



U.S. ELECTION ASSISTANCE COMMISSION
633 3rd St. NW, Suite 200
Washington, DC 20001

DECLARATION OF MARK A. ROBBINS

The EAC is making available for public inspection the following declaration and attachments to better inform the public on the EAC's Testing and Certification operations. In June 2022, a plaintiff filed an action in the United States District Court for the Eastern District of Missouri against the EAC, the EAC Commissioners, and the Missouri Secretary of State. The complaint alleged that certificates of accreditation were not updated for the voting system test laboratories (VSTLs) and therefore, the VSTLs were not in compliance for the 2020 election. The complaint alleged that because of this, the electronic voting systems in use in Missouri for the 2020 election were invalid and therefore the results must be declared invalid. The attached declaration and exhibits were submitted in support of the EAC's Motion to Dismiss for Lack of Subject Matter Jurisdiction.

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION**

ALISON GRAEFF,

Plaintiff,

v.

UNITED STATES ELECTION
ASSISTANCE COMMISSION, et al,

Defendants.

Civil Action No. 4:22-cv-00682 (RLW)

**DECLARATION OF MARK A.
ROBBINS**

I, Mark A. Robbins, make the following declaration based on personal knowledge and information made available to me in the course of my official duties:

1. I currently serve as the Interim Executive Director of the United States Election Assistance Commission (the “EAC”), an independent agency established through the Help America Vote Act of 2002 (“HAVA”). Prior to assuming this role in February 2022, I was General Counsel of the U.S. Office of Personnel Management (OPM) from 2018-2021, a position I also held from 2001-2006. I was a Member of the U.S. Merit Systems Protection Board (MSPB) from 2012-2018. I served as General Counsel of the U.S. Election Assistance Commission from 2010-2012 and as a Senior Rule of Law Advisor for the U.S. State Department in Babil Province, Iraq for 19 months. From 2006-2008 I served as the Executive Director of the White House Privacy and Civil Liberties Oversight Board and was in private practice between 1988 and 2000.
2. As the Interim Executive Director, my duties include but are not limited to preparing policy recommendations for EAC Commissioner approval, implementing policies approved by the EAC Commissioners, managing administrative matters and operations of the EAC, and

overseeing the Testing and Certification Program while serving as the Decision Authority of the Program.

3. I am submitting this declaration to provide clarifying details concerning official EAC activities, and in particular activities pursuant to the agency's promulgation of the Voluntary Voting System Guidelines (VVSG), as well as the EAC's Testing and Certification Program. As set forth below, the VVSG are ultimately used to guide the EAC's implementation of the Testing and Certification Program (TCP or Program).

The Voluntary Voting System Guidelines (VVSG)

4. One of the duties that HAVA bestows upon the EAC is to adopt voluntary voting system guidelines ("VVSG"), which constitute a set of voluntary specifications and requirements against which voting systems can be tested to determine if the systems meet the specified standards. 52 U.S.C.A. § 20922(1). These guidelines cover pre-voting, voting, and post-voting operations consistent with the definition of a voting system, defined as a total combination of mechanical, electromechanical, or electronic equipment that is used to define ballots, cast and count votes, report or display election results, and maintain and produce any audit trail information. 52 U.S.C.A. § 21081(b).
5. The EAC adopted the first VVSG (VVSG 1.0) on December 13, 2005
https://www.eac.gov/sites/default/files/eac_assets/1/28/VVSG.1.0_Volume_1.PDF; and
https://www.eac.gov/sites/default/files/eac_assets/1/28/VVSG1.0Vol.2.PDF,
<https://perma.cc/VEW8-6LRR>. It adopted the second version (VVSG 1.1) on March 31, 2015
https://www.eac.gov/sites/default/files/eac_assets/1/28/VVSG.1.1.VOL.1.FINAL1.pdf; and
https://www.eac.gov/sites/default/files/eac_assets/1/28/VVSG.1.1.VOL.2.FINAL.pdf,
<https://perma.cc/A6PM-E8TP>. It adopted the third version (VVSG 2.0) on February 21, 2021
https://www.eac.gov/sites/default/files/TestingCertification/Voluntary_Voting_System_Guidelines_Version_2_0.pdf, <https://perma.cc/2H5A-NASC>.
6. The EAC adopted the Voting System Testing and Certification VVSG Lifecycle Policy on April 5,

2022. The Policy creates a pathway for future updates to the VVSG by facilitating regular review of the VVSG standards, providing guidance on when and how new versions will be adopted, and when and how older versions will be maintained and/or discontinued. The policy in particular discusses the deprecation of obsolete standards and establishes consistent periodic review and updates for future standards. A true copy of the Policy is attached as Exhibit A.

7. The Lifecycle Policy provides that testing to a standard will be discontinued pursuant to the conditions outlined in the Policy. *See* VVSG Lifecycle Policy § 3.2.
8. Under the Lifecycle Policy, once at least one VSTL is accredited to test to revised VVSG, and a voting system can be certified to that revised VVSG, the obsolete major VVSG versions will be deprecated 12 months after the date of that VSTL accreditation. *See* VVSG Lifecycle Policy Section 3.3.
9. As their name indicates, the VVSG are fully voluntary, and no state or local jurisdiction need adopt or apply them, either fully or partially. Nor is any manufacturer or voting systems federally required to build to VVSG specifications. 52 U.S.C. § 20929.

EAC Testing and Certification Program

10. Notwithstanding that the VVSG supply fully voluntary standards, in order to facilitate and encourage their use, HAVA further requires that the EAC create a program “for the testing, certification, decertification, and recertification of voting system hardware” against the standards established by the VVSG. *Id.* § 20971(a)(1). The EAC has complied with this statutory mandate by creating and administering its Testing and Certification Program.
11. Like the VVSG themselves, participation in the EAC’s Testing and Certification Program is wholly voluntary for industry actors, as well as state and local governments. 52 U.S.C. § 20929. However, the requirements of the Program are mandatory for all entities that elect to participate.
12. The requirements of the EAC’s Testing and Certification Program are set forth in two Program

manuals: (1) the Voting System Test Laboratory Program Manual (VSTL Program Manual) and (2) the Voting System Testing and Certification Program Manual (VSTC Program Manual).

EAC Voting System Test Laboratory Program Manual

13. The VSTL Program Manual sets forth the procedures through which independent laboratories may seek and obtain accreditation from the EAC to conduct testing of voting systems against the VVSG. A test laboratory that wishes to receive and maintain EAC accreditation as a VSTL must comply with the Voting System Test Laboratories Accreditation Program as provided for in the Manual.
14. When an independent laboratory receives an accreditation from the EAC, the scope of that accreditation is expressly limited to a particular version (or versions) of the VVSG. *See* EAC VSTL Program Manual § 3.7.1.
15. The VSTL Program Manual is generally updated to incorporate the most recent version of the VVSG.
16. On February 10, 2021 (concurrently with its approval and adoption of the VVSG 2.0), the EAC unanimously approved the adoption of the Voting System Test Laboratories Program Manual (version 3.0).
17. When a test laboratory receives accreditation to test to VVSG 2.0, subsequent system testing and the overall program will be required to comply with the procedures in the VSTL Manual (Version 3.0). and the VSTC Program Manual (Version 3.0).
18. As of the date of this declaration, there are no test laboratories accredited to test to VVSG 2.0. Therefore, although the VSTL Manual Version 3.0 has been approved by the EAC for future use, it is not yet in operation for any EAC accredited test laboratories.
19. Voting system test laboratories (VSTL) accredited to test voting systems against the standards set forth in VVSG 1.0 and 1.1 currently utilize VSTL Program Manual Version 2.0. A true copy

of this Manual is attached as Exhibit B.

EAC Voting System Testing and Certification Program Manual

20. The Voting System Testing and Certification Program Manual also implements the EAC's Testing and Certification Program. Specifically, the VSTC Program Manual sets forth the procedures through which accredited independent laboratories may (after receiving accreditation pursuant to the procedures set forth in the VSTL Program Manual) properly test voting systems for compliance with the capabilities, accessibility, and security requirements of the VVSG.
21. Each version of the VSTP Program Manual is generally updated to incorporate the most recent version of the VVSG.
22. On February 10, 2021 (concurrently with its approval and adoption of the VVSG 2.0, as well as the VSTL Program Manual 3.0), the EAC unanimously approved the adoption of the VSTC Program Manual (version 3.0) and the Voting System Test Laboratories Manual (version 3.0).
23. When a test laboratory receives accreditation to test to VVSG 2.0, subsequent system testing and the overall program will be required to comply with the procedures in in the Voting System Test Laboratories Program Manual (Version 3.0) and the VSTC Program Manual (Version 3.0).
24. As of the date of this declaration, there are no test laboratories accredited to test to VVSG 2.0. Therefore, although the VSTC Program Manual Version 3.0 has been approved by the EAC for future use, it is not in operation for any EAC certified voting systems.
25. Voting systems certified to VVSG 1.1 and VVSG 1.0 currently utilize VSTC Program Manual Version 2.0. A true copy of this Manual is attached as Exhibit C.

Participating Voting System Test Laboratories

26. As of the date of this declaration, there are two voting system test laboratories (VSTLs)

participating in the EAC Accreditation Program:

- a. Pro V&V, and
- b. SLI Compliance, a Division of Gaming Laboratories International, LLC.

Pro V&V

27. The EAC first accredited Pro V&V on February 24, 2015.
28. HAVA provides that EAC accreditation of a voting system test laboratory cannot be revoked unless the EAC Commissioners vote to revoke the accreditation. 52 U.S.C. § 20971(c)(2). The EAC has never voted to revoke the accreditation of Pro V&V.
29. Pursuant to the Voting System Test Laboratories Accreditation Program, Pro V&V has undergone continuing assessments since the initial accreditation.
30. The EAC most recently reviewed Pro V&V accreditation and issued a renewed certificate of accreditation on February 1, 2021. A true copy of this certificate of accreditation is attached as Exhibit D.

SLI Compliance

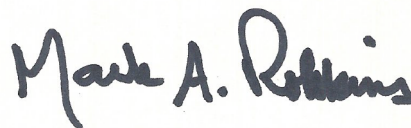
31. The EAC first accredited SLI Compliance on February 28, 2007.
32. HAVA provides that EAC accreditation of a voting system test laboratory cannot be revoked unless the EAC Commissioners vote to revoke the accreditation. 52 U.S.C. § 20971(c)(2). The EAC has never voted to revoke the accreditation of SLI Compliance.
33. Pursuant to the Voting System Test Laboratories Accreditation Program, SLI Compliance has undergone continuing assessments since the initial accreditation.
34. The EAC most recently reviewed SLI Compliance's accreditation and issued a renewed certificate of accreditation on February 1, 2021. A true copy of this certificate of accreditation is attached as Exhibit E.

NTS Huntsville, formerly Wyle Laboratories

35. NTS Huntsville, formerly Wyle Laboratories, was a previous participant of the Voting System Test Laboratories Accreditation Program.
36. The EAC first accredited Wyle Laboratories on October 4, 2007.
37. HAVA provides that EAC accreditation of a voting system test laboratory cannot be revoked unless the EAC Commissioners vote to revoke the accreditation. 52 U.S.C. § 20971(c)(2). The EAC has never voted to revoke the accreditation of NTS Huntsville, formerly Wyle Laboratories.
38. The EAC most recently reviewed NTS Huntsville's, formerly Wyle Laboratories, accreditation and issued a renewed certificate of accreditation on May 4, 2010. A true copy of this certificate of accreditation is attached as Exhibit F.
39. On March 5, 2014, NTS Huntsville notified the EAC that NTS acquired the testing business of Wyle Laboratories. A true copy of this correspondence is attached as Exhibit G.
40. NTS Huntsville voluntarily withdrew from the EAC VSTL program on March 13, 2017. A true copy of this notification is attached as Exhibit H.
41. The EAC notified NTS Huntsville of the laboratory's continuing responsibilities pertaining to records management and other requirements pursuant to the Voting System Test Laboratory Program Manual. A true copy of this correspondence is attached as Exhibit I.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on 8/12/2022.



Mark A. Robbins

EXHIBIT A - VVSG Lifecycle Policy



United States Election Assistance Commission
633 3rd St. NW, Suite 200
Washington, DC 20001
www.eac.gov

Voting System Testing and Certification

VVSG Lifecycle Policy

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1. Introduction

- 1.1. **Introduction:** In late 2002, Congress passed the Help America Vote Act of 2002 (HAVA), which created the U.S. Election Assistance Commission (EAC) and vested it with the responsibility of setting voting system standards and for providing for the testing and certification of voting systems. This mandate represented the first time the Federal government provided for the voluntary testing, certification, and decertification of voting systems nationwide. In response to this HAVA requirement, the EAC has developed the Voting System Testing and Certification Program (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 certification, decertification and re-certification 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 document provides the Voluntary Voting System Guidelines (VVSG) lifecycle policy. Participation in the program is voluntary, but if voting system manufacturers decide to participate then they and their products will be subject to the VVSG lifecycle policy. This document supersedes any previous policy from the EAC concerning VVSG lifecycles.
- 1.4. **Purpose.** The intent of this policy is to help facilitate migration to revised VVSG standards by providing guidance on deprecation of obsolete standards and establishing consistent periodic review, update, and versioning of future standards.
- 1.5. **Feedback:** The EAC will engage voting system manufacturers and Voting System Test Laboratory (VSTL)s when implementing revised VVSG standards, beginning with informing them of the differences between VVSG versions, obtaining information about practical implementation timelines for the new standard, and to address questions or concerns they may have.

2. VVSG Version Convention

- 2.1. **Types of Version Change:** This section defines major and minor standard changes. After consultation with stakeholders and a proposed VVSG update has been drafted, the EAC will determine whether a version change is major or minor.
- 2.2. **Major Version Changes:** Major changes to the VVSG will cause the primary number to increment by one and the secondary number to reset to zero. For instance, the new version number for VVSG 2.0 with major changes would be VVSG 3.0. In general, major version changes will require new hardware or other upgrades that render equipment certified under the prior major version to become obsolete.
- 2.3. **Minor Version Changes:** Minor changes to the VVSG will cause the secondary number to increment by one. For instance, the new version number for VVSG 2.0 with minor changes would be VVSG 2.1. In general, minor version changes will not require new hardware or other upgrades that render equipment certified under the same major version to become obsolete.

- 2.4. **Voting System Test Laboratory (VSTL) Accreditation:** The need for lab accreditation will be based on consultation between the EAC and National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP), and metrics such as a change in core or non-core competencies, required skills, or any other criteria deemed necessary by the EAC that are the result of the standard update.

Major VVSG version changes may require VSTL accreditation for that change and minor VVSG version changes will not require VSTL accreditation for that change.

3. VVSG Standard Deprecation

- 3.1. **Overview:** Avoiding the certification of voting systems to obsolete standards is a key element in the transition to new and updated VVSG standards. Manufacturers submitting new systems must submit them to the most recently adopted VVSG version. Adoption of the updated VVSG versions must move forward while not stranding users of systems certified to older VVSG versions from being able to receive critical updates.

- 3.2. **Deprecation Definition:** For the purposes of this policy, deprecation means the testing to a standard will be discontinued, outside of certain conditions detailed below. Deprecation is not the same as decertification. Fielded voting systems that are certified to any VVSG standard will not be decertified by the EAC based solely on the standard it was certified to. Decertification of voting systems can only take place following the process detailed in the EAC Testing and Certification Program Manual.

- 3.3. **Previous VVSG Version Deprecation:** Once there is a path to certification of voting system equipment to a new major revision to the VVSG with at least one VSTL accredited to test, then obsolete major VVSG versions will be deprecated 12 months after the date of that accreditation. Once obsolete standards are deprecated, manufacturers will be required to submit voting systems to the latest VVSG standard. In certain limited circumstances, changes may be made to voting systems certified to deprecated versions.

Deprecation of a VVSG standard does not affect the EAC certification of systems to the deprecated standard. Those systems shall maintain their status and jurisdictions may continue to acquire these as EAC certified systems.

- 3.4. **Maintenance of Systems certified to deprecated standards:** To address the subject of maintenance of fielded systems, changes to systems certified to a deprecated standard will be accepted within a narrow definition. These changes may be requested through application for a system modification or as an engineering change order for qualifying requests.

- 3.4.1. A change to a system certified to a deprecated standard must be in one or more of the following categories:

- 3.4.1.1. **Security update.** Software patches or hardware mitigations to address known security vulnerabilities and exploits. Software patches may include code authored by voting system manufacturers.

- 3.4.1.2. **Bug fix.** Fixes to correct anomalies reported to and approved by the EAC. Examples include critical functional discrepancies or issues that are part of an EAC certified system. Enhancements are not considered a fix.
- 3.4.1.3. **COTS replacement.** Replacement of commercial-off-the-shelf equipment that has reached end-of-life. Any significant changes to specifications or functionality in the replacement are discouraged and must be evaluated and approved by the Testing and Certification Program Director and a VSTL.
- 3.4.1.4. **Jurisdictional rule change.** Changes that are legally required in a jurisdiction already fielding the system due to some form of change in statute, rule, directive, or other publication that places requirements on a jurisdiction. This type of change must be supported by a chief election official, electoral board, or certification body where this system is state certified or fielded.
- 3.4.1.5. **Updating and adding new components compliant to the current VVSG standard.** Changes to one or more components outside of 3.4.1.1 through 3.4.4.4 may be permitted provided the proposed changes meet the most current VVSG standard. This may include changes to components necessary to integrate new software, firmware, and hardware (devices) into the system. In this instance, the overall system certification would be to the system's baseline (deprecated) standard.
- 3.4.2. **Modifications outside these categories will not be accepted.** Voting systems that feature changes that are outside these categories will only be accepted for testing and certification to a non-deprecated version. When a manufacturer applies for a modification to a voting system that is certified to a deprecated standard, they must clearly state under which category they are applying and must supply supporting documentation for this claim.
- 3.4.3. EAC staff will make the determination on acceptance of modifications to maintenance systems to deprecated standards and will communicate the decision to the manufacturer and appropriate voting system test laboratory. This decision will be posted on the EAC website. Decisions will be made within five business days of receiving all necessary supporting documentation. Manufacturers are encouraged to contact the EAC in advance of applying for voting system testing for a modification to get a non-binding opinion on whether a modification would be considered in any of the categories enumerated in section 3.4.1 of this policy. Non-binding decisions will be provided to the manufacturer in writing within five business days.

4. VVSG Review and Update Process

- 4.1. **Overview:** More frequent iteration of standards is the result of a continuous improvement process that closely matches modern agile software and hardware development cycles. All updates to the VVSG will adhere to the established practice of public review and comment, agency review and comment, and consideration by the commissioners, as described in HAVA.

- 4.2. **Timeline:** There will be a 12-month cycle for each review for revisions to the VVSG. It is understood that the time taken to complete the review and update process will vary due to several factors, including but not limited to number of changes proposed, number of comments received from stakeholders and the public, complexity of changes, and time taken to develop requirements and test assertions.
- 4.3. **Scope:** Updates to the standards during this cycle may incorporate items such as requests for interpretation, notices of clarification, errata, and other administrative changes. Additionally, requirements may be added or adjusted to support more voting system functions or other updates to accommodate new technologies or standards. Stakeholders are encouraged to submit proposed changes as part of the VVSG review process.
- 4.4. **VVSG Review:** The EAC Testing and Certification Program will engage with the Technical Guidelines Development Committee (TGDC), the Standards Board, and the Board of Advisors annually to identify and propose changes to the VVSG including adding requirements, modifying existing guidelines and requirements, and rolling in Requests for Interpretation, Notices of Clarification, or other clarifying information from the program. An annual 90-day period of public comment will allow all stakeholders to submit comments to the EAC. Public comments will be posted on the EAC website.

The EAC Testing and Certification Program Director will provide an annual report to the Executive Director at the end of the fiscal year detailing recommendations for updates to the VVSG that have been collected throughout the prior fiscal year from various stakeholders. This report will be shared with the Technical Guidelines Development Committee (TGDC), the Standards Board, and the Board of Advisors. Feedback from this process will inform the decision to make updates to the VVSG. This annual cycle will continue, without regard to whether the Executive Director makes the decision to pursue a new version of the VVSG, initiating the steps detailed in section 4.5.

- 4.5. **VVSG Update Process:** When the Executive Director determines that a new version of the VVSG should be published based on feedback from section 4.4, the process detailed in section 222 of HAVA will be followed. The EAC expects that key stakeholders will be involved throughout this update process.
 - 4.5.1. The EAC will work with NIST and the TGDC to address relevant proposed changes gathered from section 4.4 and draft revisions to the sections of the VVSG affected by the proposed changes.
 - 4.5.2. The Executive Director will submit the draft revised VVSG to the EAC's Board of Advisors and Standards Board Executive Board for review and comment. The draft revised VVSG will also be posted for public comment.
 - 4.5.3. The EAC will collaborate with NIST to review and address all comments. Comments will be posted to the EAC website once addressed. Concurrently, the Testing and Certification Program Director will draft updates to relevant sections of the program manuals and test assertions, if necessary. Program manuals for the new standards will be posted for public comment.

- 4.5.4. The Testing and Certification Program Director will submit the updated VVSG and program documentation to the Executive Director. The Executive Director will forward all revised VVSG documentation to the Commissioners, and will publish redline versions on the EAC website.
- 4.5.5. The Commissioners may meet with stakeholders and shall hold a public hearing prior to voting on the revised VVSG. This vote may not take place less than 90 days from the date the Executive Director submits the draft revised VVSG to the Board of Advisors and Standards Board Executive Board as described in section 4.5.2.
- 4.6. **Commissioner Quorum:** In the event the EAC is without a quorum of Commissioners and adoption of a new VVSG standard is not possible, section 4.4 will be executed on an annual basis, and sections 4.5.1 through 4.5.3 will be executed as necessary. Recommendations provided to the EAC for standard updates or changes will continue to be collected, evaluated, and drafted in accordance with the process in HAVA. The EAC can hold public meetings without quorum, however, adoption of updated standards cannot be accomplished without quorum. Once a quorum of Commissioners is reestablished, the process will proceed through sections 4.5.4 and 4.5.5, as applicable, including all changes recommended previously up to section 4.5.3 in the process.

EXHIBIT B - VSTL Program Manual Version 2.0

Voting System Test Laboratory Program Manual

Version 2.0

Effective May 31, 2015



Voting System Test Laboratory Program Manual, Version 2.0

The reporting requirements in this manual have been approved under the Paperwork Reduction Act of 1995, Office of Management and Budget Control (OMB) Number 3265-0018, expiring June 30, 2018. 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 Testing & Certification and Laboratory Accreditation 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 322 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, 1335 East West Highway, Suite 4300, Silver Spring, MD, 20910.

