



**United States  
Election Assistance  
Commission**

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**Voting System Pilot  
Program Testing &  
Certification Manual**

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*[www.eac.gov](http://www.eac.gov)*

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*The reporting requirements in this manual have been approved under the Paperwork Reduction Act of 1995, Office of Management and Budget Control (OMB) Number xxxx-xxxx, expiring DATE. Persons are not required to respond to this collection of information unless it displays a currently valid OMB number. Information gathered pursuant to this document and its forms will be used solely to administer the EAC Pilot Program Testing Program. This program is voluntary. Individuals who wish to participate in the program, however, must meet its requirements. The estimated total annual hourly burden on the voting system manufacturing industry and election officials is XXX hours. This estimate includes the time required for reviewing the instructions, gathering information, and completing the prescribed forms. Send comments regarding this burden estimate or any other aspect of this collection, including suggestions for reducing this burden, to the U.S. Election Assistance Commission, Voting System Testing and Certification Program, Office of the Program Director, 1201 New York Avenue, NW, Suite 300, Washington, D.C. 20005.*

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## 1. Introduction

- 1.1. **Background.** In late 2002, Congress passed the Help America Vote Act of 2002 (HAVA). HAVA created the U.S. Election Assistance Commission (EAC) and assigned to the EAC the responsibility for both setting voting system standards and providing for the testing and certification of voting systems. In response to this HAVA requirement, the EAC developed the Voting System Testing and Certification Program (Certification Program). This manual, governing participation in Pilot Program testing and certification programs is a natural adjunct to the full EAC Testing and Certification Program.
- 1.2. **Authority.** HAVA requires that the EAC certify and decertify voting systems. Section 231(a)(1) of HAVA specifically requires the EAC to "... provide for the testing, certification, decertification and recertification of voting system hardware and software by accredited laboratories." The EAC has the sole authority to grant certification or withdraw certification at the Federal level, including the authority to grant, maintain, extend, suspend, and withdraw the right to retain or use any certificates, marks, or other indicators of certification.
- 1.3. **Scope.** This Manual provides the procedural requirements of the EAC Testing and Certification Program for voting systems used in pilot projects. Although participation in the program is voluntary, adherence to the program's procedural requirements is mandatory for participants.
- 1.4. **Purpose.** The primary purpose of the EAC Pilot Program Certification Manual is to provide clear procedures to Manufacturers for the testing and certification of voting systems to be used in pilot election projects. The program also recognizes that the Federal certification framework should encourage the voting systems industry to pursue technological innovation and experimentation in relation to the design of voting systems and the methods of providing a better and more secure voting experience for United States citizens. This Manual provides a clear and transparent process for the testing, certification, and evaluation of voting systems used for these pilot programs.
- 1.5. **Manual.** This Manual is a comprehensive presentation of the EAC Pilot Testing and Certification Program. It is intended to establish all of the program's administrative requirements.
  - 1.5.1. Contents. The contents of the Manual serve as an overview of the program itself. The Manual contains the following chapters:
    - 1.5.1.1. *Manufacturer Registration.* Under the program, a Manufacturer is required to register with the EAC prior to participation in pilot programs requiring Federal certification. This registration provides the EAC with needed information and requires the Manufacturer to agree to the requirements of the Pilot Certification Program. This chapter sets out the requirements and procedures for registration.

- 1.5.1.2. *When Voting Systems Intended for Use in Pilot Programs Must Be Submitted for Testing and Certification.* All pilot voting systems must be submitted consistent with this Manual before they may receive a certification from the EAC. This chapter discusses the various circumstances that require submission to obtain a certification.
- 1.5.1.3. *Certification Testing, Technical Review and grant of Certification for Pilot Systems.* This chapter discusses the procedural requirements for submitting a pilot voting system to the EAC for testing and review. The testing and review process requires an application, employment of an EAC accredited testing laboratory, and technical analysis of the laboratory test plan and test report by the EAC. The result of this process is a Decision on Certification by the Decision Authority.
- 1.5.1.4. *Denial of Certification.* If a decision to deny certification is made, the Manufacturer has certain rights and responsibilities under the program. This chapter contains procedures for opportunity to cure defects, and appeal.
- 1.5.1.5. *Pilot Program Monitoring and Reporting.* This chapter provides the EAC with two primary and one secondary tool for assessing the level of compliance to requirements and performance to mission (pilot) objectives of pilot program voting systems. The primary tools are (1) manufacturer declaration of conformity audits and (2) mandatory post election reporting by manufacturers. The secondary tool for monitoring the effectiveness of the program and of the pilot system consists of voluntary pilot program monitoring and reporting by State and local election jurisdiction participating in pilot programs.
- 1.5.1.6. *Requests for Interpretations.* An Interpretation is a means by which a registered Manufacturer or Voting System Test Laboratory (VSTL) may seek clarification on a specific Voting System standard or testable requirement. This chapter outlines the policy, requirements, and procedures for requesting an Interpretation.
- 1.5.1.7. *Release of Certification Program Information.* Federal law protects certain types of information individuals provided the government from release. This chapter outlines the program's policies, sets procedures, and discusses responsibilities associated with the public release of potential protected commercial information.
- 1.5.2. Maintenance and Revision. The Manual will be reviewed periodically and updated to meet the needs of the EAC, Manufacturers, VSTLs, election officials, and public policy. The EAC is responsible for revising this document. All revisions will be made consistent with Federal law. Substantive input from stakeholders and the public will be

sought whenever possible, at the discretion of the agency. Changes in policy requiring immediate implementation will be noticed via policy memoranda and will be issued to each registered Manufacturer. Changes, addendums, or updated versions will also be posted to the EAC Web site at [www.eac.gov](http://www.eac.gov).

**1.6. Program Methodology.** EAC's Pilot Testing and Certification Program is but one part of the overall conformity assessment process that includes the EAC Voting System Testing and Certification Program as well as companion testing efforts at the State and local levels.

1.6.1. Federal and State Roles. The process to ensure that voting equipment meets the technical requirements is a distributed, cooperative effort of Federal, State, and local officials in the United States. Working with voting equipment Manufacturers, these officials each have unique responsibility for ensuring that the equipment a voter uses on Election Day meets specific requirements.

1.6.1.1. The EAC Program has primary responsibility for ensuring that voting systems submitted under this program meet Federal standards established for voting systems.

1.6.1.2. State officials have responsibility for testing voting systems to ensure that they will support the specific requirements of each individual State. States may use EAC VSTLs to perform testing of voting systems to unique State requirements while the systems are being tested to Federal standards. The EAC will not, however, certify voting systems to State requirements.

1.6.1.3. State or local officials are responsible for making the final purchase choice. They are responsible for deciding which system offers the best fit and total value for their specific State or local jurisdiction.

1.6.1.4. State or local officials are also responsible for acceptance testing to ensure that the equipment delivered is identical to the equipment certified on the Federal and State levels, is fully operational, and meets the contractual requirements of the purchase.

1.6.1.5. State or local officials should perform pre-election logic and accuracy testing to confirm that equipment is operating properly and is unmodified from its certified state.

**1.7. Program Personnel.** All EAC personnel and contractors associated with this program will be held to the highest ethical standards. All agents of the EAC involved in the Certification Program will be subject to conflict-of-interest reporting and review, consistent with Federal law and regulation.

**1.8. Program Records.** The EAC Program Director is responsible for maintaining accurate records to demonstrate that the pilot program testing and certification procedures have been effectively fulfilled and to ensure the traceability, repeatability, and reproducibility of testing and test

report review. All records will be maintained, managed, secured, stored, archived, and disposed of in accordance with Federal law, Federal regulations, and procedures of the EAC.

**1.9. Submission of Documents.** Any documents submitted pursuant to the requirements of this Manual shall be submitted:

1.9.1. If sent electronically, via secure e-mail or physical delivery of a compact disk, unless otherwise specified.

1.9.2. In a Microsoft Word or Adobe PDF file, formatted to protect the document from alteration.

1.9.3. With a proper signature when required by this Manual. Documents that require an authorized signature may be signed with an electronic representation or image of the signature of an authorized management representative and must meet any and all subsequent requirements established by the Program Director regarding security.

1.9.4. If sent via physical delivery, by Certified Mail™ (or similar means that allows tracking) to the following address:

Testing and Certification Program Director  
U.S. Election Assistance Commission  
1201 New York Avenue, NW, Suite 300  
Washington, D.C. 20005

**1.10. Receipt of Documents—Manufacturer.** For purposes of this Manual, a document, notice, or other communication is considered received by a Manufacturer upon one of the following:

1.10.1. The actual, documented date the correspondence was received (either electronically or physically) at the Manufacturer's place of business, or

1.10.2. If no documentation of the actual delivery date exists, the date of constructive receipt of the communication. For electronic correspondence, documents will be constructively received the day after the date sent. For mail correspondence, the document will be constructively received 3 days after the date sent.

1.10.3. The term "receipt" shall mean the date a document or correspondence arrives (either electronically or physically) at the Manufacturer's place of business. Arrival does not require that an agent of the Manufacturer open, read, or review the correspondence.

**1.11. Receipt of Documents—EAC.** For purposes of this Manual, a document, notice, or other communication is considered received by the EAC upon its physical or electronic arrival at the agency. All documents received by the agency will be physically or electronically date stamped. This stamp shall serve as the date of receipt. Documents received after the regular business day (5:00 PM Eastern Standard Time), will be treated as if received on the next business day.

- 1.12. EAC Response Timeframes.** In recognition of the unique challenges facing Manufacturers and election jurisdictions as they work to meet the requirements imposed by this program, and by running an election using a pilot voting system, the EAC will respond in an expedited manner for each of the program areas outlined in this Manual. Specific response timeframes are noted in each section of the Manual.
- 1.13. Records Retention—Manufacturers.** The Manufacturer is responsible for ensuring that all documents submitted to the EAC or that otherwise serve as the basis for the certification of a voting system are retained. A copy of all such records shall be retained as long as a voting system is offered for sale or supported by a Manufacturer and for 5 years thereafter.
- 1.14. Record Retention—EAC.** The EAC shall retain all records associated with the certification of a voting system as long as such system is fielded in a State or local election jurisdiction for use in Federal elections. The records shall otherwise be retained or disposed of consistent with Federal statutes and regulations.
- 1.15. Publication and Release of Documents.** The EAC will release documents consistent with the requirements of Federal law. It is EAC policy to make the certification process as open and public as possible. Any documents (or portions thereof) submitted under this program will be made available to the public unless specifically protected from release by law. The primary means for making this information available is through the EAC Web site.



**1.16. Definitions.** For purposes of this Manual, the terms listed below have the following definitions.

Anomaly. An anomaly is any irregular or inconsistent action or response from the voting system or system component resulting in some disruption to the election process.

Appeal. A formal process by which the EAC is petitioned to reconsider an Agency Decision.

Appeal Authority. The individual or individuals appointed to serve as the determination authority on appeal.

Audit. An independent, systematic and documented process for obtaining evidence and evaluating it objectively to determine if the auditing criteria have been fulfilled by the voting system manufacturer.

Audit Criteria. A set of policies, procedures and requirements used as a reference for audit evidence.

Audit Evidence. Verifiable records, statements or other information relevant to the audit criteria.

Build Environment. The disk or other media that holds the source code, compiler, linker, integrated development environments (IDE), and/or other necessary files for the compilation and on which the compiler will store the resulting executable code.

Certificate of Conformance. The certificate issued by the EAC when a system has been found to meet the requirements of the VVSG. The document conveys certification of a system.

Commission. The U.S. Election Assistance Commission, as an agency.

Commissioners. The serving commissioners of the U.S. Election Assistance Commission.

Component. A discrete and identifiable element of hardware or software within a larger voting system.

Compiler. A computer program that translates programs expressed in a high-level language into machine language equivalents.

Contributing Cause. A reason that an anomaly occurred. A contributing cause indirectly affects that outcome or occurrence but on its own may not create the problem.

Corrective Action. An action taken to eliminate the root cause of an existing anomaly in order to prevent future occurrences of the anomaly.

