce a value or indication in agreement with a "true" or target test result.
- (c) A measure of closeness of agreement between an experimental result and the true value. Accuracy is affected by chance errors as well as by bias. (ASTM-2)

ADMINISTRATOR

A person or organization that performs the executive duties required to manage a laboratory accreditation or product certification program.

APPLICANT LABORATORY

A laboratory that has applied to an accreditation body for accreditation for specific tests or types of tests. (ILAC-2)

ASSESSMENT

See EXAMINATION

ASSESSOR (EXAMINER) (INSPECTOR)

An individual of recognized professional competence and impartiality who assesses personnel, physical resources, testing procedures, and the quality assurance program of a laboratory to determine its compliance with specific laboratory accreditation criteria or requirements. (ILAC-2)

AUDIT

The examination of information, data, characteristics, or indications for the purpose of verification.

CALIBRATION (VERIFICATION)

- (a) The comparison of two objects, one of which has known or accepted values, to determine the values or deviation of the object being calibrated.
- (b) The comparison of a measurement system or device of unverified accuracy to a measurement system or device of known and greater accuracy to detect or correct any variation from required performance specifications of the unverified measurement system or device. (MIL)

CALIBRATION INTERVAL

- (a) The span of time expressed in weeks or months during which established accuracies of testing equipment are considered valid. The interval is based on the type of instrument or material, the required accuracy, the frequency of use and the conditions under which it is used.

(b) The maximum length of time between calibration services during which standards and measuring equipment are expected to remain within specific performance levels under normal conditions of handling and use. (MIL)

CERTIFICATION

(a) The act of issuing a warranty, certificate, or mark or other appropriate evidence that attests that a product or service conforms to specific standards or specifications. (ILAC-2)

(b) The procedure and action by a duly authorized body of determining, verifying, and attesting in writing to the qualifications of personnel, processes, procedures, or items in accordance with applicable requirements. (ASQC)

CERTIFIER

The producer or vendor who certifies that the products or services meet the requirements of a referenced standard.

CERTIFICATION AGENCY

An organization or entity which conducts and administers a certification system and is recognized as having the authority to convey in some manner that products comply with applicable or specified provisions of referenced standards, codes or other requirements.

CERTIFICATION MARK

A sponsor's or validator's symbol that identifies a product or service as being certified.

CERTIFICATION SYSTEM

A system having its own rules of procedure and management for carrying out certification.

CERTIFIED PRODUCT

A product which has been inspected, evaluated, tested, or otherwise determined to be in conformance with applicable or specified provisions of reference standards, codes, or other requirements and approved by an

authority which is recognized or has the legal power to grant such certification. Certified products imply a guarantee or warranty of product conformance and that the product is under the test and surveillance procedures of a specified certification system.

CODE

A standard, rule, or regulation which has been codified by a governmental authority and thus becomes part of the law for the jurisdiction represented by that authority.

COLLABORATIVE REFERENCE PROGRAM (CRP)

An interlaboratory testing program administered by the National Bureau of Standards which is conducted on a periodic schedule and involves the distribution of specially prepared samples to participating laboratories. The samples are tested by the laboratories in accordance with designated test methods and the results are reported to NBS for statistical evaluation. The program provides each participant with an evaluation, in report form, of its testing performance in terms of accuracy and precision and also presents a comparison of its performance with that of other participating laboratories. Collaborative reference testing is one type of proficiency testing. The name of each laboratory is usually kept anonymous by the use of a code system and the participating laboratories are usually charged a fee.

COMPARABILITY (MEASUREMENT)

A measure of the ability of a laboratory to compare two items or materials (intended for the same use), and obtain comparative test results (e.g. the difference between or the ratio of the two test results) that are consistent with comparisons obtained by other laboratories.

COMPLIANCE ASSURANCE

The process of appraising the manufacturer's quality control program in conjunction with monitoring, auditing and inspecting the service or product being offered.

