SPRING 2010

NVLAP® NEWS

NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM

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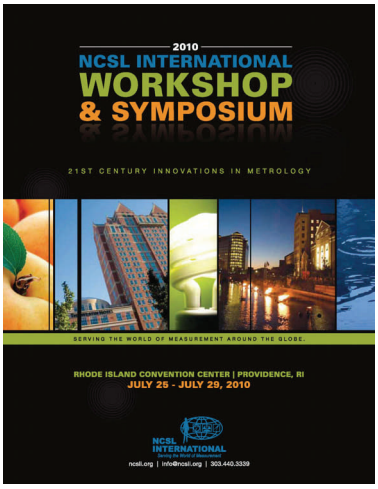
NVLAP on the Road Again

NCSL International



NVLAP will be represented at the NCSL International Workshop & Symposium July 25 - July 29, 2010, at the Rhode Island Convention Center in Providence, RI. If you are in the area, please stop by the NVLAP booth at location 624/626.

Barbara Belzer and Tom Hettenhouser, NVLAP Calibration Program Managers, will present a tutorial, *Collecting Objective Evidence: The Internal Audit Process in Preparation for the On-site Assessment*. This tutorial will be of interest to managers and staff of laboratories with new or mature quality systems. Emphasis will be on the importance of records for all aspects of the management system, including reference documents, method validation and their interdependency with metrological traceability and with reporting the results. If you would like to register for this tutorial, please see the NCSLI website www.ncsli.org and click on "Conference."

EMC 2010

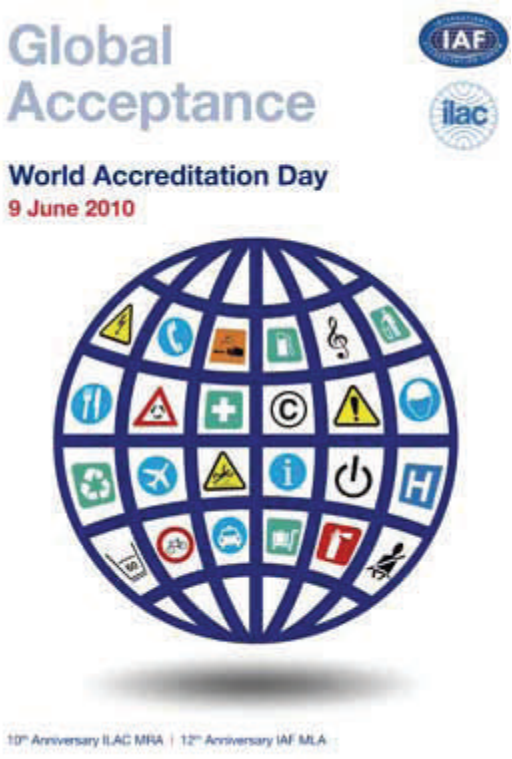
NVLAP Assessor Training

NVLAP EMC Assessors—Please join NVLAP for a one-day NVLAP Assessor Training Seminar on Sunday, July 25, 2010, in Fort Lauderdale, Florida, from 10:00 a.m. to 5:00 p.m. The specific meeting place will be communicated by E-mail.

This training seminar is open to all current and potential assessors and is free of charge. Presentations will be conducted by NVLAP staff on assessor-related elements of laboratory accreditation. Registration forms will be available in the coming weeks. Please contact NVLAP by phone: 301-975-4016 or E-mail nvlap@nist.gov if you have questions regarding the training seminar.

NVLAP Laboratories—Please visit the NVLAP booth at location 812. NVLAP staff members will be happy to meet with you to answer any questions you might have.

Inside this issue:



World Accreditation Day

June 9, 2010

This year marks the 10th anniversary of the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) and the 12th anniversary of the International Accreditation Forum (IAF) Multilateral Recognition Arrangement (MLA). The principle aim of these arrangements is to support the freedom of world trade by eliminating technical barriers to trade. The creation of an international network among accreditation bodies removes the need for suppliers to have their products or services re-evaluated in each country they enter on a commercial basis. The key to the arrangements is that the results of accredited organizations are recognized as equivalent by signatory accreditation bodies. In this way, certificates issued by accredited organizations can therefore be accepted throughout the world.

