

# **NIST Conformity Assessment Activity under the Help America Vote Act**

The Help America Vote Act (HAVA) requires the National Institute of Standards and Technology (NIST) to conduct an evaluation of independent, non-Federal laboratories and to submit to the Election Assistance Commission (EAC) a list of those laboratories that the Director proposes to be accredited to carry out the testing, certification, decertification, and recertification provided for under the Act. The EAC acts on NIST recommendations, applying additional, distinct criteria for its approval of laboratories to carry out mandated activities.

NIST is carrying out this responsibility through its National Voluntary Laboratory Accreditation Program (NVLAP). The NVLAP evaluation process is independent and separate from the conformity assessment activities of the EAC. In short, NVLAP accreditation provides the basis for NIST recommendations to the EAC. It is a necessary but not sufficient condition for EAC approval of voting system testing laboratories.

NIST recently informed the EAC that it had completed a comprehensive technical evaluation of the competence of two laboratories to test voting systems to Federal standards and proposed that iBeta Quality Assurance and SysTest Labs be accredited by the EAC under the provisions of HAVA. The letter to the EAC, and its attachment, can be viewed at the [vote.nist.gov](http://vote.nist.gov) website.

Currently, NVLAP is proceeding with the evaluation of four other laboratories that have applied and anticipates conducting an on-site assessment of a third laboratory within the next couple of months. The four are: InfoGard Laboratories, Inc., BKP Security Labs, Wyle Laboratories, and Ciber Labs.

NVLAP is a voluntary, fee-supported program to accredit laboratories that are found competent to perform specific tests or calibrations, or types of tests or calibrations. The program was established by NIST in 1976 to serve the needs of the government and private sector (industry, consumers, and other stakeholders) by fostering and promoting a uniformly acceptable base of professional and technical competence in the laboratory community, and to facilitate the acceptance of calibration and test results between countries to avoid barriers to trade. The program provides an unbiased third party evaluation and recognition of competence, as well as expert technical guidance to upgrade laboratory performance. NVLAP procedures are codified in the Code of Federal Regulations (CFR, Title 15, Part 285).

Simply stated, NVLAP offers formal recognition that a laboratory is competent to carry out specific tests or calibrations. Expert technical assessors conduct a thorough evaluation of all aspects of laboratory operation that affect the production of test data, using recognized criteria and procedures. General criteria are based on the international standard ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*, which is used for evaluating laboratories throughout the world. Laboratory accreditation bodies use this standard specifically to assess factors relevant to a laboratory's ability to produce precise, accurate test data, including the technical competence of staff, validity and appropriateness of test methods, testing and quality assurance of test and calibration data. NVLAP includes this standard in NIST Handbook 150: *NVLAP Procedures and General Requirements*. Laboratory accreditation programs usually also include technical criteria for specific fields that laboratories must meet, in addition to demonstrating general technical competence. (For the NVLAP voting system testing program the technical criteria are contained in NIST Handbook 150-22: *NVLAP Voting System Testing*.)

Laboratories wishing to be recommended by NIST to the EAC for accreditation to test voting system hardware and software are required to meet the NVLAP criteria for accreditation as well as the 2002 Voting System Standards (VSS) and the 2005 Voluntary Voting Systems Guidelines (VVSG). Laboratories are required to complete the NVLAP application process and pay applicable fees. Rigorous onsite assessments must be conducted and laboratories undergoing assessment must resolve any identified nonconformities before NIST will recommend a laboratory to the EAC.

Before NIST will recommend a laboratory to the EAC, a laboratory must perform a core set of voting system tests. Testing is specified in the VSS 2002 and VVSG 2005. Of these tests the core test methods include: technical data package review, physical configuration audit, source code review, functional configuration audit, system integration test, reliability and accuracy tests, and security tests. The non-core tests may be subcontracted to other labs accredited for testing in: electromagnetic compatibility, telecommunications, environmental, electrical, acoustical, and cryptographic modules.

To ensure continued compliance, voting system testing laboratories undergo an onsite assessment before initial accreditation, during the first renewal year, and every two years thereafter to evaluate their ongoing compliance with specific accreditation criteria. NIST carries out these activities on behalf of the EAC and makes recommendations to the EAC based upon NVLAP's findings.

On June 23, 2004, NIST published a Federal Register Notice announcing that any laboratory wishing to conduct testing under HAVA should contact NVLAP for further information. NVLAP conducted a public workshop on August 17, 2004 with interested laboratories to review its accreditation criteria, as well as receive comments and feedback from the participating laboratories and other interested parties. Workshop documents are available at [http://vote.nist.gov/nvlap\\_workshop2004.htm](http://vote.nist.gov/nvlap_workshop2004.htm).

After the workshop, NVLAP began finalizing specific technical criteria for testing laboratories and started making the necessary logistical arrangements to begin the actual assessment of the laboratories. NVLAP then identified, contracted, and trained technical expert assessors to perform the on-site assessments.

A June 17, 2005 Federal Register notice invited interested laboratories to submit an application to NIST by August 16, 2005. The first group of applicant laboratories was given the opportunity to undergo the first round of pre-assessments. A pre-assessment benefits both the laboratory and the accrediting body. Although not a requirement, it is used to prepare the laboratory for the on-site assessment and is particularly useful in a new accreditation program. It gives the laboratory the chance to see how close they are to performing to the accreditation requirements and also gives the accreditation body the opportunity to fine tune the process and improve the technical checklist. Three laboratories applied in time to qualify for this first series of pre-assessments. The last of these three pre-assessments was conducted this past June. As a result one of these laboratories decided not to continue with the accreditation process; the other two decided to pursue accreditation for voting system testing. NVLAP received applications from four additional laboratories after the August 16, 2006 date.

NIST recognizes that transparency is key to building public trust and confidence in voting systems. To that end, we have posted a document that explains the details of the NVLAP evaluation process for voting system testing laboratories and addresses related questions. This document is posted on <http://www.vote.nist.gov>. In addition, for each lab NIST has recommended, we have posted the assessment report and the laboratory's detailed response to that report. These reports contain substantial detail that underlies the basis for NIST's recommendation.

As stated above, NIST's role under HAVA is to recommend technically competent independent, non-Federal laboratories to the EAC for their consideration. The EAC makes the final decision to accredit laboratories based upon the information provided by NIST and the Commission's review of non-technical issues such as conflict-of-interest policies, organizational structure and record-keeping protocols.

Thank you for the opportunity to provide testimony about the work of the National Voluntary Laboratory Accreditation Program and its role with the EAC in accrediting laboratories.