COMPLIANCE TESTING

The measurement of the design or performance characteristics of a product for the purpose of establishing the product's conformance with the requirements of applicable standards or technical specifications. (ILAC-2)

CONSENSUS STANDARD

A standard for which there is general agreement among those associated with its development that a prescribed set of conditions and requirements is technically sound and meets the needs prevailing at that time.

CONSUMER PRODUCT SAFETY STANDARD

A mandatory standard promulgated by the Consumer Product Safety Commission (CPSC) under the provision of the Consumer Product Safety Act, P.L. 92-573, to protect the public against unreasonable risks of injury associated with consumer products.

COUPON

A piece of metal formed for the purpose of making a metallurgical test specimen.

CRITERIA

Those requirements that a laboratory must meet in order to become accredited to perform specific tests or types of tests. (ILAC-2)

CRITERIA (GENERAL)

See GENERAL CRITERIA

CRITERIA (SPECIFIC)

See SPECIFIC CRITERIA

CRITERIA COMMITTEE

A National Laboratory Accreditation Criteria Committee appointed by the Secretary of Commerce under Title 15, Code of Federal Regulations Part 7. (NVLAP)

DESIGN STANDARD

A standard which describes the required physical or dimensional characteristics of a product or system and, in some cases, its manufacture, construction, or fabrication. (NBS)

EVALUATOR

An individual of recognized professional competence who conducts an evaluation of a laboratory. See LABORATORY EVALUATION.

EXAMINATION (INSPECTION)

- (a) The inspection of a product, material, or system, visually or by physical or chemical measurement, to determine compliance with design or performance standards, requirements, or codes.
- (b) The inspection of a testing laboratory to determine compliance with general and specific criteria concerning the laboratory's organization, managerial and technical personnel, testing facilities, test procedures, quality assurance programs, and ethical and business practices.

EXAMINATION AUTHORITY (AGENCY)

An organization or entity with the legal responsibility for administering and/or enforcing laws, codes or requirements for products, materials, services, or testing laboratories.

EXAMINER (ASSESSOR) (INSPECTOR)

- (a) An individual of recognized professional competence and impartiality who assesses personnel, physical resources, testing procedures and the quality assurance program of a laboratory to determine its compliance with specific laboratory criteria or requirements. (ILAC-1) A pass/fail determination may be made by the examiner and an examination checklist may be used.
- (b) An individual of recognized professional competence who assesses the quality or characteristics of products, materials or systems and/or the procedures used in the manufacture of these entities to determine their compliance with specific standards or specifications. A pass/fail determination may be made by the examiner and an examination checklist may be used.
- (c) An individual who may not possess the professional competence of the examiner in (a) or (b) above but who assesses the entities in (a) or (b) by means of a checklist and detailed instructions concerning what is to be examined and how to examine it. A pass/fail determination is usually not made by the examiner.

EXPERT

An individual who has acquired exceptional experience and knowledge in one or more disciplines and whose authority is generally recognized by his peers.

FIELD OF TESTING

A broad sphere of science, engineering, or technology used to describe a general area of testing for classification purposes only, but not for identification of accreditation for specific tests or types of tests. For accreditation purposes, fields of testing are subdivided into specific tests or groups of tests. (ILAC-2)

GENERAL CRITERIA

Those characteristics of a testing laboratory commonly found in, and generally expected of, such a laboratory serving the product under consideration. Such characteristics include human and physical resources, organization, record keeping, quality assurance, and ethical practices. (NVLAP)

HUMAN RESOURCES

Those elements of support or capability that are provided by humans using their mental and physical capabilities. (ASTM-1)

INDEPENDENT TESTING LABORATORY

A testing laboratory which has no organizational tie or financial interest in the manufacture, vending, supplying, or promotion of the product on which tests are performed. It has sufficient breadth of activity so that the loss or award of a specific contract for test services would not be a substantive factor in the financial well-being of the laboratory. It may offer test services under contract or on a fee basis, and may be a profit or non-profit organization.

