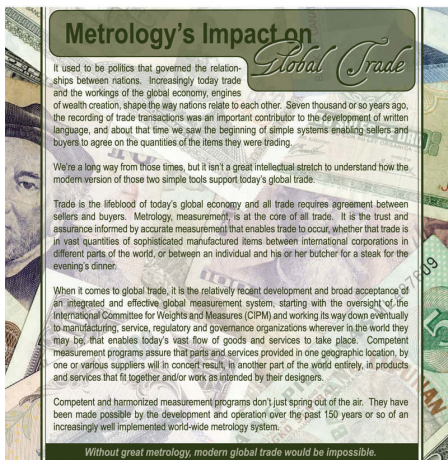


NVLAP at NCSLI July 26-30, 2009



The NCSLI 2009 Workshop and Symposium, themed *Metrology's Impact on Global Trade* will be held July 26-30, 2009, at the San Antonio Convention Center, San

Antonio, TX.

NVLAP staff will present two tutorials at the meeting. **If you wish to participate, you must register through NCSLI at <http://www.ncsli.org/>.**

T4—My measurements are traceable—right? Demonstrating the chain of traceability—July 25, 2009, 8:00 AM—12:00 PM (the day before the start of the meeting).

Instructor: Dana Leaman, NVLAP ITST Program Manager

This half-day tutorial examines the requirements to demonstrate the traceability chain for measurement and test equipment. Topics will include the concept of traceability from several levels, including the International Bureau of Weights and Measures (BIPM), National Metrology Institutes, and Accreditation Bodies. Within those discussions, we will cover the Key Comparisons Data Base (KCDB), accreditation and the associated scopes, how to demonstrate your traceability, and the misconceptions associated

with traceability.

T13 - Collecting Objective Evidence: The Internal Audit Process in Preparation for the On Site Assessment—July 26, 2009, 8:00 AM - 5:00 PM

Instructors: Barbara Belzer and Thomas Hettenhouser, NVLAP Calibration Program Managers and Gregory Strouse of NIST's Process Measurements Division

This tutorial will be of interest to managers and staff of laboratories with new or mature quality systems. It will cover what constitutes objective evidence by stepping through the internal audit process. The tutorial will emphasize the importance of records for all aspects of the management system including reference documents, method validation and their interdependency with metrological traceability and reporting results. Using the described internal audit process prior to an on-site assessment companies new to the accreditation process as well those with mature quality systems will be able to prepare better for an upcoming on-site assessment.

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NVLAP Documents – New/Revised in 2009

The following publications and forms have been issued in 2009, and may be downloaded from the NVLAP web site. For revised publications and forms, the 2009 edition supersedes and replaces the previous edition. In accordance with NVLAP's document control policy, NVLAP-accredited laboratories and NVLAP assessors must ensure that all obsolete documents are removed from points of use.

The new and revised publications and forms are listed by Laboratory Accreditation Program (LAP). If you have any questions about these updates, please contact the NVLAP Program Manager assigned to the specific LAP (see Staff Directory at <http://ts.nist.gov/Standards/Accreditation/staff.cfm>).

Cryptographic and Security Testing LAP

- NVLAP Lab Bulletin LB-39-2009, *Update of NVLAP Cryptographic and Security Testing LAP Accreditation Requirements* (2009-02-04)

Efficiency of Electric Motors LAP

- NVLAP Lab Bulletin LB-42-2009, *Changes to NVLAP Efficiency of Electric Motors Program* (2009-03-19)

Electromagnetic Compatibility and Telecommunications (ECT) LAP

- ECT Addendum #1 to Application Form – *Request to Expand or Reduce Laboratory Scope* (including updated revisions of standards) (rev. 2009-01-13)
- NIST Handbook 150-11A Checklist, *ECT: FCC Parts 2, 15, and 18* (rev. 2009-02-02)

Energy Efficient Lighting Products LAP

- Energy Efficient Lighting Products Application Form (rev. 2009-02-26)
- NIST Handbook 150-1 Checklist, *Energy Efficient Lighting Products* (rev. 2009-02-23)

- NIST Handbook 150-1A: 2009 edition, *Energy Efficient Lighting Products – Solid State Lighting* (February 2009)
- NIST Handbook 150-1A Checklist, *Solid State Lighting* (2009-02-23)
- NVLAP Lab Bulletin LB-38-2009, *Changes to Energy Efficient Lighting Products LAP* (2009-03-05)

Personal Body Armor LAP

- NVLAP Lab Bulletin LB-40-2009, *Personal Body Armor - Compliance Testing Program Administrative Clarification Documents* (2009-03-05)
- NVLAP Lab Bulletin LB-41-2009, *Personal Body Armor - NVLAP-Specific Requirements for CTP Clarification 2009:03* (2009-03-05)



Photograph taken by Alejandra Figueroa of NVLAP

Spring has sprung! These beautiful Japanese cherry trees were blooming on the NIST campus in early April.