Days. Calendar days, unless otherwise noted. When counting days, for the purpose of submitting or receiving a document, the count shall begin on the first full calendar day after the date the document was received.

Declaration of Conformance. Procedure by which the manufacturer of a pilot voting system gives written assurance that their product, process and service conforms to specified requirements.

Disk Image. An exact copy of the entire contents of a computer disk.

Election Official. A State or local government employee who has as one of his or her primary duties the management or administration of a Federal election.

Federal Election. Any primary, general, runoff, or special Election in which a candidate for Federal office (President, Senator, or Representative) appears on the ballot.

Fielded Voting System. A voting system purchased or leased by a State or local government that is being use in a Federal election.

File Signature. A signature of a file or set of files produced using a HASH algorithm. A file signature, sometimes called a HASH value, creates a value that is computationally infeasible of being produced by two similar but different files. File signatures are used to verify that files are unmodified from their original versions.

HASH Algorithm. An algorithm that maps a bit string of arbitrary length to a shorter, fixed-length bit string. (A HASH uniquely identifies a file similar to the way a fingerprint identifies an individual. Likewise, as an individual cannot be recreated from his or her fingerprint, a file cannot be recreated from a HASH. The HASH algorithm used primarily in the NIST (National Software Reference Library) and this program is the Secure HASH Algorithm (SHA-1) specified in Federal Information Processing Standard (FIPS) 180-1.)

Installation Device. A device containing program files, software, and installation instructions for installing an application (program) onto a computer. Examples of such devices include installation disks, flash memory cards, and PCMCIA cards.

Integration Testing. The end-to-end testing of a full system configured for use in an election to assure that all legitimate configurations meet applicable standards.

Linker. A computer program that takes one or more objects generated by compilers and assembles them into a single executable program.

Manufacturer. The entity with ownership and control over a voting system submitted for certification.

Mark of Conformance. A uniform notice permanently posted on a voting system that signifies that it has been certified by the EAC.

Memorandum for the Record. A written statement drafted to document an event or finding, without a specific addressee other than the pertinent file.

Proprietary Information. Commercial information or trade secrets protected from release under the Freedom of Information Act (FOIA) and the Trade Secrets Act.

Root Cause. The fundamental reason an anomaly occurred.

Root Cause Analysis. A systematic investigation of the circumstances and factors leading to an anomaly for purposes of finding the fundamental reason for that anomaly.

System Identification Tools. Tools created by a Manufacturer of voting systems that allow elections officials to verify that the hardware and software of systems purchased are identical to the systems certified by the EAC.

Technical Reviewers. Technical experts in the areas of voting system technology and conformity assessment appointed by the EAC to provide expert guidance.

Testing and Certification Decision Authority. The EAC Executive Director or Acting Executive Director.

Testing and Certification Program Director. The individual appointed by the EAC Executive Director to administer and manage the Testing and Certification Program.

Trusted Build. A witnessed software build where source code is converted to machine-readable binary instructions (executable code) in a manner providing security measures that help ensure that the executable code is a verifiable and faithful representation of the source code.

Voting System. The total combination of mechanical, electromechanical, and electronic equipment (including the software, firmware, and documentation required to program, control, and support the equipment) that is used to define ballots, cast and count votes, report or display election results, connect the voting system to the voter registration system, and maintain and produce any audit trail information.

Voting System Pilot Program. While there is no general statutory definition of “pilot program,” all such programs exhibit certain common characteristics: experimental purpose and limited duration and scope. The accepted definition of ‘pilot program’ means a limited roll out of a new system in order to test it under real world conditions, prior to use by an entire organization. For voting systems, the purpose of any pilot program is to gain first hand experience with the new technology implemented for the pilot program election, and to evaluate the system and its benefits to domestic or overseas voters.

Voting System Standards. Voting System Standards have been published twice: once in 1990 and again in 2002 by the FEC. The Help America Vote Act made the 2002 Voting System

Standards EAC guidance. All new voting system standards are issued by the EAC as Voluntary Voting System Guidelines.

Voting System Test Laboratories. Laboratories accredited by the EAC to test voting systems to EAC approved voting system standards. Each Voting System Test Laboratory (VSTL) must be accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) and recommended by the National Institute of Standards Technology (NIST) before it may receive an EAC accreditation. NVLAP provides third party accreditation to testing and calibration laboratories. NVLAP is in full conformance with the standards of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), including ISO/IEC Guide 17025 and 17011.

Voluntary Voting System Guidelines. Voluntary voting system standards developed, adopted, and published by the EAC. The guidelines are identified by version number and date.

**1.17. Acronyms and Abbreviations.** For purposes of this Manual, the acronyms and abbreviations listed below represent the following terms.

Certification Program. The EAC Pilot Voting System Testing and Certification Program

Decision Authority. Testing and Certification Decision Authority

EAC. United States Election Assistance Commission

HAVA. Help America Vote Act of 2002 (42 U.S.C. §15301 et seq.)

Labs or Laboratories. Voting System Test Laboratories

NIST. National Institute of Standards and Technology

NVLAP. National Voluntary Laboratory Accreditation Program

Program Director. Director of the EAC Testing and Certification Program

VSTL. Voting System Test Laboratory

VVSG. Voluntary Voting System Guidelines

## 2. Manufacturer Registration

**2.1. Overview.** Manufacturer Registration is the process by which voting system Manufacturers make initial contact with the EAC and provide information essential to participate in the EAC Pilot Testing and Certification Program. Before a Manufacturer of a voting system can submit an application to have a pilot voting system certified by the EAC, the Manufacturer must be registered. This process requires the Manufacturer to provide certain contact information and agree to certain requirements of the Certification Program. After successfully registering, the Manufacturer will receive an identification code.

**2.2. Registration Required.** To submit a voting system for certification or otherwise participate in the EAC Pilot Testing and Certification Program, a Manufacturer must register with the EAC. Registration does not constitute an EAC endorsement of the Manufacturer or its products. Registration of a Manufacturer is not a certification of that Manufacturer's products.

**2.3. Registration Requirements.** The registration process will require the voting system Manufacturer to provide certain information to the EAC. This information is necessary to enable the EAC to administer the Pilot Certification Program and communicate effectively with the Manufacturer. The registration process also requires the Manufacturer to agree to certain Certification Program requirements. These requirements relate to the Manufacturer's duties and responsibilities under the program. For this program to succeed, it is vital that a Manufacturer know and assent to these duties at the outset of the program.

2.3.1. Information. Manufacturers are required to provide the following information:

2.3.1.1. The Manufacturer's organizational information:

2.3.1.1.1. The official name of the Manufacturer.

2.3.1.1.2. The address of the Manufacturer's official place of business.

2.3.1.1.3. A description of how the Manufacturer is organized (i.e., type of corporation or partnership).

2.3.1.1.4. Names of officers and/or members of the board of directors.

2.3.1.1.5. Names of all partners and members (if organized as a partnership or limited liability corporation).

2.3.1.1.6. Identification of any individual, organization, or entity with a controlling ownership interest in the Manufacturer.

- 2.3.1.2. The identity of an individual authorized to represent and make binding commitments and management determinations for the Manufacturer (management representative). The following information is required for the management representative:
  - 2.3.1.2.1. Name and title.
  - 2.3.1.2.2. Mailing and physical addresses.
  - 2.3.1.2.3. Telephone number, fax number, and e-mail address.
- 2.3.1.3. The identity of an individual authorized to provide technical information on behalf of the Manufacturer (technical representative). The following information is required for the technical representative:
  - 2.3.1.3.1. Name and title.
  - 2.3.1.3.2. Mailing and physical addresses.
  - 2.3.1.3.3. Telephone number, fax number, and e-mail address.
- 2.3.1.4. The Manufacturer's written policies regarding its quality assurance system. This policy must be consistent with guidance provided in the VVSG and this Manual.
- 2.3.1.5. The Manufacturer's written policies regarding internal procedures for controlling and managing changes to and versions of its voting systems. Such policies shall be consistent with this Manual and guidance provided in the VVSG.
- 2.3.1.6. The Manufacturer's written policies on document retention. Such policies must be consistent with the requirements of this Manual.
- 2.3.1.7. A list of all manufacturing and/or assembly facilities used by the Manufacturer and the name and contact information of a person at each facility. The following information is required for a person at each facility:
  - 2.3.1.7.1. Name and title.
  - 2.3.1.7.2. Mailing and physical addresses.
  - 2.3.1.7.3. Telephone number, fax number, and e-mail address.

2.3.2. Agreements. Manufacturers are required to take or abstain from certain actions to protect the integrity of the Pilot Certification Program and promote quality assurance. Manufacturers are required to agree to the following program requirements:

2.3.2.1. Represent a voting system as EAC certified for use in pilot programs only when it is authorized by the EAC and is consistent with the procedures and requirements of this Manual.

2.3.2.2. Notify the EAC of changes to any system previously certified by the EAC pursuant to the requirements of this Manual (see Chapter 3). Such systems shall be submitted for testing and additional certification when required.

2.3.2.3. Permit an EAC representative to verify the Manufacturer's quality control procedures by conducting manufacturing facility audits consistent with Chapter 6 of this Manual.

2.3.2.4. Cooperate with any EAC inquiries and investigations into a certified system's compliance with VVSG standards, other applicable testable requirements or the procedural requirements of this Manual consistent with Chapter 6.

2.3.2.5. Report to the Program Director any known malfunction of a pilot voting system holding an EAC Certification. A malfunction is a failure of a voting system, not caused solely by operator or administrative error, which causes the system to cease operation during a Federal election or otherwise results in data loss. Malfunction notifications should be consolidated into one report. This report should identify the location, nature, date, impact, and resolution (if any) of the malfunction and be filed within 30 days of any Federal election.

2.3.2.6. Certify that the entity is not barred or otherwise prohibited by statute, regulation, or ruling from doing business in the United States.

2.3.2.7. Adhere to all procedural requirements of this Manual.

**2.4. Registration Process.** Generally, registration is accomplished through use of an EAC registration form. After the EAC has received a registration form and other required registration documents, the agency reviews the information for completeness before approval.

2.4.1. Application Process. To become a registered voting system Manufacturer, one must apply by submitting a Manufacturer Registration Application Form (Appendix A). This form will be used as the means for the Manufacturer to provide the information and agree to the responsibilities required in Section 2.3, above.

2.4.1.1. *Application Form*. In order for the EAC to accept and process the registration form, the applicant must adhere to the following requirements:

- 2.4.1.1.1. All fields must be completed by the Manufacturer.
- 2.4.1.1.2. All required attachments prescribed by the form and this Manual must be identified, completed, and forwarded in a timely manner to the EAC (e.g., Manufacturer's quality control and system change policies).
- 2.4.1.1.3. The application form must be affixed with the handwritten signature (including a digital representation of the handwritten signature) of the authorized representative of the vendor.

2.4.1.2. *Availability and Use of the Form.* The Manufacturer Registration Application Form may be accessed through the EAC web site at [www.eac.gov](http://www.eac.gov). Instructions for completing and submitting the form are included on the web site. The web site will also provide contact information regarding questions about the form or the application process.

2.4.2. EAC Review Process. The EAC will review all registration applications.

- 2.4.2.1. After the application form and required attachments have been submitted, the applicant will receive an acknowledgment that the EAC has received the submission and that the application will be processed.
- 2.4.2.2. If an incomplete form is submitted or an attachment is not provided, the EAC will notify the Manufacturer and request the information. Registration applications will not be processed until they are complete.
- 2.4.2.3. Upon receipt of the completed registration form and accompanying documentation, the EAC will review the information for sufficiency. If the EAC requires clarification or additional information, the EAC will contact the Manufacturer and request the needed information within 10 business days of receipt of the complete application package.
- 2.4.2.4. Upon satisfactory completion of a registration application's sufficiency review, the EAC will notify the Manufacturer that it has been registered.

**2.5. Registered Manufacturers.** After a Manufacturer has received notice that it is registered, it will receive an identification code and will be eligible to participate in the voluntary voting system Certification Program.