INDUSTRY STANDARD

A standard developed and promulgated by the members of an industry for materials and products related to that industry. An industry standard is generally oriented towards the industrial or institutional consumer and represents a consensus of that industry as to the nomenclature, identification, standard sizing, and material specifications for materials and products of that industry. Industry standardization efforts are usually conducted by trade associations or professional organizations. Many industry standards are approved by the American National Standards Institute as American National Standards.

INSPECTION

See EXAMINATION

INSPECTION AUTHORITY (AGENCY)

See EXAMINATION AUTHORITY (AGENCY)

INSPECTOR

See EXAMINER

LABEL

A symbol, certification mark or other controlled mark or informative statement affixed to a product indicating that it is in conformance with applicable or specified provisions or referenced standards codes or other requirements. The label may also indicate that the product has been approved by a specific organization or certification agency, that it has been tested and found in compliance by an identified test facility, and/or that it is under the test and surveillance procedures of a specified certification system.

LABORATORY

See TESTING LABORATORY

LABORATORY ACCREDITATION PROGRAM (LAP)

A single laboratory accreditation program in the Department of Commerce National Voluntary Laboratory Accreditation Program.

LABORATORY ENGINEER

A person who has general knowledge of the principles, theories, and practice in a given field of engineering such as may be acquired through completion of a full engineering curriculum leading to at least a bachelor's degree from an accredited college or university or through training equivalent in type, scope, and thoroughness.

LABORATORY ENVIRONMENT

The aggregate of all conditions, such as temperature, humidity, and lighting, that may influence the testing or performance of a product, material, or system.

LABORATORY EVALUATION

The decision making process, using information from laboratory examinations, whereby a laboratory's testing capability is assessed for conformance with general and specific criteria. Laboratory evaluation may be a basis for accreditation.

LABORATORY EVALUATION CRITERIA

Statements prescribing the organizational and technical resources, the equipment and facilities, the operational procedures, and the minimum technical, managerial and ethical performance levels required of a testing laboratory usually for accreditation purposes.

LABORATORY EXAMINATION

See EXAMINATION

LABORATORY INSPECTION

See EXAMINATION

LABORATORY MANAGEMENT

The art and science of conducting the administration and technical operations of a testing laboratory to produce test information reliably, efficiently and promptly utilizing all resources of the laboratory.

LABORATORY SCIENTIST

A person who has general knowledge of the principles, theories, and practices in a given field of physical science such as may be acquired through completion of a full physical science curriculum leading to at least a bachelor's degree from an accredited college or university or through training equivalent in type, scope, and thoroughness.

LABORATORY TECHNICIAN

A person who has knowledge of the applied principles, theories, and practice in a given field of engineering or science such as may be acquired through the completion of at least two years of an engineering or science curriculum at an accredited college or university, or has graduated from a specialized technical vocational institute appropriate to his field or through training equivalent in type, scope, and thoroughness.

LAP

An acronym for Laboratory Accreditation Program which refers to a single program in NVLAP.

LICENSEE

The manufacturer or vendor authorized by contract to use the sponsor's or administrator's certification mark for validation purposes.

LOGO

(a) A symbol, label, hallmark, or statement authorized by a certification agency for affixing to a product indicating that the product is in conformance with specified provisions of the applicable standard, code, or other requirement.

(b) A symbol label, hallmark, or statement authorized by an accreditation agency for use by an accredited laboratory as appropriate for indicating the laboratory's accreditation status.

MANDATORY STANDARD

A standard with which there is an obligation to comply by virtue of an action by government or by an authority endowed with the necessary legal power; called a code, regulation, or rule. (NBS)

MONITORING

The act of periodically observing or reviewing the functioning and proficiency of a laboratory or a certification program.