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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 voluntary testing and certification of voting systems. This mandate represented the first time the Federal government provided for the voluntary testing, certification, and decertification of voting systems nationwide. In response to this HAVA requirement, the EAC has developed the voting system standards in the form of the Voluntary Voting System Guidelines (VVSG), a voting system certification program in the form of the Voting System Testing and Certification Program Manual and this document, the Voting System Test Laboratory Manual.
- 1.2. Authority.** HAVA Section 231(b) (42 U.S.C. §15371(b)) requires that the EAC provide for the accreditation and revocation of accreditation of independent, non-federal laboratories qualified to test voting systems to Federal standards. Generally, the EAC considers for accreditation those laboratories evaluated and recommend by the National Institute of Standards and Technology (NIST) pursuant to HAVA Section 231(b)(1). However, consistent with HAVA Section 231(b)(2)(B), the Commission may also vote to accredit laboratories outside of those recommended by NIST upon publication of an explanation of the reason for any such accreditation.
- 1.3. Role of the National Institute of Standards and Technology.** Section 231(b) (1) of HAVA requires that the National Institute of Standards and Technology “conduct an evaluation of independent, non-federal laboratories and shall submit to the Commission a list of those laboratories...to be accredited....” Additionally, HAVA Section 231(c) requires NIST to monitor and review the performance of EAC accredited laboratories. NIST has chosen its National Voluntary Laboratory Accreditation Program (NVLAP) to carry out these duties. NVLAP conducts a review of applicant laboratories in order to provide a measure of confidence that such laboratories are capable of performing testing of voting systems to Federal standards. Additionally, the NVLAP program monitors laboratories by requiring regular assessments. Laboratories are reviewed one year after their initial accreditation and biennially thereafter. The EAC has made NVLAP accreditation a requirement of its Laboratory Accreditation Program. However, a NVLAP accreditation is not an EAC accreditation. EAC is the sole Federal authority for the accreditation and revocation of accreditation of Voting System Test Laboratories (VSTL).
- 1.4. Scope.** This Manual provides the procedural requirements of the EAC voting system Laboratory Accreditation Program. Although participation in the program is voluntary, adherence to the program’s procedural requirements is mandatory for participants. The procedural requirements of this Manual supersede any prior laboratory accreditation requirements issued by the EAC. This manual shall be read in conjunction with the EAC Voting System Testing and Certification Manual.

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- 1.5. Manual Maintenance and Revision.** The Manual will be reviewed periodically and updated to meet the needs of the EAC, 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. Changes in policy requiring immediate implementation will be noticed via policy memoranda and will be issued to each VSTL and registered Manufacturers. Changes, addendums, or updated versions will also be posted to the EAC Web site at www.eac.gov.
- 1.6. Clarification of Program Requirements and Procedures.** VSTLs and registered Manufacturers may request clarification regarding the requirements and procedures set forth in this manual. Requests for clarification must be based upon ambiguity arising from the application of this manual. Hypothetical questions will not be considered. Requests shall be submitted to the Program Director in writing. The request shall clearly identify the section of the manual and issue to be clarified, a proposed interpretation and all relevant facts. Clarifications issued by the EAC will be provided to all EAC VSTLs, registered Manufacturers and placed on EAC's Web site.
- 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 Accreditation Program will be subject to conflict-of-interest reporting and review, consistent with Federal law and regulation.
- 1.8. Submission of Documents.** Any documents submitted pursuant to the requirements of this Manual shall be submitted:
- 1.8.1. If sent electronically, via secure e-mail or physical delivery of a compact disk, unless otherwise specified. The submitted electronic files shall be in Microsoft Word or Adobe PDF format, formatted to protect the document from alteration.
 - 1.8.2. 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.
 - 1.8.3. 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
1335 East West Highway
Suite 4300
Silver Spring, MD 20910

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

- 1.9.1. The actual, documented date the correspondence was received (either electronically or physically) at the VSTL, or
- 1.9.2. 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.
- 1.9.3. The term “receipt” shall mean the date a document or correspondence arrives (either electronically or physically) at the VSTL’s place of business. Arrival does not require that an agent of the VSTL open, read, or review the correspondence.

1.10. 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.

1.11. Record Retention—EAC. The EAC shall retain all records associated with accreditation of Voting System Test Laboratories. The records shall otherwise be retained or disposed of consistent with Federal statutes and regulations.

1.12. Publication and Release of Documents. The EAC will release documents consistent with the requirements of Federal law. It is EAC policy to make the laboratory accreditation 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. See Chapter 7 of this Manual for additional information.

1.13. References. The following documents are referenced in this Manual. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

- ISO/IEC 17011, *Conformity assessment- General requirements for accreditation bodies accrediting conformity assessment bodies.*
- ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories.*

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- NIST Handbook 150, (NVLAP) *Procedures and General Requirements*.
- NIST Handbook 150-22, (NVLAP) *Voting System Testing*.

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

Applicant Laboratory. An independent, non-Federal laboratory which has applied for EAC accreditation after receipt of an invitation.

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

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

Contracted Third Party Laboratory. A laboratory contracted or otherwise providing testing services to a VSTL to meet program requirements.

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.

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.

Gift. A Gift includes any gratuity, favor, discount, entertainment, travel, service, hospitality, loan, meal, forbearance, or other item having monetary value.

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.

Key Laboratory Staff. Laboratory employees serving as approval authorities of test reports (approved signatories per NIST Handbook 150) or otherwise responsible for the supervision of individuals performing voting system testing.

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Lead Voting System Test Laboratory. The accredited Voting System Test Laboratory identified on an EAC approved Application for Testing (*EAC Voting System Testing and Certification Program Manual*, Sec. 4.3, Certification Application).

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

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.

Recommended Laboratory. A laboratory recommended for EAC accreditation by the Director of NIST after evaluation by NVLAP.

Scope of Accreditation. The version or versions of the Federal voting system standards (VVSG) to which a VSTL is authorized to test.

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.

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, interface the voting system to the voter registration system, and maintain and produce any audit trail information.

Voting System Test Laboratories (VSTLs). Laboratories accredited by the EAC to test voting systems to EAC approved voting system standards.

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

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

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Accreditation Program. The EAC Voting System Test Laboratory Accreditation Program

Certification Program. The EAC Voting System Testing and Certification Program

EAC. United States Election Assistance Commission

FEC. Federal Election Commission

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

ISO/IEC. The International Organization for Standardization & The International Electrotechnical Commission.

NASED. National Association of State Election Directors

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

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Program Requirements

- 2.1. Overview.** This chapter lists the requirements of the EAC's Voting System Test Laboratory Program. Adherence to these requirements is a condition of accreditation and a continuing obligation. Failure to demonstrate compliance with the requirements of this chapter may result in the denial of an application for accreditation, suspension of accreditation, or revocation of accreditation.
- 2.2. Program Requirements - Generally.** In order to be considered for, receive, and maintain an EAC accreditation as a VSTL, laboratories must demonstrate compliance with the requirements of EAC's Voting System Test Laboratory Program. The program requirements are set forth in this Chapter.
 - 2.2.1. Continuing Compliance Obligation.** VSTLs have a continuing obligation to meet the requirements set forth in this Chapter. VSTLs are required to maintain their compliance with the program's requirements as long as they hold an EAC accreditation.
 - 2.2.2. Requests to Document Compliance.** VSTLs may be required by the EAC to document compliance at any time. Such requests will be in writing and VSTLs shall respond timely, consistent with the request (see Chapter 4 of this Manual).
 - 2.2.3. Failure to Comply, Effect.** Failure to meet each of the program's requirements may result in the denial of an application for accreditation, suspension of accreditation, or revocation of accreditation, consistent with the procedures of Chapter 5 of this Manual.
- 2.3. NIST Recommendation.** As a condition of accreditation, all laboratories must be recommended to the EAC by the National Institute of Standards and Technology (NIST), unless the emergency provisions of Chapter 3 apply. NIST is responsible, pursuant to the Help America Vote Act of 2002, Section 231(b), for performing a technical evaluation of laboratories and identifying and recommending those competent to test voting systems. This recommendation is provided directly to the EAC from NIST.
- 2.4. NVLAP Accreditation.** As a condition of accreditation, all VSTLs must hold a valid accreditation from NIST's National Voluntary Laboratory Accreditation Program (NVLAP), unless the emergency provisions of Chapter 3 apply. NVLAP accreditation is the primary means by which the EAC may ensure that each VSTL meets and continues to meet the technical requirements of the EAC program. It sets the standards for each VSTL's technical, physical and personnel resources, as well as its testing, management, and quality assurance policies and protocols. The loss or suspension of a NVLAP accreditation will result in the suspension and possible revocation of any EAC accreditation consistent with the procedures of Chapter 5 of this Manual. VSTLs are

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required to immediately report any change in their NVLAP accreditation status to the EAC. Whenever possible, the EAC will conduct the required accreditation audit and any follow up on site visits at the same time as NVLAP accreditation audit or follow up on site visits.

2.5. Conflict of Interest and Prohibited Practices Program. As a condition of accreditation, all laboratories must maintain and enforce policies which prohibit and prevent conflicts of interest or the appearance of conflicts of interest. A laboratory shall ensure that neither the Laboratory, its parent corporation, contracted third party laboratories, nor any individual staff member involved in the testing of voting systems have any vested interest in the outcome of the test process. Laboratories must have a written policy in place. This policy must, at a minimum, (1) prohibit conflicts of interest and other prohibited practices and (2) provide for enforcement, consistent with the subsections below.

2.5.1. Prohibited Conflicts of Interest. The purpose of a conflict of interest policy is to prevent situations where the exercise of an official duty directly impacts the actor's financial interests. **For the purposes of this program, a prohibited conflict of interest exists if the duties and responsibilities of a laboratory, parent corporation, or a laboratory employee involved in the testing of voting systems under EAC's Certification Program will have a direct and predictable effect on the financial interest of that laboratory, parent corporation, or a laboratory employee.**¹ *For example, an employee who is responsible for testing a voting system on behalf of a VSTL would be prohibited from holding a financial interest in the entity whose product is being tested or a direct competitor of that entity. A prohibited conflict of interest would also include a contractual or other fiduciary relationship between a VSTL or VSTL employee and a Manufacturer (outside an agreement for State or Federal certification testing) when that VSTL or VSTL employee is concurrently responsible for conducting certification testing for that Manufacturer under this program. Additionally, financial interests may be imputed or attributed to a laboratory, Parent Corporation, or a laboratory employee through a relationship with a third party. For example, a VSTL employee responsible for the testing of a voting system would be conflicted from performing his or her duties if his or her spouse owned a financial interest in the manufacture of the voting system.*

2.5.1.1. *Involved in Testing—Defined.* For the purposes of a financial conflict of interest, an organization is involved in the testing of a voting system any time it contractually or otherwise takes on the responsibility for testing a voting system to Federal standards under EAC's Certification Program. For the purposes of a financial conflict of interest, an

¹ For the purpose of this Program, agreements with voting system manufactures to provide testing pursuant to the requirements of EAC or a State's certification program do not constitute a prohibited conflict of interest. Certification testing is considered a duty and responsibility of a VSTL, not an outside financial interest.

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employee is involved in the testing of a voting system when the individual's duties as a VSTL employee require him or her to perform testing on the system, manage the testing process or supervise those who perform testing on the system.

2.5.1.2. *Financial Interest--Defined.* The term includes any current or contingent ownership, equity, or security interest in real or personal property or a business and may include indebtedness or compensated employment relationship. It thus includes, for example, interests in the nature of stocks, bonds, partnership interests, fee and leasehold interests, and other property rights, deeds of trust, and liens, and extends to any right to purchase or acquire any such interest, such as a stock option or commodity future.

2.5.1.3. *Direct Effect—Defined.* A matter will have a direct effect on a financial interest if there is a close causal link between any decision or action to be taken in the matter and any expected effect of the matter on the financial interest. An effect may be direct even though it does not occur immediately. A matter will not have a direct effect on a financial interest, however, if the chain of causation is attenuated or is contingent upon the occurrence of events that are speculative or that are independent of, and unrelated to, the matter. A matter that has an effect on a financial interest only as a consequence of its effects on the general economy does not have a direct effect within the meaning of this section.

2.5.1.4. *Predictable Effect—Defined.* A matter will have a predictable effect if there is a real, as opposed to a speculative possibility that the matter will affect the financial interest. It is not necessary, however, that the magnitude of the gain or loss be known, and the dollar amount of the gain or loss is immaterial.

2.5.1.5. *Imputed Interests—Defined.* An imputed interest is a financial interest held by a third party individual or organization that serves to disqualify an employee or laboratory to the same extent as if they were the employee's or laboratory's own interest. These interests include:

2.5.1.5.1. The financial interests of a spouse or dependent child shall be imputed to an employee.

2.5.1.5.2. The financial interest of any organization in which a laboratory, Parent Corporation, or a laboratory employee serves as an employee, officer, board member, partner,

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consultant, director, trustee or similar position shall be imputed.

2.5.1.5.3. The interests of any contracted third party laboratory shall be imputed to the utilizing VSTL.

2.5.1.5.4. The financial interest of a person or organization with whom an employee is negotiating or has an arrangement concerning prospective employment shall be imputed.

2.5.2. Prohibited Practices. Furthermore, irrespective of the existence of a conflict of interest, it is a prohibited practice for a laboratory, parent corporation, or laboratory employee to be involved in the development of a voting system or solicit or receive a gift from a voting system Manufacturer. No laboratory, parent corporation, or laboratory employee may:

2.5.2.1. *Voting System Development and Testing*. Provide, or have provided, consultation, developmental testing or other services to a voting system developer such that the independence, or appearance of independence, in the testing of a particular voting system or system component would be compromised.

2.5.2.1.1. A laboratory or individual may not be involved in both the development of a voting system and the certification of a system. Voting system development includes any testing, consultation or design work performed in order to ready a specific system for the marketplace or the certification process. Generally, any testing performed on behalf of a voting system manufacture that was not otherwise performed pursuant to a State or Federal voting system certification program will be considered developmental in nature.

2.5.2.1.2. The prohibition barring participation in both development and testing is voting system specific. An employee or laboratory that was previously involved² in product development with a Manufacturer is not prohibited from testing all systems produced by that Manufacturer, just those systems in which the employee or laboratory participated directly in development. As voting systems are

² The prohibition relates to a VSTL's prior involvement in system development. Concurrent development work and testing may constitute a prohibited conflict of interested under Section 2.5.2 of this Manual.

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subject to change over time, for the purposes of this prohibition, a voting system shall be considered altered to the degree that it is a different system when:

- 2.5.2.1.2.1. A period of at least three years has passed since the VSTL or employee was involved in the system's development;
 - 2.5.2.1.2.2. The system has been subject to both software and hardware modification since the VSTL or employee was involved in the system's development. De minimis changes (as defined in EAC Voting System Testing and Certification Program Manual) are not modifications; AND
 - 2.5.2.1.2.3. The system has received a certification after being tested by a different independent laboratory since the VSTL or employee was involved in the system's development.
- 2.5.2.1.3. The prohibition barring participation in both development and testing does not prohibit a VSTL from allowing a Manufacturer to perform onsite hardware mitigation on a voting system in response to a minor system failure or anomaly. In such cases the VSTL:
- 2.5.2.1.3.1. Shall suspend all hardware testing;
 - 2.5.2.1.3.2. Shall not participate or assist the Manufacturer in remediation;
 - 2.5.2.1.3.3. May provide testing equipment and qualified operators to the Manufacturer for its use;
 - 2.5.2.1.3.4. Shall monitor and document the Manufacturer's access to the system consistent with Section 2.19 of this manual; and
 - 2.5.2.1.3.5. Shall document in the test report the failure or anomaly and remedial action taken by the Manufacturer consistent with Section

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2.10.5.2.1 of this Manual and Chapter 4 of EAC's *Certification Manual* (anomaly matrix).

2.5.2.2. *Gifts.* Solicit or receive a gift, directly or indirectly, from any entity which holds a financial interest in the development, production, or sale of voting systems, or is otherwise impacted by the testing and certification of voting systems. Gifts given or received under circumstances which make it clear that the gift is motivated by a family relationship or personal friendship rather than position are not prohibited. Relevant factors in making such a determination include the history of the relationship and whether the family member or friend personally pays for the gift.

2.5.3. Program Enforcement Elements. Prohibited conflicts and practices shall be enforced through a written program which:

2.5.3.1. *Regarding Employees Involved in the Testing of Voting Systems.*

2.5.3.1.1. Annually collects standard information from each employee, including assets, debts, outside or prior activities/employment, gifts, and any work on voting system development sufficient to demonstrate compliance with Section 2.5.1. and 2.5.2. of this Manual. The information collection must also reflect the financial interests of those individuals (like spouses and minor children) whose interests are imputed to the employee;

2.5.3.1.2. Requires and documents the review of information collected for potential conflicts and prohibited practices; and

2.5.3.1.3. Resolves all identified conflicts of interest or prohibited practices prior to the employee or laboratory's involvement in the testing of any voting system. Such resolution shall be documented. Resolutions may include the divestiture of assets or gifts, employee resignation from outside organizations, or the altering of an employee's responsibilities by prohibiting participation in Voting System Testing or the testing of a specific system.

2.5.3.2. *Regarding the VSTL or VSTL's Parent Corporation.*

2.5.3.2.1. Annually collects information pertaining to the holdings and activities of the VSTL and its parent corporation(s), sufficient

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to demonstrate compliance with Section 2.5.1. and 2.5.2. of this Manual;

2.5.3.2.2. Requires and documents the review of collected information for potential conflicts and prohibited practices; and

2.5.3.2.3. Resolves all identified conflicts of interest or prohibited practices prior to the laboratory's testing of any voting system. Such resolution shall be documented. Resolutions may include the divestiture of assets or gifts, the termination or rejection of conflicted or prohibited testing work.

2.5.3.3. *Regarding Contracted Third Party Laboratories.* The interest of a contracted third party laboratory may be imputed to a VSTL. VSTLs may meet and enforce the program requirements of this section with regard to this relationship in one of two ways:

2.5.3.3.1. Collection of third party laboratory information, review of information and resolution of conflicts or prohibited practices:

2.5.3.3.1.1. Collect information pertaining to the holdings and activities of the third party laboratory and its employees, sufficient to demonstrate compliance with Section 2.5.1. and 2.5.2. of this Manual. This includes gathering information concerning any involvement by the third party laboratory or its employees in the development of specific voting systems. This collection of information shall be performed prior to the execution of any contract for the testing of voting systems under this program and annually thereafter if the contract exceeds one year in duration.

2.5.3.3.1.2. Require and document the review of collected information for potential conflicts, and

2.5.3.3.1.3. Resolve all identified conflicts of interest prior to the laboratory's testing of any voting system.

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2.5.3.3.2. VSTL Supervision of third party laboratories performing non-core testing. Where a third party laboratory is subject to direct VSTL supervision and observation, the third party laboratory's conflicts of interest or prohibited practices will not be imputed to the lead VSTL. Direct VSTL supervision under this section requires that a VSTL employee is physically present during the third party testing and directly observes and supervises the testing. This VSTL employee must: (1) have been properly vetted for conflict of interest and prohibited practices pursuant to Section 2.5 of this Manual, (2) be competent to supervise the testing being performed and (3) have no financial interest in the third party laboratory they are supervising.

2.5.4. Waivers. In rare circumstances, prohibited practices or conflicts of interest may be waived by the EAC after the conflict or prohibited practice is properly disclosed to the agency. Waivers may be granted at the sole discretion of the Program Director.

2.5.4.1. *Requesting a Waiver*. A request for a waiver shall be made in writing to the EAC Program Director. The request shall **fully** disclose the conflict of interest or prohibited practice for which the waiver is sought. The request shall also describe all steps taken to resolve the conflict or prohibited practice and the reasons why such attempts were unsuccessful or otherwise untenable. The request shall also state why the waiver should be granted, consistent with the standard in Section 2.5.4.2.

2.5.4.2. *Waiver Standard*. A disqualifying conflict of interest or prohibited practice is subject to waiver when the issuance of a waiver is in the best interest of the EAC Certification Program and the identified conflict or practice is unlikely to affect the integrity or impartiality of the VSTL or VSTL employee's services under the EAC Certification Program. The Program Director may consider the following factors in making a waiver determination:

2.5.4.2.1. The value of any disqualifying financial interest;

2.5.4.2.2. The nature and impact of any prohibited practice;

2.5.4.2.3. The role and responsibility of the employee subject to the conflict of interest or prohibited practice;

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2.5.4.2.4. The availability of other employees, VSTLs or laboratories to conduct the testing without a conflict or prohibited practice.

2.5.4.2.5. The level of discretion or sensitivity required to perform the conflicted or prohibited duties under the certification program;

2.5.4.2.6. The ability of an EAC waiver to adjust a VSTL or VSTL employee's testing process and duties or otherwise mandate additional safeguards which would limit or abrogate the impact of the conflict of interest or prohibited practice.

2.5.4.3. *Issuing a Waiver.* Any waiver issued by the Program Director shall be made in writing to the requestor. The waiver shall state with specificity the conflict of interest or prohibited practice waived. The waiver shall also clearly state any conditions for its issuance, such as mitigating processes or procedures or safeguards. The VSTL is responsible for meeting all waiver conditions prior to engaging in the waived activity. Failure to meet such condition may result in the revocation of a VSTL's accreditation. The Program Director shall publish all waivers on the EAC Web site.

2.5.4.4. *Denying a Request for a Waiver.* Any decision denying a request for a waiver shall be made by the Program Director in writing and provided to the VSTL. The Program Director shall publish all waiver denials on the EAC Web site.

2.6. Personnel Policies. As a condition of accreditation, all laboratories shall have in place written policies to ensure that the Laboratory does not employ individuals, in any capacity related to the testing of voting systems, who have been convicted of a felony offense or any criminal offense involving fraud, misrepresentation, or deception under either Federal or State law. The VSTL shall have a program in place to enforce this policy and document such enforcement.

2.7. Notification of Changes. As a condition of accreditation, all laboratories shall agree to notify the EAC in writing within fifteen (15) calendar days of any significant changes in laboratory operations from what the Laboratory described in any assertion that served as the basis for its EAC accreditation, including any assertions made to NIST's NVLAP or to the EAC pursuant to Chapter 3 of this Manual. Examples of events that require written notification include, but are not limited to:

2.7.1. A Laboratory's decision to withdraw from the EAC's program;

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- 2.7.2. Changes in ownership of the Laboratory (other than minor—less than 15%—change in stock ownership),
- 2.7.3. A change in location of the Laboratory facility, or
- 2.7.4. Personnel changes in key staff positions.
- 2.8. Site Visits.** As a condition of accreditation, all laboratories shall allow EAC representatives to enter their voting system testing and management facilities pursuant to the procedures and requirements of Chapter 4 of this Manual.
- 2.9. Notice of Lawsuits.** As a condition of accreditation, all laboratories shall provide notice to the EAC of any lawsuits or claims filed against it, its subcontractors, subsidiaries, employees, officers, owners, operators, or insurers while the Laboratory holds an EAC accreditation and which relate to the work performed in, or management of, the Laboratory's voting system testing program.
- 2.10. Testing, Technical Practices and Reporting.** As a condition of accreditation, each VSTL shall perform testing in conformance with the relevant standards of the applicable Federal Standards (VVSG). Additionally, the VSTL shall create written reports of such testing consistent with the requirements of the latest version of the VVSG, EAC's *Voting System Testing and Certification Manual*, any applicable test suites mandated by the EAC, and any other written guidance published by the EAC.
- 2.11. Test Readiness Review.** The Test Readiness Review (TRR) is the mechanism used by the EAC to ensure that test and evaluation resources are not committed to a voting system that is not ready for testing by a VSTL. The TRR determines if the submitted voting system and documentation are ready to enter certification testing. The TRR shall be completed by the VSTL and the subsequent Test Readiness Acknowledgement must be received by the EAC prior to the initiation of any certification testing. The TRR does not apply to modifications. To assess the readiness of a voting system for certification testing, the VSTL shall review:
- **System Technical Data Package (TDP):** The voting system technical data package shall be reviewed to ensure all elements required by the VVSG are present.
 - **System Components:** The VSTL shall review the submitted voting system to ensure all components required to configure the voting system as defined in the system TDP are delivered to the VSTL and appear to be operational and in good working order. System Component information should match the Manufacturer's application submitted to the EAC. All components submitted for testing must be equivalent to the final production model of the voting system in fit, form and function. Any component not available at the time of this review shall be delivered to the VSTL by the voting system manufacturer

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within 30 days of the initial TRR, or testing of the system will be halted and the EAC notified that the system is not ready for testing.