- 2.5.1. Manufacturer Code. Registered Manufacturers will be issued a unique, three-letter identification code. This code will be used to identify the Manufacturer and its products.
- 2.5.2. Continuing Responsibility To Report. Registered Manufacturers are required to keep all registration information up to date. Manufacturers must submit a revised application form to the EAC within 30 days of any changes to the information required on the application form. Manufacturers will remain registered participants in the program during this update process.
- 2.5.3. Program Information Updates. Registered Manufacturers will be automatically provided timely information relevant to the Certification Program.
- 2.5.4. Web site Postings. The EAC will add the Manufacturer to the EAC listing of registered voting system Manufacturers publicly available at [www.eac.gov](http://www.eac.gov).

**2.6. Suspension of Registration.** Manufacturers are required to establish policies and operate within the EAC Pilot Program consistent with the procedural requirements presented in this Manual. When Manufacturers engage in management activities that are inconsistent with this Manual or fail to cooperate with the EAC in violation of the Program's requirements, their registration may be suspended until such time as the problem is remedied.

- 2.6.1. Procedures. When a Manufacturer's activities violate the procedural requirements of this Manual, the Manufacturer will be notified of the violations, given an opportunity to respond, and provided the steps required to bring itself into compliance.
  - 2.6.1.1. *Notice*. Manufacturers shall be provided written notice that they have taken action inconsistent with or acted in violation of the requirements of this Manual. The notice will state the violations and the specific steps required to cure them. The notice will also provide Manufacturers with ten (10) business days (or a greater period of time as stated by the Program Director) to (1) respond to the notice and/or (2) cure the defect.
  - 2.6.1.2. *Manufacturer Action*. The Manufacturer is required to either respond in a timely manner to the notice (demonstrating that it was not in violation of program requirements) or cure the violations identified in a timely manner. In any case, the Manufacturer's action must be approved by the Program Director to prevent suspension.

- 2.6.1.3. *Non-Compliance.* If the Manufacturer fails to respond in a timely manner, is unable to provide a cure or response that is acceptable to the Program Director, or otherwise refuses to cooperate, the Program Director may suspend the Manufacturer's registration. The Program Director shall issue a notice of his or her intent to suspend the registration and provide the Manufacturer five (5) business days to object to the action and submit information in support of the objection.
- 2.6.1.4. *Suspension.* After notice and opportunity to be heard (consistent with the above), the Program Director may suspend a Manufacturer's registration. The suspension shall be noticed in writing. The notice must inform the Manufacturer of the steps that can be taken to remedy the violations and lift the suspension.
- 2.6.2. Effect of Suspension. A suspended Manufacturer may not submit any voting system (pilot or otherwise) for certification under this program. A suspension shall remain in effect until lifted. Suspended Manufacturers will have their registration status reflected on the EAC web site. Manufacturers have the right to remedy a non-compliance issue at any time and lift a suspension consistent with EAC guidance.

### 3. When Voting Systems Intended for Use in Pilot Programs Must Be Submitted for Testing and Certification

- 3.1. Overview.** An EAC pilot program certification signifies that a voting system has been successfully tested to identified voting system guidelines or testable requirements adopted by the EAC. Only the EAC can issue a Federal certification. Ultimately, systems must be submitted for testing and certification under this program to receive this certification.
- 3.2. What Is an EAC Certification?** Certification is the process by which the EAC, through testing and evaluation conducted by an accredited Voting System Test Laboratory, validates that a voting system meets the requirements set forth specifically for use in pilot programs and performs according to the Manufacturer’s specifications for the system. An EAC certification may be issued only by the EAC in accordance with the procedures presented in this Manual.
- 3.2.1. Types of Voting Systems Certified. The EAC Certification Program is designed to test and certify electromechanical and electronic voting systems submitted for use in pilot programs. Ultimately, the determination of whether a voting system may be submitted for testing and certification under this program is solely at the discretion of the EAC.
- 3.2.2. Voting System Standards and Testable Requirements. Voting systems certified under this pilot program are tested to a set of voluntary requirements that voting systems must meet to receive a Federal certification. These standards may be the applicable versions of the EAC Voluntary Voting System Guidelines (VVSG) or other testable requirements developed for specific pilot program scenarios.
- 3.2.2.1. *Versions—Availability and Identification.* Voluntary Voting System Guidelines (or testable requirements) are published by the EAC and are available on the EAC web site ([www.eac.gov](http://www.eac.gov)). The standards will be routinely updated. Versions will be identified by version number and/or release date.
- 3.2.2.2. *Versions—Basis for Certification.* The EAC will promulgate which version or versions of the standards or requirements it will accept as the basis for pilot testing and certification programs. **The EAC will certify only those voting systems tested to standards that the EAC has identified as valid for the specific pilot certification effort.**
- 3.2.3. Significance of an EAC Pilot Certification. An EAC pilot certification is an official recognition that a voting system (in a specific configuration or configurations) has been tested to and has met an identified set of Federal voting system standards or requirements. An EAC certification is **not** any of the following:
- 3.2.3.1. An endorsement of a Manufacturer, voting system, or any of the system’s components.
- 3.2.3.2. A Federal warranty of the pilot voting system or any of its components.

- 3.2.3.3. A determination that a pilot voting system, when fielded, will be operated in a manner that meets all HAVA requirements.
  - 3.2.3.4. A substitute for State or local certification and testing.
  - 3.2.3.5. A determination that the system is ready for use in an election.
  - 3.2.3.6. A determination that any particular component of a certified system is itself certified for use outside the certified configuration.
- 3.2.4. **When Certification Is Required Under the Program.** To obtain an EAC pilot certification, Manufacturers must submit a voting system for testing and certification under this program.

## 4. Certification Testing, Technical Review and Grant of Certification for Pilot Voting Systems

- 4.1. Overview.** This chapter discusses the procedural requirements for submitting a pilot voting system to the EAC for testing and review. The testing and review process requires an application, employment of an EAC accredited testing laboratory, and technical analysis of the laboratory test report by the EAC. The result of this process is a Decision on Certification by the Decision Authority.
- 4.2. Policy.** Generally, to receive a determination on an EAC certification for a pilot voting system, a registered Manufacturer must have (1) submitted an EAC-approved application for certification, (2) had a VSTL submit an EAC-approved test plan, (3) had a VSTL test a voting system to applicable voting system standards, (4) had a VSTL submit a test report to the EAC for technical review and approval, and (5) received EAC approval of the report in a Decision on Certification.
- 4.3. Certification Application.** The first step in submitting a voting system for certification is submission of an application package. The package contains an application form and a copy of the voting system's Implementation Statement (see VVSG 2005—Version 1.0, Vol. I, Section 1.6.4), functional diagram, and System Overview documentation submitted to the VSTL as a part of the Technical Data Package (see VVSG 2005—Version 1.0, Vol. II, Section 2.2). This application process initiates the certification process and provides the EAC with needed information.
- 4.3.1. Information on Application Form. The application (application form) provides the EAC certain pieces of information that are essential at the outset of the certification process. This information includes the following:
- 4.3.1.1. *Manufacturer Information.* Identification of the Manufacturer (name and three-letter identification code).
  - 4.3.1.2. *Selection of Accredited Laboratory.* Selection and identification of the VSTL that will perform voting system testing and other prescribed laboratory action consistent with the requirements of this Manual. Once selected, a Manufacturer may NOT replace the selected VSTL without the express written consent of the Program Director. Such permission will be granted solely at the discretion of the Program Director and only upon demonstration of good cause.
  - 4.3.1.3. *Voting System Standards Information.* Identification of the VVSG, or other EAC approved testable requirements document, including the document's date and version number, to which the Manufacturer wishes to have the identified voting system tested and certified.

- 4.3.1.4. *Identification of the Pilot Voting System.* Manufacturers must identify the system submitted for testing by providing its name and applicable version number.
- 4.3.1.5. *Description of the Pilot Voting System.* Manufacturers must provide a brief description of the system being submitted for testing and certification. This description shall include the following information:
  - 4.3.1.5.1. A listing of all components of the system submitted.
  - 4.3.1.5.2. Each component's version number.
  - 4.3.1.5.3. A complete list of each configuration of the system's components that could be fielded as the certified voting system.<sup>1</sup>
  - 4.3.1.5.4. Any other information necessary to identify the specific configuration being submitted for certification.
- 4.3.1.6. *Date Submitted.* Manufacturers must note the date the application was submitted for EAC approval.
- 4.3.1.7. *Signature.* The Manufacturer must affix the signature of the authorized management representative.
- 4.3.2. Submission of the Application Package. Manufacturers must submit a copy of the application form described above and copies of the voting system's (1) Implementation Statement, (2) functional diagram, and (3) System Overview documentation submitted to the VSTL as a part of the Technical Data Package.
  - 4.3.2.1. *Application Form.* Application forms will be available on the EAC web site: [www.eac.gov](http://www.eac.gov). The application form submitted to the EAC must be signed, dated, and fully, accurately, and completely filled out. The EAC will not accept incomplete or inaccurate applications.
  - 4.3.2.2. *Implementation Statement.* The Manufacturer must submit with the application form a copy of the voting system's Implementation Statement, which must meet the requirements of the VVSG (VVSG 2005—Version 1.0, Vol. I, Section 1.6.4). If an existing system is being submitted with a

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<sup>1</sup> An EAC certification applies to the configuration of components (the voting system) presented for testing. A voting system may be fielded without using each of the components that formed the system presented, since voting systems, as certified, may contain optional or redundant components to meet the varying needs of election officials. Systems may not be fielded with additional components or without sufficient components to properly prosecute an election, as neither individual components nor separately tested systems may be combined to create new certified voting systems.

modification, the Manufacturer must submit a copy of a revised Implementation Statement.

- 4.3.2.3. *Functional Diagram.* The Manufacturer must submit with the application form a high-level Functional Diagram of the voting system that includes all of its components. The diagram must portray how the various components relate and interact.
- 4.3.2.4. *System Overview.* The Manufacturer must submit with the application form a copy of the voting system's System Overview documentation submitted to the VSTL as a part of the Technical Data Package. This document must meet the requirements of the VVSG (VVSG 2005—Version 1.0, Vol. II, Section 2.2).
- 4.3.2.5. *Submission.* Applications, with the accompanying documentation, shall be submitted in Adobe PDF, Microsoft Word, or other electronic formats as prescribed by the Program Director. Information on how to submit packages will be posted on the EAC web site: [www.eac.gov](http://www.eac.gov).
- 4.3.3. Declaration of Conformity. As part of the application package, Manufacturers must also submit a Declaration of Conformity form described below. This form is included as Appendix B of this Manual and on the EAC web site at [www.eac.gov](http://www.eac.gov). For the purposes of EAC Pilot Certification Programs, a Declaration of Conformity is the procedure by which a pilot voting system manufacturer notifies and affirms to the EAC that the manufacturer has taken the necessary steps to ensure that the system conforms to the applicable technical standards and requirements promulgated by the EAC for a particular pilot program. All testing done by the manufacturer pursuant to the Declaration of Conformity must either be conducted by the manufacturer themselves under a quality process substantially similar to those noted in ISO/IEC 17025 or by a test laboratory accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) or by the American Association of Laboratory Accreditation (A2LA).
  - 4.3.3.1. *Declaration of Conformity Contents.* The Declaration of Conformity must contain the following information as provided for on the Form:
    - 4.3.3.1.1. Name, address and country designation of the manufacturer.
    - 4.3.3.1.2. Model name/number of the pilot voting system (including a separate attached list of components submitted for the system.
    - 4.3.3.1.3. List of relevant standards/requirements for which the manufacturer is declaring conformity.
    - 4.3.3.1.4. Use Statement. This statement notes that the system must be used according to all the applicable installation, maintenance and use directions provided by the manufacturer.

4.3.3.1.5. Authorized signature, including name, title, and address.

4.3.3.1.6. Date.

4.3.3.2. *Signature Authority.* The Declaration of Conformity must be signed by an individual with the authority to make binding commitments on behalf of the manufacturer. Preferably, the signatory should be an individual in a position to know on behalf of the manufacturer that the voting system complies with the standards/requirements based on the design, manufacture, testing and production control of the pilot voting system.