"Global Acceptance" is the theme for World Accreditation Day 2010, a worldwide initiative jointly established by the International Accreditation Forum (IAF) and the International Laboratory Accreditation Cooperation (ILAC) to raise awareness of the importance of accreditation-related activities. June 9, 2010 will mark the day which will see major national events and press campaigns carried out in more than 60 countries.

Internationally-agreed standards and accreditation play an important role in the support of competitive markets and cross-border trade. This is increasingly important as supply chains are ever-extending to new overseas markets as businesses seek to lower costs or satisfy contract terms, while maintaining a level of confidence that products are technically compatible to specifications and are safe.

In such complex markets, reassurance in the measurements, tests, inspections, and certification performed in another jurisdiction is essential. Without these standards, the free exchange of goods and services would be hampered by technical barriers, thereby increasing costs for importers and consumers.
Global acceptance of accredited certificates is a central pillar of accreditation as the harmonization of assessment requirements and processes at a worldwide level, provides businesses and regulators with confidence that products entering the market conform to specification, meet national legal and regulatory requirements, and will therefore serve to protect public interests in general.

NVLAP will celebrate World Accreditation Day on June 8, 2010, one day early, by sponsoring a NIST-wide activity on customer service.

NVLAP Common Criteria Program Reopened

On April 8, 2010, the National Information Assurance Partnership (NIAP) program announced that support of the application process for laboratories actively seeking accreditation in the NVLAP Common Criteria Laboratory Accreditation Program would be reopened. Laboratories, meeting the necessary criteria as described in NIST Handbook 150 and NIST Handbook 150-20, may submit a letter of intent to the NIAP office via email <scheme-comments@niap-ccves.org>. In addition to the letter of intent, interested laboratories should also complete the NVLAP application forms found on the NVLAP web site <www.nist.gov/nvlap>.

For questions regarding the application process or any information regarding the Common Criteria program, contact Dana Leaman at (301) 975-4679 or via email at <dana.leaman@nist.gov>.

NVLAP Documents – New/Revised (January-March 2010)

The following publications and forms have been issued since the last newsletter, and may be downloaded from the NVLAP web site. For revised publications and forms, the edition noted 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.

If you have 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), or Vanda White, NVLAP Quality Manager, at vanda.white@nist.gov.

General Forms and Information

NVLAP Fee Schedule (rev. 2010-01-04)

NVLAP Policy Guide PG-5-2010, *Use of E-Mail for NVLAP Communications* (2010-01-20)

Assessor Bulletins

NVLAP Assessor Bulletin AB-10-2010, *Assessment of Requirements for Measurement Traceability* (2010-02-26; supersedes and replaces AB-10-2008)

On-Site Assessment Forms

NVLAP Assessor Quote Form (rev. 2010-01-06)

Carpet and Carpet Cushion LAP

Carpet and Carpet Cushion Application Form (rev. 2010-03-22)

Ionizing Radiation Dosimetry LAP

Ionizing Radiation Dosimetry Application Form (rev. 2010-01-08)

Ionizing Radiation Dosimetry Proficiency Testing Registration forms (rev. 2010-01-13)

NVLAP Lab Bulletin LB-49-2010, *Selection of Beta and Photon Categories for Mixed Field Testing* (2010-03-12)

Personal Body Armor LAP

NIST Handbook 150-24: 2010, *NVLAP Personal Body Armor* (March 2010)

NIST Handbook 150-24 Checklist, *NVLAP Personal Body Armor* (2010-03-18)

NVLAP Lab Bulletin LB-48-2010, *Information on testing, testing procedures, and reports for both NVLAP and the Compliance Testing Program* (2010-03-19)

NVLAP Lab Bulletin LB-50-2010, *Release of NIST Handbook 150-24, March 2010 Edition* (2010-03-19)