- **Preliminary Source Code Review:** The VSTL shall conduct a preliminary review of no less than 1% of the total lines of code (LOC) of every software package, module or product submitted for testing in order to ensure that the code is mature and does not contain any systematic non-conformities.
- **Mark Reading:** The system shall be able to read a fully filled mark if it is an optical scan system.
- **Summary of COTS components.** This summary should outline which components of the voting system are COTS products and shall be updated with each test campaign.

2.11.1. Test Readiness Notification. Upon completion of the TRR, the VSTL shall submit a signed statement to the EAC confirming that the voting system completed the TRR and the VSTL determined that the system is ready for certification testing to applicable Voluntary Voting System Guidelines.

2.11.2. Test Readiness Acknowledgement. Upon receipt of the Test Readiness Notification from the VSTL, the EAC shall issue an acknowledgement in writing stating that the VSTL and manufacturer may commence certification testing. This acknowledgement will be issued within 3 business days of receipt of the Notification.

2.12. Technology Testing Agreement. The VSTL shall participate in all meetings related to development of Technology Testing Agreements. VSTLs are expected to participate and sign on to the agreement reach between the EAC, manufacturer and VSTL.

2.13. Test Plan Package. The VSTL shall submit a test plan package directly to the EAC consistent with the requirements of the *Voting System Testing and Certification Manual*, the latest version of the VVSG, this Manual and any other written guidance from the EAC. A test plan package includes:

2.13.1. Virtual Review Tool (VRT). The VRT is a web based application developed by the EAC which, in addition to other information, identifies each requirement found in VVSG. VSTLs will be required to use the tool to identify the standards that apply to the system being tested, identify the testing to be performed and provide additional information as required. The EAC will provide log-in information and grant specific access to VSTL staff upon accreditation of the laboratory, and to manufacturer representative upon the acceptance of a manufacturer's registration with the EAC. The VRT will serve as both a tool to identify and a means to document what should be tested and how.

2.13.2. Test Plan. The purpose of the Test Plan is to provide information regarding test methods. The Test Plan contains more detail than the VRT.

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2.13.2.1. *Format.* VSTLs shall format each test plan consistent with the requirements of Appendix A of this Manual.

2.13.2.2. *Content.* Each test plan shall identify applicable voting system standards and contain a description of the testing proposed to verify conformance. Also, each test plan shall contain a statement indicating the scope of the labs accreditation.

- **Required Content.** For each test, the test plan shall provide detailed information referencing testing to be performed, including facility requirements, test set-up, test sequence, data recording requirements and pass criteria.³
- **Exception.** Where a VSTL utilizes EAC mandated or approved test methods, the test plan may simply reference these methods and identify, with specificity, all deviations. *Mandated test methods* are those test methods required for use by the EAC. *Approved test methods* are standard, verified VSTL test methods approved by the EAC. VSTLs may submit standard test methods for approval by submitting them in writing to the Program Director.

2.13.3. **Test Case.** After approval of the VSTLs Test Plan, the VSTL shall develop Test Cases. A Test Case is a system specific, step-by-step test procedure or laboratory testing process that provides detailed test operation procedures sufficient for trained laboratory personnel to fully conduct a given test and produce repeatable results. The VSTL shall inform the EAC, in writing, when all test cases for the voting system under test have been completed. This notice shall include an index identifying each test case created to test the system. The notification should indicate if these are standard test cases, modified standard test cases, or a new test case. These test cases shall be available to the EAC for review and approval upon request.

2.14. Testing. The highest standards shall be applied to the testing of voting systems. VSTLs shall perform testing in conformance with the relevant standards of the applicable Federal Standards (VVSG) and consistent with any written EAC interpretations of these standards.

³ This requirement is consistent with International Standards Organization requirements, which serve as a basis for NIST NVLAP's accreditation and recommendation to the EAC. Where established and approved test methods do not exist, ISO Standard 17025, Section 5.4.4., *Non-Standard Method* requires the testing to be validated by the laboratory prior to use. The EAC will review and approve the validated test methods.

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VSTLs shall test system identification tools during the test campaign to make sure they function properly and as intended. The Laboratory shall maintain its technical practices consistent with the standards which served as the basis for its NVLAP accreditation. These standards include International Standard ISO/IEC 17025, *General Requirements for the Competence of Testing and Calibration Laboratories*; NIST Handbook 150, *Procedures and General Requirement*; NIST Handbook 150-22, *Voting System Testing*; any documents supplementing, updating or replacing these standards or handbooks; and any pertinent EAC guidance. When conducting testing under EAC's program, VSTLs shall only perform testing of voting systems consistent with the scope of their accreditation.

2.14.1. Third Party Testing. Lead VSTL's may contract or otherwise provide for the testing of voting systems by third parties under this program. However, the lead VSTL shall be responsible for the accuracy, quality assurance, and results of all tests performed. Under this program, no VSTL may perform or contract for the performance of testing outside the scope of its accreditation. Testing performed directly by lead VSTL personnel using third party contractor equipment and facilities is not considered third party testing.

2.14.1.1. *Core Testing*. Core voting system testing may only be performed by VSTLs. Core testing includes: Technical Data Package review, physical configuration audit, source code review, functional configuration audit, system integration testing, volume testing, and security testing (not including cryptographic testing).

2.14.1.2. *Non-Core Testing*. Non-core testing may be performed by non-VSTLs if they hold an EAC recognized accreditation to perform the relevant testing. The EAC recognizes two national accreditation bodies, NIST's NVLAP program and the American Association of Laboratory Accreditation (A2LA). Generally, a VSTL may only contract or otherwise provide for the non-core testing of voting systems if it uses a NVLAP or A2LA laboratory accredited to the specific scope of testing necessary. Non-core testing includes: electromagnetic compatibility testing, telecommunications testing, environmental testing, electrical testing, acoustical testing, accessibility testing, usability testing, and cryptographic testing.⁴ In limited circumstances, laboratories not holding a recognized accreditation may be used by VSTLs for non-core testing only after approval by EAC's Program Director. Requests for such approval must be made in writing and demonstrate: (1) That there is no recognized laboratory available within a reasonable window of availability and geographic proximity (generally within the continental

⁴ For the purposes of the EAC's Voting System Test Laboratory Program, non-core cryptographic testing includes all testing involving evaluation of cryptographic operation and key management.

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United States) and (2) that the VSTL has conducted a thorough assessment of the third party laboratory's capabilities, quality system, management system, and/or alternative accreditations and have determined and documented that the laboratory is qualified to perform testing. The EAC may visit, interview or audit any non-accredited laboratory at any time before, during, or after the testing has occurred to verify their qualifications.

2.14.1.3. *VSTL Responsibilities.* Lead VSTLs are responsible for all tests performed on voting systems submitted to them by Manufacturers under EAC's Testing and Certification Program. This includes testing (both core and non-core) performed by third party laboratories under their direction (including third party VSTL laboratories). Any procedural or substantive irregularities or errors which occur during the third party testing process will be imputed to the responsible lead VSTL. Such failures may serve as a basis for the revocation of accreditation. Lead VSTLs using third party laboratories (consistent with Sections 2.10.4.1 through 2.10.4.2, above) shall take steps to ensure that the third party laboratories they employ meet the standards of this Program. At a minimum, the lead VSTLs shall ensure:

2.14.1.3.1. The third party laboratory provides the lead VSTL verifiable documentation regarding its relevant accreditation;

2.14.1.3.2. Any hardware tested by the qualified third party laboratory is first validated by the lead VSTL as the same hardware presented to it for certification;

2.14.1.3.3. The third party laboratory provides the lead VSTL with evidence that it will direct its activities in compliance with any and all relevant VVSG requirements for testing and that the testing was, in fact, performed consistent with such specific requirements. Any special procedures, tools, or testing software necessary to meet VVSG requirements must be validated by the lead VSTL prior to use. *For example, the VVSG requires that systems be tested while operating and that such operation be in manner and under conditions that simulate election use. In such cases, the lead VSTL must ensure that the third party laboratory will properly implement the VVSG requirements, validate its election simulation tools, and properly performed the testing;*

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2.14.1.3.4. The lead VSTL performs all system accuracy, reliability, functionality and integration testing; and

2.14.1.3.5. The third party laboratory issues a report to the lead VSTL that fully documents its testing such that the lead VSTL may demonstrate compliance with this section and produce a report consistent with Section 2.10.5 of this Manual.

2.15. Test Report Package. The Test Report Package represents the culmination of the testing process. As such, it is vital that it accurately and completely document the testing performed and the results of such testing. VSTLs shall submit Test Report Packages directly to the EAC. The packages shall include:

2.15.1. Virtual Review Tool (VRT). VSTLs shall update the VRT information originally submitted with its test plan (see Section 2.13 above). The final updates to the VRT will serve as verification that the VSTL performed the testing required to demonstrate compliance with voting system standards.

2.15.2. Test Report. VSTLs shall provide a test report.

2.15.3. Content. All test reports shall document the testing process, including the documentation and justification of any divergence from the EAC approved test plan, methods, or cases and the identification of all failures and/or anomalies along with any remedial action taken⁵ (see Chapter 4 of the EAC's *Voting System Testing and Certification Manual* regarding the anomaly matrix). VSTLs shall not include any proprietary test cases in the Test Report. Test cases shall be uploaded to the VRT as requested by the EAC. Test reports shall also document any prescribed maintenance or modifications, performed by the Manufacturer, to a voting system in testing. Such maintenance or modifications shall be monitored by the VSTL consistent with Section 2.11.1 of this Manual.

2.15.4. Format. To the greatest extent possible, VSTLs shall write reports such that they are understandable to non-technical persons. As the EAC will publish these reports (barring portions prohibited by law), VSTLs shall refrain from including in them trade secrets or other commercial information protected from release unless substantively required. Where information protected from release may be included, it shall be identified consistent with Chapter 7 of this Manual. VSTLs shall format each test report consistent with the requirements of Appendix B of this Manual.

⁵ VSTLs must report all errors and anomalies identified in the test campaign even when an error is identified during the testing of unrelated functionality.

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2.15.5. VSTL Attestation. The VSTL shall provide a letter, signed by a representative authorized to take action on behalf of the VSTL (see Sections 2.13 and 3.4.1.6. of this Manual), which attests that (1) all testing prescribed by the test plan or amended test plan was performed as identified or the divergence from the test plan was properly documented, (2) all identified voting system anomalies or failures were reported and resolved, (3) that the test report is accurate and complete, and (4) the VSTL recommends the system for certification.

2.16. Acceptance of Prior Testing. Testing previously performed on a voting system by a VSTL or by a third party test laboratory operating at the direction of a VSTL, may be reused at the discretion of the lead VSTL and the EAC. The EAC encourages VSTLs to use such testing to fulfill certification requirements. The VSTL must attain written approval from the EAC for all reuse requests. In order for the EAC to accept prior testing, lead VSTLs must provide evidence that the requirements below are met. Prior testing is valid when:

2.16.1. The discrete software or hardware component of the voting system previously tested is demonstrably identical to the voting system presently offered for testing. Lead VSTLs must examine and/or compare the components and documentation to ensure there is no change in the voting system. When valid prior testing is used, the system presented must be subject to regression testing, functional testing and system integration testing, and any other testing deemed necessary to ensure compliance with the VVSG and this manual;

2.16.2. The requirements, standards and relevant EAC Request for Interpretations applicable to the prior and current testing are identical;

2.16.3. The test methods used are equivalent or identical to current test methods accepted by the EAC;

2.16.4. The prior testing was reviewed by the VSTL, with no apparent errors or omissions and fully complies with the VVSG and this manual;

2.16.5. Testing from previous EAC test campaigns can only be submitted for reuse if the EAC accepted a final test report for that campaign; and

2.16.6. The use of prior testing must be noted in the test plan, with test report titles, numbers, and descriptions, along with EAC approval.

2.16.7. The use of prior testing must be noted in the body of the test report. Like all testing, prior testing is subject to EAC review and approval.

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2.17. Termination of Testing Prior to Completion. In the event testing is terminated prior to completion, VSTLs are required to notify the EAC Program Director. This notification shall be in writing and state the reasons for termination provide a list of all testing completed, and produce a matrix of test anomalies or failures pursuant to Section 4.5.2 of the *EAC Testing and Certification Program Manual*.

2.17.1. Termination Defined. Voting system testing shall be considered terminated when the testing process is permanently ended or otherwise halted without a specific plan to recommence within 90 calendar days of the last test performed.

2.17.2. Effect of Termination. Notification of termination will result in the suspension of the Manufacturer's Certification Application. Additionally, the termination and VSTL's written notice shall be posted on EAC's Web site.

2.17.3. Resubmission after Termination. Manufacturers may resubmit a system previously terminated by submitting an updated application consistent with Chapter 4 of the *Voting System Testing and Certification Program Manual*. Pursuant to Section 2.11 of this Manual and Section 4.3.1.2 of the *Voting System Testing and Certification Program Manual*, a system resubmitted to the EAC after termination must be tested by the VSTL identified on the original application.

2.18. VSTL Verification of Trusted Build. At the conclusion of each test campaign, VSTLs shall verify the trusted build and associated materials required to be escrowed in the EAC Repository (See Section 5.5 of the *Testing and Certification Program Manual*.) The verification process shall include:

2.18.1. Catalog all files contained in the escrow package and confirm the ability to read the media.

2.18.2. Test the functionality of the compile to be deposited.

2.19. Laboratory Independence. As a condition of accreditation, all laboratories shall maintain their independence from voting system Manufacturers, consistent with their roles and responsibilities as a key component of the EAC Certification program. VSTLs shall maintain an arm's length relationship with the manufactures and avoid even the appearance of improper conduct. In order to maintain independence, VSTLs shall adhere to the following independence principles and requirements:

2.19.1. Testing Independence. Consistent with the requirements of this Manual, only the lead VSTL identified on a voting system's application form may test or oversee the testing of that system. Under no circumstances may a Manufacturer perform or participate in any testing which will serve as the basis of an EAC certification. *Participation includes but is not limited to the observation of testing by*

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*the Manufacturer.*⁶ Additionally, lead VSTL's shall ensure that Manufactures' do not have access to a system under test unless accompanied and monitored by a VSTL representative. The EAC recognizes that in some cases there is value in allowing manufacturers to witness a particular test or a re-creation of a test in order to allow them to comment on the proper system set up or operation. However, any such participation must be (1) at the discretion of the VSTL, (2) supervised by the VSTL and (3) clearly documented in order to maintain laboratory independence. Therefore, the EAC finds the following three situations to be allowable under this Section:

2.19.1.1. The VSTL may at any time, and at its own discretion, halt an active certification test and bring the manufacturer into the testing room for a re-creation of the test being performed. If the VSTL chooses to do this it **must:**

2.19.1.1.1. Document the time and circumstance that cause a halt in testing.

2.19.1.1.2. Document the reason why the manufacturer's presence is needed.

2.19.1.1.3. Document the result of the test prior to re-creating the test for the manufacturer.

2.19.1.1.4. Document any re-running of the official EAC Certification Test. This documentation must include any change that occurred to the "as run" test case as a result of the re-creation and the result of the official test.

2.19.1.1.5. Have the test supervisor in charge of the project present for the re-creation of the test. If the test engineer conducting the test is also the test supervisor in charge of the project, one other VSTL employee must be present in the room during the re-creation of the test. The test supervisor present should be the most senior engineer or personnel assigned to the testing engagement. Documentation of the re-creation of the test should include lab personnel present at the time of the re-creation.

⁶ Not all activities required for EAC Certification are "testing" activities. Examples of certification requirements that do not fall into the category of "testing" include trusted and witness builds.

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- 2.19.1.1.6. All documentation must be retained according to NVLAP and EAC requirements.
- 2.19.1.2. The VSTL may, at its own discretion, create for the manufacturer either a closed circuit video feed or web cam feed of the official EAC Certification Testing being conducted and allow for real time correspondence between test engineers and the manufacturers provided that:
 - 2.19.1.2.1. All correspondence (i.e., letters, emails, memos, recorded video calls, etc.) between the test engineers and the manufacturer is documented and retained.
 - 2.19.1.2.2. Any changes to the testing that results from correspondence between the manufacturers and the VSTL is signed off by the VSTL project manager and provided to the EAC as part of the test report package.
- 2.19.1.3. The VSTL may, at its discretion, provide supervised access to the manufacturer prior to and during the official EAC Certification Testing to perform unscheduled and non-routine maintenance provided that:
 - 2.19.1.3.1. All documentation related to the maintenance activities is recorded within the "as run" test case.
 - 2.19.1.3.2. Any unscheduled maintenance that is performed is documented in the discrepancy report included as part of the test report materials.
- 2.19.2. Decision Making. Determinations regarding testing, test requirements, and test results shall be made on the basis and for the purpose of ensuring that the systems tested meet Federal voting system standards. A VSTL's primary purpose shall be to serve the public interest through adherence to the EAC Testing and Certification Program.
- 2.19.3. Single Laboratory Requirement. EAC's Testing and Certification Program prohibits Manufacturers from changing laboratories during the testing process. Once a lead VSTL is identified to the EAC by the Manufacturer to test a system, a test report will not be accepted by the EAC from any other laboratory unless authorized pursuant to Chapter 4 of the EAC's *Voting System Testing and Certification Program Manual*. This strict policy supports VSTLs in their independent decision making role. VSTLs shall immediately report to the EAC Certification Program Director any time a Manufacturer withdraws a product

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from testing or the testing is otherwise terminated (see Section 2.10.7. of this Manual).

- 2.19.4. Fee for Service. All fees paid by a Manufacturer to a VSTL shall be solely for services rendered. No payment may be accepted by a VSTL that is not directly linked to services necessary to complete system testing. No payment may be accepted by a VSTL that is conditioned or dependent on testing outcome.
- 2.19.5. Communications. To ensure and document the independent relationship between test laboratories and Manufacturers, all substantive discussions regarding the outcome, cost, payment and testing of a voting system shall be documented in writing by the VSTL. This includes, but is not limited to: letters, emails, reports, meetings and telephone calls. These records shall be maintained consistent with Section 2.23 of this Manual. Examples of substantive discussions between the lead VSTL and a Manufacturer **include but are not limited to:**
- 2.19.5.1. All contracts and amendments thereto;
- 2.19.5.2. All discussions regarding the set up and operation of the voting system during testing;
- 2.19.5.3. All discussions with the Manufacturer regarding the test plan, test cases, testing, or the test report; and
- 2.19.5.4. All discussions regarding implementation or interpretation of the standards.
- 2.19.6. Cooperation with EAC. Cooperate with any EAC inquiries and investigations into a certified system's compliance with VVSG standards and any VSTL testing related to that system consistent with Chapter 7 of the *Testing and Certification Program Manual*.
- 2.19.7. Testing Facilities. To avoid the appearance of impropriety and otherwise maintain laboratory independence, VSTLs shall not conduct testing⁷ at a Manufacturer owned or controlled facility. If exceptional circumstances exist requiring that the VSTL use Manufacturer facilities, the VSTL may request a waiver from this prohibition. The request must be in writing to the Program Director and clearly state why such testing is necessary. A waiver may be granted at the sole discretion of the Program Director and may impose necessary

⁷ As noted in footnote 6, above, this requirement only applies to "testing" and does not include other certification activities such as trusted and witness builds.

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restrictions, limitations and requirements on testing. Waivers will be granted only in exceptional circumstances.

2.19.8. Improper Influence. Any attempt by a Manufacturer to unduly influence the test process shall be immediately reported to the EAC's Certification and Testing Program Director.

2.20. Authority to do Business in the United States. As a condition of accreditation, all laboratories shall be lawfully entitled or otherwise not prohibited from doing business with the United States or its citizens or operating in the United States.

2.21. Communications. As a condition of accreditation, all laboratories shall designate and identify an individual or individuals who may speak for and take action on behalf of the VSTL. VSTLs shall maintain an open line of communication with EAC's Testing and Certification Program Director, providing prompt response to requests for information regarding the Program.

2.22. Resources and Financial Stability. As a condition of accreditation, all VSTLs shall allocate sufficient resources to enable the laboratory to properly use and maintain its test equipment, personnel, and facility and to satisfactorily perform all required laboratory functions. The laboratory shall maintain insurance policies sufficient to indemnify itself against financial liabilities or penalties that may result from its operations. VSTLs shall:

2.22.1. Maintain insurance policies (see Section 3.4.1.8.) that indemnify the laboratory against the potential losses identified in its liability assessment (see Section 3.4.1.9.); and

2.22.2. Document solvency through demonstrating that the laboratory's assets are greater than its liabilities in its audited financial statement (see Section 3.4.1.16.).

2.23. Recordkeeping. As a condition of accreditation, all laboratories shall have a written policy regarding the proper storage, management and retention of all records relating to the testing of voting systems. At a minimum, this policy shall require all forms, reports, test records, observations, calculations, and derived data for all tests performed on a given voting system (or component of said system) be retained for a period of at least 5 years after the last test performed on any version of that system (or component of any version of said system). The policy shall require that all documents are maintained in a safe and secure environment and stored in a manner that provides for organized and timely identification and retrieval. Additionally, all records must be kept in a data format usable and available to the EAC.

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Accreditation Process

- 3.1. Overview.** This chapter sets forth the required steps Applicant Laboratories must perform in order to receive an EAC Voting System Test Laboratory Accreditation. The process generally includes an application for and receipt of a NIST recommendation; receipt of an EAC invitation to apply; and the successful submission, acceptance and review of an EAC application.
- 3.2. NIST Recommendation.** The Election Assistance Commission (EAC) is mandated under Section 231 of the Help America Vote Act of 2002 (HAVA) (42 U.S.C. §15371(b)) to "... provide for the certification, de-certification and re-certification of voting system hardware and software by accredited laboratories." As part of this process, HAVA requires the National Institute of Standards and Technology (NIST) to evaluate independent non-Federal test laboratories. NIST selects those laboratories technically qualified to test voting systems and recommends them to the EAC for accreditation. Generally, a Laboratory must have a NIST recommendation before it may be considered for EAC accreditation.
- 3.2.1. NIST Recommendation Process. NIST utilizes its National Voluntary Laboratory Accreditation Program (NVLAP) to perform this evaluation. NIST, through the NVLAP process, assesses laboratory technical capabilities, procedures and personnel before recommending a laboratory for EAC accreditation. The requirements, procedures and application process for requesting consideration by NIST (for recommendation to the EAC) may be found at www.nist.gov/NVLAP or by contacting NIST at, National Voluntary Laboratory Accreditation Program, Standards Services Division, NIST, 100 Bureau Drive, Stop 2140, Gaithersburg, MD, 20899-2140.
- 3.2.2. Emergency EAC Accreditation without NIST Recommendation. HAVA authorizes the EAC to consider and accredit laboratories without a NIST recommendation (42 U.S.C. §15371(b)(2)(B)). The EAC will accredit laboratories without a NIST recommendation *only* as an emergency action.
- 3.2.2.1. *Emergency Action—Defined.* The EAC will take emergency action only in instances where (1) there is a significant national need for accredited laboratory testing capacity that cannot be met by existing VSTL's, (2) the shortage of laboratory testing capacity may cause a disruption in the orderly administration of Federal elections, and (3) NIST is not capable of timely providing new laboratories to meet needs. Consistent with HAVA, the EAC will publish its basis for emergency action following the above standards.

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3.2.2.2. *Emergency Action—Process.* Laboratories shall be accredited by the EAC in an emergency action only after they have been properly assessed according to international standards and applicable NIST Guidance. These standards include International Standard ISO/IEC 17025, *General Requirements for the Competence of Testing and Calibration Laboratories*; NIST Handbook 150, *Procedures and General Requirement*; NIST Handbook 150-22, *Voting System Testing*; and/or any documents supplementing, updating or replacing these standards or handbooks.