4.3.3.3. *Declaration of Conformity Record Retention Requirements.* A copy of the Declaration of Conformity and all related documentation will be retained for a period of 5 years after the pilot voting system is no longer manufactured. Such documentation shall be retained on the premises of the manufacturer and must be made available to the EAC consistent with the requirements of Section 6.4 of this Manual. The declaration of conformity shall be kept in a system construction file consisting of at minimum:

4.3.3.3.1. An overall drawing of the system together with drawings of the control circuits.

4.3.3.3.2. Full detailed drawings, accompanied by any calculation notes, test results or other information required to verify that the system conforms to the appropriate standards/requirements.

4.3.4. EAC Review. Upon receipt of a Manufacturer's application package, the EAC will review the submission for completeness and accuracy. If the application package is incomplete, the EAC will return it to the Manufacturer with instructions for resubmission. If the form submitted is acceptable, the Manufacturer will be notified and provided a unique application number within five (5) business days of the EAC's receipt of the application.

**4.4. Test Plan.** The Manufacturer shall authorize the VSTL identified in its application to submit a test plan directly to the EAC. This plan shall provide for testing of the system sufficient to ensure it is functional and meets all applicable voting system standards. ***For EAC pilot programs, Test Plans must be reviewed and approved before any VSTL testing may commence. (Manufacturer testing used as the basis for the Declaration of Conformity should, of course, be done prior to the submission of an application package by the manufacturer of the pilot voting system seeking EAC certification under this program.)***

4.4.1. Development. An accredited laboratory will develop test plans that use appropriate test protocols, standards, or test suites developed by the laboratory. Laboratories must use all applicable protocols, standards, or test suites issued by the EAC, where applicable.



4.4.2. Required Testing. Test plans shall be developed to ensure that a pilot voting system is functional and meets all requirements of the applicable, approved voting system standards or requirements. The highest level of care and vigilance is required to ensure that comprehensive test plans are created. A test plan should ensure that the voting system meets all applicable standards and that test results and other factual evidence of the testing are clearly documented. System testing must meet the requirements of the VVSG and/or any other requirements developed specifically for pilot program certifications.

4.4.3. Format. Test labs shall issue test plans consistent with the requirements in VVSG, Vol. II and any applicable EAC guidance.

4.4.4. EAC Approval. All test plans are subject to EAC approval. No test report will be accepted for technical review unless the test plan on which it is based has been approved by EAC's Program Director.

4.4.4.1. *Review*. All test plans must be reviewed for adequacy by the Program Director. For each submission, the Program Director will determine whether the test plan is acceptable or unacceptable. Unacceptable plans will be returned to the laboratory for further action. Acceptable plans will be approved. All Pilot Program Test Plans will be reviewed by the EAC and either approved or rejected within 7 work days of receipt of the Test Plan.

4.4.4.2. *Unaccepted Plans*. If a plan is not accepted, the Program Director will return the submission to the Manufacturer's identified VSTL for additional action. Notice of unacceptability will be provided in writing to the laboratory and include a description of the problems identified and steps required to remedy the test plan. A copy of this notice will also be sent to the Manufacturer. Questions concerning the notice shall be forwarded to the Program Director in writing. Plans that have not been accepted may be resubmitted for review after remedial action is taken.

4.4.4.3. *Effect of Approval*. Approval of a test plan is required before testing may commence. In most cases, approval of a test plan signifies that the tests proposed, if performed properly, are sufficient to fully test the system. A test plan, however, is approved based on the information submitted. New or additional information may require a change in testing requirements at any point in the certification process.

**4.5. Testing**. During testing, Manufacturers are responsible for enabling VSTLs to report any changes to a voting system or an approved test plan directly to the EAC. Manufacturers shall also enable VSTLs to report all test failures or anomalies directly to the EAC.

4.5.1. Changes. Any changes to a voting system, initiated as a result of the testing process, will require submission of an updated Implementation Statement, functional diagram, and System Overview document and, potentially, an updated test plan. Test plans must be updated whenever a change to a voting system requires deviation from the test plan originally approved by the EAC. Changes requiring alteration or deviation from the originally approved test plan must be submitted to the EAC (by the VSTL) for approval before the completion of testing. The submission shall include an updated Implementation Statement, functional diagram, and System Overview, as needed. Changes not affecting the test plan shall be reported in the test report. The submission shall include an updated Implementation Statement, functional diagram, and System Overview document, as needed.

4.5.2. Test Anomalies or Failures. Manufacturers shall enable VSTLs to notify the EAC directly and independently of any test anomalies or failures during testing. The VSTLs shall ensure that all anomalies or failures are addressed and resolved before testing is completed. All test failures, anomalies and actions taken to resolve such failures and anomalies shall be documented by the VSTL in an appendix to the test report submitted to the EAC. These matters shall be reported in a matrix, or similar format, that identifies the failure or anomaly, the applicable voting system standards, and a description of how the failure or anomaly was resolved. Associated or similar anomalies/failures may be summarized and reported in a single entry on the report (matrix) as long as the nature and scope of the anomaly/failure is clearly identified.

**4.6. Test Report.** Manufacturers shall enable their identified VSTL to submit test reports directly to the EAC. The VSTL shall submit test reports only if the voting system has been tested and all tests identified in the test plan have been successfully performed.

4.6.1. Submission. The test reports shall be submitted to the Program Director. The Program Director shall review the submission for completeness. Any reports showing incomplete or unsuccessful testing will be returned to the test laboratory for action and resubmission. Notice of this action will be provided to the Manufacturer. Test reports shall be submitted in Adobe PDF, Microsoft Word, or other electronic formats as prescribed by the Program Director. Information on how to submit reports will be posted on the EAC web site: [www.eac.gov](http://www.eac.gov).

4.6.2. Format. Manufacturers shall ensure that test labs submit reports consistent with the requirements in the VVSG and this Manual.

4.6.3. Technical Review. A technical review of the test report, technical documents, and test plan will be conducted by EAC technical experts. The EAC may require the submission of additional information from the VSTL or Manufacturer if deemed necessary to complete the review. These experts will submit a report outlining their findings to the Program Director. The report will provide an assessment of the completeness, appropriateness, and adequacy of the VSTL's testing as documented in the test report.

For Pilot Programs, Technical Review will be completed within 10 business days of the receipt of the Test Report by the EAC.

4.6.4. Program Director's Recommendation. The Program Director shall review the report and take one of the following actions:

4.6.4.1. Recommend certification of the candidate system consistent with the reviewed test report and forward it to the Decision Authority for action (Initial Decision); or

4.6.4.2. Refer the matter back to the technical reviewers for additional specified action and resubmission.

**4.7. Decision on Certification.** Upon receipt of the report and recommendation forwarded by the Program Director, the Decision Authority shall issue a Decision on Certification. The decision shall be forwarded to the Manufacturer consistent with the requirements of this Manual.

**4.8. Pre-Certification Requirements.** Before a certification is issued for a pilot voting system, Manufacturers must ensure certain steps are taken. They must confirm that the final version of the software that was certified and which the Manufacturer will deliver with the certified system has been subject to a trusted build (see Section 4.9), has been delivered for deposit in an EAC-approved repository (see Section 4.11), and can be verified using Manufacturer-developed identification tools (see Section 4.12). The Manufacturer must provide the EAC documentation demonstrating compliance with these requirements.

**4.9. Trusted Build.** A software build (also referred to as a compilation) is the process whereby source code is converted to machine-readable binary instructions (executable code) for the computer. A "trusted build" (or trusted compilation) is a build performed with adequate security measures implemented to give confidence that the executable code is a verifiable and faithful representation of the source code. A trusted build creates a chain of evidence from the Technical Data Package and source code submitted to the VSTLs to the actual executable programs that are run on the system. Specifically, the build will do the following:

4.9.1. Demonstrate that the software was built as described in the Technical Data Package.

4.9.2. Show that the tested and approved source code was actually used to build the executable code used on the system.

4.9.3. Demonstrate that no elements other than those included in the Technical Data Package were introduced in the software build.

4.9.4. Document for future reference the configuration of the system certified.

**4.10. Trusted Build Procedure.** A trusted build is a three-step process: (1) the build environment is constructed; (2) the source code is loaded onto the build environment; and (3) the executable code is compiled and the installation device is created. The process may be simplified for

modification to previously certified systems. In each step, a minimum of two witnesses from different organizations is required to participate. These participants must include a VSTL representative and vendor representative. Before creating the trusted build, the VSTL must complete the source code review of the software delivered from the vendor for compliance with the VVSG and must produce and record file signatures of all source code modules.

4.10.1. Constructing the Build Environment. The VSTL shall construct the build environment in an isolated environment controlled by the VSTL, as follows:

4.10.1.1. The device that will hold the build environment shall be completely erased by the VSTL to ensure a total and complete cleaning of it. The VSTL shall use commercial off-the-shelf software, purchased by the laboratory, for cleaning the device.

4.10.1.2. The VSTL, with vendor consultation and observation, shall construct the build environment.

4.10.1.3. After construction of the build environment, the VSTL shall produce and record a file signature of the build environment.

4.10.2. Loading Source Code onto the Build Environment. After successful source code review, the VSTL shall load source code onto the build environment as follows:

4.10.2.1. The VSTL shall check the file signatures of the source code modules and build environment to ensure that they are unchanged from their original form.

4.10.2.2. The VSTL shall load the source code onto the build environment and produce and record the file signature of the resulting combination.

4.10.2.3. The VSTL shall capture a disk image of the combination build environment and source code modules immediately before performing the build.

4.10.2.4. The VSTL shall deposit the disk image into an authorized archive to ensure that the build can be reproduced, if necessary, at a later date.

4.10.3. Creating the Executable Code. Upon completion of all the tasks outlined above, the VSTL shall produce the executable code.

4.10.3.1. The VSTL shall produce and record a file signature of the executable code.

4.10.3.2. The VSTL shall deposit the executable code into an EAC-approved software repository and create installation disk(s) from the executable code.

4.10.3.3. The VSTL shall produce and record file signatures of the installation disk(s) in order to provide a mechanism to validate the software before installation on the voting system in a purchasing jurisdiction.

4.10.3.4. The VSTL shall install the executable code onto the system submitted for testing and certification before completion of system testing.

**4.11. Depositing Software in an Approved Repository.** After EAC certification has been granted, the VSTL project manager, or an appropriate delegate of the project manager, shall deliver for deposit the following elements in one or more trusted archive(s) (repositories) designated by the EAC:

4.11.1. Source code used for the trusted build and its file signatures.

4.11.2. Disk image of the pre-build, build environment, and any file signatures to validate that it is unmodified.

4.11.3. Disk image of the post-build, build environment, and any file signatures to validate that it is unmodified.

4.11.4. Executable code produced by the trusted build and its file signatures of all files produced.

4.11.5. Installation device(s) and file signatures.

**4.12. System Identification Tools.** The Manufacturer shall provide tools through which a fielded voting system may be identified and demonstrated to be unmodified from the system that was certified. The purpose of this requirement is to make such tools available to Federal, State, and local officials to identify and verify that the equipment used in elections is unmodified from its certified version. Manufacturers may develop and provide these tools as they see fit. The tools, however, must provide the means to identify and verify hardware and software. The EAC may review the system identification tools developed by the Manufacturer to ensure compliance. System identification tools include the following examples:

4.12.1. Hardware is commonly identified by model number and revision number on the unit, its printed wiring boards (PWBs), and major subunits. Typically, hardware is verified as unmodified by providing detailed photographs of the PWBs and internal construction of the unit. These images may be used to compare with the unit being verified.

4.12.2. Software operating on a host computer will typically be verified by providing a self-booting compact disk (CD) or similar device that verifies the file signatures of the voting system application files AND the signatures of all nonvolatile files that the application files access during their operation. Note that the creation of such a CD requires having a file map of all nonvolatile files that are used by the voting system. Such a tool must be provided for verification using the file signatures of the original executable files provided for testing. If during the certification process modifications are made and new executable files created, then the tool must be updated to reflect the

file signatures of the final files to be distributed for use. For software operating on devices in which a self-booting CD or similar device cannot be used, a procedure must be provided to allow identification and verification of the software that is being used on the device.