IAAC

The InterAmerican Accreditation Cooperation (IAAC) held the mid-year meetings of the Executive Committee, Multilateral Recognition Arrangement (MLA) Group, and Committee and Laboratories Subcommittee in Montevideo, Uruguay during March 2010. Representing NVLAP were NVLAP International Affairs Advisor Ileana Martinez, who serves as the Vice-Chair of the IAAC, and NVLAP Program Manager Barbara Belzer, who serves as the Vice-Chair of the Laboratories Subcommittee. In addition to reviewing actions under the 2008-2011 Strategic Plan, memberships, and the status of signatories and applicants to the IAAC MLA, progress on Proficiency Tests (PT) and Interlaboratory Comparisons (ILCs) coordinated by IAAC members and participation of other regional PT and ILCs were discussed at length.

This photo of a "recycling entrepreneur" in Montevideo, Uruguay was taken by Alex Pineda, Chief of the Guatemalan Accreditation Organization (OGA)

NVLAP Staff Enjoying Some Down-Time

1st row: Lori Gruber, Sally Bruce, Vil Cheng, Vanda White; 2nd row: Hazel Richmond, Barbara Belzer, Jon Crickenberger, Beth Hackett, Beth Thomas; 3rd row: Tess Beavers, Tom Hettenhouser.

Foreground left and around: Sherrie Wentzel, Tessa Beavers, Dana Leaman, Tim Rasinski, Vanda White, Jeff Horlick, Ernest Garner, Sally Bruce, Beth Thomas, Brad Moore, Tom Hettenhouser, Barbara Belzer, Beth Hackett

Welcome Vil Cheng

Vil Cheng joined the NVLAP staff on April 12, as an Administrative Support Assistant. Vil comes to NVLAP from the Global Standards and Information Group of the NIST Standards Services Division. She will provide general administrative support to the NVLAP group, which will include general filing for program documents and records, ordering office supplies, preparing purchase orders, maintaining staff training data, and processing all travel authorizations and vouchers. NVLAP is fortunate to have Vil on our team; she has a great work ethic with a "get-it-done" attitude, combined with seven years of experience working at NIST.

New Lab Bulletins

Dosimetry Program—Laboratory Bulletin LB-49-2010—March 12, 2010

This bulletin clarifies the NVLAP requirement for the selection of the beta and photon subcategories used in mixed field testing in both ANSI N13.11-2009 and ANSI N13.32-2008 for ionizing radiation dosimetry (DOS) laboratories.

It has come to NVLAP's attention that there is some confusion and, therefore, concern among various parties regarding the subcategories used in mixed field (beta/photon mixtures and neutron/photon mixtures) testing.

Dosimetry processors choose the proficiency testing categories in ANSI N13.11-2009 *American National Standard for Dosimetry – Personnel Dosimetry Performance – Criteria for Testing*; and ANSI N13.32-2008, *Performance Testing of Extremity Dosimeters* that best represent the dosimetry services that the laboratory provides. After much discussion with NVLAP assessors and other technical experts, NVLAP has decided to also allow the dosimetry processors to choose the beta subcategories and the photon subcategories to be used in mixed field testing, but only when the dosimetry processor has a specific need to do so.

The dosimetry processor shall follow ANSI N13.11 and ANSI N13.32 as written for mixed field testing, unless otherwise determined. If the processor has chosen the subcategories, then the choice of subcategories used in mixed field testing has to be based on sound technical reasoning. As such, the processor shall perform a technical analysis and maintain a technical basis document that supports the processor's decision for the choice. The technical basis document will be reviewed by the NVLAP assessor when the on-site assessment is performed.

The dosimetry processor shall accurately represent the limitations of the dosimeter in its advertising and representation to clients, if the choice of subcategories is not exactly identified by the standard.

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

Questions concerning the DOS requirements for accreditation should be directed to Betty Ann Sandoval at 301-975-8446, or betty.sandoval@nist.gov.

Personal Body Armor Program—Laboratory Bulletin LB-48-2010—March 19, 2010

The purpose of this laboratory bulletin is to provide NVLAP Personal Body Armor laboratories with additional information and instructions to meet the requirements and expectations of both NVLAP and the Compliance Testing Program (CTP) when performing Sections 5, 6, and 7 of NIJ 0101.06, *Ballistic Resistance of Body Armor*.