3.2.2.3. *Emergency Action—Provisional.* Any accreditation provided by the EAC through its emergency action authority will be provisional in nature and limited in scope. All emergency accreditations must expire on a date certain.

3.3. EAC Invitation. After receipt of a NIST list of recommended laboratories, the EAC will send a letter to the laboratories inviting them to apply for EAC accreditation under the VSTL program. No laboratory may apply for EAC accreditation without an invitation from the Commission. The letter of invitation will identify the scope of accreditation for which the laboratory may apply. The invited laboratories must follow the application procedure noted in Section 3.4, below.

3.4. Application. EAC is the sole authority for Voting System Test Laboratory Accreditation. While NIST's recommendation serves as a reliable indication of potential technical competency, the EAC must take additional steps to ensure that laboratory policies are in place regarding issues like conflict of interest, record maintenance, and financial stability. It must also ensure that the candidate laboratory is willing and capable to work with EAC in its Certification Program. To that end, applicant laboratories are required to submit a Letter of Application requesting accreditation. The letter shall be addressed to the Testing and Certification Program Director and attach (in either hard copy or on CD/DVD) (1) all required information and documentation; (2) a signed letter of agreement; and (3) a signed certification of conditions and practices.

3.4.1. Information and Documents. The applicant laboratory must submit the information and documents identified below as a part of its application. These documents will be reviewed by the EAC in order to determine whether the applicant laboratory meets the program requirements identified in Chapter 2. The grant of EAC accreditation is subject to receipt of the information and EAC's review and approval of the materials. The applicant laboratory shall properly label any documents, or portions of documents, it believes are protected from release under Federal law.

3.4.1.1. The legal name of the laboratory

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- 3.4.1.2. Mailing address of the laboratory
- 3.4.1.3. Physical location of the laboratory (if different than the mailing address).
- 3.4.1.4. Name, phone number, fax number and e-mail address of the voting system testing program manager or individual otherwise immediately responsible for the voting system testing program.
- 3.4.1.5. Name, phone number, fax number, and e-mail address of the individual, CEO, president or otherwise titled head of the laboratory.
- 3.4.1.6. Name, title, phone number, fax number, and e-mail address of the individual or individuals designated to speak for and take action on behalf of the laboratory pursuant to Section 2.21 of this Manual.
- 3.4.1.7. The business contact information (such as point of contact, address, Web site, e-mail address) to be posted by the EAC on its Web site.
- 3.4.1.8. The identity of the laboratory's insurer(s), name of insured, and coverage limits for any comprehensive general liability policies, errors and omissions policies, professional liability policies, and bailee policies.
- 3.4.1.9. A written assessment of the laboratory's commercial general liability.
- 3.4.1.10. A signed statement certifying that it maintains workman's compensation policy coverage sufficient to meet the applicable State's minimum requirements.
- 3.4.1.11. A copy of the laboratory's organizational chart which includes the names of key staff responsible for the testing of voting systems.
- 3.4.1.12. A copy of the laboratory's conflict of interest policy which implements the standards of Section 2.5 of this Manual.
- 3.4.1.13. A copy of the laboratory's personnel policy which implements the standards of Section 2.6 of this Manual.
- 3.4.1.14. A copy of the laboratory's recordkeeping policy which implements the standards of Section 2.23 of this Manual.
- 3.4.1.15. A copy of the laboratory facilities brochure.

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3.4.1.16. A copy of the most recent annual report, the names of the current board of directors and the previous year's board of directors, the names of any majority shareholders, and audited financial statements of the companies or entities that own and operate the laboratory. Laboratories not incorporated should provide comparable information.

3.4.2. Letter of Agreement. The applicant laboratory must submit a signed letter of agreement as a part of its application. This letter shall be signed by an official vested with the legal authority to speak for, contract on behalf of or otherwise bind the applicant laboratory (see Section 2.21). The purpose of this letter is to document that the applicant laboratory is aware of and agrees to abide by the requirements of the EAC Voting System Testing Laboratory Accreditation Program. No applicant laboratory will be considered for accreditation unless it has properly submitted a letter of agreement. The letter shall unequivocally state the following:

The undersigned representative of _____ (hereinafter "Laboratory"), being lawfully authorized to bind Laboratory and having read the EAC Voting System Test Laboratory Program Manual, accepts and agrees on behalf of Laboratory to follow the program requirements as laid out in Chapter 2 of the Manual. Laboratory shall meet all program requirements as they relate to NVLAP accreditation; conflict of interest and prohibited practices; personnel policies; notification of changes; resources; site visits, notice of law suits; testing, technical practices and reporting; laboratory independence; authority to do business in the United States; VSTL communications; financial stability; and recordkeeping. Laboratory further recognizes that meeting these program requirements is a continuing responsibility. Failure to meet each of the requirements may result in the denial of an application for accreditation, a suspension of accreditation or a revocation of accreditation.

3.4.3. Certification of Laboratory Conditions and Practices. The applicant laboratory must submit a signed *Certification of Laboratory Conditions and Practices* as a part of its application. No applicant laboratory will be considered for accreditation unless it has properly affirmed its conditions and practices through the certification document. A *Certification of Laboratory Conditions and Practices* form may be found at Attachment C and is available electronically at www.eac.gov. By signing the certification, a laboratory affirms that it, in fact, has in place the policies, procedures, practices, resources and personnel stated in the document. Any false representations made in the certification process may result in the revocation of accreditation and/or criminal prosecution.

3.5. EAC Review of Application Package. The EAC will perform a review of each Applicant Laboratory's application package to ensure that it is complete and the laboratory meets

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the program requirements. Each package will be reviewed to identify any apparent nonconformities or deficiencies. If necessary, the Program Director will notify Applicant Laboratories of any such nonconformities or deficiencies and provide them an opportunity to cure problems prior to forwarding the package to the Commissioners. The Program Director will issue a recommendation to the Commissioners when forwarding any application package. Consistent with HAVA, a laboratory will receive an accreditation only upon a vote of the Commissioners.

- 3.5.1. Program Director Review. Application packages shall be sent to the Program Director. The Program Director will perform a review of the packages before forwarding them to the Commissioners with a recommendation. Upon receipt of an application package the Testing and Certification Program Director shall review the package to ensure:
 - 3.5.1.1. *The package is complete*. No application may be forwarded to the Commission for a vote on accreditation unless it contains all required documentation (Section 3.4.1), a proper letter of agreement (Section 3.4.2), and a signed *Certification of Laboratory Conditions and Practices* (Section 3.4.3).
 - 3.5.1.2. *Evidence of compliance with program requirements*. The Program Director shall also review the submissions to ensure that the information provided properly reflects and documents compliance with program requirements.
- 3.5.2. Notice of Nonconformity. In the event the Program Director identifies (1) missing documentation or information and/or (2) issues of non-compliance, the Program Director shall notify the Applicant Laboratory of the deficiencies prior to forwarding a recommendation to the Commissioners. The written notice of nonconformity shall:
 - 3.5.2.1. Identify any missing documentation or information;
 - 3.5.2.2. Identify any issues of potential non-compliance; and
 - 3.5.2.3. Provide Applicant Laboratory a reasonable time period to submit additional information or amend their application package in response to identified non-conformities.
- 3.5.3. Applicant Laboratory Action on Notice of Nonconformity. Applicant Laboratories shall respond to a notice of nonconformity within the timeframe identified by the Program Director. Responses shall include any missing

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documents identified in the notice, as well as any additional or clarifying information or documentation responsive to an issue of non-compliance.

3.5.3.1. *Request for Additional Time.* Applicant Laboratories may request additional time in writing. Such request must state the basis for the request and identify a reasonable time period for response. The grant of additional time is at the sole discretion of the Program Director.

3.5.3.2. *Failure to Respond—Missing Documentation or Information.* If an Applicant Laboratory fails to provide required information or documentation within the timeframe provided in the notice of noncompliance, the Program Director shall reject the application as incomplete, returning the package to the applicant for resubmission consistent with the requirements of this Chapter.

3.5.3.3. *Failure to Respond—Issue of Noncompliance.* If, within the timeframe provided in the notice of noncompliance, an Applicant Laboratory (who has provide all required documentation) fails to provide additional, clarifying information or documentation in response to an identified issue of program noncompliance, the Program Director shall forward the original application to the Chair of the Commission for action.

3.5.4. Recommendation to Commissioners. After review, and if necessary an opportunity for the applicant to amend their application, the Program Director shall forward each application to the Chair of the Commission with a recommendation as to disposition. This application package shall include all documents and correspondence between the applicant laboratory and the EAC Program Director.

3.5.5. Vote by Commissioners. Upon receipt of an application package and recommendation from the Testing and Certification Program Director, the Chair of the Commission shall forward the information to each EAC Commissioner. After a reasonable time to review the forwarded materials, the Chair of the Commission shall bring the matter to a vote, consistent with the rules of the Commission. The measure presented for a vote shall take the form of a written Commissioners' Decision which (1) makes a clear determination as to accreditation and (2) states the basis for the determination.

3.6. Grant of Accreditation. Upon a vote of the EAC Commissioners to accredit a laboratory, the Testing and Certification Program Director shall inform the laboratory of the decision, issue a Certificate of Accreditation and post information regarding the laboratory on the EAC Web site.

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3.6.1. Certificate of Accreditation. A Certificate of Accreditation shall be issued to each laboratory accredited by vote of the Commissioners. The certificate shall be signed by the Chair of the Commission and state:

3.6.1.1. The name of the VSTL;

3.6.1.2. The scope of accreditation, by stating the Federal standard or standards to which the VSTL is competent to test;

3.6.1.3. The effective date of the certification, which shall not exceed a period of two (2) years; and

3.6.1.4. The technical standards to which the laboratory was accredited.

3.6.2. Post Information on Web Site. The Program Director shall make information pertaining to each accredited laboratory available to the public on EAC's Web site. This information shall include (but is not limited to):

3.6.2.1. NIST's Recommendation Letter;

3.6.2.2. The VSTL's Letter of Agreement;

3.6.2.3. The VSTL's Certification of Conditions and Practices;

3.6.2.4. The Commissioner's Decision on Accreditation; and

3.6.2.5. The Certificate of Accreditation.

3.7. Effect of Accreditation. Receipt of an EAC Accreditation indicates that a laboratory has met the applicable technical, procedural, management and staffing requirements and may serve as a Voting System Test Laboratory (VSTL) under EAC's Testing and Certification Program.

3.7.1. Scope of Accreditation. A laboratory shall operate within the limits of the scope of accreditation as stated on its Certificate of Accreditation.

3.7.2. Representation. No VSTL may make representations regarding its accreditation beyond its scope of accreditation.

3.7.3. No Endorsement. A Certificate of Accreditation is **not** an endorsement of the recipient laboratory. A VSTL may not state or imply EAC endorsement.

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- 3.7.4. Accreditation Logo. A VSTL may display the EAC laboratory accreditation logo. Only the EAC authorized logo may be used. The display must be used in a manner consistent Sections 3.7.1. - 3.7.3., above. Specifications for the reproduction and use of the EAC logo are found in Appendix D.
- 3.8. Expiration and Renewal of Accreditation.** A grant of accreditation is valid for a period not to exceed two years. A VSTL's accreditation expires on the date annotated on the Certificate of Accreditation. VSTLs in good standing shall renew their accreditation by submitting an application package to the Program Director, consistent with the procedures of Section 3.4 of this Chapter, no earlier than 60 days before the accreditation expiration date and no later than 30 days before that date. Laboratories that timely file the renewal application package shall retain their accreditation while the review and processing of their application is pending. VSTLs in good standing shall also retain their accreditation should circumstances leave the EAC without a quorum to conduct the vote required under Section 3.5.5.
- 3.9. Denial of Accreditation.** Upon a vote of the EAC Commissioners not to accredit a laboratory, the Testing and Certification Program Director shall inform the laboratory of the decision and post relevant information on the EAC Web site.
- 3.9.1. Notice of Denial. The Program Director shall inform the applicant laboratory (in writing) of the Commissioners' Decision. This notice must include:
- 3.9.1.1. A statement of the decision and brief summary explanation of the basis for the decision;
 - 3.9.1.2. Notice of the Applicant Laboratory's right to appeal; and
 - 3.9.1.3. A copy of the Commissioners' Decision.
- 3.9.2. Post Information on Web Site. The Program Director shall publish on EAC Web site:
- 3.9.2.1. A copy of the Commissioners' Decision, and
 - 3.9.2.2. The Notice of Denial.
- 3.10. Requesting Appeal.** An applicant laboratory that has been denied accreditation by a vote of the Commissioners shall have the right to appeal. An Applicant Laboratory may appeal a Denial of Accreditation by first issuing a written request for appeal.
- 3.10.1. Submission. Requests must be submitted in writing to the Program Director, addressed to the Chair of the U.S. Election Assistance Commission.

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- 3.10.2. Timing of Appeal. The Applicant Laboratory may request an appeal within 7 calendar days of receipt of the Notice of Denial. Late requests will not be considered.
- 3.10.3. Contents of Request. The request must petition for reconsideration of the Commissioners' Decision and clearly state the specific conclusions of the Decision the Applicant Laboratory wishes to appeal.
- 3.11. EAC Action on a Request for Appeal**. The Program Director shall accept any request for appeal timely submitted. Untimely requests shall be rejected. Upon receipt of a request for appeal, the Program Director shall notify the requestor applicant laboratory, in writing, as to whether their appeal has been accepted as timely. The notice for accepted requests shall inform the applicant laboratory of the requirements for submitting their appeal per Section 3.12 of this Manual.
- 3.12. Submission of Appeal**. After submission of a timely request for appeal, the Applicant Laboratory shall submit its appeal. This appeal shall (1) clearly identify the specific conclusions of the Commissioners' Decision the Laboratory wishes to challenge, (2) provide the basis for its position on appeal and (3) submit a written argument in support of its appeal. In addition, the applicant laboratory may submit documentary or other relevant, physical evidence in support of the appeal. The Appeal and all supporting materials must be received by the EAC within 20 days of the applicant laboratory's receipt of the Program Director's notice of acceptance of the request to appeal.
- 3.13. Consideration of Appeal**. All timely appeals will be considered by the Commissioners. Upon receipt of an appeal, the Chair of the Commission shall forward to each EAC Commissioner the Applicant Laboratory's appellate submission, along with the original application package, Commissioners' Decision, and Program Director's recommendation. After a reasonable time to review and consider the forwarded materials, the Chair of the Commission shall bring the matter to a vote, consistent with the rules of the Commission. The measure presented for a vote shall take the form of a written Commissioners' Decision on Appeal.
- 3.14. Commissioner's Decision on Appeal**. The Commissioners shall make a written, final Decision on Appeal and shall provide it to the Applicant Laboratory.
- 3.14.1. Contents. The Decision on Appeal shall:
- 3.14.1.1. State the final determination of the Commission.
- 3.14.1.2. Address the matters raised by the Applicant Laboratory on appeal.

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3.14.1.3. Provide the reasoning behind the decision.

3.14.1.4. State that the Decision on Appeal is final.

3.14.2. Determinations. The Commissioners shall make one of two determinations on appeal.

3.14.2.1. *Grant of Appeal*. If the Commissioners determine that the previous Decision of the Commission shall be overturned *in full*, the appeal shall be granted. In such cases, the Applicant Laboratory shall be granted accreditation.

3.14.2.2. *Denial of Appeal*. If the Commissioners determine that *any part* of the previous Decision of the Commission shall be upheld such that the procedural requirements of Chapter 3 or the Program requirements of Chapter 2 of this manual will not be met in full, the appeal shall be denied. In such cases, the application for appeal is finally denied.

3.14.3. Effect. All Decisions on Appeal shall be final and binding on the Applicant Laboratory. No additional request for appeal shall be granted.

3.15. Effect of Denial of Accreditation. An EAC denial of accreditation indicates only that an applicant laboratory has failed to document or otherwise demonstrate that it has the procedures, policies, management or personnel in place to meet the requirements of the Accreditation Program. A denial of accreditation is based upon current policy and procedure and is not an indicator of past performance. Laboratories denied accreditations have the right to cure any identified defect and reapply by resubmitting their application package consistent with Section 3.4 of this Chapter.

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Compliance Management Program

- 4.1. **Purpose.** The purpose of the Compliance Management Program is to improve EAC's Laboratory Accreditation Program and testing; increase coordination, communication and understanding between the EAC and its VSTLs; and increase public confidence in elections by facilitating VSTL accountability. The program accomplishes this by increasing personal interaction between EAC staff and VSTL personnel, collecting information and performing reviews to ensure continued compliance with program requirements, and requiring that VSTLs promptly remedy any identified areas of noncompliance.
- 4.2. **Compliance Management Program, Generally.** The Compliance Management Program meets its purposes by gathering information on the procedures and practices of its VSTLs. There are three main sources of information: (1) VSTL Notifications of Changes, (2) EAC Requests for Documents or Information and (3) EAC On Site Reviews. The information collected is reviewed by the EAC to ensure that VSTLs are meeting all program requirements. Any areas of noncompliance or recommendations for improvement are presented to VSTLs in a Compliance Management Report. VSTLs are required to promptly remedy any noncompliance or face revocation of accreditation.
- 4.3. **VSTL Notification of Changes.** VSTLs are obligated to report any significant changes regarding the information, agreements or certifications made to the EAC as a condition of accreditation (see Section 2.7). This requirement serves as the primary means by which the EAC maintains VSTL compliance. Failure to report changes in conditions or practices may result in suspension or revocation of accreditation consistent with the requirements and procedures of Chapter 5.
- 4.4. **Request for Documents and Information.** The Program Director may request a VSTL to provide the EAC information and/or documents to demonstrate the laboratory's continuing compliance with the Accreditation Program requirements noted in Chapter 2 (See Section 2.2).
 - 4.4.1. **EAC Request.** A request for documents or information shall be made in writing by the Program Director and provide a reasonable timeframe for VSTL response. The request may be for documents, information or both:
 - 4.4.1.1. **Request for Documents.** A request for documents must identify the specific documents sought. A request for documents is not a demand for the VSTL to create a document, but to provide the EAC a copy of any existing documentation responsive to the request.

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- 4.4.1.2. *Request for Information.* Requests for information shall take the form of interrogatories. Each inquiry shall take the form of a discrete question. VSTLs are expected to provide complete answers to each question.
- 4.4.2. VSTL Response. VSTLs shall respond within the timeframe provided by the Program Director. If additional time is needed, VSTLs may request an extension. Such requests must be made within the timeframe of the original request. The grant of additional time is at the sole discretion of the Program Director.
- 4.4.2.1. *Request for Documents.* VSTLs shall respond to requests for documents by having knowledgeable staff conduct a thorough search of VSTL records. VSTLs shall provide copies of all documents responsive to the request. If any document responsive to a request is considered privileged or otherwise protected from release under Federal law, it should be properly labeled. If no documents responsive to the request are found, the VSTL shall state that no records were found.
- 4.4.2.2. *Request for Information.* VSTLs shall respond to requests for information by having knowledgeable staff answer each question posed. VSTLs shall ensure that each question is answered completely and accurately. The VSTL may submit documents in support of its responses.
- 4.4.3. Failure to Respond. Failure to timely respond to a request for documents or information may result in a suspension or revocation of accreditation consistent with the requirements and procedures of Chapter 5.
- 4.5. **Proficiency Testing.** VSTLs will comply with any guidelines and tests developed and administered by the EAC. This will include, but is not limited to, a written test focusing on scenario based and knowledge based questions.
- 4.6. **On Site Laboratory Review—Generally.** The Program Director shall provide for regular on site reviews of VSTLs. There are two types of onsite review:
- 4.6.1. On Site Review—Policy, Procedures and Practices Review. The most common type of review is the Policy, Procedure and Practices Review. This type of review requires EAC personnel to enter a VSTL facility, examine a variety of documentation and meet with VSTL personnel to confirm that the VSTL’s policies, procedures and practices meet the requirements of the Laboratory Accreditation Program (Chapter 2).
- 4.6.2. On Site Review—Testing Observation and Technical Assessment. A Testing Observation and Technical Assessment Review requires an expert EAC laboratory assessor to enter a VSTL facility and assess the laboratory’s technical

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procedures, policies, management and personnel to verify compliance with applicable laboratory standards. Additionally, the EAC assessor may observe VSTL employees during the testing of voting systems to ensure that VSTL practices match technical policies.⁸

4.7. On Site Laboratory Review—Frequency. The Program Director shall ensure that each VSTL receives an On Site Policy, Procedures and Practices Review at least once every two years. Whenever possible, the EAC will conduct the required audits or follow up on site visits at the same time as NVLAP audits or follow up visits.

4.8. On Site Laboratory Review—Procedure. The Program Director shall determine when and what type of onsite review will be conducted for each VSTL. Before any on site review, the Program Director shall provide the VSTL with reasonable notice. Reviews shall be conducted with as little impact as possible on the activities of the VSTL. The VSTL and its employees are required to participate in the review and cooperate with on site EAC personnel. Finally, the reviewer shall provide the VSTL a short exit briefing prior to the termination of the onsite review.

4.8.1. Notice. The Program Director shall coordinate on site reviews with VSTL management. As reviews require the availability of laboratory documents and key personnel, a notice of onsite review shall be in writing and be provided to the VSTL at least 15 calendar days before the onsite review date. The notice shall provide the VSTL with the following information:

4.8.1.1. *Duration of Review.* The notice shall provide an estimated timeframe during which EAC reviewers will be on site.

4.8.1.2. *Type of Review.* The notice shall identify the type of review to be performed (see Section 4.6).

4.8.1.3. *Scope of Review.* The notice shall provide information regarding the scope of review. This information shall be sufficient to allow the VSTL to identify the documents, personnel and testing it must make available to EAC reviewers. The notice shall specifically identify:

4.8.1.3.1. The type of documents and/or program areas to be reviewed.

⁸ EAC's authority to observe testing and conduct technical assessments serves only as an additional tool to ensure technical compliance. The primary means by which EAC ensures technical compliance is through NIST's NVLAP program. The NVLAP program monitors laboratories by requiring regular assessments. Laboratories are reviewed one year after their initial accreditation and biennially thereafter.

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4.8.1.3.2. The testing that is to be observed.

4.8.1.4. *VSTL's Responsibilities.* The notice shall briefly inform the VSTL of its responsibility to coordinate and cooperate with the EAC throughout the onsite review process.

4.8.2. VSTL Response to Notice. Upon receipt of a notice of onsite review, the VSTL shall coordinate the logistics of the review with the Program Director. In the event the noticed date or timeframe makes access to the required personnel, documents or testing untenable, the VSTL shall contact the Program Director in writing and identify, (1) The conflict or other problem which makes the proposed date and timeframe untenable, and (2) a proposed alternative date for the onsite review. The acceptance of an alternative on site review date is at the sole discretion of the Program Director.

4.8.3. Review. An onsite review begins upon the arrival of EAC personnel at the VSTL's facility. EAC reviewers will ordinarily conduct reviews during the VSTL's normal working hours. The reviewers will make every effort to work as efficiently as possible and avoid impacting the laboratory's routine operations. The VSTL and its employees are required to cooperate with EAC reviewers. This cooperation includes providing a private, physical location for EAC personnel to review documents and speak with VSTL employees. Generally, the VSTL shall be responsible for ensuring:

4.8.3.1. *Document Access and Availability.* That the reviewers have access to all requested VSTL documents. All documents specifically identified in the notice of onsite review shall be presented to reviewers upon arrival.