NVLAP Offering Extended Payment Plan

NVLAP recognizes that during this uncertain economic time, some laboratories would benefit by having the opportunity to pay NVLAP fees over a 6-month period. NIST's Accounts Receivables Office has agreed to provide this service and it can be arranged for your laboratory, at your request, through a repayment plan agreement. This offer is being made to those laboratories with an accreditation renewal date of July 2009 or later.

To take advantage of this payment option, you must first send in your purchase order and application to NVLAP. Then you must contact Ms. Julie Weiblinger, by phone at (301) 975-2173 or by e-mail at Julie.weiblinger@nist.gov, to set up a payment plan. You must have a signed payment plan agreement in place with NIST before payments can be made.

News from ILAC and APLAC

ILAC

(International Laboratory Accreditation Cooperation)

Celebrate International Accreditation Day

June 9, 2009 The 9th of June 2009 will mark International Accreditation Day, a global initiative jointly established by the International Accreditation Forum (IAF) and International Laboratory Accreditation Cooperation (ILAC) to raise awareness of the importance of accreditation-related activities.

The theme this year is 'competence'. In such a complex and highly competitive market, a level of confidence is required when procuring products or services. Such reassurance is underpinned by accreditation. Specifiers, like Government regulators, have come to appreciate the importance of credible accreditation programs that are based on internationally-recognized standards. With restricted budgets, many Regulators can no longer do it all themselves and increasingly, they must rely on third-party organizations to support their regulatory efforts. When they do so, they need a fair and meaningful basis for identifying qualified and competent providers. Accreditation provides this declaration of competence.

APLAC

(Asia Pacific Laboratory Accreditation Cooperation)

The Technical Committee of the Asia Pacific Laboratory Accreditation Cooperation (APLAC) has issued a new document entitled, *General Information on Uncertainty of Measurement: For those relying on test results to make informed decisions and judgments*. APLAC TC 010, issued February 2009, is available on the APLAC website <http://www.aplac.org/documents/tc/aplac_tc_010_issue_1.pdf>. The document was issued by the APLAC Technical Committee and is intended to be a brief explanation of uncertainty of measurement "for the lay person." Accredited laboratories will be able to give this document to their clients to assist with their understanding of this subject. NVLAP program management believes that the information in this document is useful to share with our assessors and laboratories.



APLAC TC 010 is intended to be a brief explanation of uncertainty of measurement "for the lay person."

NVLAP Welcomes New Staff

Lori Gruber

Mrs. Lori Gruber joined NVLAP as an Administrative Support Clerk. She performs records management, maintains the Technical Expert/ Assessor portion of the NVLAP Information System, prepares on-site packages and provides phone and email coverage for NVLAP. She previously worked within NIST's Ceramics Division in the Material Science and Engineering Laboratory and returned to NIST after a 13-year absence to raise her children.

Tim Rasinski

Mr. Timothy Rasinski joined the NVLAP staff as a program manager in the Fasteners and Metals, Product Testing, and Asbestos Laboratory Accreditation Programs. He will be responsible for the Carpet and Carpet Cushion, Commercial Products Testing, Thermal Insulation Materials, and Wood Based Products disciplines in the Product Testing Program and will monitor the proficiency testing programs for these. As a program manager he will work with assessors and laboratories in the assessment process including training and oversight of assessors and review of laboratory corrective actions. He will be active in the ASTM Fasteners (F16) and Mechanical Testing (E28) committees.

Mr. Rasinski has nine years experience working with quality and management systems. He comes from MET Laboratories in Baltimore where he was the quality manager responsible for maintaining the laboratory's accreditations to ISO/IEC 17025, ISO/IEC 17020, and ISO/IEC Guide 65. Prior to this he worked at the American Association for Laboratory Accreditation (A2LA) in the calibration and mechanical testing accreditation programs and is an approved ISO/IEC 17025 quality system auditor. He taught math, science, and computers in the Maryland public school system for 12 years and was a Microsoft Certified Systems Engineer. Mr. Rasinski has a Bachelor of Science in phys-

ics from Towson University and a Master of Arts in humanities from Frostburg State University.