NVLAP

Acronym for the National Voluntary Laboratory Accreditation Program which refers to the over-all laboratory accreditation program administered by the Department of Commerce.

NVLAP-01

The designation for the National Voluntary Laboratory Accreditation Program for thermal insulation materials.

NVLAP-02

The designation for the National Voluntary Laboratory Accreditation Program for freshly mixed field concrete.

NLACC

Acronym for a National Laboratory Accreditation Criteria Committee.

NLACC-01

The designation for the National Laboratory Accreditation Criteria Committee for thermal insulation materials.

NLACC-02

The designation for the National Laboratory Accreditation Criteria Committee for freshly mixed field concrete.

ON-SITE EXAMINATION

That part of the assessment process in which the assessor(s) visits a testing laboratory for the purpose of interviewing staff, inspecting equipment, records, laboratory practices and facilities, and witnessing tests. (ILAC-2)

PERFORMANCE STANDARD

A standard which prescribes the acceptable, functional or operational characteristics of a product or system in accordance with the use to which

the product or system would apply. A performance standard includes or references the test methods by which these characteristics are measured. (NBS)

PRECISION

The closeness of agreement among the results obtained by applying the experimental procedure (test method) several times under prescribed conditions. Precision is expressed in terms of repeatability and comparability.

PRELIMINARY TESTING

The testing of a product, material, or system before formal testing is begun for the purpose of evaluating (a) a compliance testing program, (b) a test method, (c) a laboratory's performance, or (d) the compliance of a product or material with specific standards, codes, or requirements.

PRODUCER

A person or organization that produces, manufactures, or assembles a product or system, or offers a service.

PRODUCT

A category of manufactured goods, constructions, installations, and natural and processed materials, or those associated services whose characterization, classification or functional performance determination is specified by standards. (NVLAP)

PRODUCT ACCEPTANCE TEST

A compliance test to determine the acceptability of delivered products which have been purchased under a contract requiring compliance with the appropriate standard, code, or other requirement. (NBS)

PRODUCT CONFORMANCE TESTING

The on-going or periodic test of a product to assure continuing product conformance with specified provisions of referenced standard codes or other requirements. The testing provides the basis for continued designation of a product as an approved, accepted, certified, or qualified product, or for maintaining an approved quality control program.

PRODUCT QUALIFICATION TESTING

The initial product test and analysis of a new product design or modification of a product design. Product qualification tests are the basis for the initial acceptance of a product as an approved or accepted product, being approved as a certified product, listed as a qualified product in a qualified product list (QPL) or as a product which has been granted type approval.

PROFICIENCY TESTING

(a) A program or system in which a product or material of specific or controlled characteristics, is distributed to participating testing laboratories. The laboratories test the product or material in accordance with specified test methods and submit the test data to the controlling agency. The test data from each laboratory are evaluated to determine how closely they agree with the "true" or "target" values for the distributed product or material. Test results may be shared with the participating laboratories for self-evaluation or improvement, used for evaluating each laboratory for accreditation purposes or maintained by the controlling agency on a proprietary basis.

(b) A program or system of monitoring laboratory performance by means of interlaboratory tests. Such systems take a variety of forms including round-robin and split-sampling testing. (ILAC-2)

QUALIFIED PRODUCT

A product which has been inspected, evaluated, tested, or otherwise determined to be in conformance with applicable or specified provisions of referenced standards, codes, or other requirements.

QUALIFIED PRODUCTS LIST (QPL)

A list of products, and their manufacturer, which have been tested and found to comply with the requirements of applicable standards, codes, or other requirements.

QUALITY ASSURANCE

A system of activities whose purpose is to provide assurance that an overall quality control function is effectively accomplished. Quality assurance involves a continuing evaluation of the adequacy and effectiveness of the overall quality control program (see quality control)

with a view to having corrective measures initiated where necessary. For a specific product or service, this involves verifications, audits, and the evaluation of the quality factors that affect the specification, production, inspection, and use of the product or service.