4.8.3.2. *Personnel Access and Availability.* That the reviewers have reasonable access to requested personnel. The VSTL shall ensure that key personnel for each substantive area identified in the notice of onsite review be available to EAC reviewers during the noticed review period.

4.8.3.3. *Facilities and Testing Access and Availability.* That the reviewers have access to VSTL facilities involved in the testing of voting systems, including the facilities of third party contractor laboratories. Additionally, VSTLs must coordinate access to view testing consistent with the notice of onsite review.

4.8.4. Exit Briefing. EAC reviewers shall provide the VSTL personnel an exit briefing. Exit briefings shall be informal. The briefing shall identify any documents, information or personnel which the VSTL remains responsible for making available to the reviewers; inform the VSTL of the next steps in the review

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process; and provide the VSTL an opportunity to ask questions about the process.

4.9. EAC Compliance Management Reports. The EAC shall issue a written Compliance Management Report after performing any on site review. A Compliance Management Report shall also be issued after a Request for Documents/Information or VSTL Notification of Change when either indicates a noncompliance with program requirements. All reports shall be posted on the EAC Web site and (1) provide a brief summary of the review process, request for information or VSTL Notification of Change (2) state any findings resulting from the review, and (3) identify any corrective action required.

4.9.1. Purpose. The purpose of the report is to provide the VSTL with EAC's findings regarding its program so that:

4.9.1.1. Items of noncompliance may be identified and rectified,

4.9.1.2. Exceptional practices may be identified and encouraged, and

4.9.1.3. EAC recommendations (beyond the program requirements) may be put forth in an effort to improve the VSTL's program.

4.9.2. Summary of Process. The report shall provide a brief summary of the review process, request for information or VSTL Notification of Change. The purpose of this summary is to provide background information regarding how the information supporting EAC findings was collected. This includes identifying sources of information, methodology and standards. For the purposes of onsite reviews, the summary shall state:

4.9.2.1. The dates of the review,

4.9.2.2. The type of review performed,

4.9.2.3. The program areas reviewed, including any specific documents and personnel discussions which were integral to the report findings, and

4.9.2.4. The processes used by the reviewers to determine compliance.

4.9.3. Findings. The report shall outline any findings of the review, request for information or VSTL Notification of Change. A finding is any factual determination that the VSTL is not in compliance with the program requirements identified in Chapter 2 of this Manual or an EAC recommendation for program improvement which does not rise to the level of noncompliance. While reports

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may also contain recognition of exceptional practices, such statements are not considered findings. Reports shall identify three types of findings:

4.9.3.1. *Critical.* A critical finding is a determination that the VSTL has not met a requirement of the program that is fundamentally critical to the VSTL's technical capability to test voting systems. A critical noncompliance is a violation of program requirements that by its very nature comprises the integrity of the EAC Testing and Certification Program.

4.9.3.2. *Required.* A required finding is a determination that the VSTL has failed to meet a requirement of the program that is not considered technically critical pursuant to Section 4.8.3.1., above.

4.9.3.3. *Recommended.* A recommended finding is a determination that VSTL practices could be improved, but that the identified improvement is not required by the program. In some cases, recommended practices may be practices the EAC plans to make program requirements.

4.9.4. Corrective Action. The report shall specify the action to be taken by the EAC and/or VSTL based upon the review findings.

4.10. Corrective Action. Based upon the Compliance Management Report, corrective action may be required. EAC action and VSTL responsibilities will vary depending upon the nature of the report's findings.

4.10.1. Critical. Critical Findings require the EAC to initiate the immediate suspension of the VSTL consistent with the requirements and procedures of Chapter 5, *Revocation of Accreditation*. The VSTL's rights to remedy its noncompliance or be heard are laid out in Chapter 5.

4.10.2. Required. Required Findings obligate the VSTL to resolve the identified non-compliance within 20 days. Failure to do so within the 20 day timeframe will result in suspension or revocation of accreditation consistent with the procedures laid out in Chapter 5, *Revocation of Accreditation*. The VSTL may resolve a Required Finding by:

4.10.2.1. *Challenging the Finding.* The VSTL may challenge a finding if it believes its procedures and practices were in compliance with program requirements at the time of the review. A VSTL shall challenge a Required Finding by providing factual information which documents its claim of compliance. Challenges must be filed within 5 days of receipt of the EAC Report. The challenge must be in writing, state the basis for

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the challenge, address the facts and conclusions in the EAC report, and provide information which unambiguously documents that the VSTL was in compliance at the time of the review, request for information or VSTL Notification of Change. The EAC Program Director will accept or reject a VSTL's challenge in writing. If a challenge is accepted, no corrective action will be required. If the challenge is rejected, the VSTL will have 20 days from receipt of the notice of rejection to perform remedial action.

4.10.2.2. *Conducting Remedial Action.* VSTLs may take corrective action by submitting a remedial plan within 20 days of receipt of the report. The remedial plan shall (for each finding of noncompliance) identify the noncompliance, outline the steps to be taken to achieve compliance, state the timeframe for each step and identify the means and final date by which the VSTL will document compliance. A remedial plan is subject to approval from the Program Director. A VSTL's failure to obtain approval of a remedial plan or unauthorized deviation from an approved plan's requirements or deadlines will result in suspension or revocation of accreditation consistent with the procedures laid out in Chapter 5, *Revocation of Accreditation*.

4.10.3. Recommended. Recommended findings do not require VSTL action. The proposed remedial actions for recommended findings are not program requirements, but EAC suggested practices.

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Revocation of Accreditation

- 5.1. Overview.** This chapter puts forth the process for revoking the accreditation of an EAC VSTL. The process for revocation begins with factual findings made pursuant to the Compliance Management Program (Chapter 4). Prior to any revocation of accreditation, VSTLs which fail to comply with program requirements are provided notice of (1) EAC's intent to suspend, (2) suspension and (3) an opportunity to be heard or cure noncompliance. A laboratory that has its accreditation revoked has the right to appeal.
- 5.2. Revocation Policy.** EAC Accreditation is subject to revocation. The EAC shall revoke an accreditation upon a factual finding that a VSTL has failed to meet a requirement of the Accreditation Program and is unable or unwilling to timely and properly remedy the non-compliance.
- 5.3. Revocation—Generally.** The EAC monitors its VSTLs through its Compliance Management Program (Chapter 4). This program monitors compliance through (1) the VSTL's continuing obligation to provide EAC Notifications of Changes, (2) EAC's authority to issue Requests for Documents or Information and (3) the performance of On Site Reviews. Determinations that a VSTL is not complying with program requirements shall be made in Compliance Management Reports (findings of non-compliance). The process outlined in this chapter to suspend and revoke a VSTL's accreditation shall be initiated (1) immediately for Critical Findings of noncompliance and (2) after an opportunity to remedy the noncompliance for Required Findings (consistent with the process mandated by Section 4.9). Revocation of Accreditation is a three step process:
- 5.3.1. Notice of Intent to Suspend;
 - 5.3.2. Suspension of Accreditation; and
 - 5.3.3. Commissioners' Decision on Revocation of Accreditation.
- 5.4. Notice of Intent to Suspend.** The revocation process shall be initiated by issuing a Notice of Intent to Suspend to a non-compliant VSTL. Such notices shall be issued by the Program Director. VSTLs shall have three days to submit a response to the notice. The EAC will issue a decision on suspension after consideration of the VSTL's submission.
- 5.4.1. Written Notice. The Notice of Intent to Suspend shall be in writing and:
 - 5.4.1.1. Inform the VSTL of the EAC's intent to suspend the laboratory;
 - 5.4.1.2. Identify the program requirement or requirements with which the VSTL has failed to comply;

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- 5.4.1.3. State the factual finding or findings that serve as the basis of the action;
 - 5.4.1.4. Provide a copy of the relevant Compliance Management Report; and
 - 5.4.1.5. Inform the VSTL of its right to file a response to the notice.
- 5.4.2. VSTL Response. The VSTL may respond to the notice of intent to suspend. Responses must be received by the EAC Program Director within **three days** of the VSTL's receipt of the Notice of Intent to Suspend to be eligible for consideration. The VSTL response:
- 5.4.2.1. Must be in writing;
 - 5.4.2.2. Must be timely submitted to be considered;
 - 5.4.2.3. Must challenge the factual finding or findings that serve as the basis of the suspension;
 - 5.4.2.4. May include relevant documentation in support of its challenge.
- 5.4.3. EAC Consideration of Response. The EAC shall consider the timely submission of a VSTL before issuing a Decision of Suspension. The EAC may consult experts, perform research and request additional information from the VSTL during the consideration process.
- 5.4.4. EAC Decision on Suspension. The EAC shall issue a Decision on Suspension. The decision shall be made in writing by the Program Director. A decision shall state (1) the decision of the Program Director, (2) the basis for and reasoning behind the decision and (3) the VSTL's obligations and rights during suspension (if applicable). A Decision on Suspension shall be provided to the VSTL, issued to all registered Manufacturers and posted on EAC's Web site. The Program Director may make one of two determinations in a Decision on Suspension:
- 5.4.4.1. *Program Compliance*. Based upon the EAC's consideration of a VSTL's response to the notice of intent to suspend, the Program Director may overturn the factual findings that served as the basis of the notice. In such cases, the Program Director shall determine that the VSTL is in compliance with all program requirements. A decision that the VSTL is in compliance shall end the revocation process.
 - 5.4.4.2. *Suspension*. The Program Director shall suspend the VSTL consistent with the notice of intent to suspend when the preponderance of the

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evidence indicates noncompliance with program requirements.
Suspension is effective as of the VSTL's receipt of the decision.

5.5. Suspension of Accreditation. Suspension is the second step in the revocation process. The purpose of Suspension is (1) to provide the suspended VSTL an opportunity to timely cure the noncompliance which served as the basis of Suspension or (2) grant the suspended VSTL an opportunity to be heard prior to revocation of accreditation. A suspended VSTL shall have 20 days to either cure its noncompliance or request an opportunity to be heard. If no action is taken by the suspended VSTL within the 20 days, the EAC Commissioners shall make a decision on revocation.

5.5.1. Effect of Suspension. A suspended VSTL shall immediately cease all testing of voting systems under the EAC's Certification Program. Any testing performed by a suspended VSTL during its suspension will not be accepted by the EAC under its Voting System Certification Program. Any period of suspension must be clearly documented in a VSTL's test report (see Chapter 4 of the EAC *Voting System Testing and Certification Manual*). Testing under the EAC Certification Program shall not resume unless the suspension is lifted or the VSTL is otherwise authorized by the EAC (in writing) to recommence testing.

5.5.2. Opportunity to Cure. A suspended VSTL may request the opportunity to cure its noncompliance within 20 days of its receipt of the Program Director's Decision on Suspension. **The request must include a detailed remedial plan.** If this plan is accepted, properly executed and verified, the VSTL's suspension will be lifted and it may resume testing.

5.5.2.1. *Remedial Plan.* A request to cure noncompliance must include a plan by which the VSTL outlines how it will timely bring its laboratory into full compliance with the program. The remedial plan shall:

5.5.2.1.1. Identify each noncompliance which served as the basis of its suspension;

5.5.2.1.2. For each identified noncompliance, outline the steps to be taken to achieve compliance. This includes identifying the resources and personnel needed for each step;

5.5.2.1.3. Provide a timeframe for the completion of each identified step and state the final date by which the VSTL will complete the compliance plan;

5.5.2.1.4. Provide a schedule of periodic progress reports to the Program Director; and

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- 5.5.2.1.5. Require the VSTL to provide the EAC a written certification attesting to its completion of the remedial plan and full compliance with program requirements at close of the process.
- 5.5.2.2. *EAC Action on Plan.* A remedial plan is subject to approval by the Program Director. The Program Director will work with the suspended VSTL to develop and approve a Remedial Plan that appropriately brings the laboratory into compliance within an acceptable timeframe. Remedial Plans shall be approved in writing. Ultimately, a VSTL's failure to cooperate or otherwise obtain approval of a remedial plan will result in the termination of the cure process. A determination to terminate the cure process will be made in writing by the Program Director. Upon receipt of a notice that the cure process has been terminated, a suspended VSTL shall have 10 days to request an opportunity to be heard on revocation of accreditation (see Section 5.5.3., below).
- 5.5.2.3. *VSTL Implementation of Plan.* After the remedial plan has been approved by the Program Director, the VSTL shall begin implementation. The VSTL shall not deviate from an approved plan's procedures, requirements or deadlines without the written consent of the Program Director. Failure to follow the remedial plan will result in the termination of the cure process. A determination to terminate the cure process will be made in writing by the Program Director. Upon receipt of a notice that the cure process has been terminated, a suspended VSTL shall have 10 days to request an opportunity to be heard on revocation of accreditation (see Section 5.5.3., below).
- 5.5.2.4. *EAC Verification of Remedy.* Upon a VSTL's timely completion of the remedial plan and receipt of the VSTL's Certification (see Section 5.5.2.1.5.), the Program Director shall verify compliance. At the discretion of the Program Director, he or she may verify compliance through the acceptance of the VSTL's Certification or through the various components of the Compliance Management Program (Chapter 4). If the Program Director determines that the remedial plan was not completed, he or she may terminate the cure process. A determination to terminate the cure process will be made in writing. Upon receipt of a notice that the cure process has been terminated, a suspended VSTL shall have 10 days to request an opportunity to be heard on revocation of accreditation (see Section 5.5.3., below).

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5.5.2.5. *Notice of Compliance.* The Program Director shall document his or her verification that the remedial plan was complete by providing a written notice of compliance to the VSTL. This notice shall state that the VSTL is in compliance with program requirements and that the suspension is lifted. The notice shall be posted on the EAC's Web site and provided to all registered Manufacturers.

5.5.3. Opportunity to be Heard on Revocation of Accreditation. A VSTL has the right to timely challenge the revocation of its accreditation prior to an EAC Decision on Revocation. Unless otherwise noted above, a VSTL has 20 days from the date it received its Decision on Suspension to submit a challenge. Late submissions will not be considered. All challenges of revocation will be heard by the EAC Commissioners. A challenge of revocation shall be submitted to the Program Director, and addressed to the Chair of the U.S. Election Assistance Commission. Each challenge of revocation shall be in writing and:

5.5.3.1. Shall identify each noncompliance which served as the basis of its suspension;

5.5.3.2. Shall identify, document and provide verification of any remedial action completed;

5.5.3.3. Shall provide, for each identified noncompliance, a written argument challenging the finding of noncompliance; and

5.5.3.4. May provide any documentation and information in support of the written statement.

5.6. Commissioners' Decision on Revocation of Accreditation. Pursuant to HAVA, a VSTL may have its accreditation revoked only by a vote of the EAC Commissioners. Upon a timely receipt of a challenge of revocation, the program Director shall provide each Commissioner all relevant documentation including: (1) the VSTL's submission challenging revocation, (2) copies of any terminated cure plans (3) the Notice of Intent to Suspend, (4) the Compliance Management Report; (5) any documents pertaining to challenges or remedial plans provided by the VSTL in response to a relevant Compliance Management report; and (5) a Program Director recommendation as to disposition.

5.6.1. Consideration. Each Commissioner shall review and consider all relevant materials he or she has been provided. A Commissioner may request the Program Director to provide additional relevant materials or information held by the EAC or VSTL. Such requests and any responsive materials shall be provided to each Commissioner. The Chair of the Commission shall ensure that each

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Commissioner has sufficient time to consider the relevant material before a vote is called.

5.6.2. Process. After a reasonable time to review the forwarded materials, the Chair of the Commission shall bring the Decision of Revocation of Accreditation to a vote, consistent with the rules of the Commission. The measure presented for a vote shall take the form of a written Commissioners' Decision on Revocation, which:

5.6.2.1. *Makes a clear determination as to revocation on accreditation.* The Commissioners shall ultimately make one of two decisions:

5.6.2.1.1. **Program Compliance.** If the VSTL demonstrates that it meets all program requirements, successfully challenging all previous findings of noncompliance, the Commissioners shall find the VSTL compliant, reject the revocation of accreditation and lift the VSTL's suspension.

5.6.2.1.2. **Revocation of Accreditation.** If the VSTL does not demonstrate that it meets all program requirements and at least one previous finding of noncompliance stands, the Commissioners shall find the VSTL noncompliant and revoke its accreditation.

5.6.2.2. *Provides a finding with regard to each identified noncompliance which served as the basis of suspension; and*

5.6.2.3. *Identifies the documents and information that served as the basis for the Decision.*

5.6.3. Decision—Notice. After a vote of the Commissioners adopting a Decision on Revocation, the Program Director shall forward the decision to the VSTL. At that time the Program Director shall provide the VSTL notice of decision which includes a summary of the laboratory's appeal rights consistent with Section 5.8., below.

5.6.4. Decision—Publication. After a vote of the Commissioners adopting a Decision on Revocation, the Program Director shall cause the decision to be posted on the EAC's Web site, issue a copy to each registered voting system Manufacturer and provide the decision to the Director of NIST.

5.7. Effect of Revocation of Accreditation. A revocation of accreditation is effective upon the vote of the Commissioners. Laboratories that have had their accreditation revoked may no longer test voting systems or submit test reports under the EAC certification program.

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The laboratories may not represent themselves as accredited by EAC. A laboratory which has had its accreditation revoked may reapply for an EAC accreditation consistent with the requirements of Chapter 2, only after the EAC receives a new recommendation for their participation from NIST. Where a revocation of accreditation results in the termination of testing prior to completion, the laboratory which has had its accreditation revoked must provide information to the EAC consistent with 2.10.7. of this manual. Manufacturers may request the EAC grant permission to replace their lead VSTL pursuant to section 4.3.1.2. of the *Voting System Testing and Certification Program Manual*.

- 5.8. Requesting Appeal.** A laboratory that has had its accreditation revoked by a vote of the Commissioners shall have the right to appeal. A Laboratory may appeal a Decision to Revoke an Accreditation by first issuing a written request for appeal.
- 5.8.1. Submission. Requests must be submitted in writing to the Program Director, addressed to the Chair of the U.S. Election Assistance Commission.
- 5.8.2. Timing of Appeal. The laboratory may request an appeal within 7 calendar days of receipt of the Notice of Decision. Late requests will not be considered.
- 5.8.3. Contents of Request. The request must petition for reconsideration of the Commissioners' Decision on Revocation and clearly state the specific conclusions of the Decision the laboratory wishes to appeal.
- 5.9. EAC Action on a Request for Appeal.** The Program Director shall accept any request for appeal timely submitted. Untimely requests shall be rejected. Upon receipt of a request for appeal, the Program Director shall notify the requestor laboratory, in writing, as to whether their appeal has been accepted as timely. The notice for accepted requests shall inform the applicant laboratory of the requirements for submitting their appeal per Section 5.10. of this Manual.
- 5.10. Submission of Appeal.** After submission of a timely request for appeal, the Laboratory shall submit its appeal. This appeal shall (1) clearly identify the specific conclusions of the Commissioners' Decision the laboratory wishes to challenge, (2) provide the basis for its position on appeal and (3) submit a written argument in support of its appeal. In addition, the applicant laboratory may submit documentary or other relevant, physical evidence in support of the appeal. The Appeal and all supporting materials must be received by the EAC within 20 days of the applicant laboratory's receipt of the Program Director's notice of acceptance of the request to appeal.
- 5.11. Consideration of Appeal.** All timely appeals will be considered by the Commissioners. Upon receipt of an appeal, the Chair of the Commission shall forward to each EAC Commissioner the laboratory's appellate submission, along with the original information considered during the Commissioners Decision on Revocation (see Section 5.6.). After a

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reasonable time to review and consider the forwarded materials, the Chair of the Commission shall bring the matter to a vote, consistent with the rules of the Commission. The measure presented for a vote shall take the form of a written Commissioners' Decision on Appeal.

5.12. Commissioner's Decision on Appeal. The Commissioners shall make a written, final Decision on Appeal and shall provide it to the laboratory.

5.12.1. Contents. The Decision on Appeal shall:

5.12.1.1. State the final determination of the Commission.

5.12.1.2. Address the matters raised by the laboratory on appeal.

5.12.1.3. Provide the reasoning behind the decision.

5.12.1.4. State that the Decision on Appeal is final.

5.12.2. Determinations. The Commissioners shall make one of two determinations on appeal.

5.12.2.1. *Grant of Appeal.* If the Commissioners determine that the previous Decision of the Commission shall be overturned *in full*, and the laboratory meets all program requirements, the appeal shall be granted. In such cases, the laboratory shall have its accreditation immediately reinstated.

5.12.2.2. *Denial of Appeal.* If the Commissioners determine that *any part* of the previous Decision of the Commission shall be upheld such that the procedural requirements of Chapter 3 or the Program requirements of Chapter 2 of this manual will not be met in full, the appeal shall be denied. In such cases, the application for appeal is finally denied.

5.12.3. Effect. All Decisions on Appeal shall be final and binding on the Applicant Laboratory. No additional request for appeal shall be granted.

5.12.4. Notice. After a vote of the Commissioners adopting a Decision on Appeal, the Program Director shall forward the decision to the VSTL.

5.12.5. Publication. After a vote of the Commissioners adopting a Decision on Appeal, the Program Director shall cause the decision to be posted on the EAC Web site, issue a copy to each registered voting system Manufacturer and provide the decision to the Director of NIST.

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Requests for Interpretations

- 6.1. Overview.** A Request for Interpretation is a means by which a registered Manufacturer or VSTL may seek clarification on a specific EAC voting system standard (VVSG). An Interpretation is a clarification of the voting system standards and guidance on how to properly evaluate conformance to it. Suggestions or requests for modifications to the standards are provided by other processes. This chapter outlines the policy, requirements, and procedures for submitting a Request for Interpretation.
- 6.2. Policy.** Registered Manufacturers or VSTLs may request that the EAC provide a definitive Interpretation of EAC-accepted voting system standards (VVSG) 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. An Interpretation does not amend voting system standards, but serves only to clarify existing standards.
- 6.3. 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 voting system standard in light of specific voting system 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.
- 6.3.1. 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.
- 6.3.2. Applicable Standard. A Request for Interpretation is limited to queries on EAC voting system standards (i.e., VVSG). Moreover, a Manufacturer or VSTL may submit a Request for Interpretation only on a version of EAC voting system standards to which the EAC currently offers certification.
- 6.3.3. 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 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

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when an attempt to apply a specific section of the VVSG to a specific system or piece of technology creates ambiguity.

6.3.4. 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.

6.3.4.1. *Actual Ambiguity*. A proper Request for Interpretation must contain an actual ambiguity. The interpretation process is not a means for challenging a clear EAC voting system standard. Recommended changes to 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 voting system standard to a specific technology) when one of the following occurs:

6.3.4.1.1. The language of the standard is unclear on its face;

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

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

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

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

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

6.4. 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 immaterial to the issue at hand. The following steps must be taken when writing a Request for Interpretation:

6.4.1. Establish Standing To Make the Request. To make a request, one must meet the requirements identified in Section 6.3. above. Thus, the written request must

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provide sufficient information for the Program Director to conclude that the requestor is (1) a proper requester, (2) requesting an Interpretation of an applicable voting system standard, (3) presenting an actual factual controversy, and (4) seeking clarification on a matter of unsettled ambiguity.

- 6.4.2. Identify the EAC Voting System Standard To Be Clarified. The request must identify the specific standard or standards for which the requestor seeks clarification. The request must state the version of the voting system standards at issue (if applicable) and quote and correctly cite the applicable standards.
- 6.4.3. 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 standard. 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.
- 6.4.4. 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:
 - 6.4.4.1. Shall be clearly stated;
 - 6.4.4.2. Shall be related to and reference the voting system standard and voting system technology information provided; and
 - 6.4.4.3. 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.
 - 6.4.4.4. Shall be stated in a way that can ultimately be answered *yes* or *no*.
- 6.4.5. 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.