Beth Thomas

Ms. Beth Thomas is a General Business Specialist with over 25 years of federal government experience. She consults regularly with senior level management from a variety of fields to help create synergistic solutions to program-impacting problems. Prior to her current position, she created and led the financial and administrative management processes of NVLAP, the Standard Reference Materials program, the Standard Reference Data program and the Calibration Services program. Ms. Thomas holds an MBA in Business Administration, an undergraduate degree in Business Administration, and an Associates of Arts degree in accounting.



Photograph taken by Alejandra Figueroa of NVLAP

Blooming magnolia trees just outside the NIST Red Auditorium

NVLAP Program Information

Several Laboratory Bulletins have been issued since the last newsletter.

Efficiency of Electric Motors Program

LB-42-2009, Issued March 19, 2009

Subject: Changes to NVLAP Efficiency of Electric Motors Program

This bulletin announces a change in the NVLAP Efficiency of Electric Motors (EEM) Program.

Effective on the issue date of this bulletin, the references section (1.4) of NIST Handbook 150-10, *Efficiency of Electric Motors*, 2007 Edition, is revised as specified in 1) and 2) below.

1) Reference 1.4 d): IEEE Standard 112-1996, *Test Procedure for Polyphase Induction Motors and Generators*, Test Method B, and the correction to the calculation at item (28) in section 10.2 Form B-Test Method B issued by IEEE on January 20, 1998, is replaced with:

IEEE 112-2004, *IEEE Standard Test Procedure for Polyphase Induction Motors and Generators*, Test Method B, and the correction to the calculation at item (28) in section 10.2 Form B-Test Method B issued by IEEE on November 4, 2004.

2) Reference 1.4 f): NEMA Standards Publication MG 1-1993, *Motors and Generators*, with Revisions 1, 2, 3, and 4, is replaced with: NEMA MG 1-2006, *Motors and Generators*, plus Revision 1.

There are no significant technical differences in these references. The changes were made to be consistent with current industry practices and in support of the Department of Energy proposed rule on small electric motors as designated in 10 CFR Part 431, [Docket No. EERE-2008-BT-TP-0008], RIN 1904-AB71, Energy Conservation Program: Test Procedures for Electric Motors.

This bulletin should be inserted into NIST Handbook 150-10 (EEM Program-Specific Handbook) until the next edition of the handbook is released, at which time the reference changes will be incorporated into the handbook. This bulletin

has also been posted to the NVLAP web site at (<http://www.nist.gov/nvlap>).

Questions concerning the EEM requirements for accreditation should be directed to Jon Crickenberger at 301-975-5305, or <jon.crickenberger@nist.gov>.

Energy Efficient Lighting Products Program

LB-38-2009, Issued March 5, 2009

Subject: Changes to Energy Efficient Lighting Products LAP

This bulletin announces four changes in the NVLAP Energy Efficient Lighting Products (EEL) Program: 1) the EEL Test Method Selection List has been revised and expanded; 2) several changes to NIST Handbook 150-1 have been made and are published in this bulletin; 3) the Program-Specific Checklist for NIST Handbook 150-1 has been revised; 4) Solid State Lighting (SSL) test methods have been added to the EEL Program.

The associated revised and new requirements and guidance documents have been posted to the NVLAP web site at (<http://www.nist.gov/nvlap>).

1) Revised EEL Test Method Selection List—NIST Handbook 150-1:2008, 5.10.1.2, requires that test reports clearly reference the test method and edition (year of publication) applied to the product or system tested. Therefore, NVLAP has revised the EEL Test Method Selection List to show the year of publication for every test method. The revised list is now available on the “Print NVLAP Application Forms” web page. For laboratories currently accredited in the EEL Program, the process to accomplish the transition from the previous Test Method Selection List to the revised Test Method Selection List is as follows. A laboratory may complete and submit the revised Test Method Selection List along with a copy of the title page for each test method for which it is seeking an updated scope of accreditation. NVLAP will revise the laboratory’s current scope of accreditation if the test method is a dated version of a test method for

which the laboratory is already accredited. By sending the title page, the laboratory is affirming that the selected method is the one it has been employing for NVLAP-accredited testing. During the next on-site assessment, the laboratory will be assessed for this test method. A laboratory is not obligated to update its scope of accreditation until the next on-site assessment when only dated versions will be offered. Therefore, until that time, a laboratory may retain its current scope of accreditation.