QUALITY CONTROL

The overall system of activities whose purpose is to provide a minimum level of quality of a product or service to meet the needs of users; also, the use of such a system. The aim of quality control is to provide quality that is satisfactory, adequate, dependable, and economical. The overall system involves integrating the quality aspects of several related steps including: (a) the proper specification of what is needed; (b) production to meet the full intent of the specification; (c) inspection to determine whether the resulting product or service is in accord with the specifications; and (d) review of the system usage to provide for the revision of specifications.

QUASI-MANDATORY STANDARD

A standard with which there is no legal obligation to comply, but which is required in practice or under certain conditions, such as a requirement of the marketplace or compatibility with other products.

RANDOM SAMPLING

The procedure used to select items from an inspection lot so that each item in the lot has an equal chance of being included in the sample.

REASSESSMENT

Reexamination of a testing laboratory to determine continued compliance with criteria for accreditation. (ILAC-1)

REEVALUATION

A repeat of the evaluation of an accredited laboratory for the purpose of determining if its accreditation should be continued.

REFERENCE LABORATORY

A facility that is recognized as professionally competent, properly equipped and staffed to evaluate the technical content and adequacy of a

test method, acts as a referee on technical questions, or determines "true" or "target" values for proficiency sample or collaborative reference sample products and materials.

REFERENCE MATERIAL

See STANDARD REFERENCE MATERIAL.

REFERENCE STANDARD

(a) An instrument or system whose characteristics have been measured or analyzed under specific conditions, using specific procedures and is used to calibrate or verify working standards. The instrument or system may also be used for the measurement of physical quantities that need to be measured more accurately than would normally be measured on a routine basis using a working standard.

(b) A secondary standard with which standards of lower accuracy are compared. (OIML)

REPEATABILITY

OF A LABORATORY -- A measure of the capability of a laboratory to repeat its own test result on the same or essentially identical samples using a specific test method.

OF A TEST METHOD -- A measure of the capability of a group of laboratories to obtain the same test result using the same test method.

OF AN INSTRUMENT -- A measure of the capability of a measuring instrument to produce the same indication or data on replicate measurements using a specific test method when operator, environmental, and test sample variables are constant.

OF AN OPERATOR -- A measure of the ability of an operator to obtain the same result or data on replicate measurements using a specific test method when instrument, environmental, and test sample variables are constant.

REPRODUCIBILITY

OF A LABORATORY -- A measure of the capability of a laboratory to obtain the same test result of another laboratory (or the average of the results of a number of laboratories) using the same or essentially identical samples and the same test method.

OF AN INSTRUMENT -- A measure of the capability of an instrument to obtain the same indication or data as another instrument using the same test method when operator, environmental, and test sample variables are constant.

OF AN OPERATOR -- A measure of the ability of an operator to obtain the same test results as another operator using the same test method and the same or essentially identical instrument when the environmental and test sample variables are constant.

OF A GROUP OF LABORATORIES -- The maximum range of test results obtained by a group of laboratories using the same or essentially identical samples and the same test method.

OF A GROUP OF INSTRUMENTS -- The maximum range of indications or data obtained by a group of instruments when the instruments are used by one operator using a specific test method and when the environmental and test sample variables are constant.

OF A GROUP OF OPERATORS -- The maximum range of test results obtained by a group of operators using the same or essentially identical samples and instruments and the same test method when the environmental variables are constant.

SAFETY STANDARD

A standard whose primary purpose is to prescribe a set of conditions and requirements on a practice or on the design and/or performance of a product which, when adhered to, will provide adequate assurance of protecting a user or worker from unreasonable hazards associated with the product, its installation, and its use.

SAMPLING PLAN

A specific plan that states the sample size (number) or quantity of products or material that is to be selected at random or in a specific order from a production lot for the purpose of compliance testing.

SELF CERTIFICATION

The certification of a product by a producer or vendor of the product being certified.