Copies of the NIST Handbook 150-24, *Personal Body Armor*, the program checklist, and other laboratory bulletins may be found at www.nist.gov/nvlap.

Question: What is required of laboratories that submit Compliance Test Reports (CTRs) to the CTP?

Answer: Since NVLAP accreditation is required for laboratories that submit CTRs to the CTP, all CTRs submitted to the CTP are required to meet NVLAP requirements, as well as CTP and NIJ requirements.

Question: Can my laboratory use the official CTR spreadsheet to provide to a customer a test report that will not be sent to the CTP for review?

Answer: No. The official CTR may only be used for tests that are to be submitted to the CTP for compliance review. The official CTR is distributed and controlled by the CTP.

However, the public version of the CTR may be used for tests that will not be submitted to the CTP. The public version CTR and any additional test information must be kept in the laboratory records system and are required to be clearly marked to indicate any deviation from the standard or other requirements. The report must be marked in such a way as to prevent inappropriate use of the report and to prevent misunderstanding.

In the public version of the CTR, references to the Compliance Testing Program have been removed. The public version is currently available from http://www.justnet.org/Pages/manufacturers.aspx.

LB-48-2010 (continued)

Question: What is a "Clarification"?

Answer: A "Clarification" is one of a document series issued by the CTP to provide information concerning the NIJ standards, testing requirements, testing procedures, etc., in response to questions from laboratories or manufacturers. When the CTP issues a Clarification, the laboratory is required to take appropriate action to incorporate the information provided in the Clarification into the laboratory management system. This may include changes to laboratory documentation, training of laboratory staff, and changes to test protocols and procedures. Laboratories should periodically check the CTP web site for new Clarifications. Laboratories should also check that site before beginning a new test campaign.

Question: One of the test armors sent by a client to my laboratory was damaged in shipping. What should I do?

Answer: NVLAP-accredited laboratories are required to inspect incoming samples and materials and the accompanying documentation. This inspection must be done before any testing begins. The requirements for this activity are given in NIST Handbook 150 5.8.3. The laboratory is required to consult with the client about the damaged test armors before proceeding and to record the discussion.

Question: After sending a CTR to the CTP, I discovered an error. What should I do?

Answer: Amendments may be made to CTRs that have been submitted to the CTP, however, the changes need to be highlighted in some fashion and a written explanation given for each change. The explanations are required to be submitted to the CTP. The requirements for issuing an amended test report are given in NIST Handbook 150 5.10.9.

Question: What test records do I need to keep?

Answer: The requirements for recordkeeping are given in the NIJ standards and in NIST Handbooks 150 and 150-24. All records and details of tests are required to be entered into the laboratory records management system and are required to be treated according to the laboratory management system requirements. Testing information that is not included in the CTR is required to be kept by the laboratory for possible future use, review, and/or audit.

Question: How do I meet all the soft armor requirements for time, tumble count, and rotation rate?

Answer: To meet the requirements, the laboratory is required to adjust the tumble rate during the conditioning period. The requirements for the soft armor conditioning include: tumble for 240 hours +/- 1 hour, tumble through 72,000 revolutions +/- 1500 revolutions, and maintain a tumble rate of 5 RPM +/- 1 RPM. To meet the requirements, the laboratory should monitor the revolution count as often as necessary during the 240 hours and make adjustments to the rotation speed as necessary. The laboratory must closely monitor the conditioning as the end of the 240 hours approaches. Final adjustments should be made to meet the time and tumble requirements. Note that starting the tumbling protocol on a Thursday or Friday will lead to ending the conditioning on a Saturday or Sunday. Clarification CTP 2009:05 *Armor Loading and Unloading Instructions* has been issued to address questions about loading and unloading. This Clarification refers and links to *Guidelines for Completion of Armor Conditioning by NIJ STD-0101.06 Section 5*, which gives specific details.

Question: What CTP documents must be available at the laboratory?