A laboratory seeking initial accreditation in the EEL Program will be required to use only the revised Test Method Selection List and follow the process for accreditation as specified in NIST Handbook 150.

The revised Test Method Selection List also includes methods for NVLAP's new Solid State Lighting (SSL) field of accreditation. The SSL methods require an on-site assessment before they may be added to a laboratory's scope of accreditation.

2) Changes to NIST Handbook 150-1—The following requirements have been amended. This bulletin should be inserted into NIST Handbook 150-1 (EEL Program-Specific Handbook) until the next edition of the handbook is released, at which time the requirement changes will be incorporated into the handbook.

- a) Reference section 1.4 has been modified by deleting: "CIE Publication No. 13.2, *Method of Measuring and Specifying Color Rendering of Light Sources*, Commission Internationale de l'Eclairage."
- b) Paragraph 4.2.6 has been deleted.
- c) The following sentence was added to the end of 3.4.7: "These procedures shall include comparing the laboratory's proficiency testing results with those from NIST and/or other NVLAP-accredited laboratories."
- d) Paragraph 5.6.2 was changed to read: "To account for the effect on traceability of calibration of M&TE, the laboratory shall determine equipment calibration (and verification and maintenance) intervals based on the equipment's frequency

of use and environment in which it is used, and also in accordance with standard test methods, manufacturer's recommendations, or as recommended in the EEL Program-Specific Checklist, whichever results in a shorter time between calibrations. Extension of the time interval between calibrations is acceptable if the laboratory can provide justification for increasing the interval. Ultimately the laboratory shall be responsible for the determination and documentation of the calibration frequency (and frequency of verification and maintenance)."

3) Revised Program-Specific Checklist for NIST Handbook 150-1—The Program-Specific Checklist for NIST Handbook 150-1 has been revised to reflect the changes in NIST Handbook 150-1 as described in 2) above.

4) Addition of Solid State Lighting Test Methods—NVLAP has added test methods for solid state lighting products and LED sources as part of the EEL accreditation program. Technical requirements and guidance for the accreditation of laboratories that test solid state lighting products and LED sources have been published in a new handbook, NIST Handbook 150-1A, *Energy Efficient Lighting Products – Solid State Lighting*, and its corresponding checklist. In addition, SSL test methods are now listed on the EEL Test Method Selection List. Initial accreditation to SSL test methods, or adding these methods to a current EEL scope of accreditation, requires an on-site assessment.

NVLAP will begin accepting applications for SSL test methods beginning March 5, 2009. Laboratories currently accredited by NVLAP may request an on-site assessment by submitting a completed Program-Specific Application (EEL Test Method Selection List) and payment of the assessment fee. Laboratories should contact NVLAP for the fee estimate. Laboratories not accredited by NVLAP must go through the complete application process as specified in NIST Handbook 150. Questions concerning the EEL requirements for accreditation should be directed to Jon Crickenberger at 301-975-5305, or <jon.crickenberger@nist.gov>.

ITST: Cryptographic and Security Testing

LB-39-2009, Issued February 4, 2009

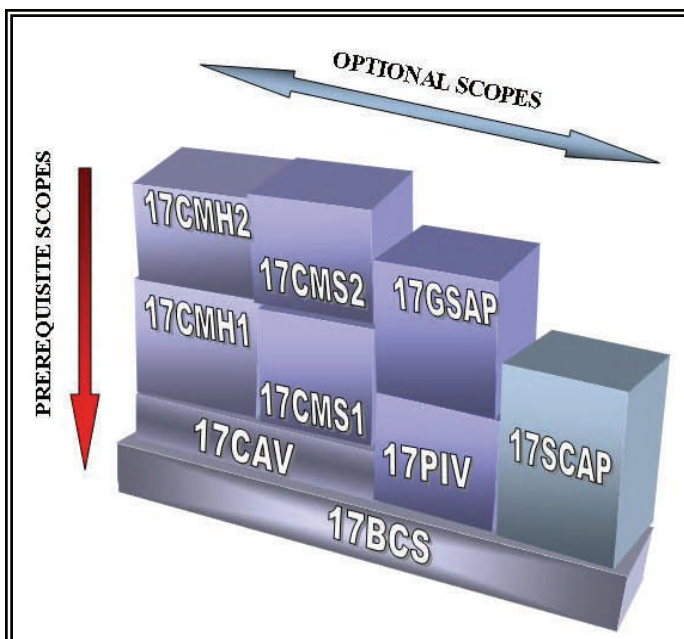
Subject: Update of NVLAP Cryptographic and Security Testing LAP Accreditation Requirements