SPECIFIC CRITERIA

Those detailed requirements deemed essential to assuring an acceptable examination and evaluation of the testing function performed by a testing laboratory in performing specific tests related to identified standards for the product under consideration. (NVLAP)

SPECIFICATION

A precise statement of a set of requirements to be satisfied by a material, product, system or service, indicating, whenever appropriate, the procedure for determining whether the requirements given are satisfied.

SPECIFICATION STANDARD

See SPECIFICATION

SPONSOR

An organization under whose authority a laboratory accreditation or product certification program is developed, promulgated, and financed and with whom the program is identified.

STANDARD (DOCUMENT)

A technical specification or other document available to the public, drawn up by an authoritative group or organization generally including producer, user, and general interests, based on science, technology, and experience, aimed at the promotion of optimum community benefits. (ILAC-2)

STANDARD (PHYSICAL)

An instrument, artifact material or system whose characteristics have been measured or analyzed under specific conditions, using specific procedures, and is used as a reference for characterizing or calibrating other instruments, artifacts materials, or systems.

STANDARDS LABORATORY

A laboratory that has been recognized and accepted as having a high degree of proficiency and capability for providing consistently accurate measurements involving testing or calibration services. Testing or calibration values obtained by the laboratory are usually sufficiently accurate for the needs of industry or other testing laboratories.

STANDARD REFERENCE MATERIAL (SRM)

A material of relatively high uniformity whose intrinsic properties have been well characterized and is used for assessing similar materials. It may be used as a reference in a laboratory or for controlling a manufacturing process.

STANDARD TEST METHOD

See TEST METHOD

STANDARDIZATION

(a) The process of establishing by common agreement the criteria, terms, principles, practices, materials, items, processes, equipments, parts, sub-assemblies, and assemblies appropriate to achieve the greatest practicable uniformity of items of supply or procedures and to insure the minimum feasible variety of such items or procedures to effect optimum interchangeability of equipment parts and components.

(b) The process of changing, adjusting or correcting the physical or performance parameters of a measuring device, standard or measurement system to achieve a prescribed level of accuracy with respect to an accepted value(s).

(c) An activity giving solutions for repetitive application, to problems essentially in the spheres of science, technology and economics, aimed at the achievement of the optimum degree of order in a given context. Generally, the activity consists of the processes of formulating, issuing and implementing standards. (ILAC-1)

TECHNICAL SPECIFICATION

A document which lays down characteristics of a product or service such as levels of quality, performance, safety, and dimensions. It may include, or deal exclusively with, terminology, symbols, testing and test methods, packaging, marking, or labeling requirements as they apply to products or services. A technical specification may also take the form of a code of practice. (ILAC-2)

TEST DATA

A quantitative or qualitative expression of measurements and observations made during performance of a test. (ILAC-1)

TEST METHOD

(a) A prescribed means for conducting a specific test which may include procedures for sample selection, sample preparation or conditioning, environmental requirements, a description of the required or suggested test equipment, the required precision of the test equipment, the procedures for conducting the test, the procedures for recording the data and statements of expected or maximum uncertainty of the test data.

(b) A document that details the elements of (a) above. Sometimes referred to as a standard test method if the method represents a consensus of individuals, or organizations.

(c) The detailed specification of equipment, conditions, and procedures used to determine the properties, performance, or other characteristics of materials or products. (ILAC-2)

TEST PROCEDURE

The detailed instructions for conducting a test.

TEST REPORT

A formal document which accurately presents test data in a form comprehensible to the user of the report. (ILAC-2)

TESTING AGENCY

See TESTING LABORATORY.