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

- 6.5.1. Review the Request. The Program Director shall review the request to ensure it is complete, is clear, and meets the requirements of Section 6.3. Upon review, the Program Director may take the following action:

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- 6.5.1.1. *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.
- 6.5.1.2. *Reject the Request for Interpretation.* If the Request for Interpretation does not meet the requirements of Section 6.3., 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.
- 6.5.1.3. *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.
- 6.5.2. 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.
- 6.5.3. 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:
 - 6.5.3.1. State the question or questions investigated;
 - 6.5.3.2. Outline the relevant facts that served as the basis of the Interpretation;
 - 6.5.3.3. Identify the voting system standards interpreted;
 - 6.5.3.4. State the conclusion reached; and
 - 6.5.3.5. Inform the Manufacturer or VSTL of the effect of an Interpretation (see Section 6.6.).
- 6.6. **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. An Interpretation is determinative and conclusive only with regard to the case presented. Nevertheless, Interpretations do have some value as precedent. Interpretations published

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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 voting system standards.

- 6.7. Library of Interpretations.** To better serve Manufacturers, VSTLs, and those interested in the EAC voting system standards, the Program Director shall publish EAC Interpretations. All proprietary information contained in an Interpretation will be redacted before publication consistent with Chapter 7 of this Manual. The library of published opinions is posted on the EAC Web site: www.eac.gov.

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Release of Laboratory Accreditation Program Information

7.1. Overview. VSTLs participating in the Certification Program will be required to provide the EAC 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, VSTLs must identify the information they believe is protected and provide substantiation and a legal basis for withholding. This chapter discusses EAC's general policy on the release of information and provides VSTL's with standards, procedures, and requirements for identifying documents as trade secrets or confidential commercial information.

7.2. EAC Policy on the Release of Certification Program Information. The EAC seeks to make its Voting System Test Laboratory Program 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).

7.2.1. 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.

7.2.2. 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). The published documents will cover the full spectrum of the program, including information pertaining to:

7.2.2.1. Accredited Laboratories;

7.2.2.2. VSTL test plans;

7.2.2.3. VSTL test reports;

7.2.2.4. Agency decisions;

7.2.2.5. Denials of Certification;

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- 7.2.2.6. Issuance of Certifications;
- 7.2.2.7. Compliance Management Reports;
- 7.2.2.8. Suspensions or Revocation of Accreditations;
- 7.2.2.9. Appeals;
- 7.2.2.10. Official Interpretations (VVSG); and
- 7.2.2.11. Other topics as determined by the EAC.

7.2.3. 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 Accreditation 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).

7.3. 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.

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

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

7.3.2. The following examples are likely not trade secrets:

- 7.3.2.1. Information pertaining to a finished product's capabilities or features.
- 7.3.2.2. Information pertaining to a finished product's performance.

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7.3.2.3. Information regarding product components that would not reveal any commercially valuable information regarding production.

7.4. Privileged or Confidential Commercial Information. Privileged or confidential commercial information is that information submitted by a VSTL that is commercial or financial in nature and privileged or confidential.

7.4.1. Commercial or Financial Information. The terms *commercial* and *financial* should be given their ordinary meanings. They include records in which a submitting VSTL has any *commercial interest*.

7.4.2. 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.

7.5. 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 VSTL 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:

7.5.1. 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.

7.5.2. Contacting a VSTL on Proposed Release of Potentially Protected Documents. In the event a member of the public submits a FOIA request for documents provided by a VSTL or the EAC otherwise proposes the release of such documents, the EAC will take the following actions:

7.5.2.1. 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 VSTL when submitted (see Section 7.6.1. below) or identified by the EAC on review.

7.5.2.2. Grant the submitting VSTL 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

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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 7.6.1. below.

7.5.3. 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.

7.6. VSTL'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 VSTL shall be responsible for identifying documents, or portions of documents, it believes warrant such protection. Moreover, the VSTL 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.

7.6.1. Initial Submission of Information. When a VSTL is submitting documents to the EAC as required by the Accreditation or Certification Programs, it is responsible for identifying any document or portion of a document that it believes is protected from release by Federal law. VSTLs shall identify protected information⁹ by taking the following action:

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

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

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

7.6.1.1.3. If necessary, provide additional documentation or information. For example, if the VSTL claims a document contains confidential commercial information, it would also

⁹ Documents submitted by the VSTL may include information that is a trade secret or confidential commercial information of a Manufacturer. The VSTL shall take steps to identify any information it believes may be protected. The VSTL may seek the input of the Manufacturer when identifying potentially protected information pursuant to the requirements of this chapter. All communications on this matter shall be in writing.

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have to provide evidence and analysis of the competitive harm that would result upon release.

7.6.1.2. *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.

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

7.6.2.1. Respond to the notice in writing within 15 calendar days. If additional time is needed, the VSTL must promptly notify the Program Director. Requests for additional time will be granted only for good cause and must be made before the 15-day deadline. VSTLs that do not respond in a timely manner will be viewed as not objecting to release.

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

7.6.2.2.1. There is no objection to release, or

7.6.2.2.2. The VSTL objects to release. In this case, the response must clearly state which portions of the document the VSTL believes should be protected from release. The VSTL shall follow the procedures discussed in Section 7.6.1 above.

7.7. **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 VSTL 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:

7.7.1. Social Security Number.

7.7.2. Bank account numbers.

7.7.3. Home address.

7.7.4. Home phone number.

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Appendix A

Voting System Test Plan Outline

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This outline is provided solely as an aid to test plan development. Note that these items may change significantly, depending on the specific project planned.

1 Introduction

- 1.1 References
- 1.2 Terms and Abbreviations
- 1.3 Testing Responsibilities
 - 1.3.1 Project schedule with
 - 1.3.1.1 Owner assignments
 - 1.3.1.2 Test case development
 - 1.3.1.3 Test procedure development and validation
 - 1.3.1.4 3rd party tests
 - 1.3.1.5 EAC and Manufacturer dependencies
- 1.4 Target of Evaluation Description
 - 1.4.1 System Overview
 - 1.4.2 Block diagram
 - 1.4.3 System Limits
 - 1.4.4 Supported Languages
 - 1.4.5 Supported Functionality
 - 1.4.5.1 Standard VVSG Functionality
 - 1.4.5.2 Manufacturer Extensions

2. Pre-Certification Testing and Issues

- 2.1 Evaluation of prior VSTL testing
 - 2.1.1 Reason for testing and results, listing of modifications from previous to current system
- 2.2 Evaluation of prior non-VSTL testing
 - 2.2.1 Reason for testing and results, states, other 3rd party entities
- 2.3 Known Field Issues
 - 2.3.1 Listing of relevant issues uncovered during field operations

3 Materials Required for Testing

- 3.1 Software
- 3.2 Equipment
- 3.3 Test Materials
- 3.4 Deliverable Materials

4 Test Specifications

- 4.1 Requirements
 - 4.1.1 Mapping of requirements to equipment type and features
 - 4.1.2 Rationale for why some requirements are NA for this campaign
- 4.2 Hardware Configuration and Design
- 4.3 Software System Functions

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4.4 Test Case Design

4.4.1 Hardware Qualitative Examination Design

4.4.1.1 Mapping of requirements to specific interfaces

4.4.2 Hardware Environmental Test Case Design

4.4.3 Software Module Test Case Design and Data

4.4.4 Software Functional Test Case Design and Data

4.4.5 System-level Test Case Design

4.5 Security functions

4.6 TDP evaluation

4.7 Source Code review

4.8 QA & CM system review

5 Test Data

5.1 Data Recording

5.2 Test Data Criteria

5.3 Test Data Reduction

6 Test Procedure and Conditions

6.1 Facility Requirements

6.2 Test Set-up

6.3 Test Sequence

7 Test Operations Procedures

Proprietary Data

Appendix B

Voting System Modification Test Plan Outline

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Test Plans submitted for modifications to previously EAC certified voting systems should be brief and structured to minimize test plan development and review, while enabling the EAC to maintain solid control of the certification process. The test plan shall *concisely* document the strategy and plan for testing those sections of the VVSG applicable to the modification or modifications submitted. The test plan shall be written with clarity that will allow all constituents to understand what testing will be conducted, to verify compliance to VVSG requirements, and to assure that the test plan will remain a living document throughout the life of the test campaign for the modification.

This outline is provided solely as an aid to test plan development. Note that these items may change significantly, depending on the specific project planned.

1. Introduction

1.1 Description and Overview of EAC certified system being modified

1.1.1 Complete definition of the baseline certified system.

1.1.2 Detailed description of the engineering changes and/or modifications to the certified system and why the modification was implemented.

1.1.3 An initial assessment of the impact that the modifications have on the system and past certification.

1.1.4 Description of what will be regression tested to establish assurance that the modifications have no adverse impact on the compliance, integrity or performance of the system.

1.2 References

1.3 Terms and Abbreviations

1.4 Project Schedule

1.5 Scope of testing

1.5.1 Block diagram (if applicable)

1.5.2 System limits (if applicable)

1.5.3 Supported Languages

1.5.4 Supported Functionality

1.5.5 VVSG

1.5.6 RFIs

1.5.7 NOCs

2. Pre-Certification Testing and Issues

2.1 Evaluation of prior VSTL testing

2.2 Evaluation of prior non-VSTL testing (if applicable)

2.3 Known Field Issues (if applicable)

3. Materials Required for Testing

3.1 Software

3.2 Equipment

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- 3.3 Test Materials
- 3.4 Deliverable
- 3.5 Proprietary Data

- 4. Test Specifications
 - 4.1 Requirements
 - 4.1.1 Mapping of requirements to equipment type and features
 - 4.1.2 Rationale for why some requirements are NA for this campaign
 - 4.2 Hardware Configuration and Design (if applicable)
 - 4.3 Software System Functions (if applicable)
 - 4.4 Test Case Design
 - 4.4.1 Hardware Qualitative Examination Design (if applicable)
 - 4.4.2 Hardware Environmental Test Case Design (if applicable)
 - 4.4.3 Software Module Test Case Design and Data (if applicable)
 - 4.4.4 Software Functional Test Case Design and Data (if applicable)
 - 4.4.5 System-level Test Case Design
 - 4.5 Security functions (if applicable)
 - 4.6 TDP evaluation
 - 4.7 Source Code review (if applicable)
 - 4.8 QA & CM system review

- 5. Test Data
 - 5.1 Test Data Recording
 - 5.2 Test Data Criteria

- 6. Test Procedure and Conditions
 - 6.1 Test Facilities
 - 6.2 Test Set-up
 - 6.3 Test Sequence
 - 6.4 Test Operations Procedure

Appendix C

Voting System Test Report Outline

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Test Reports produced by VSTLs shall follow the format outlined below. Deviations from this format may be used upon prior written approval of the Program Director.

1. System Identification and Overview
 2. Certification Test Background
 - 2.1 Revision History
 - 2.2 Implementation Statement
 3. Test Findings and Recommendation
 - 3.1 Summary Finding and Recommendation
 - 3.2 Reasons for Recommendation to Reject
 - 3.3 Anomalies
 - 3.4 Correction of Deficiencies
- Appendix A. Additional Findings
- Appendix B. Warrant of Accepting Change Control Responsibility
- Appendix C. Trusted Build
- Appendix D. Test Plan
- Appendix E. State Test Reports

Appendix D

Voting System Modification Test Report Outline

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Test Reports produced by VSTLs shall follow the format outlined below. Deviations from this format may be used upon prior written approval of the Program Director.

1. Introduction

- 1.1 Description of EAC certified system being modified
- 1.1 References
- 1.2 Terms and Abbreviations

2. Certification Test Background

- 2.1 Revision History
- 2.2 Scope of testing
 - 2.2.1 Modification Overview
 - 2.2.1.1 Detailed list of changes
 - 2.2.2 Block diagram (if applicable)
 - 2.2.3 Supported Languages
 - 2.2.4 VVSG
 - 2.2.5 RFIs
 - 2.2.6 NOCs

3. Test Findings and Recommendation

- 3.1 Summary Finding and Recommendation
 - 3.1.1 Hardware Testing
 - 3.1.2 System Level Testing
 - 3.1.3 Source code review
- 3.2 Anomalies and Resolutions
- 3.3 Deficiencies and Resolutions

4. Recommendation for Certification

- Appendix A. Additional Findings
- Appendix B. Deficiency report (if applicable)
- Appendix C. Anomaly report (if applicable)
- Appendix D. Test Plan
- Appendix E. State Test Reports (if applicable)

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Appendix E

**Certification of Laboratory Conditions and Practices
Form**

Available in electronic format at www.eac.gov

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CERTIFICATION OF LABORATORY CONDITIONS AND PRACTICES

I, the undersigned, having investigated or caused to be investigated each matter, below; certify, affirm and acknowledge that each of the following numbered statements are true and otherwise accurately reflect the status, condition and operations of _____ (hereinafter "Laboratory"). I understand that by certifying the information below, I am making a statement or representation to the U.S. Election Assistance Commission required for receiving a Laboratory Accreditation under 42 U.S.C. §15371(b). I further understand, that to the extent any of the below representations or certifications are found to be materially false, the U.S. Election Assistance Commission may revoke any Accreditations granted to the above named laboratory and that I may be subject to criminal prosecution under 18 U.S.C. §1001.

1. **Signing Official.** I hereby certify that I am an officer, partner or other official vested with the legal authority to speak for, contract on behalf of, or otherwise bind the above noted company, corporation, partnership or organization (Laboratory).
2. **Personnel.** I certify, consistent with Section 2.6. of the *EAC Voting System Test Laboratory Accreditation Program Manual* (hereinafter *Laboratory Manual*), that the laboratory has written policies in place to ensure that it does not currently, and will not in the future, employ any individuals in any capacity related to the testing of voting systems who have been convicted of a felony offense or any criminal offense involving fraud, misrepresentation, or deception under either Federal or State law.
3. **Conflicts of Interest and Prohibited Practices.** I certify, consistent with Section 2.5. of the *Laboratory Manual*, that the Laboratory maintains and enforces written policies which:
 - a. Prohibit conflicts of interest or the appearance of conflicts of interest pursuant to Section 2.5.1. of the *Laboratory Manual*.
 - b. Prohibit practices such as participation in both the development and testing of a voting system or the solicitation or acceptance of gifts from a voting system manufacture pursuant to Section 2.5.2. of the *Laboratory Manual*.

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- c. Provide clear mechanisms for enforcement of the prohibitions noted above pursuant to Section 2.5.3. of the Laboratory Manual.

- 4. **Financial Stability.** I certify, consistent with Section 2.14. of the Laboratory Manual, that the laboratory possess sufficient resources to enable it to properly use and maintain its test equipment and facility, to satisfactorily perform all required functions, and to adequately indemnify itself against financial liabilities or penalties that may result from its operations.

- 5. **Authority to do Business in the United States.** I certify, consistent with Section 2.12. of the Laboratory Manual, that the Laboratory is lawfully entitled or otherwise not prohibited from doing business with the United States or its citizens or operating in the United States.

- 6. **Recordkeeping.** I certify, consistent with Section 2.15. of the Laboratory Manual, that the laboratory operates and manages a records system in which it maintains all forms, reports, test records, observations, calculations and derived data for all tests performed for a period of at least 5 years.

I, by signing my name below, certify, affirm and acknowledge, under penalty of Federal law, that each of the above numbered paragraphs accurately represent the operations, conditions and practices of _____ (Laboratory).

Signed this day, _____:

_____(Signature)

_____(Name of Signing Official)

_____(Title of Signing Official)

Appendix F

Specification for Reproduction and use of the EAC Laboratory Accreditation Logo

Accreditation Logo Available in electronic format at www.eac.gov

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Specification for Reproduction and use of the EAC Laboratory Accreditation Logo

To maintain a high level of quality and consistency in a variety of applications, the following guidelines have been developed for VSTL use of the EAC laboratory accreditation logo.

Use and Display

The EAC VSTL logo contains the following elements:

The “U.S. Election Assistance Commission” and “VSTL” logotype separated by a divider rule.

The EAC will provide all accredited VSTLs with high resolution digital files for use on approved written or electronic documents.

The logo may only be used by EAC accredited VSTLs and shall not misrepresent the specific standards or guidelines to which the VSTL has been accredited. The EAC VSTL logo may be displayed on all reports and work documents that contain **exclusive** results from testing activities that have been carried out within the labs’ EAC scope of accreditation. Accredited laboratories may also incorporate the logo in publicity and/or advertising materials, including brochures and organization publications, technical literature, business reports, Web sites and quotations or proposals for work.

Only the approved version of the VSTL logo may be used. When using the logo:

- Do not print the logo in black over a dark background.
- Do not change any colors of the logo.
- Do not configure the elements of the logo in a different format.
- Do not crop or remove any part of the logo.
- Do not distort the logo.
- Do not tilt the logo in any direction.
- Do not add shadows, effects or other elements to the logo.
- Do not change the typeface/font used in the logo.

Minimum Size

The full VSTL logo must remain readable in all uses and should not be reduced to a size smaller than 2.5 inch x 1 inch.

Minimum Clear Space

The clear space surrounding the VSTL logo is an integral part of the logo design. An area of clear space must be maintained around the logo to prevent it from being in conflict with other design elements on the page. The clear space should measure at least X on all sides, where X

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equals ½ the height of the upper case letters “VSTL” in the logo. Do not place any other logo, logotype, trademark, text, or other graphic element in the minimum clear space area.

One Color Printing

A black version of the logo may be printed on white or light color background paper. In these instances, the logo should appear in 100% black.

Color Printing

Whenever possible, the full color version of the logo should be used. The appropriate colors are provided below for 4 color process printing or RGB for electronic use.

Blue

CMYK = 98/78/0/29

RGB = 0/51/153

HSL = 156/255/77

Red

CMYK = 5/96/98/5

RGB = 204/51/0

HSL = 10/255/102

Embossing on “VSTL” = CMYK 97/92/0/65

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U.S. Election Assistance Commission

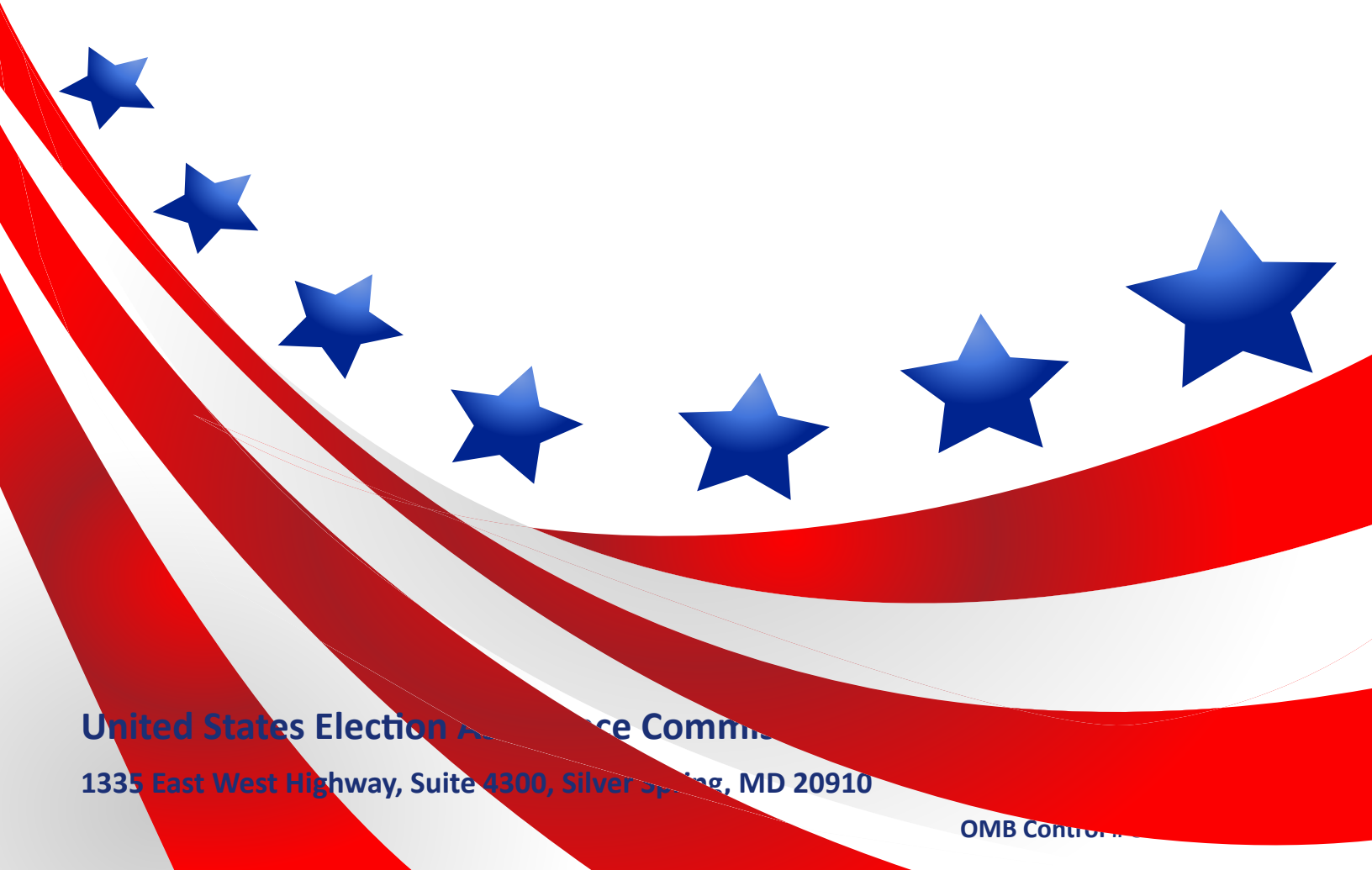
VSTL

EXHIBIT C - VSTC Program Manual Version 2.0

Testing & Certification Program Manual

Version 2.0

Effective May 31, 2015



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The reporting requirements in this manual have been approved under the Paperwork Reduction Act of 1995, OMB Control No. 3265-0019, expiring June 30, 2018. 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 Testing and Certification 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 105 hours. This estimate includes the time 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, 1335 East West Highway, Suite 4300, Silver Spring, MD 20910.