- 4.13. Documentation.** Manufacturers shall provide documentation to the Program Director verifying that the trusted build has been performed, software has been deposited in an approved repository, and system identification tools are available to election officials. The Manufacturer shall submit a letter, signed by both its management representative and a VSTL official, stating (under penalty of law) that it has (1) performed a trusted build consistent with the requirements of Section 4.9 of this Manual, (2) deposited software consistent with Section 4.11 of this Manual, and (3) created and made available system identification tools consistent with Section 4.12 of this Manual. This letter shall also include (as attachments) a copy and description of the system identification tool developed under Section 5.8 above.
- 4.14. Agency Decision.** Upon receipt of documentation demonstrating the successful completion of the requirements above and recommendation of the Program Director, the Decision Authority will issue an Agency Decision granting pilot certification and providing the Manufacturer with a certification number and Certificate of Conformance.
- 4.15. Certification Document.** A Certificate of Conformance will be provided to Manufacturers for voting systems that have successfully met the requirements of the EAC Pilot Program. The document will serve as the Manufacturer's evidence that a particular pilot system is certified to a specific set of testable requirements. The EAC certification and certificate apply only to the specific voting system configuration(s) identified, submitted and evaluated under this Program. Any modification to the system not authorized by the EAC will void the certificate. The certificate will include the product (voting system) name, the specific model or version of the product tested, the name of the VSTL that conducted the testing, identification of the standards to which the system was tested, the EAC certification number for the product, and the signature of the EAC Executive Director. The certificate will also identify the configurations of the voting system's components that may be represented as certified and will specify the date of expiration for the pilot program certification.
- 4.16. Certification Number.** Each pilot system certified by the EAC will receive a certification number that is unique to the system and will remain with the system until the expiration of the pilot program.
- 4.17. Publication of EAC Certification.** The EAC will publish and maintain on its web site a list of all certified pilot voting systems, including copies of all Certificates of Conformance, the supporting test report, and information about the voting system and Manufacturer. Such information will be posted immediately following the Manufacturer's receipt of the EAC Decision and Certificate of Conformance.
- 4.18. Representation of EAC Certification.** Manufacturers may not represent or imply that a pilot voting system is certified unless it has received a Certificate of Conformance for that system.

Statements regarding EAC certification in brochures, on Web sites, on displays, and in advertising/sales literature must be made solely in reference to specific systems. Any action by a Manufacturer to suggest EAC endorsement of its product or organization is strictly prohibited and may result in a Manufacturer's suspension or other action pursuant to Federal civil and criminal law.

4.18.1. **No Mark of Certification Requirement.** Manufacturers are not required to label machines used in EAC Pilot Programs with the EAC Mark of Certification.

## 5. Denial of Certification

- 5.1. Overview.** When the Decision Authority issues a Decision denying certification of a pilot voting system, the Manufacturer has certain rights and responsibilities. The Manufacturer may request an opportunity to cure the defects identified by the Decision Authority. In addition, the Manufacturer may appeal the decision to the Appeal Authority.
- 5.2. Applicability of This Chapter.** This chapter applies when the Decision Authority makes a Decision to deny an application for pilot voting system certification based on the materials and recommendation provided by the Program Director.
- 5.3. Form of Decisions.** All agency determinations shall be made in writing. Moreover, all materials and recommendations reviewed or used by agency decision makers in arriving at an official determination shall be in written form.
- 5.4. Effect of Denial of Certification.** Upon receipt of the agency’s decision denying certification—or in the event of an appeal, subject to the Decision on Appeal—the Manufacturer’s application for certification is denied. Such systems will not be reviewed again by the EAC for certification unless the Manufacturer alters the system, retests it, and submits a new application for system certification.
- 5.5. The Record.** The Program Director shall maintain all documents related to a denial of certification. Such documents shall constitute the procedural and substantive record of the decision making process. Records may include the following:
- 5.5.1. The Program Director’s report and recommendation to the Decision Authority.
  - 5.5.2. The Decision Authority’s Decision.
  - 5.5.3. Any materials gathered by the Decision Authority that served as a basis for a certification determination.
  - 5.5.4. All correspondence between the EAC and a Manufacturer after the issuance of a Decision denying certification.
- 5.6.** The Decision Authority shall make and issue a written decision on pilot voting systems submitted for certification. Decisions shall be in writing and contain (1) the Decision Authority’s basis and explanation for the decision and (2) notice of the Manufacturer’s rights in the denial of certification process.
- 5.6.1. Basis and Explanation. The Decision of the Decision Authority shall accomplish the following:
    - 5.6.1.1. Clearly state the agency’s decision on certification.
    - 5.6.1.2. Explain the basis for the decision, including identifying the following:



5.6.1.2.1. The relevant facts.

5.6.1.2.2. The applicable EAC voting system standards or requirements document.

5.6.1.2.3. The relevant analysis in the Program Director's recommendation.

5.6.1.2.4. The reasoning behind the decision.

5.6.1.3. State the actions the Manufacturer must take, if any, to cure all defects in the voting system and obtain a certification.

5.6.2. Manufacturer's Rights. The written Decision must also inform the Manufacturer of its procedural rights under the program, including the following:

5.6.2.1. Right to request a copy or otherwise have access to the information that served as the basis of the Decision ("the record").

5.6.2.2. Right to cure system defects prior to final Agency Decision (see Section 6.8). A Manufacturer may request an opportunity to cure within 10 calendar days of its receipt of the Decision.

**5.7. No Manufacturer Action on Decision.** If a Manufacturer takes no action (by either failing to request an opportunity to cure) within 10 calendar days of its receipt of the Decision, the Decision shall become the agency's final Decision on Certification. In such cases, the Manufacturer is determined to have foregone its right to cure, and appeal. The certification application shall be considered finally denied.

**5.8. Opportunity to Cure.** Within 10 calendar days of receiving the EAC's Decision on Certification, a Manufacturer may request an opportunity to cure the defects identified in the EAC's Decision. If the request is approved, a compliance plan must be created, approved, and followed. If this cure process is successfully completed, a pilot voting system denied certification may receive a certification without resubmission.

5.8.1. Manufacturer's Request to Cure. The Manufacturer must send a request to cure within 10 calendar days of receipt of a Decision. The request must be sent to the Program Director.

5.8.2. EAC Action on Request. The Decision Authority will review the request and approve it. The Decision Authority will deny a request to cure only if the proposed plan to cure is inadequate or does not present a viable way to remedy the identified defects within a period of time sufficient to allow the pilot program to move forward. Approval or denial of a request to cure shall be provided the Manufacturer in writing. If the Manufacturer's request to cure is denied, it shall have 10 calendar days from the date it received such notice to request an Appeal of the Agency Decision pursuant to Section 6.9.

- 5.8.3. **Manufacturer's Compliance Plan.** Upon approval of the Manufacturer's request for an opportunity to cure, it shall submit a compliance plan to the Decision Authority for approval. This compliance plan must set forth steps to be taken to cure all identified defects. It shall include the proposed changes to the system, updated technical information (as required by Section 4.3.2), and a new test plan created and submitted directly to the EAC by the VSTL. The plan shall also provide for the testing of the amended system and submission of a test report by the VSTL to the EAC for approval. It should provide an estimated date for receipt of this test report and include a schedule of periodic VSTL progress reports to the Program Director.
- 5.8.4. **EAC Action on the Compliance Plan.** The Decision Authority must review and approve the compliance plan. The Decision Authority may require the Manufacturer to provide additional information and modify the plan as required. If the Manufacturer is unable or unwilling to provide a compliance plan acceptable to the Decision Authority, the Decision Authority shall provide written notice terminating the "opportunity to cure" process.
- 5.8.5. **Compliance Plan Test Report.** The VSTL shall submit the test report created pursuant to its EAC-approved compliance plan. The EAC shall review the test report, along with the original test report and other materials originally provided. The report will be technically reviewed by the EAC consistent with the procedures laid out in Chapter 4 of this Manual.
- 5.8.6. **EAC Decision on the System.** After receipt of the test plan, the Decision Authority shall issue a decision on a voting system amended pursuant to an approved compliance plan. This decision shall be issued in the same manner and with the same process and rights as a Decision on Certification.

**5.9. Appeal of Agency Decision.** A Manufacturer may, upon receipt of an Agency Decision denying certification, issue a request for appeal.

- 5.9.1. **Requesting Appeal.** A Manufacturer may appeal a decision of the agency by issuing a written request for appeal.
  - 5.9.1.1. *Submission.* Requests must be submitted in writing to the Program Director, addressed to the Chair of the U.S. Election Assistance Commission.
  - 5.9.1.2. *Timing of Appeal.* The Manufacturer may request an appeal within 20 calendar days of receipt of the Agency Decision. Late requests will not be considered.
  - 5.9.1.3. **Contents of Request.**
    - 5.9.1.3.1. The request must clearly state the specific conclusions of the Decision the Manufacturer wishes to appeal.
    - 5.9.1.3.2. The request may include additional written argument.

5.9.1.3.3. The request may not reference or include any factual material not in the record.

5.9.2. Consideration of Appeal. All timely appeals will be considered by the Appeal Authority.

5.9.2.1. The Appeal Authority shall be two or more EAC Commissioners or other individuals appointed by the Commissioners who have not previously served as the Decision Authority on the matter.

5.9.2.2. All decisions on appeal shall be based on the record.

5.9.2.3. The determination of the Decision Authority shall be given deference by the Appeal Authority. Although it is unlikely that the scientific certification process will produce factual disputes, in such cases, the burden of proof shall belong to the Manufacturer to demonstrate by clear and convincing evidence that its pilot voting system met all substantive and procedural requirements for certification. In other words, the determination of the Decision Authority will be overturned only when the Appeal Authority finds the ultimate facts in controversy highly probable.

**5.10. Decision on Appeal.** The Appeal Authority shall make a written, Decision on Appeal and shall provide it to the Manufacturer.

5.10.1. Contents. The following actions are necessary to write the Decision on Appeal:

5.10.1.1. State the determination of the agency.

5.10.1.2. Address the matters raised by the Manufacturer on appeal.

5.10.1.3. Provide the reasoning behind the decisions.

5.10.1.4. State that the Decision on Appeal is final.

5.10.2. Determinations. The Appeal Authority may make one of two determinations:

5.10.2.1. *Grant of Appeal.* If the Appeal Authority determines that the conclusions of the Decision Authority shall be overturned *in full*, the appeal shall be granted. In such cases, certification will be approved subject to the requirements of Chapter 4.

5.10.2.2. *Denial of Appeal.* If the Appeal Authority determines that *any part* of the Decision Authority's determination shall be upheld, the appeal shall be denied. In such cases, the application for appeal is finally denied.

5.10.3. Effect. All Decisions on Appeal shall be final and binding on the Manufacturer. No additional appeal shall be granted.

## 6. Pilot Program Monitoring and Reporting

**Overview.** The quality of any product, including a voting system, depends on two specific elements: (1) the design of the product or system and (2) the care and consistency of the manufacturing and development process for both hardware and software. Both the Pilot Program and the larger EAC testing and certification process focus on voting system design by ensuring that systems meet the technical specifications of the applicable EAC voting system standards or other applicable testable requirements. This process, commonly called “type acceptance,” determines whether the representative sample submitted for testing meets the requirements. What type acceptance does not do is explore whether variations in manufacturing may allow production of non-compliant systems. Generally, the quality of the manufacturing is the responsibility of the Manufacturer. This level of compliance is accomplished by the Manufacturer’s configuration management and quality control processes. The EAC’s Pilot Program Monitoring and Reporting program, as outlined in this chapter, provides an additional layer of oversight and quality control by allowing the EAC to perform declaration of conformity audits, and to gather information on pilot system anomalies via mandatory reporting from pilot system manufacturers. These tools help ensure that pilot systems meet any and all requirements adopted by the EAC for pilot programs when the systems are manufactured, delivered, and used in Federal election pilot programs.