TESTING LABORATORY

(a) A person or organization whose functions include testing, analyzing or inspecting products, and/or evaluating the designs or specifications of such products according to the requirements of applicable standards. (NVLAP)

(b) A body composed of qualified persons and necessary equipment and facilities, whose main function is to measure, examine, test, or otherwise determine the properties, performance, or other characteristics of materials or products. (ILAC-2)

(c) A facility comprising one or more persons whose functions include the testing, analyzing, or inspection of products or materials in accordance with prescribed methods for the purpose of evaluating the design, performance, structure or chemical characteristics of such items.

THIRD PARTY CERTIFICATION

The certification of a product by an organization which has no organizational tie or financial interest in the manufacture, vending, supplying, or promotion of the product being certified.

TRACEABILITY

(a) A documented chain of comparisons connecting a working standard or instrument to a primary standard of measurement maintained by an organization with recognized authority for realizing those standards. (ILAC)

(b) The process by which the assigned value of a measurement is compared, directly or indirectly, through a series of calibrations to the value established by the U.S. national standard. (MIL)

USER

(a) An individual or organization that makes use of a testing laboratory.

(b) An individual or organization that uses a product.

VALIDATION

An action by a third party to assure that the producer (or certifier) is adhering to the requirements of a given certification program.

VALIDATOR

An individual or organization that conducts the act of validation.

VENDOR

An organization marketing a product or service whose name or trademark appears in lieu of, or in addition to, the name of the manufacturer. (ANSI)

VOLUNTARY STANDARD

A standard with which there is no obligation to comply. A voluntary standard may become a quasi-mandatory standard, mandatory standard, code, regulation, or rule as a result of utilization or adoption by a regulatory authority.

WARRANTY

An implied or expressed guarantee of the integrity of a product and of the manufacturer's willingness to repair or replace the product for a given interval of time after purchase.

WORKING STANDARD

(a) An instrument, material or system whose characteristics have been measured or analyzed under specific conditions, using specific procedures and is used on a daily or routine basis to measure, control or, verify physical quantities. A working standard is calibrated or verified against a reference standard.

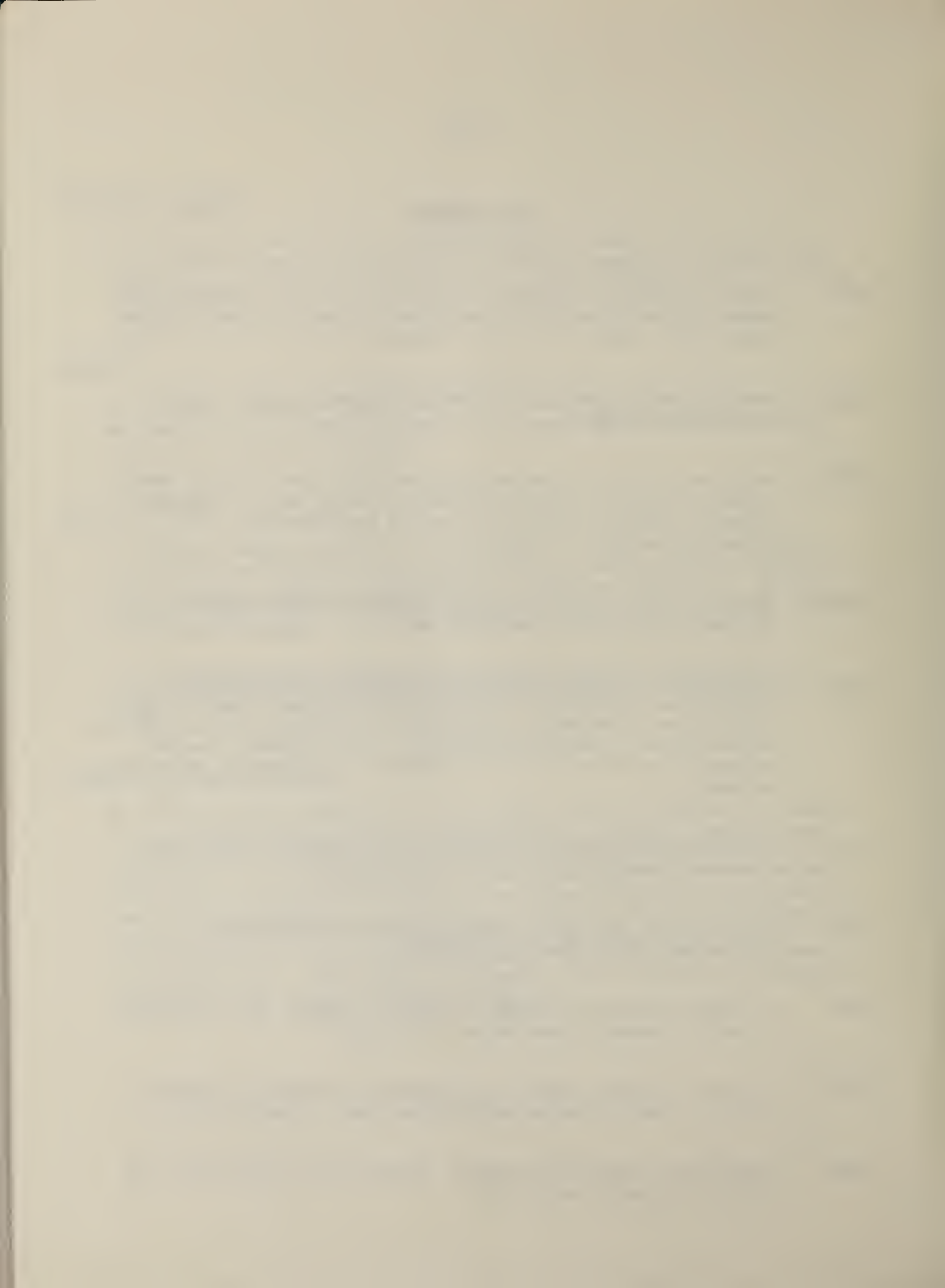
(b) A standard which, calibrated against a reference standard, is intended to verify ordinary measuring instruments of lower accuracy. (OIML)