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1. Introduction

- 1.1. Background.** In late 2002, Congress passed the Help America Vote Act of 2002 (HAVA), which created the U.S. Election Assistance Commission (EAC) and vested it with the responsibility of setting voting system standards and for providing for the testing and certification of voting systems. This mandate represented the first time the Federal government provided for the voluntary testing, certification and decertification of voting systems nationwide. In response to this HAVA requirement, the EAC has developed the Federal Voting System Testing and Certification Program (“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 certification, de-certification and re-certification 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 Voting System Testing and Certification Program. Although participation in the program is voluntary, adherence to the program’s procedural requirements is mandatory for participants. The procedural requirements of this Manual supersede any prior voting system certification requirements issued by the EAC.
- 1.4. Purpose.** The primary purpose of the EAC’s Voting System Testing and Certification Program Manual is to provide clear procedures to Manufacturers for the testing and certification of voting systems to specified Federal standards consistent with the requirements of HAVA Section 321(a)(1). The program, however, also serves to do the following:

 - 1.4.1. Support State certification programs.
 - 1.4.2. Support local election officials in the areas of acceptance testing and pre-election system verification.
 - 1.4.3. Increase quality control in voting system manufacturing.
 - 1.4.4. Increase voter confidence in the use of voting systems.
- 1.5. Manual.** This Manual is a comprehensive presentation of the EAC’s Voting System 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 to the program itself. The Manual contains the following chapters:

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- 1.5.1.1. *Manufacturer Registration.* Under the program, a Manufacturer is required to register with the EAC prior to participation. This registration provides the EAC with needed information and requires the Manufacturer to agree to the requirements of the Certification Program. This chapter sets out the requirements and procedures for registration.
- 1.5.1.2. *When Voting Systems Must Be Submitted for Testing and Certification.* All 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 or maintain a certification.
- 1.5.1.3. *Certification Testing and Review.* Under this program, the testing and review process requires the completion of an application, employment of an EAC-accredited laboratory for system testing, and technical analysis of the laboratory test report by the EAC. The result of this process is an Initial Decision on Certification. This chapter discusses the required steps for voting system testing and review.
- 1.5.1.4. *Grant of Certification.* If an Initial Decision to grant certification is made, the Manufacturer must take additional steps before it may be issued a certification. These steps require the Manufacturer to document the performance of a trusted build (*see* definition at section 1.16), the deposit of software into a repository, and the creation of system identification tools. This chapter outlines the action that a Manufacturer must take to receive a certification and the Manufacturer's post-certification responsibilities.
- 1.5.1.5. *Denial of Certification.* If an Initial Decision to deny certification is made, the Manufacturer has certain rights and responsibilities under the program. This chapter contains procedures for requesting reconsideration, opportunity to cure defects, and appeal.
- 1.5.1.6. *Decertification.* Decertification is the process by which the EAC revokes a certification it previously granted to a voting system. It is an important part of the Certification Program because it serves to ensure that the requirements of the program are followed and that certified voting systems fielded for use in Federal elections maintain the same level of quality as those presented for testing. This chapter sets procedures for Decertification and explains the Manufacturer's rights and responsibilities during that process.
- 1.5.1.7. *Quality Monitoring Program.* Under the Certification Program, the EAC will implement a quality monitoring process that will help ensure that voting systems certified by the EAC are the same systems sold by Manufacturers. The quality

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monitoring process is a mandatory part of the program and includes elements such as fielded voting system review, anomaly reporting, and manufacturing site visits. This chapter sets forth the requirements of the Quality Monitoring Program.

1.5.1.8. *Interpretation.* An Interpretation is a means by which a registered Manufacturer or Voting System Test Laboratory (VSTL) may seek clarification on a specific Voluntary Voting System Guidelines (VVSG) standard. This chapter outlines the policy, requirements, and procedures for requesting an Interpretation.

1.5.1.9. *Trade Secrets, Confidential Commercial, and Personal Information.* Federal law protects certain types of information provided to the government from public release. This chapter outlines the program's policies, procedures, and responsibilities associated with the public release of potentially protected commercial information.

1.5.2. Maintenance and Revision. Version 2.0 of the Manual will continue to be improved and expanded as experience and circumstances dictate. 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. And 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's website at www.eac.gov.

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

1.6.1. Federal and State Roles. The process to ensure 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, each of these officials has a unique responsibility for ensuring the equipment a voter uses on Election Day meets specific requirements.

1.6.1.1. The EAC Program has primary responsibility for ensuring 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 the system will support the specific unique requirements of each individual State. States may use EAC VSTLs to perform testing of voting systems to unique state

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standards while the systems are being tested to Federal standards. The EAC will not, however, certify voting systems to state standards.

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

1.6.1.4. State or local officials are also responsible for performing acceptance testing to ensure that the equipment delivered is identical to the equipment certified at 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 and post-election auditing to confirm equipment is operating properly and is unmodified from its certified state.

1.6.2. Conformity Assessment, Generally. Conformity assessment is a system established to ensure a product or service meets the applicable requirements. Many conformity assessment systems exist to protect the quality and ensure compliance with standards of products and services. All conformity assessment systems attempt to answer a variety of questions:

1.6.2.1. *What specifications are required of an acceptable system?* For voting systems, the EAC Voluntary Voting System Guidelines (VVSG), Notice of Clarification and Request for Information address this issue. States and local jurisdictions also have supplementing standards.

1.6.2.2. *How are systems tested against required specifications?* The EAC Voting System Testing and Certification Program is a central element of the larger conformity assessment system. The program, as set forth in this Manual, provides for the testing and certification of voting systems to identified versions of the VVSG. The Testing and Certification Program's purpose is to verify voting systems meet manufacturer specifications and the requirements of the VVSG.

1.6.2.3. *Are the testing authorities qualified to make an accurate evaluation?* The EAC accredits VSTLs, after the National Institute of Standards and Technology (NIST) National Voluntary Lab Accreditation Program (NVLAP) has reviewed their technical competence and lab practices to ensure the test authorities are fully qualified. Furthermore, EAC technical experts review all test plans and test reports from accredited laboratories to ensure an accurate and complete evaluation. Many States provide similar reviews of laboratory reports.

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1.6.2.4. *Will Manufacturers deliver units within manufacturing tolerances equivalent to those tested?* The VVSG and this Manual require vendors to have appropriate change management and quality control processes to control the quality and configuration of their products. The Certification Program provides mechanisms for the EAC to verify Manufacturer quality processes through field system testing and manufacturing site visits. States have implemented policies for acceptance of delivered units.

1.7. Program Personnel. All EAC personnel and contractors associated with this program are held to the highest ethical standards. All agents of the EAC involved in the Certification Program are 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 the testing and certification program 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. Via secure e-mail, if sent electronically, or physical delivery of a compact disk or other media deemed acceptable by the EAC, 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 requiring 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. By certified mail or similar means allowing for tracking, if sent via physical delivery, to the following address:

Testing and Certification Program Director
U.S. Election Assistance Commission
1335 East West Highway, Suite 4300
Silver Spring, MD 20910

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:

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- 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 for 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 and 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 responsibilities and challenges facing Manufacturers as they work to meet the requirements imposed by this program, State certification programs, customers, State law and production schedules, the EAC will provide timeframes for its response to significant program elements. This shall be done by providing current metrics on the EAC's website regarding the average EAC response time for (1) approving Test Plans, (2) issuing Initial Decisions, and (3) issuing Certificates of Conformance.
- 1.13. Records Retention—Manufacturers.** The Manufacturer is responsible for ensuring 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 transparent 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 website.

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

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.

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.

Commercial Off-the-Shelf. Software, firmware, device or component that is used in the United States by many different people or organizations for many different applications other than certified voting systems and that is incorporated into the voting system with no manufacturer- or application-specific modification.

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

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

Component. An identifiable and discrete part of the larger voting system essential to the operation of the voting system, and an immediate subset of the system to which it belongs.

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

Days. The term *days* shall refer to 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 day the document was received.

De minimis change order. A de minimis change order is a change to a certified voting system's hardware, software, Technical Data Package (TDP), or data, the nature of which will not materially alter the system's reliability, functionality, capability, or operation. Any changes made to a system under test will result in the manufacturer supplying a list and detailed description of all changes.

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

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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. In addition, for the purposes of this Manual, the term will include any and all Pre-Election Testing and Post-Election Testing and/or auditing done in conjunction with any primary, general, runoff, or special election involving a candidate for Federal office.

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 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, a set of files produced using HASH algorithm, are used to verify that files are unmodified from their original version.

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 (NSRL), 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.

Lines of Code. Any executable statements, flow control statements, formatting (e.g. Blank lines) and comments.

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 signifying it is EAC certified.

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

Modification. A modification is any change to a *previously EAC-certified voting system's* hardware, software, or firmware that is not classified as a de minimis change order.

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

Sub-assembly. A major functional piece of equipment essential to the operational completeness of a component of a voting system. Examples of major sub-assemblies for voting systems include, but are not limited to:

- Printers
- Touch screen terminals
- Scanners/Tabulators
- Card readers
- Ballot boxes
- Keyboards
- CPUs
- Memory modules, USB drives, and other portable memory devices
- External data storage devices, external hard drives, etc.
- Motherboards, processor board and other PWB assemblies, when supplied separately from a complete unit

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

Technical Reviewers. Experts in the area 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 into machine-readable binary instructions (executable code) in a manner providing security measures which 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,

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and support the equipment) 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 Test Laboratories. Independent testing 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 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 Voting System Testing and Certification Program

COITS. Commercial Off-the-Shelf

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

LOC. Lines of Code

NASED. National Association of State Election Directors

NIST. National Institute of Standards and Technology

NVLAP. National Voluntary Laboratory Accreditation Program

Program Director. Director of the EAC's Testing and Certification Program

VSS. Voting System Standards

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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 Voting System Testing and Certification Program. Before a Manufacturer of a voting system can submit an application to have a 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 voluntary Voting System 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 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.

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- 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.

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 term "manufacturing and/or assembly facilities" applies to facilities that provide the following manufacturing services:

- 2.3.1.6.1 Final system configuration and loading of programs for customer delivery.
- 2.3.1.6.2. Manufacturing of component units of the voting system.
- 2.3.1.6.3. Manufacturing of major sub-assemblies of the voting system.

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Manufacturing facilities for COTS components and plastic modeling facilities are **not** included in this definition and need not be reported to the EAC. The EAC reserves the right to request additional information from manufacturers related to the manufacturing process, including manufacturing facilities for the benefit of the testing and certification program.

Manufacturers shall report all current facilities that meet the above criteria. If manufacturing is not in progress at the time of a manufacturer's submission of their registration package to the EAC, the manufacturer shall report the last manufacturing facility which meets the definitions in this section. Manufacturers should also be aware that the reporting requirement is continuous and that when new manufacturing facilities are engaged, the EAC registration package submitted to the EAC must be updated to reflect the new facilities as required by Section 2.5.2 of this Manual.

2.3.1.7. 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 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 certified only when it is authorized by the EAC and is consistent with the procedures and requirements of this Manual.

2.3.2.2. Produce and affix an EAC certification label to all production units of the certified system. Such labels must meet the requirements set forth in Chapter 5 of this Manual.

2.3.2.3. 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.

2.3.2.4. Permit an EAC representative to verify the Manufacturer's quality control by cooperating with EAC efforts to test and review fielded voting systems consistent with Section 8.6 of this Manual.

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- 2.3.2.5. Permit an EAC representative to verify the Manufacturer's quality control by conducting periodic inspections of manufacturing facilities consistent with Chapter 8 of this Manual.
- 2.3.2.6. Cooperate with any EAC inquiries and investigations into a certified system's compliance with VVSG standards or the procedural requirements of this Manual consistent with Chapter 7.
- 2.3.2.7. Report to the Program Director any known malfunction of a 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 not function as expected during a Federal election or otherwise results in data loss. Initial Malfunction Reports should identify the location, nature, date, impact, and status of resolution (if any) of the malfunction and be filed within 30 business days of occurrence during or in preparation for a Federal election, as defined in this Manual. Final malfunction Reports shall be submitted to the EAC after the root cause of the malfunction has been determined and a permanent fix developed.
- 2.3.2.8. Report to the Program Director the names of each State and/or local jurisdiction using an EAC certified voting system within 5 business days of delivery of the first production unit of the voting system to the jurisdiction.
- 2.3.2.9. Certify the entity is not barred or otherwise prohibited by statute, regulation, or ruling from doing business in the United States.
- 2.3.2.10. Agree to participate in a Kick-off Meeting at the beginning of every certification effort. The purposes of these meetings are to permit an in-depth discussion of the candidate voting system and allow both the EAC and the VSTL staff to have a live, hands-on demonstration of the voting system. The duration of this meeting shall be mutually agreed upon by all parties, but shall not be less than one business day. Topics of discussion during this meeting include, but are not limited to:
- System architecture
 - System security design
 - System data flows
 - System limits
- 2.3.2.11. Adhere to all procedural requirements of this Manual.

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2.4. Registration Process. Generally, registration is accomplished through use of the 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, interested parties 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 hand written 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's website at www.eac.gov. Instructions for completing and submitting the form are included on the website along with 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 omitted information. Registration applications will not be processed until they are deemed 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

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requires clarification or additional information, the EAC will contact the Manufacturer and request the needed information.

2.4.2.4. Upon the determination that an application has been satisfactorily completed, 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 automatically be provided timely information relevant to the Certification Program.

2.5.4. Website Postings. The EAC will add the Manufacturer to the EAC's listing of registered voting system Manufacturers publicly available at www.eac.gov.

2.6. Suspension of Registration. Manufacturers are required to establish policies and operate within the EAC Certification Program consistent with the procedural requirements presented in this Manual. When Manufacturers violate the certification program's requirements by engaging in management activities inconsistent with this Manual or failing to cooperate with the EAC, their registration may be suspended until such time as the issue 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 with the suggested steps 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 30 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.

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2.6.1.2. *Manufacturer Action.* The Manufacturer is required to either respond in a timely manner to the notice (demonstrating it was not in violation of program requirements) or cure the violations identified in a timely manner. The steps required to cure a violation will include addressing the direct violation and the underlying root cause. 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 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 provided in writing and must inform the Manufacturer of the steps available to remedy the violations and lift the suspension.

2.6.2. Effect of Suspension. A suspended Manufacturer may not submit a voting system for certification under this program. This prohibition includes a ban on the submission of modifications and changes to certified system. A suspension shall remain in effect until lifted. Suspended Manufacturers will have their registration status reflected on the EAC website. Manufacturers have the right to remedy a non-compliance issue at any time and lift a suspension consistent with EAC guidance. Failure of a Manufacturer to follow the requirements of this section may also result in Decertification of voting systems consistent with Chapter 7 of this Manual.

3. When Voting Systems Must Be Submitted for Testing and Certification

3.1. Overview. An EAC certification signifies that a voting system has been successfully tested against an identified voting system standard 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. Systems will usually be submitted when (1) they are new to the marketplace, (2) they have never before received an EAC certification, (3) they are modified, or (4) the Manufacturer wishes to test a previously certified system to a different (newer) standard. This chapter discusses the submission of de minimis change orders, which may not require additional testing and certification. Additionally, this chapter outlines provisional, pre-election emergency modifications, which provide for pre-election, emergency waivers.

3.2. 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 in existing voting system testing standards (VVSG), 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. Certifications issued by other bodies (e.g., the National Association of State Election Directors and State certification programs) are not EAC certifications.

3.2.1. Types of Voting Systems Certified. The EAC Certification Program is designed to test and certify electromechanical and electronic voting systems. 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. Voting systems certified under this program are tested to a set of voluntary standards providing requirements that voting systems must meet to receive a Federal certification. These standards are referred to as Voluntary Voting System Guidelines (VVSG).

3.2.2.1. Versions—Availability and Identification. Voluntary Voting System Guidelines are published by the EAC and are available on the EAC's website (www.eac.gov). The standards will be routinely updated and 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 it will accept as the basis for testing and certification. This effort may be accomplished through the setting of an implementation date for a particular version's applicability, the setting of a date by which testing to a particular version is mandatory or the setting of date by which the EAC will no longer test to a particular standard. **The EAC will certify only those voting**

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systems tested to standards that the EAC has identified as valid for certification.

- 3.2.2.2.1. End date. When a version's status as the basis of an EAC certification is set to expire on a certain date, the submission of the system's test report will be the controlling event (see Chapter 4). This requirement means the system's test report must be received by the EAC on or before the expiration date to be certified to the terminating standard.
- 3.2.2.2.2. Start date. When a version's status as the basis of an EAC certification is set to begin on a certain date, the submission of the system's application for certification will be the controlling event (see Chapter 4). This requirement means the system's application, requesting certification to the new standard, will not be accepted by the EAC until the start date.
- 3.2.2.3. *Version—Manufacturer's Option.* When the EAC has authorized the option of certification to more than one version of the standards, the Manufacturer must choose which version it wishes to have its voting system tested against. The voting system will then be certified to that version of the standards upon successful completion of testing. Manufacturers must ensure all applications for certification identify a particular version of the standards.
- 3.2.2.4. *Emerging Technologies.* If a voting system or component thereof is eligible for a certification under this program (see Section 3.2.1.) and employs technology that is not addressed by a currently accepted version of the VVSG the relevant technology shall be subjected to full integration testing and shall be tested to ensure that it operates to the Manufacturer's specifications and that the proper security risk assessments and quality assurance processes are in place. The Technology Testing Agreement (TTA) process described below is intended to provide additional clarification and guidance to enhance the testing and certification process for voting systems incorporating new or emerging technology. The remainder of the system will be tested to the applicable Federal standards. Information on emerging technologies will be forwarded to the EAC's Technical Guidelines Development Committee (TGDC).
 - 3.2.2.4.1. TTA Meeting.
 - 3.2.2.4.1.1. The manufacturer should contact the Certification Division as early as possible in their design and development process to have a general discussion regarding new or emerging technology in any voting system product.

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3.2.2.4.1.2. A formal request for a TTA Meeting should be: a) clearly identified as such and b) submitted via email or other secure means to the Director of the EAC Testing and Certification Division. The EAC expects that the submission will be as detailed as design and development allow, but should include the following items:

- Description of the product, highlighting elements involving new technologies testable requirements and other testing protocol issues. This description should include, at a minimum:
 - o General product description
 - o Engineering drawing(s)
 - o Product composition/key components/materials
- Device specifications
- Analysis of potential failure modes and threat model/risk analysis
- Outline of the proposed conditions of use
- Summary of instructions for use of the product (voter and poll worker/election official)
- Relevant performance information on the product, especially if routinely used in other industries. This information may include:
 - o Published and/or unpublished data
 - o Summary of test data
 - o Summary of prior user experience.

3.2.2.4.1.3. Prior to the formal TTA Meeting, the manufacturer should arrange for a preliminary meeting (videoconference or teleconference) to review the submitted information and discuss any additional questions that may arise prior to the actual formal TTA Meeting. The manufacturer may then submit any additional information as required, and finalize the date and time for formal TTA Meeting with the EAC and VSTL. Because of logistics and budgetary considerations for all parties, the location of the meeting (EAC, VSTL or manufacturer location) will be mutually agreed upon. Meeting plans should generally be finalized within 30 days of the preliminary meeting.

3.2.2.4.1.4. TTA Meetings should generally be face-to-face, or by videoconference, and should be scheduled for approximately 2-4 hours or longer depending on the complexity of the issues to be discussed. The EAC and VSTL staff may raise any questions for the manufacturer about the product, but should be focused on the key issues of the products test plan development and testing that will ultimately lead to the Technology Testing Agreement. The Director of the Certification Division will determine which EAC staff should attend the meeting, but will generally include: the EAC Project

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Manager and any or all Technical Reviewers with interest or expertise in specific areas under discussion.

3.2.2.4.2. Post TTA Meeting Activities

3.2.2.4.2.1. At the end of the meeting, the EAC Project Manager for the voting system will summarize the agreement(s) or explain any reasons for tabling the agreement(s), including the date of any follow-on meeting, if appropriate. A record of attendees and minutes of the meeting shall be kept by both a designated EAC staff member and manufacturer representative. EAC and the manufacturer should exchange their respective meeting minutes for review following the meeting and share the minutes with the VSTL. The minutes shall be in sufficient detail to reflect the substance of the issues discussed at the meeting and the final agreement.

3.2.2.4.2.2. The EAC Project Manager will prepare a memorandum outlining the TTA. Within ten (10) business days of the meeting, a draft of the memorandum should be circulated for comment among all TTA Meeting participants. Comments shall be returned to EAC in 5 business days. The final memorandum shall be signed by the Director and conveyed to the applicant and VSTL within 5 business days of the receipt of final comments.

3.2.3. Significance of an EAC Certification. An EAC certification is an official recognition that a voting system (in a specific configuration or configurations) has been tested by a VSTL to be in conformance with an identified set of Federal voting standards. An EAC certification is **not**:

3.2.3.1. An official endorsement of a Manufacturer, voting system, or any of the system's components.

3.2.3.2. A Federal warranty of the voting system or any of its components.

3.2.3.3. A determination that a 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 any particular component of a certified system is itself certified for use outside the certified configuration.

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3.3. When Certification Is Required Under the Program. To obtain or maintain an EAC certification, Manufacturers must submit a voting system for testing and certification under this program. Such action is usually required for (1) new systems not previously tested to any standard; (2) existing systems not previously certified by the EAC; (3) previously certified systems that have been modified; (4) systems or technology specifically identified for retesting by the EAC; or (5) previously certified systems that the Manufacturer seeks to upgrade to a higher standard (e.g., more recent version of the VVSG).

3.3.1. New System Certification. For purposes of this Manual, new systems are defined as voting systems that have not been previously tested to applicable Federal standards. New voting systems must be fully tested and submitted to the EAC according to the requirements of Chapter 4 of this Manual.

3.3.2. System Not Previously EAC Certified. This term describes any voting system not previously certified by the EAC, including systems previously tested and qualified by NASED or systems previously tested and denied certification by the EAC. Such systems must be fully tested and submitted to the EAC according to the requirements of Chapter 4 of this Manual.

3.3.3. Modification. A modification is any change to a *previously EAC-certified voting system's* hardware, software, or firmware that is not a de minimis change. Any modification to a voting system will require testing and review by the EAC according to the requirements of Chapter 4 of this Manual.

3.3.4. EAC Identified Systems. Manufacturers may be required to submit systems previously certified by the EAC for retesting. This may occur when the EAC determines that the original tests conducted on the voting system are now insufficient to demonstrate compliance with Federal standards in light of newly discovered threats or information.

3.4. Changes to Voting Systems in the EAC Certification Program – Change Order. A change order does not apply to a system under test; any changes made to a system under test are considered part of the test campaign. A single change order can be applied to multiple systems as long as a VSTL reviews and approves the change order for each EAC certified system.

3.4.1. Change Order. A change order is a change to a *previously EAC certified* voting system's hardware, documentation, or data that is minor in nature and effect. Such changes, however, require VSTL review and endorsement as well as EAC approval. Any proposed change not accepted as a de minimis change is a modification and shall be submitted for testing and review consistent with the requirements of this Manual.

3.4.2. De Minimis Change – Defined. A de minimis change is a change to a certified voting system's hardware, software, TDP, or data, the nature of which will not materially alter the

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system's reliability, functionality, capability, or operation. Under no circumstance shall a change be considered de minimis if it has reasonable and identifiable potential to impact the system's performance and compliance with the applicable voting Standard.

3.4.3. De Minimis Change – Procedure. Manufacturers who wish to implement a proposed de minimis change must submit it for VSTL review and endorsement and EAC approval. A proposed de minimis change may not be implemented as such until it has been approved in writing by the EAC.

3.4.3.1. VSTL Review. Manufacturers must submit any proposed de minimis change to a VSTL and the EAC for review and endorsement. The Manufacturer will provide the VSTL: (1) a detailed description of the change; (2) a description of the facts giving rise to or necessitating the change; (3) the basis for its determination that the change will not alter the system's reliability, functionality, or operation; (4) upon request of the VSTL, a sample voting system at issue or any relevant technical information needed to make the determination; (5) document any potential impact to election officials currently using the system and any required notifications to those officials; (6) a description of how this change will impact any relevant system documentation;; and (7) any other information the EAC or VSTL needs to make a determination. The VSTL will review the proposed de minimis change and make an independent determination as to whether the change meets the definition of de minimis change or requires the voting system to undergo additional testing as a system modification. If the VSTL determines that a de minimis change is appropriate, it shall endorse the proposed change as a de minimis change. If the VSTL determines that modification testing and certification should be performed, it shall reclassify the proposed change as a modification. Endorsed de minimis changes shall be forwarded to the Voting System's Project Manager for final approval. Rejected changes shall be returned to the Manufacturer for resubmission as system modifications.

3.4.3.2. VSTL Endorsed Changes. The VSTL shall forward to the EAC any change it has endorsed as de minimis. The VSTL shall forward its endorsement in a package that includes:

3.4.3.2.1. The Manufacturer's initial description of the de minimis change, a narrative of facts giving rise to, or necessitating, the change, and the determination that the change will not alter the system's reliability, functionality, or operation.