Answer: Prior to starting a CTR, laboratories are required to check the CTP web site for updates. Laboratories are required to download all relevant CTP documents for laboratories and manufacturers, and have them available for reference.

Question: Can I skip any of the temperatures required by the hard armor conditioning protocol?

Answer: No. For the hard-armor temperature and humidity conditioning, laboratories are required to ensure that each and every temperature step is applied per the standard. The laboratory is required to record and plot the time, temperature, and relative humidity for the full time required for the conditioning. The laboratory is required to record explanations for over/undershoot, ringing, anomalies (such as spikes), and improbable relative humidity readings recorded on the plots.

LB-48-2010 (continued)

Question: Are there any special requirements for documenting ballistic perforations or excessive backface signatures?

Answer: When perforations or excessive backface signatures occur, the laboratory is required to document the details of the test at the time of the occurrence. Unusual circumstances and observations are required to be placed in the record. Explanations of known or suspected causes for the perforation or excessive backface signature should also be recorded.

Question: I cannot find for purchase all of the threats (bullets) specified in NIJ 0101.06. What should I do?

Answer: Contact the CTP for assistance.

Question: Is the V50 shot pattern on a grid of horizontal and vertical lines?

Answer: No. V50 shot patterns should not be on a horizontal-vertical grid that would cause two (or more) shots to impact on the same threads or yarns. Shots should be offset from the grid.

Question: Can I round off backface signature measurements (BFS) to the nearest millimeter before entering the data into the CTR?

Answer: No. Laboratories are required to measure and record BFS depth to the best of their ability with a resolution of 0.1 mm. Each instrument reading is recorded as read with no round off. The CTR spreadsheet carries all digits (no round off) for calculations. The laboratory is required to verify that the radius of the tip of the measuring instrument is appropriate for the contour of the bottom of the BFS depression. It is also required that the laboratory verify that the BFS measurement has been accurately transferred to the CTR. Note that depth measurements made during clay calibration shall not be rounded.

Question: What records do I have to keep for armor conditioning (soft armor and hard armor, NIJ Standard 0101.06 Sections 5 and 6), is there a test report format, and to whom do I send conditioning records?

Answer: Records must be kept in the laboratory system that detail the relevant conditioning parameters including, as appropriate, dates and times of the test, temperature and relative humidity, and tumble counts. The records should include client name (and other information required by NIST Handbook 150, 5.10), load (for soft armor), mounting details (hard armor), photographs if appropriate, and full descriptions of anomalies should any occur. Depending on the laboratory setup and equipment, additional information that may be necessary to fully document the conditioning should be recorded.

Personal Body Armor—NVLAP Laboratory Bulletin LB-50-2010—March 19, 2010

The first edition of NIST Handbook 150-24, which presents the technical requirements and guidance for the accreditation of laboratories under the NVLAP Personal Body Armor laboratory accreditation program (LAP), has been released.

The handbook sets out procedures, technical requirements and guidance for accreditation of Personal Body Armor testing laboratories. It supplements the procedures and general requirements found in NIST Handbook 150, *NVLAP Procedures and General Requirements*.

The scope of the Personal Body Armor LAP is the set of test methods contained in National Institute of Justice Standards 0101.04, 0101.06, and 0115.00, and other appropriate methods requested by the National Institute of Justice.

The handbook is available for downloading (PDF format) from the Program-Specific Handbooks page of the NVLAP web site <http://www.nist.gov/nvlap>. If you do not have Internet access, please contact NVLAP and specify whether you would like a paper copy of the handbook mailed to you or a PDF version e-mailed to you.

Questions concerning the handbook or requirements for accreditation for personal body armor testing should be directed to Hazel M. Richmond at 301-975-3024, or <hazel.richmond@nist.gov>.

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 to requests from private-sector organizations and government agencies. NVLAP operates an accreditation system that is compliant with ISO/IEC 17011, which requires that the competence of applicant laboratories be assessed by the accreditation body against all of the requirements of ISO/IEC 17025.

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.

Photo taken by Brian Renegar of NIST

Flag-Draped Administration Building

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>.