Effective immediately, the 2008 edition of NIST Handbook 150-17, *NVLAP Cryptographic and Security Testing*, will be used for all on-site assessments of Cryptographic and Security Testing (CST) laboratories. The new edition was

published and posted on the NVLAP web site in July

2008, and supersedes and replaces the 2000 edition of NIST Handbook 150-17, *NVLAP Cryptographic Module Testing*. It is available for downloading (PDF format) from the Program-Specific Handbooks page of the NVLAP web site (www.nist.gov/nvlap). The 2008 edition of NIST Handbook 150-17 incorporates changes resulting from the release of the newest editions of ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*, and NIST Handbook 150, *NVLAP Procedures and General Requirements*, as well as editorial improvements. The requirements of NIST Handbook 150 and the interpretations and specific requirements in NIST Handbook 150-17 must be combined to produce the criteria for accreditation in the NVLAP CST LAP.

In the revised handbook, the minimum level of required expertise is described as “Basic Cryptographic and Security (17BCS)” testing and is considered the foundation of all scopes of accreditations for the CST LAP. The Basic Cryptographic and Security (17BCS) testing scope is not a standalone scope and it is mandated as a prerequisite for all other scopes. These additional scopes are:



Legend:

17BCS=Basic Cryptographic and Security Testing

17CAV=Cryptographic Algorithm Validation Testing

17CMS1=Cryptographic Modules – Software 1 Testing (Security Levels 1 to 3)

17CMS2=Cryptographic Modules – Software 2 Testing (Security Levels 4 and above)

17CMH1=Cryptographic Modules – Hardware 1 Testing (Security Levels 1 to 3)

17CMH2=Cryptographic Modules – Hardware 2 Testing (Security Levels 4 and above)

17PIV=Personal Identity Verification Testing

17GSAP=GSA-Precursor Testing

17SCAP=Security Content Automation Protocol Testing

17CAV Cryptographic Algorithm Validation Testing (required for 17CMS1 or 17CMH1)

17CMS1 Cryptographic Modules – Software 1 Testing (required for 17CMS2) (FIPS 140-2 or successor, Security Level 1 to 3)

17CMS2 Cryptographic Modules – Software 2 Testing (FIPS 140-2 or successor, Security Level 4 and above)

17CMH1 Cryptographic Modules – Hardware 1 Testing (required for 17CMH2) (FIPS 140-2 or successor, Security Level 1 to 3)

17CMH2 Cryptographic Modules – Hardware 2 Testing (FIPS 140-2 or successor, Security Level 4 and above)

17PIV Personal Identity Verification Testing (NPIVP, FIPS 201) (required for 17GSAP)

17GSAP General Services Administration Precursor Testing—(GSAP test methods, FIPS 201)

17SCAP Security Content Automation Protocol Testing—(SCAP, CVE, CCE, CPE, CVSS, XCCDF and OVAL)

For example, if the Cryptographic Modules – Software 2 Testing (17CMS2) scope is requested for accreditation, the Cryptographic Modules – Software 1 Testing (17CMS1), Cryptographic Algorithm Validation Testing (17CAV), and Cryptographic and Security Testing (17BCS) scopes become mandatory prerequisites. Likewise, if General Services Administration Precursor Testing (17GSAP) is requested for accreditation, Personal Identity Verification Testing (17PIV) becomes a mandatory prerequisite. Questions concerning the revised handbook or requirements for accreditation should be directed to Dana Leaman at 301-975-4679 or <dana.leaman@nist.gov>.