- 6.1. Purpose.** The purpose of Pilot Program Monitoring and Reporting is to ensure that pilot voting systems certified by the EAC are identical to those fielded in the pilot jurisdictions, to ensure that the voting system manufacturer maintains a rigorous quality management system and to verify that the manufacturer has conducted testing on their product as attested to in the Manufacturer Declaration of Conformity document. This level of monitoring is accomplished primarily by identifying (1) field performance issues with certified systems as reported by the manufacturer and by pilot jurisdictions, (2) manufacturer declaration of conformity audits, and (3) potential EAC observation of pilot programs in operation.
- 6.2. Manufacturer’s Quality Control.** EAC’s Pilot Program Monitoring functions are not a substitute for the Manufacturer’s quality control program. As stated in Chapter 2 of this Manual, all Manufacturers must have an acceptable quality control program in place before they may be registered. The EAC’s program serves as an independent check and balance that works in tandem with the Manufacturer’s efforts.
- 6.3. Pilot Program Monitoring Methodology.** This chapter provides the EAC with two primary and one secondary tool for assessing the level of compliance to requirements and performance to mission (pilot) objectives of pilot program voting systems. The primary tools are (1) manufacturer declaration of conformity audits and (2) mandatory post election reporting by manufacturers. The secondary tool for monitoring the effectiveness of the program and of the pilot system consists of voluntary pilot program monitoring and reporting by State and local election jurisdiction participating in pilot programs.
- 6.4. Manufacturer Declaration of Conformity Audit:** Manufacturers of pilot voting systems seeking EAC certification will be audited to verify that the system hardware and software being manufactured, shipped, and utilized in the pilot program is the same as the sample

submitted for certification testing. All registered Manufacturers must cooperate with such audits as a condition of program participation.

- 6.4.1. Notice. The site review will be scheduled during the active testing phase of the pilot certification, at manufacturers' headquarters or manufacturing facility. Scheduling and notice of these audits will be coordinated with and provided to both the manufacturing facility's representative and the Manufacturer's representative.
- 6.4.2. Pilot Program Audit Objectives. Objectives shall be established for audit programs in order to direct the planning and conduct of all audits conducted under the program. EAC Declaration of Conformity audit objectives will include the following:
  - 6.4.2.1. Gather information and documentation to insure that the attestation in the declaration of conformance agrees with the actual documented testing done on the pilot voting system by the manufacturer.
  - 6.4.2.2. Review documentation (including but not limited to: test plans; test cases, test methods, test suites, test procedures; test data recorded, and test reports) to determine the adequacy of manufacturer conformance testing.
  - 6.4.2.3. Gather information and documentation to insure that the manufacturer adheres to their stated quality management system and configuration management system.
- 6.4.3. Frequency and Duration. Each manufacturer shall be subject to a mandatory declaration of conformity audit during every pilot certification test engagement. Declaration of conformity audits shall be conducted for a period not to exceed 5 business days.
- 6.4.4. Records Retention. All documents produced by the manufacturer related to the pilot voting system shall be retained by the manufacturer for a period of ten (10) years in .pdf, .doc, or in some other common format agreed upon by the manufacturer and the EAC. The EAC may at any time, request a copy of such records.
- 6.4.5. The Audit. Declaration of Conformity audits will generally be conducted in four phases; audit preparation, document review, on site activities and written audit report.
  - 6.4.5.1. Audit Preparation. Prior to the audit, the EAC will develop an audit plan to provide a basis for the conduct of the audit. The plan should also facilitate scheduling and coordination of all audit activities between the manufacturer and the EAC audit team. The audit plan should include:
    - 6.4.5.1.1. The dates and places where the onsite audit activities will be conducted.
    - 6.4.5.1.2. The audit objectives and criteria.
    - 6.4.5.1.3. The expected time and duration of audit activities, including meetings with the manufacturer's representatives.
    - 6.4.5.1.4. Matters related to confidential and proprietary of trade secret information.

- 6.4.5.2. Document Review. Prior to the audit, documentation shall be collected from the manufacturer for initial review to determine the conformity of the system to the audit criteria. Documentation obtained shall include:
  - 6.4.5.2.1. All technical data package information, system description documentation and users manuals.
  - 6.4.5.2.2. All VSTL testing documentation evidencing system compliance with the appropriate technical requirements and/or standards.
  - 6.4.5.2.3. All internal or external QA audit data from the two most recent audits.
- 6.4.5.3. On Site Activities. On site audit activities will generally include an opening meeting, collection and verification of information, generating audit findings and exit briefing.
  - 6.4.5.3.1. Opening meeting. An opening meeting will be held between the EAC audit team and senior management and other manufacturer employees as needed. The purpose of the opening meeting is to confirm the audit plan, to provide a summary of how the audit will be conducted, confirm the formal communication channels between the audit team and the manufacturer during the audit and to provide the manufacturer an opportunity to ask questions of the audit team.
  - 6.4.5.3.2. Collect and Verify Information. During the audit, information relevant to the audit scope and objectives should be collected, recorded and verified. Only verifiable evidence may be used to generate audit findings. As time is of the essence in any pilot program test campaign, evidence collected during the audit that suggests an immediate and significant risk of the voting system or manufacturer processes shall be reported to the manufacturer without delay. In instances where the available evidence indicates that the audit objectives are unattainable, the audit team leader shall immediately inform the manufacturer for appropriate action. Such actions may include termination of the audit, or in extreme cases, termination of the pilot testing program pending the manufacturer's appeal as outlined in Chapter 5 of this manual. Sources of information may include the following:
    - 6.4.5.3.2.1. Interviews with manufacturer personnel.
    - 6.4.5.3.2.2. Documents such as policies, procedures, instructions, specifications, drawings, contracts and orders.
    - 6.4.5.3.2.3. Records such as inspection records, audit reports, and results of measurements, data summaries, computerized databases and web sites.
    - 6.4.5.3.2.4. Reports from other sources including customer feedback.
    - 6.4.5.3.2.5. Generate Audit Findings. Evidence collected by the audit team should be evaluated against the audit criteria to generate audit findings. Audit findings can indicate

either conformity or nonconformity with audit criteria. Nonconformities and their supporting evidence should be recorded and reviewed with the manufacturer to verify that the evidence is accurate and that the nonconformities are understood. Every attempt will be made to resolve the accuracy of evidence when the manufacturers' opinion differs from that of the audit team. Any unresolved issues related to the nonconformities should be recorded.

6.4.5.3.3. **Exit Briefing.** Auditors will present the audit findings and conclusions to the manufacturers' representative or representatives at an exit briefing to be held on the last day of the audit. Audit findings and conclusions will be presented in a manner that is easily understood and acknowledged by the manufacturers' representative. Any differences of opinion regarding the audit findings and conclusions between the audit team and the manufacturers' representative should be discussed and all opinions recorded.

6.4.6. **Written Audit Report.** A written report documenting the audit findings and conclusions will be drafted by the EAC and provided to the Manufacturer within 10 business days of completion of the audit. The report will detail the findings of the audit, identify actions that are required to correct any nonconformities found during the course of the audit and make a recommendation on whether the manufacturers quality process and the testing performed by the manufacturer appear to meet the requirements outlined in the EAC Standards, Guidelines or Testable Requirements document under which the pilot system is tested. Manufacturers that pass these audits may continue in the pilot certification program. If the audit report finds the manufacturers quality program, and/or product testing was deficient, or if the audit finds that required records were missing, inadequate or otherwise falsified or fabricated in order to circumvent the EAC process, the auditors will recommend that the pilot voting system be dismissed from the pilot program pending adequate resolution of the nonconformities found during the audit.

**6.5. Mandatory Post Election Anomaly Reporting.** The EAC will require registered manufacturers of voting systems used in pilot programs to collect and submit information related to the performance of the system in any election in which it is used. Information on actual pilot system performance in the field is a basic means for assessing the effectiveness of the pilot product as well as manufacturing quality control. The EAC will provide a mechanism for election officials to provide real-world input on pilot voting system anomalies.

6.5.1. **Post Election Anomaly Report.** Manufacturers must record each anomaly that affects the pilot voting system during an election. In addition, the manufacturer shall identify all root causes for each anomaly, and report to the EAC all corrective actions identified

and taken for each anomaly. Reporting of these anomalies will allow the EAC to better evaluate the performance of pilot systems under real election conditions in order to make recommendations for future use of the system. The Report may be filed with the EAC by electronic mail, by regular mail or by facsimile.

- 6.5.2. Reported Information. Pilot system manufacturers shall report all voting system anomalies occurring during the election, verify the anomalies to assure that the problem has been properly identified, and evaluate and analyze the anomaly to determine root cause and corrective action. The report must include all of the following information:
- 6.5.2.1. The manufacturer's name, voting system make and model, and the jurisdiction or jurisdiction in which the anomalies occurred.
  - 6.5.2.2. A narrative description of the anomaly.
  - 6.5.2.3. The affected voting system component, subsystem or software.
  - 6.5.2.4. The action being performed when the anomaly occurred.
  - 6.5.2.5. The number of times the anomalies occurred.
  - 6.5.2.6. Whether the anomaly could be verified.
  - 6.5.2.7. The root cause of the anomaly.
  - 6.5.2.8. The method used to determine the root cause.
  - 6.5.2.9. The corrective and preventative actions taken in response to the anomalies.
  - 6.5.2.10. Any steps taken to validate and verify the effectiveness of the corrective and preventative actions.
- 6.5.3. Root Cause Analysis. The anomaly report should describe the root cause of the problem or problems identified and the approach taken by the system manufacturer to determine those root causes. Before implementing any corrective actions, the manufacturer should determine the root cause of any anomaly to ensure that the problem is understood. A root cause is the fundamental reason that an anomaly occurred. The root cause, or underlying source of the problem differs from the proximate or direct cause, which is the immediate cause of the problem. Many problems have multiple root causes leading to the anomaly. In addition, multiple contributing causes can contribute to an anomaly. Causes may include, but are not limited to component or subsystem failures and faults, software errors, human error, design inadequacies and inadequate or non-existent procedures and documentation. Root cause analysis is necessary to properly identify the circumstances and factors leading to an anomaly or anomalies. Without root cause analysis, the likelihood that



only the proximate causes of the anomaly will be fixed increases, so the potential for the anomaly reoccurring remains significant.

- 6.5.4. Corrective and Preventative Actions. The anomaly report should describe the corrective and preventative actions and the steps taken to validate and verify those actions. A corrective action is a reactive process addressing anomalies that have already occurred. A preventative action is a proactive process taken to stop a potential anomaly from occurring. Verification approaches may include analysis, testing, demonstration and inspection.
- 6.5.5. Distribution of Post Election Anomaly Reports. All anomaly reports will be posted on the EAC web site in full except where such posting may conflict with the Trade Secrets Act or the release of proprietary and confidential information as discussed in Chapter 9 of this manual.

**6.6. Voluntary Anomaly Reporting by States.** As another means of gathering field data, the EAC will collect information from election officials who field EAC-certified pilot voting systems. Information on actual voting system field performance is a basic means for assessing the effectiveness of the Certification Program and the manufacturing quality and version control. The EAC will provide a mechanism for State election officials to provide input on their field experiences with the pilot voting system in real-world elections.

- 6.6.1. Anomaly Report. Election officials may use the Voting System Anomaly Reporting Form to also report pilot voting system anomalies to the EAC. The form and instructions for its completion are available as Appendix C in this Manual or on the EAC Web site, [www.eac.gov](http://www.eac.gov). The form may be filed with the EAC on line, by mail or by facsimile. Use of the form is required.
- 6.6.2. Reported Information. Election officials shall report voting system anomalies. An *anomaly* is defined as an irregular or inconsistent action or response from the voting system or system component resulting in some disruption to the election process. Incidents resulting from administrator error or procedural deficiencies are not considered anomalies for purposes of this chapter. The report must include the following information:
  - 6.6.2.1. The official's name, title, contact information, and jurisdiction.
  - 6.6.2.2. A description of the pilot voting system at issue.
  - 6.6.2.3. The date and location of the reported occurrence.
  - 6.6.2.4. The type of election.
  - 6.6.2.5. A description of the anomaly.
- 6.6.3. Distribution of Reports. State anomaly reports will be posted to the EAC web site and distributed to State and local election jurisdictions, the Manufacturer of the pilot voting system at issue, and the VSTLs.