YOUTEN'S TWO-SAMPLE METHOD

An interlaboratory procedure for evaluating testing laboratories in which all laboratories make one or more measurements on each of two different but similar materials or items. The results are usually presented graphically on a rectangular plot in which each laboratory is represented by a point, the abscissa of which is the value obtained by the laboratory for the first material or item and the ordinate is the value obtained for the second material or item. The deviation of a laboratory's point from the points of the other laboratories may be used to judge the performance of the laboratory. The method is frequently used in proficiency testing or collaborative reference testing programs.

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- (ASTM-1) American Society for Testing and Materials Standard E-548, Generic Criteria for use in the Evaluation of Testing and/or Inspection Agencies, American Society for Testing and Materials; Philadelphia, PA.
- (ASTM-2) American Society for Testing and Materials Standard D2234-72, "Collection of a Gross Sample of Coal."
- (ILAC-1) "Definitions of Basic Terms Used in Laboratory Accreditation." International Laboratory Accreditation Conference, Task Force C; International Conference on Recognition of National Systems for the Accreditation of Testing Laboratories. J.A. Gilmour, Chairman; National Association of Testing Authorities, Australia; Melbourne, Australia.
- (ILAC-2) International Laboratory Accreditation Conference, Task Force C, Recommendations by the U.S. Delegation, 1979.
- (MIL) MIL-STD-1309B, May 1975. "Definitions of Terms for Test, Measurement and Diagnostic Equipment."
- (NBS) "A Compliance Testing System for NILECJ," NBSIR 75-719, National Bureau of Standards, Washington, D.C. 20234.
- (NVLAP) National Voluntary Laboratory Accreditation Program Procedures, Title 15, Code of Federal Regulations, Part 7, Section 7.3.
- (OIML) Vocabulaire de Metrologie Legale, Organisation Internationale de Metrologie Legale, Paris 1978.



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