Personal Body Armor Program

LB-40-2009, Issued March 5, 2009

Subject: Compliance Testing Program Administrative Clarification Documents

The Body Armor Compliance Testing Program (CTP), administered by the National Law Enforcement and Corrections Technology Center – National (NLECTC) for the National Institute of Justice (NIJ), has recently released three CTP Administrative Clarification documents:

CTP 2009:01 Labeling Permanency and Durability

CTP 2009:02 Stop Points During Type Testing

CTP 2009:03 Clarification of Section 6, Table 3 “Thermal cycle testing conditions,” for NIJ Standard 0101.06, Ballistic Resistance of Body Armor.

These documents are available at: [http://](http://www.justnet.org/Pages/manufacturers.asp)

www.justnet.org/Pages/manufacturers.asp. NVLAP-accredited laboratories shall obtain copies of CTP Administrative Clarifications in a timely manner and shall incorporate relevant clarifications into their laboratory management systems.

Questions concerning the NVLAP Personal Body Armor Program should be addressed to Hazel M. Richmond, (301) 975-3024 or <hazel.richmond@nist.gov>.

Personal Body Armor Program

LB-41-2009, Issued March 5, 2009

Subject: NVLAP-Specific Requirements for CTP Clarification 2009:03

NVLAP-accredited laboratories shall address the following issues in regard to the CTP Administrative Clarification 2009:03 (Clarification of Section 6, Table 3 “Thermal cycle testing conditions”):

Hard Armor Conditioning Protocol 24-hour temperature cycle test (NIJ 0101.06, Section 6.2.3) temperature and humidity data shall be plotted on one point for each 24-hour testing cycle.

Data tables and plots shall be appropriately labeled to enable review for conformance.

Numeric data tables and plotted data shall be examined for conformance to the standard.

Explanations for nonconformities and anomalies that appear on the tables and plots shall be recorded and kept in the test records.

Expected “anomalies” shall be explained with generic notes, e.g., the transient in relative humidity when the temperature is changed or the recorded relative humidity data that has no meaning at certain temperatures in the 24-hour cycle.

Requests for clarification of requirements concerning NIJ 0101.06 or the requirements of the CTP shall be addressed to the CTP.

Corrective actions shall be documented and audited.

Questions concerning the NVLAP Personal Body Armor Program should be addressed to Hazel M. Richmond, (301) 975-3024 or <hazel.richmond@nist.gov>.

NCSLI Virginia Section Meeting held at NIST

Tom Hettenhouser, NVLAP Calibration Program Manager, who serves as the Virginia Section Coordinator for NCSLI, hosted the annual section meeting at NIST on April 22, 2009. Forty-seven people, from 22 organizations, attended the meeting.

The meeting provided attendees with the opportunity to visit two NIST laboratories of their choice; NIST staff provided the escorted tour.

The laboratories and NIST staff involved are listed below:

Physics Laboratory

Optical Technology Division

Radiometry—Cameron Miller

Manufacturing Engineering Laboratory

Manufacturing Metrology Division

Sound—Victor Nedzelnitsky

Vibration—David Evans

Force—Rick Seifarth

Mass—Brian Scace

Precision Engineering Division

Dimensional—Eric Stanfield

Dimensional—John Stoup

Chemical Science and Engineering Laboratory

Process Measurement Division

Temperature—Gregory Strouse

Flow—Aaron Johnson

Flow—John Wright

Pressure—Doug Olson



Attendees at Virginia Section Meeting of NCSLI, held April 22, 2009, at the National Institute of Standards and Technology



WHAT WE DO

The National Voluntary Laboratory Accreditation Program (NVLAP) provides third-party accreditation to testing and calibration laboratories. NVLAP's accreditation programs are established in response to Congressional mandates or administrative actions by the Federal Government or from requests by private-sector organizations. NVLAP is in full conformance with the standards of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), including ISO/IEC 17025 and ISO/IEC 17011.

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 Vision Statement

To be a world-class accreditation body recognized nationally and internationally for raising the bar and setting the standard for excellence in accreditation.



NVLAP is located on the campus of the National Institute of Standards and Technology in Gaithersburg, MD

NVLAP News is published by the National Voluntary Laboratory Accreditation Program, Standards Services Division, Technology Services, National Institute of Standards and Technology, U.S. Department of Commerce. Comments are welcome. **Hazel M. Richmond**, Editor, NIST/**NVLAP**, 100 Bureau Drive, Stop 2140, Gaithersburg, MD 20899-2140. Phone: (301) 975-4016; Fax: (301) 926-2884; E-mail: nvlap@nist.gov. The URL address for the **NVLAP** Home Page is <http://www.nist.gov/nvlap>.