## 7. Requests for Interpretations

- 7.1. Overview.** A Request for Interpretation is a means by which a registered Manufacturer or VSTL may seek clarification on a specific EAC pilot voting system standard or requirements document. An Interpretation is a clarification of the pilot voting system standards and guidance on how to properly evaluate conformance to it. This chapter outlines the policy, requirements, and procedures for submitting a Request for Interpretation.
- 7.2. Policy.** Registered Manufacturers or VSTLs may request that the EAC provide a definitive Interpretation of EAC-accepted pilot voting system standards or requirements document when, in the course of developing or testing a voting system, facts arise that make the meaning of a particular standard ambiguous or unclear. The EAC may self-initiate such a request when its agents identify a need for interpretation within the program. An Interpretation issued by the EAC will serve to clarify what a given standard requires and how to properly evaluate compliance. Ultimately, an Interpretation does not amend pilot voting system standards, but serves only to clarify existing standards.
- 7.3. Requirements for Submitting a Request for Interpretation.** An EAC Interpretation is limited in scope. The purpose of the Interpretation process is to provide Manufacturers or VSTLs who are in the process of developing or testing a voting system a means for resolving the meaning of a pilot voting system standard in light of a specific technology without having to present a finished product to EAC for certification. To submit a Request for Interpretation, one must (1) be a proper requester, (2) request interpretation of an applicable voting system standard, (3) present an actual controversy, and (4) seek clarification on a matter of unsettled ambiguity.
- 7.3.1. Proper Requestor. A Request for Interpretation may be submitted only by a registered Manufacturer or a VSTL. Requests for Interpretation will not be accepted from any other parties.
- 7.3.2. Applicable Standard. A Request for Interpretation is limited to queries on EAC pilot voting system standards or requirements document. Moreover, a Manufacturer or VSTL may submit a Request for Interpretation only on a version of EAC pilot voting system standards to which the EAC currently offers certification.
- 7.3.3. Existing Factual Controversy. To submit a Request for Interpretation, a Manufacturer or VSTL must present a question relative to a specific voting system or technology proposed for use in a pilot voting system. A Request for Interpretation on hypothetical issues will not be addressed by the EAC. To submit a Request for Interpretation, the need for clarification must have arisen from the development or testing of a voting system. A factual controversy exists when an attempt to apply a specific section of the Standards or requirements document to a specific system or piece of technology creates ambiguity.

7.3.4. Unsettled, Ambiguous Matter. Requests for Interpretation must involve actual controversies that have not been previously settled. This requirement mandates that interpretations contain actual ambiguities not previously clarified.

7.3.4.1. *Actual Ambiguity*. A proper Request for Interpretation must contain an actual ambiguity. The interpretation process is not a means for challenging a clear EAC pilot voting system standard or requirement. Recommended changes to pilot voting system standards are welcome and may be forwarded to the EAC, but they are not part of this program. An ambiguity arises (in applying a pilot voting system standard to a specific technology) when one of the following occurs:

7.3.4.1.1. The language of the standard is unclear on its face.

7.3.4.1.2. One section of the standard seems to contradict another, relevant section.

7.3.4.1.3. The language of the standard, though clear on its face, lacks sufficient detail or breadth to determine its proper application to a particular technology.

7.3.4.1.4. The language of a particular standard, when applied to a specific technology, clearly conflicts with the established purpose or intent of the standard.

7.3.4.1.5. The language of the standard is clear, but the proper means to assess compliance is unclear.

7.3.4.2. *Not Previously Clarified*. The EAC will not accept a Request for Interpretation when the issue has previously been clarified.

**7.4. Procedure for Submitting a Request for Interpretation.** A Request for Interpretation shall be made in writing to the Program Director. All requests should be complete and as detailed as possible because Interpretations issued by the EAC are based on, and limited to, the facts presented. Failure to provide complete information may result in an Interpretation that is off point and ultimately immaterial to the issue at hand. The following steps must be taken when writing a Request for Interpretation:

7.4.1. Establish Standing To Make the Request. To make a request, one must meet the requirements identified in Section 7.3 above. Thus, the written request must provide sufficient information for the Program Director to conclude that the requestor is (1) a proper requester, (2) requesting an Interpretation of an applicable pilot voting system standard, (3) presenting an actual factual controversy, and (4) seeking clarification on a matter of unsettled ambiguity.

- 7.4.2. Identify the EAC Standard or Requirement to be Clarified. The request must identify the specific standard or standards to which the requestor seeks clarification. The request must state the version of the pilot voting system standards at issue (if applicable) and quote and correctly cite the applicable standards.
- 7.4.3. State the Facts Giving Rise to the Ambiguity. The request must provide the facts associated with the voting system technology that gave rise to the ambiguity in the identified document. The requestor must be careful to provide all necessary information in a clear, concise manner. Any Interpretation issued by the EAC will be based on the facts provided.
- 7.4.4. Identify the Ambiguity. The request must identify the ambiguity it seeks to resolve. The ambiguity shall be identified by stating a concise question that meets the following requirements:
- 7.4.4.1. Shall be clearly stated.
- 7.4.4.2. Shall be related to and reference the pilot voting system standard and voting system technology information provided.
- 7.4.4.3. Shall be limited to a single issue. Each question or issue arising from an ambiguous standard must be stated separately. Compound questions are unacceptable. If multiple issues exist, they should be presented as individual, numbered questions.
- 7.4.4.4. Shall be stated in a way that can ultimately be answered *yes* or *no*.
- 7.4.5. Provide a Proposed Interpretation. A Request for Interpretation should propose an answer to the question posed. The answer should interpret the voting system standard in the context of the facts presented. It should also provide the basis and reasoning behind the proposal.

**7.5. EAC Action on a Request for Interpretation.** Upon receipt of a Request for Interpretation, the EAC shall take the following action:

- 7.5.1. Review the Request. The Program Director shall review the request to ensure it is complete, is clear, and meets the requirements of Section 7.4. Upon review, the Program Director may take the following action:
- 7.5.1.1. *Request Clarification.* If the Request for Interpretation is incomplete or additional information is otherwise required, the Program Director may request that the Manufacturer or VSTL clarify its Request for Interpretation and identify any additional information required.
- 7.5.1.2. *Reject the Request for Interpretation.* If the Request for Interpretation does not meet the requirements of Section 7.4, the Program Director may reject it. Such

rejection must be provided in writing to the Manufacturer or VSTL and must state the basis for the rejection.

7.5.1.3. *Notify Acceptance of the Request.* If the Request for Interpretation is acceptable, the Program Director will notify the Manufacturer or VSTL in writing and provide it with an estimated date of completion. A Request for Interpretation may be accepted in whole or in part. A notice of acceptance shall state the issues accepted for interpretation.

7.5.2. Consideration of the Request. After a Request for Interpretation has been accepted, the matter shall be investigated and researched. Such action may require the EAC to employ technical experts. It may also require the EAC to request additional information from the Manufacturer or VSTL. The Manufacturer or VSTL shall respond promptly to such requests.

7.5.3. Interpretation. The Decision Authority shall be responsible for making determinations on a Request for Interpretation. After this determination has been made, a written Interpretation shall be sent to the Manufacturer or VSTL. The following actions are necessary to prepare this written Interpretation:

7.5.3.1. State the question or questions investigated.

7.5.3.2. Outline the relevant facts that served as the basis of the Interpretation.

7.5.3.3. Identify the pilot voting system standards interpreted.

7.5.3.4. State the conclusion reached.

7.5.3.5. Inform the Manufacturer or VSTL of the effect of an Interpretation (see Section 9.6).

**7.6. Effect of Interpretation.** Interpretations are fact specific and case specific. They are not tools of policy, but specific, fact-based guidance useful for resolving a particular problem. Ultimately, an Interpretation is determinative and conclusive only with regard to the case presented. Nevertheless, Interpretations do have some value as precedent. Interpretations published by the EAC shall serve as reliable guidance and authority over identical or similar questions of interpretation. These Interpretations will help users understand and apply the provisions of EAC pilot voting system standards and requirements.

**7.7. Library of Interpretations.** To better serve Manufacturers, VSTLs, and those interested in the EAC pilot certification program, the Program Director shall publish EAC Interpretations. All proprietary information contained in an Interpretation will be redacted before publication consistent with Chapter 8 of this Manual. The library of published opinions is posted on the EAC web site: [www.eac.gov](http://www.eac.gov).

## 8. Release of Certification Program Information

**8.1. Overview.** Manufacturers participating in a Pilot Certification Program will be required to provide the EAC with a variety of documents. In general, these documents will be releasable to the public. Moreover, in many cases, the information provided will be affirmatively published by the EAC. In limited cases, however, documents may not be released if they include trade secrets, confidential commercial information, or personal information. While the EAC is ultimately responsible for determining which documents Federal law protects from release, Manufacturers must identify the information they believe is protected and ultimately provide substantiation and a legal basis for withholding. This chapter discusses EAC's general policy on the release of information and provides Manufacturers with standards, procedures, and requirements for identifying documents as trade secrets or confidential commercial information.

**8.2. EAC Policy on the Release of Pilot Certification Program Information.** The EAC seeks to make its Voting System Pilot Program Testing and Certification as transparent as possible. The agency believes that such action benefits the program by increasing public confidence in the process and creating a more informed and involved public. As such, it is the policy of the EAC to make all documents, or severable portions thereof, available to the public consistent with Federal law (e.g. Freedom of Information Act (FOIA) and the Trade Secrets Act).

8.2.1. Requests for information. As in any Federal program, members of the public may request access to Certification Program documents under FOIA (5 U.S.C. §552). The EAC will promptly process such requests per the requirements of that Act.

8.2.2. Publication of documents. Beyond the requirements of FOIA, the EAC intends to affirmatively publish program documents (or portions of documents) it believes will be of interest to the public. This publication will be accomplished through the use of the EAC Web site ([www.eac.gov](http://www.eac.gov)). The published documents will cover the full spectrum of the program, including information pertaining to:

8.2.2.1. Registered Manufacturers;

8.2.2.2. VSTL test plans;

8.2.2.3. VSTL test reports;

8.2.2.4. Agency decisions;

8.2.2.5. Denials of Certification;

8.2.2.6. Issuance of Certifications;

8.2.2.7. Information on a certified voting system's operation, components, features or capabilities;

- 8.2.2.8. Appeals;
- 8.2.2.9. Declaration of Conformance Audits and Reporting;
- 8.2.2.10. Official Interpretations; and
- 8.2.2.11. Other topics as determined by the EAC.

8.2.3. Trade Secret and Confidential Commercial Information. Federal law places a number of restrictions on a Federal agency's authority to release information to the public. Two such restrictions are particularly relevant to the Certification program: (1) trade secrets information and (2) privileged or confidential commercial information. Both types of information are explicitly prohibited from release by the FOIA and the Trade Secrets Act (18 U.S.C. §1905).

**8.3. Trade Secrets.** A trade secret is a secret, commercially valuable plan, process, or device that is used for the making or processing of a product and that is the end result of either innovation or substantial effort. It relates to the productive process itself, describing how a product is made. It does not relate to information describing end product capabilities, features, or performance.

8.3.1. The following examples illustrate productive processes that may be trade secrets:

- 8.3.1.1. Plans, schematics, and other drawings useful in production.
- 8.3.1.2. Specifications of materials used in production.
- 8.3.1.3. Voting system source code used to develop or manufacture software where release would reveal actual programming.
- 8.3.1.4. Technical descriptions of manufacturing processes and other secret information relating directly to the production process.

8.3.2. The following examples are likely not trade secrets:

- 8.3.2.1. Information pertaining to a finished product's capabilities or features.
- 8.3.2.2. Information pertaining to a finished product's performance.
- 8.3.2.3. Information regarding product components that would not reveal any commercially valuable information regarding production.

**8.4. Privileged or Confidential Commercial Information.** Privileged or confidential commercial information is that information submitted by a Manufacturer that is commercial or financial in nature and privileged or confidential.

- 8.4.1. Commercial or Financial Information. The terms *commercial* and *financial* should be given their ordinary meanings. They include records in which a submitting Manufacturer has any *commercial interest*.
- 8.4.2. Privileged or Confidential Information. Commercial or financial information is privileged or confidential if its disclosure would likely cause substantial harm to the competitive position of the submitter. The concept of harm to one's competitive position focuses on harm flowing from a competitor's affirmative use of the proprietary information. It does not include incidental harm associated with upset customers or employees.

**8.5. EAC's Responsibilities.** The EAC is ultimately responsible for determining whether or not a document (in whole or in part) may be released pursuant to Federal law. In doing so, however, the EAC will require information and input from the Manufacturer submitting the documents. This requirement is essential for the EAC to identify, track, and make determinations on the large volume of documentation it receives. The EAC has the following responsibilities:

- 8.5.1. Managing Documentation and Information. The EAC will control the documentation it receives by ensuring that documents are secure and released to third parties only after the appropriate review and determination.
- 8.5.2. Contacting Manufacturer on Proposed Release of Potentially Protected Documents. In the event a member of the public submits a FOIA request for documents provided by a Manufacturer or the EAC otherwise proposes the release of such documents, the EAC will take the following actions:
  - 8.5.2.1. Review the documents to determine if they are potentially protected from release as trade secrets or confidential commercial information. The documents at issue may have been previously identified as protected by the Manufacturer when submitted (see Section 10.7.1 below) or identified by the EAC on review.
  - 8.5.2.2. Grant the submitting Manufacturer an opportunity to provide input. In the event the information has been identified as potentially protected from release as a trade secret or confidential commercial information, the EAC will notify the submitter and allow it an opportunity to submit its position on the issue prior to release of the information. The submitter shall respond consistent with Section 8.6.1 below.
- 8.5.3. Final Determination on Release. After providing the submitter of the information an opportunity to be heard, the EAC will make a final decision on release. The EAC will inform the submitter of this decision.

**8.6. Manufacturer's Responsibilities.** Although the EAC is ultimately responsible for determining if a document, or any portion thereof, is protected from release as a trade secret or confidential commercial information, the Manufacturer shall be responsible for identifying documents, or



portions of documents, it believes warrant such protection. Moreover, the Manufacturer will be responsible for providing the legal basis and substantiation for its determination regarding the withholding of a document. This responsibility arises in two situations: (1) upon the initial submission of information; and (2) upon notification by the EAC that it is considering the release of potentially protected information.

8.6.1. Initial Submission of Information. When a Manufacturer is submitting documents to the EAC as required by the Certification Program, it is responsible for identifying any document or portion of a document that it believes is protected from release by Federal law. Manufacturers shall identify protected information by taking the following action:

8.6.1.1. *Submitting a Notice of Protected Information*. This notice shall identify the document, document page, or portion of a page that the Manufacturer believes should be protected from release. This identification must be done with specificity. For each piece of information identified, the Manufacturer must state the legal basis for its protected status.

8.6.1.1.1. Cite the applicable law that exempts the information from release.

8.6.1.1.2. Clearly discuss why that legal authority applies and why the document must be protected from release.

8.6.1.1.3. If necessary, provide additional documentation or information. For example, if the Manufacturer claims a document contains confidential commercial information, it would also have to provide evidence and analysis of the competitive harm that would result upon release.

8.6.1.2. *Label Submissions*. Label all submissions identified in the notice as “Proprietary Commercial Information.” Label only those submissions identified as protected. Attempts to indiscriminately label all materials as proprietary will render the markings moot.

8.6.2. Notification of Potential Release. In the event a Manufacturer is notified that the EAC is considering the release of Pilot Program information that may be protected, the Manufacturer shall take the following action:

8.6.2.1. Respond to the notice within 7 calendar days. If additional time is needed, the Manufacturer must promptly notify the Program Director. Requests for additional time will be granted only for good cause and must be made before the 7-day deadline. Manufacturers that do not respond in a timely manner will be viewed as not objecting to release.

8.6.2.2. Clearly state **one** of the following in the response:

8.6.2.2.1. There is no objection to release, or

8.6.2.2.2. The Manufacturer objects to release. In this case, the response must clearly state which portions of the document the Manufacturer believes should be protected from release. The Manufacturer shall follow the procedures discussed in Section 8.6.1 above.

**8.7. Personal Information.** Certain personal information is protected from release under FOIA and the Privacy Act (5 U.S.C. §552a). This information includes private information about a person that, if released, would cause the individual embarrassment or constitute an unwarranted invasion of personal privacy. Generally, the EAC will not require the submission of private information about individuals. The incidental submission of such information should be avoided. If a Manufacturer believes it is required to submit such information, it should contact the Program Director. If the information will be submitted, it must be properly identified. Examples of such information include the following:

8.7.1. Social Security Number.

8.7.2. Bank account numbers.

8.7.3. Home address.

8.7.4. Home phone number.

## Appendix A

# Manufacturer Registration Application Form

Available in electronic format at [www.eac.gov](http://www.eac.gov)



# Manufacturer Registration Application

OMB Control # 3265-0004

## 1. Manufacturer Information

Legal Name of Business:

Address of Business:

City:  State  ZIP Code:

Organization Type:  Corporation  Partnership  Sole Proprietorship  Other

Names of Officers and/or Board of Directors and/or any and all Partners :

Name of Individual or Entity with Controlling Ownership in the Manufacturer:

## 2. Management Representative

First Name:  Title:

Last Name:  Middle Initial:

Address:

City:  State

ZIP Code:  Email:

Phone Number:  FAX Number:

## 3. Technical Representative

First Name:  Title:

Last Name:  Middle Initial:

Address:

City:  State

ZIP Code:  Email:

Phone Number:  FAX Number:

**4. Briefly describe your quality system (e.g. ISO 9001). Provide your written policies supporting this description as a part of this application :**

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**5. Briefly describe your internal requirements for managing change control/version control for both hardware/firmware and software . Provide your written policies supporting this description as part of this application :**

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**6. Briefly describe your document retention requirements . Provide your written policies supporting this description as part of this application :**

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**7. Please, list the Name, Street Address, City, State/Province, Country, Postal Code, and Telephone Number for all facilities used by your company to manufacture your voting system product :**

## 8. Manufacturer Certification Agreement:

To maintain a voting system certification under the Election Assistance Commission (EAC) program, the manufacturer must agree to:

1. Represent a voting system as certified only when it is authorized by the EAC and consistent with the procedures and requirements of the Testing and Certification Program Manual (the Manual).
2. Produce and permanently affix an EAC certification label to all production units of the certified system.
3. Notify the EAC of changes to any system previously certified by the EAC pursuant to the requirements of the Manual.
4. Permit an EAC representative to verify manufacturer quality control by coordinating with EAC efforts to test and review fielded voting systems consistent with Section 8.6 of the Manual.
5. Permit an EAC representative to verify manufacturer quality control by conducting periodic inspections of manufacturing facilities consistent with Chapter 8 of the Manual.
6. Cooperate with any EAC inquiries and investigations into a certified system's compliance with voting system standards or the procedural requirements of the Manual.
7. Report to the Program Director any known malfunction of a voting system holding a current EAC Certification. A malfunction is defined as a failure of the voting system, not caused by operator or administrative error, which causes the system to fail or otherwise not operate as designed.
8. Certify that the manufacturer is not barred or otherwise prohibited by statute regulation or ruling from doing business in the United States.
9. Adhere to all procedural requirements of the Manual.

Signature:

Title:

Date:

---

### EAC Use Only

Manufacturer's  
Designation:

Notes:

# Instructions:

This form provides for the registration of voting system manufacturers. Registration is the initial required step in the EAC Voting System Certification Program. This form is prescribed by Section 2.4 of the Manual. For more information on registration requirements please see Section 2.4 of the Manual.

This form is generally self-explanatory however the numbers and the instructions below correspond to the numbered sections of the form.

## 1. Manufacturer Information.

**Names of Officers and/or Board of Directors and/or any and all Partners:** Ensure that all individuals are identified by name, and title.

**Name of Individual or Entity with Controlling Ownership in the Manufacturer:** Ensure that the controlling individual is properly named and an address is provided.

## 2. Management Representative.

Please provide the name and information requested for the designated Manufacturer Representative pursuant to Section 2.3 of the Manual.

## 3. Technical Representative.

Please provide the name and information requested for the designated Technical Representative pursuant to Section 2.3 of the Manual.

## 4, 5 and 6

Provide the information listed and attach to your submission the written documentation required by Section 2.3.1 of the Manual.

## 7. Manufacturer Certification Agreement

Manufacturers are required to take or abstain from certain actions consistent with the certification program. Your concurrence to these requirements is signified by affixing the signature of the manufacturer representative.

This information is required for the EAC to provide for the certification of voting systems as required by 42 U.S.C. Section 15371. This information will be used solely to administer the EAC Testing and Certification Program. This program is voluntary, however, individuals who wish to participate must meet the requirements of the Program. This information will be made public consistent with the requirements of the Freedom of Information Act, the Trade Secrets Act, and any other applicable Federal law or regulation. Public reporting burden for this collection of information is estimated to average about 9.75 hours for completion of this form. This estimate includes the time for reviewing the instructions, gathering information and completing the form. Send comments regarding this burden estimate to the Testing and Certification Program Director, Election Assistance Commission, 1225 New York Avenue, N.W., Suite 1100, Washington, DC 20005. Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to respond to, or comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.

## **Appendix B**

# **Manufacturer Declaration of Conformity Form**

Available in electronic format at [www.eac.gov](http://www.eac.gov)





# Manufacturer Declaration of Conformity

For EAC Pilot Program Certifications

## Manufacturer

Name

Address

City  State  Zip Code

Country

## Product Identification

Model/Type

See Attached List of components submitted for Conformance Testing for this system

## Means of Conformity

*The manufacturer hereby declares under his sole responsibility that the products identified with this submission comply with the EAC Pilot Program Testing Standards (listed below by Section or requirement) and with all requirements of the EAC Pilot Program Certification Manual. The technical documentation required to demonstrate that the products meet the requirements noted have been compiled and are available for inspection by the U.S. Election Assistance Commission.*

## Applicable Standards




## Appendix C

# Voting System Anomaly Reporting Form

Available in electronic format at [www.eac.gov](http://www.eac.gov)



# Voting System Anomaly Reporting Form

For VOLUNTARY reporting of Voting System Anomalies

## A. Election Official:

1. Name, Title, Jurisdiction

2. Phone Number

3. Email

4. Reported to Manufacturer?

YES

NO

## B. Product Description:

5. Manufacturer Name

6. Type of Voting System

DRE

Ballot Marking Device

Optical Scan

Other

7. System Model

8. Hardware & Software Versions

9. Unit Serial Number

10. EAC Certification Number

## C. Description of Anomaly or Event:

11. Date of Occurrence

Polling Place Name or Location

12. Election Type

Primary

General

Special

13. Was this your first election using this system?

YES

NO

14. Description of Anomaly

# Instructions

This form provides for the reporting of voting system anomalies by election officials. This form is part of the EAC Quality Monitoring Program. The use of this form is voluntary. Information regarding its use can be found in Section 8.7 of the Manual.

This form is self-explanatory.

This information is required for the EAC to provide for the certification of voting systems as required by 42 U.S.C. Section 15371. This information will be used solely to administer the EAC Testing and Certification Program. This program is voluntary, however, individuals who wish to participate must meet the requirements of the Program. This information will be made public consistent with the requirements of the Freedom of Information Act, the Trade Secrets Act, and any other applicable Federal law or regulation. Public reporting burden for this collection of information is estimated to average about 82 hours for completion of this form. This estimate includes the time for reviewing the instructions, gathering information and completing the form. Send comments regarding this burden estimate to the Testing and Certification Program Director, Election Assistance Commission, 1225 New York Avenue, N.W., Suite 1100, Washington, DC 20005. Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to respond to, or comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.