3.4.3.2.2. The written determination of the VSTL's endorsement of the de minimis change. The endorsement document must explain why the VSTL, in its engineering judgment, determined that the proposed de

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de minimis change met the definition in this section and otherwise does not require additional testing and certification.

3.4.3.3. *EAC Action.* The EAC will review all proposed de minimis changes endorsed by a VSTL. The EAC has sole authority to determine whether any VSTL endorsed change constitutes a de minimis change under this section. The EAC will inform the Manufacturer and VSTL of its determination in writing.

3.4.3.3.1. If the EAC approves the change as a de minimis change, it shall provide written notice to the Manufacturer and VSTL. The EAC will maintain copies of all approved de minimis changes and otherwise track such changes.

3.4.3.3.2. If the EAC determines that a proposed de minimis change cannot be approved, it will inform the VSTL and Manufacturer of its decision. The proposed change will be considered a modification and require testing and certification consistent with this Manual. De minimis changes cannot be made to voting systems currently undergoing testing; these changes are merely changes to an uncertified system and may require an Application update.

3.5. Changes to Voting Systems in the EAC Certification Program - Modification.

3.5.1. Modification – Defined. A modification is any change to a *previously EAC-certified voting system's* hardware, software, or firmware that is not a de minimis change. Any modification to a voting system will require testing and review by the EAC according to the requirements of Chapter 4 of this Manual.

3.5.2. Modification – Procedure. Once a VSTL has submitted a modification application, a Test Plan shall be created and submitted to the EAC for the Test Plan review process. Any modification shall be subject to full testing of the modifications (delta -testing) and those systems or subsystems altered or impacted by the modification (regression testing). The system will also be subject to system integration testing to ensure overall functionality. Once testing is completed, a Test Report will be generated by the VSTL and submitted to the EAC for approval.

3.5.3. EAC Approval. If the EAC approves the change as a modification, it shall provide written notice to the Manufacturer and VSTL and generate a Certificate of Conformance. The EAC will maintain copies of all approved modifications and otherwise track such changes

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3.5.4.EAC Denial. If the EAC determines that a modification cannot be approved, it will inform the VSTL and Manufacturer of its decision. The Denial of Certification appeals process would govern this testing campaign.

3.5.5.Modification Change – Effect of EAC Approval. EAC approval of a modification permits the Manufacturer to implement the proposed change (as identified, endorsed, and approved). Fielding a change not approved by the EAC is a basis for system Decertification.

3.6. Provisional, Pre-Election Emergency Modification. To address extraordinary pre-election emergency situations, the EAC has developed a special provisional modification process. This process is to be used **only** for the emergency situations indicated and **only** when there is a clear and compelling need for temporary relief until the regular certification process can be followed.

3.6.1.Purpose. The purpose of this section is to allow for a mechanism within the EAC Certification Program for Manufacturers to modify EAC-certified voting systems in emergency situations immediately before an election. This situation arises when a modification to a voting system is required and an election deadline is imminent, preventing the completion of the full certification process (and State and/or local testing process) prior to Election Day. In such situations, the EAC may issue a waiver to the Manufacturer authorizing it to make the modification without submission for modification testing and certification.

3.6.2.General Requirements. A request for an emergency modification waiver may be made by a Manufacturer *only in conjunction* with the State election official whose jurisdiction(s) would be adversely affected if the requested modification were not implemented before Election Day. Requests must be submitted at least 5 calendar days before an election. Only systems previously certified are eligible for such a waiver. To receive a waiver, a Manufacturer must demonstrate the following:

3.6.2.1. The modification is functionally or legally required; that is, the system cannot be fielded in an election without the change.

3.6.2.2. The voting system requiring modification is needed by State or local election officials to conduct a pending Federal election.

3.6.2.3. The voting system to be modified has previously been certified by the EAC.

3.6.2.4. The modification cannot be tested by a VSTL and submitted to the EAC for certification, consistent with the procedural requirements of this Manual, at least 30 days before the pending Federal election.

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- 3.6.2.5. Relevant State law requires Federal certification of the requested modification.
- 3.6.2.6. The Manufacturer has taken steps to ensure the modification will properly function as designed, is suitably integrated with the system, and otherwise will not negatively affect system reliability, functionality, or accuracy.
- 3.6.2.7. The Manufacturer (through a VSTL) has completed as much of the evaluation testing as possible for the modification and has provided the results of such testing to the EAC.
- 3.6.2.8. The emergency modification is required and otherwise supported by the Chief State Election Official seeking to field the voting system in an impending Federal election.

3.6.3. Request for Waiver. A Manufacturer's request for waiver shall be made in writing to the Decision Authority and shall include the following elements:

- 3.6.3.1. A signed statement providing sufficient description, background, information, documentation, and other evidence necessary to demonstrate that the request for a waiver meets each of the eight requirements stated in Section 3.6.2 above.
- 3.6.3.2. A signed statement from the Chief State Election Official requiring the emergency modification. This signed statement shall identify the pending election creating the emergency situation and attest that (1) the modification is required to field the system, (2) State law (citation) requires EAC action to field the system in an election, and (3) normal timelines required under the EAC Certification Program cannot be met.
- 3.6.3.3. A signed statement from a VSTL stating there is insufficient time to perform necessary testing and complete the certification process. The statement shall also state what testing the VSTL has performed on the modification to date, provide the results of such tests, and state the schedule for the completion of testing.
- 3.6.3.4. A detailed description of the modification, the need for the modification, how it was developed, how it addresses the need for which it was designed, its impact on the voting system, and how the modification will be fielded or implemented in a timely manner consistent with the Manufacturer's quality control program.
- 3.6.3.5. All documentation of tests performed on the modification by the Manufacturer, a laboratory, or other third party.
- 3.6.3.6. A stated agreement signed by the Manufacturer's representative agreeing to take the following action:

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- 3.6.3.6.1. Submit for testing and certification, consistent with Chapter 4 of this Manual, any voting system receiving a waiver under this section that has not already been submitted. This action shall be taken immediately.
- 3.6.3.6.2. Abstain from representing the modified system as EAC certified. The modified system has not been certified; rather, the originally certified system has received a waiver providing the Manufacturer a temporary exemption allowing its modification.
- 3.6.3.6.3. Submit a report to the EAC regarding the performance of the modified voting system within 60 days of the Federal election that served as the basis for the waiver. This report shall (at a minimum) identify and describe any (1) performance failures, (2) technical failures, (3) security failures, and/or (4) accuracy problems.

3.6.4. EAC Review. The EAC will review all waiver requests submitted in a timely manner and make determinations regarding the requests. Incomplete requests will be returned for resubmission with a written notification regarding its deficiencies.

3.6.5. Letter of Approval. If the EAC approves the modification waiver, the Decision Authority shall issue a letter granting the temporary waiver within five (5) business days of receiving a complete request.

3.6.6. Effect of Grant of Waiver. An EAC grant of waiver for an emergency modification is not an EAC certification of the modification. Waivers under this program grant Manufacturers leave to only temporarily amend previously certified systems without testing and certification for the specific election noted in the request. Without such a waiver, such action would ordinarily result in Decertification of the modified system (See Chapter 7). Systems receiving a waiver shall satisfy any State requirement that a system be nationally or federally certified. In addition—

3.6.6.1. All waivers are temporary and expire 60 days after the Federal Election for which the system was modified and the waiver granted.

3.6.6.2. Any system granted a waiver must be submitted for testing and certification. This shall be accomplished as soon as possible.

3.6.6.3. The grant of a waiver does not predispose the modified system to being granted a certification.

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- 3.6.7. Denial of Request for Waiver. A request for waiver may be denied by the EAC if the request does not meet the requirements noted above, fails to follow the procedure established by this section, or otherwise fails to sufficiently support a conclusion that the modification at issue is needed, will function properly, and is in the public interest. A denial of a request for an emergency modification by the EAC shall be final and not subject to appeal. Manufacturers may submit for certification, consistent with Chapter 4 of this Manual, modifications for which emergency waivers were denied.
- 3.6.8. Publication Notice of Waiver. The EAC will post relevant information relating to the temporary grant of an emergency waiver on its website. This information will be posted upon grant of the waiver and removed upon the waiver's expiration. This posting will include information concerning the limited nature and effect of the waiver.

4. Certification Testing and Technical Review

- 4.1. Overview.** This chapter discusses the procedural requirements for submitting a 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 an Initial Decision on Certification by the Decision Authority.
- 4.2. Policy.** Generally, to receive an initial determination on an EAC certification for a 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 an Initial Decision on Certification.
- 4.3. Certification Application.** The first step in submitting a voting system for certification is submission of an application package. The nature of the submission will determine what information is required from the manufacturer. Manufacturers must identify the nature of their submission by selecting one of two submission types:
- **New system.** A new system is a voting system not previously certified by the EAC. The application package must contain an application form, Summative Usability Testing Report and the Test Readiness Review.
 - **Modification.** A modification is a change to a system previously certified by the EAC. A modification does not include de minimis changes to the system. The application package must contain an application form, and updated Summative Usability Testing Report (if modification impacts usability).

Manufacturers **must** use the appropriate application form for submitting a voting system for testing. Any submission that is not on the EAC provided form will be rejected. In addition, a manufacturer must submit a complete certification application package and receive notification from the EAC that it is accepted prior to conducting any certification testing. Any testing occurring after the execution of a contract or agreement for certification testing (not including the Test Readiness Review) between a VSTL and a registered manufacturer is presumed to be certification testing.

- 4.3.1. Information on Application Form- New System.** The application provides the EAC with essential information at the outset of the certification process. This information includes:

4.3.1.1. *Manufacturer Information.* Identification of the Manufacturer (name and three-letter identification code).

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- 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 is 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, 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 Voting System/system overview.* Manufacturers must identify the system submitted for testing by providing its name and version number. If the system submitted was previously fielded, but the Manufacturer wishes to change its name or version number after receipt of EAC certification, it must provide identification information on both the past name or names and the new, proposed name.
- 4.3.1.4.1. Separate identification of each device that is part of the voting system. This includes all COTS components. A keyboard, mouse, accessibility peripheral or printer connected to a programmed voting device, as well as any optical drive, hard drive or similar component installed within it, are considered components of the voting device, not separate devices.
- 4.3.1.5. *Voting variations.* Manufactures must identify the voting variations supported by the voting system. These variations are described in Volume 1 Section 2.1.7.2 of the 2005 VVSG.
- 4.3.1.6. *Languages support.* The electronic display or printed document on which the user views the ballot must be capable of rendering an image of the ballot in any of the languages required by the Voting Rights Act of 1965, as amended.
- 4.3.1.7. *List of accessibility capabilities.* Manufacturers must provide a detailed explanation of the accessibility capabilities present in their system
- 4.3.1.8. *Device capacities and limits.*
- 4.3.1.9. *Coding Standard.* Each voting system component must have a single coding convention selected for every programming language used in the voting system. This information must include:
- System Component
 - Language Used
 - Specified Coding Convention

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- Source of Coding Convention

- 4.3.1.10. *Functional Diagrams*. Diagram(s) that display all components and how the components relate and interact in each configuration.
- 4.3.1.11. *Certification Number*. Manufacturers must provide their desired EAC certification number.
- 4.3.1.12. *Test Readiness Review*. Manufacturers must submit confirmation that a test readiness review has been completed by a VSTL per Section 4.5 of this manual.
- 4.3.1.13. *Date Submitted*. Manufacturers must note the date the application was submitted for EAC approval.
- 4.3.1.14. *Signature*. The Manufacturer must affix the signature of the authorized management representative.

4.3.2. Information on Application Form- Modification. If submitting an application for modification, the application must contain:

- 4.3.2.1. *Manufacturer Information*. Identification of the Manufacturer (name and three-letter identification code).
- 4.3.2.2. *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 is granted solely at the discretion of the Program Director and only upon demonstration of good cause.
- 4.3.2.3. *Voting System Standards Information*. Identification of the VVSG, including the document's date and version number, to which the Manufacturer wishes to have the identified voting system tested and certified.
- 4.3.2.4. Manufacturers must provide a detailed overview of the modification containing:
 - 4.3.2.4.1. Modified system components
 - 4.3.2.4.2. Component version numbers
 - 4.3.2.4.3. Detailed description of the change(s)
 - 4.3.2.4.4. Listing of all TDP documents impacted by the change

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4.3.2.4.5. Usability impact

4.3.2.4.6. Functional diagram(s) that display all components and how the components relate and interact in each configuration if impacted by modification.

4.3.2.5. *Certification Number.* Manufacturers must provide their desired EAC certification number.

4.3.2.6. *Date Submitted.* Manufacturers must note the date the application was submitted for EAC approval.

4.3.2.7. *Signature.* The Manufacturer must affix the signature of the authorized management representative.

4.3.3. Submission of the Application Package. Manufacturers must submit a copy of the application form described above and the required additional information. Manufacturers must submit the required information in a concise and efficient manner.

4.3.3.1. *Submission.* Applications and accompanying documentation must be submitted in Adobe PDF, Microsoft Word, or other electronic format as prescribed by the Program Director. Applications must be submitted via the VRT.

4.4. EAC Review. Upon receipt of a Manufacturer's application package, the EAC will review the submission for completeness and accuracy. The manufacturer will be notified of acceptance or rejection of the application package within five business days of the EAC's receipt of the application. If the application package is incomplete or inaccurate, 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.

4.5. **Test Readiness Review.** The Test Readiness Review (TRR) is the mechanism used by the EAC to ensure that test and evaluation resources are not committed to a voting system that is not ready for testing by a VSTL. The TRR determines if the submitted voting system and documentation are ready to enter certification testing. The TRR shall be completed by the VSTL and the subsequent Test Readiness Acknowledgement must be received by the EAC prior to the initiation of any certification testing. To assess the readiness of a voting system for certification testing, the VSTL shall review:

- **System Technical Data Package (TDP):** The voting system technical data package shall be reviewed to ensure all elements required by the VVSG are present.
- **System Components:** The VSTL shall review the submitted voting system to ensure all components required to configure the voting system as defined in the system TDP are delivered to the VSTL and appear to be operational and in good working order. System

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Component information should match the Manufacturer's application submitted to the EAC. All components submitted for testing must be equivalent to the final production model of the voting system in fit, form and function. Any component not available at the time of this review shall be delivered to the VSTL by the voting system manufacturer within 30 days of the initial TRR, or testing of the system will be halted and the EAC notified that the system is not ready for testing.

- **Preliminary Source Code Review:** The VSTL shall conduct a preliminary review of no less than 1% of the total lines of code (LOC) of every software package or product submitted for testing in order to ensure that the code is mature and does not contain any systematic non-conformities.
- **Mark Reading:** The system shall be able to read a fully filled mark if it is an optical scan system.
- **Summary of COTS components.** This summary should outline which components of the voting system are COTS products and shall be updated with each test campaign.

4.5.1. Test Readiness Notification. Upon completion of the TRR, the VSTL shall submit a signed statement to the EAC confirming that the voting system completed the TRR and the VSTL determined that the system is ready for certification testing to applicable Voluntary Voting System Guidelines.

4.5.2. Test Readiness Acknowledgement. Upon receipt of the Test Readiness Notification from the VSTL, the EAC shall issue an acknowledgement in writing stating that the VSTL and manufacturer may commence certification testing. This acknowledgement will be issued within 3 business days of receipt of the Notification. Systems not passing the Test Readiness Review will be remanded to the manufacturer for additional work as noted in the Test Readiness Notification.

4.6. **Test Plan.** The Manufacturer shall authorize the VSTL identified in its application to submit a test plan directly to the EAC. The test plan shall document the strategy and plan for testing each section of the applicable version of the VVSG and is to be used as a key tool to manage the test campaign and to verify that a voting system or component meets all VVSG and program defined requirements. The test plan shall be written with completeness and clarity that will allow all constituents to understand what testing will be conducted, to assess each group of VVSG requirements, and to assure the test plan will remain a living document throughout the life of the test campaign. The objective is to address each section of the VVSG in detail, and to clearly and succinctly describe the strategy and/or approach for testing each section.

4.6.1. 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. Care should be taken to clearly communicate the scope and requirements of testing, the test strategies, and the

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resource needs. This information identifies the purpose and boundaries of the test campaign:

- What will be tested,
- How it will be tested,
- What resources are needed for testing.

Because future events in any test campaign cannot be 100% predicted and controlled, the initial submission of the test plan is viewed as a baseline that enables periodic updates as events cause the plan to change. The VSTL is expected to update specific sections of the plan and resubmit as necessary to enable all stakeholders (Manufacturer, EAC, the public and states or jurisdictions) to understand and use the test plan. As the Target of Evaluation changes via Change Orders, component changes, or COTS products change, the test plan shall be updated since these changes may significantly impact the testing. These test plan changes might also alter the original schedule and may require an updated schedule be submitted with the revised test plan. The following are examples of instances that would likely require updating the test plan:

- Changes to the manufacturer's application for testing.
- Engineering Changes that alter the scope or function of the voting system.
- Information discovered during testing that change the strategy on how best to test the voting system.

For the test plan to be an effective, living document it needs to be clear and complete so stakeholders (VSTL project manager, VSTL testers, third party lab personnel, manufacturer, EAC, states and jurisdictions) can review the plan and understand what needs to be done to complete the project. In order to accomplish these goals the following general topics, which are further defined in the test plan outline later in the document, shall be included in the test plan.

- A detailed, comprehensive knowledge of the scope of evaluation
 - That each requirement or set of requirements is going to be evaluated for compliance
 - That all features, interfaces and characteristics of the individual devices and the system are evaluated to applicable standards
- Titles of test lab personnel who will be responsible for each aspect of the test campaign
- Detailed project schedule including what the critical path is for timely project completion

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- What test methods will be used to evaluate each section of the standards (more than one test method may be used for a section)
 - What is tested in document review
 - What is tested in source code review
 - What is operationally tested
 - What is tested at a component/subsystem level
 - What is tested at a system only level

4.6.2. Required Testing. Test plans shall be developed to ensure a voting system is functional and meets all requirements of the applicable, approved voting system standards. The highest level of care and vigilance is required to ensure comprehensive test plans are created. A test plan should ensure the voting system meets all applicable standards and test results, and other factual evidence of the testing, are clearly documented. System testing must meet all of the requirements of the VVSG. Generally, full testing will be required of any voting system applying for certification, regardless of previous certification history.

4.6.2.1. *New System*. A new system shall be subject to full testing of all hardware and software according to applicable voting system standards.

4.6.2.2. *System Not Previously EAC Certified*. A system not previously certified by the EAC shall be fully tested as a new system.

4.6.2.3. *Modification*. A modification to a previously EAC-certified voting system shall be tested in a manner necessary to ensure all changes meet applicable voting system standards and the modified system (as a whole) will function properly and reliably. Any system submitted for modification shall be subject to full testing of the modifications (delta-testing) and those systems or subsystems altered or impacted by the modification (regression testing). The system will also be subject to system integration testing to ensure overall functionality. The modification will be tested to the version or versions of the VVSG currently accepted for testing and certification by the EAC. This requirement, however, does not mean that the full system must be tested to such standards. If the system has been previously certified to a VVSG version deemed acceptable by the EAC (see Section 3.2.2.2), it may retain that level of certification with only the modification being tested to the current version(s).

4.6.2.3.1. *Modification Test Plans*. Test Plans submitted for modifications to previously EAC certified voting systems should be brief and structured to minimize test plan development and review, while enabling the EAC to maintain solid control of the certification process. The test plan shall *concisely* document the strategy and plan for testing those sections of the VVSG applicable to the modification

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or modifications submitted. The test plan shall be written with clarity that will allow all constituents to understand what testing will be conducted, to verify compliance to the VVSG standard, and to assure that the test plan will remain a living document throughout the life of the test campaign for the modification.

Care should be taken to clearly communicate the scope and requirements of testing, the test strategies, and the resource needs. In order to accomplish these goals the following general topics shall be included in all modification test plans.

- Complete definition of the baseline certified system.
- Detailed description of all the engineering changes and/or modifications to the certified system and why the modification was implemented.
- Cite the standard (VVSG) to which the original system was certified.
- Cite the standard (VVSG) to which the modified system is to be tested.
- Detailed description of which specific components, including version, are tested to which standard.
- An initial assessment of the impact the changes have on the current system and any previous certification.
- An initial assessment of the impact the changes have on TDP documents.
- A table or list indicating how each of the existing NOCs/RFIs will be addressed and why this plan is valid for this test campaign.
- Description of what will be tested (regression) to establish assurance that the change(s) have no adverse impact on the compliance, integrity, or the performance of the equipment.
- Description of what will be tested (regression) to establish assurance that the change(s) create no inconsistencies with the TDP and further are correctly documented and reflected in the TDP.
- A summary of the test methods that will be used to validate compliance. This summary may include existing, modified or new test methods, test cases or test sequences.
- Titles of test lab personnel who will be responsible for each aspect of the test campaign.
- Detailed project schedule including what the critical path is for timely project completion.

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4.6.2.4. *EAC Identified Systems.* Previously certified systems identified for retesting by the EAC (see Section 3.4.4) shall be tested as directed by the Program Director (after consultation with technical experts as necessary).

4.6.2.5. *Certification Upgrade.* A previously certified system submitted for testing to a new voting system standard (without modification) shall be tested in a manner necessary to ensure that the system meets all requirements of the new standard. The VSTL shall create a test plan that identifies the differences between the new and old standards and, based upon the differences, fully retest all hardware and software components affected.

4.6.3. Format. Test labs shall issue test plans consistent with the format outlined in Appendix D of this document and any applicable EAC guidance.

4.6.4. 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.

4.6.4.1. *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 VSTL for further action. Acceptable plans will be approved and appropriate notifications will be made. Although Manufacturers may direct test labs to begin testing before approval of a test plan, the Manufacturer bears the full risk that the test plan (and thus any tests performed) may be deemed unacceptable.

4.6.4.2. *Unaccepted Plans.* If a test 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 deficiencies 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.

4.6.4.3. *Effect of Approval.* Approval of a test plan is required before a test report may be filed. EAC approval of the Test Plan does not mean the EAC accepts responsibility that efforts described in the Test Plan will produce full and adequate testing to certify the system. The following discuss the meaning of EAC's approval of the Test Plan:

- Approval simply signifies that the tests proposed, if performed properly, appear to be sufficient to fully test the system. A final determination of the sufficiency of the testing is a global evaluation based on the test plan,

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test cases, and test report reviews, as well as the EAC's Quality Monitoring Process outlined in Ch. 8 of the Program Manual.

- Approval allows the VSTL to begin test case development, testing, and test report submittal.
- A test plan is approved based on information submitted; therefore it is unknown if relevant information was omitted that would affect the testing campaign.
- The test plan is a living document and is expected to change and be updated during various phases of the testing life cycle. A final version that reflects all of the testing completed (TDP, S/W, Hardware, Software etc) should be submitted to the EAC at the completion of testing. If this final "as run" test plan does not reflect all the testing required the EAC reserves the right to request further updates to the test plan and possibly additional testing.

4.7. 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.

4.7.1. 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 and 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 and shall include an updated Implementation Statement, functional diagram, and System Overview document, as needed.

4.7.2. 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 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. The manufacturer shall conduct a root cause analysis for each anomaly following the format provided by the EAC. This analysis must be

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provided to the VSTL and the EAC prior to the beginning the Test Report phase of the test campaign.

4.7.3. Deficiency Criteria. The EAC has developed a number of metrics to determine if voting systems under test by a VSTL shall be removed from the EAC's Testing and Certification Program and returned to a manufacturer for further readiness review and/or QA testing. These metrics include:

- The duration of time a system is in a VSTL for testing
- Significant delays/inactivity during a test campaign
- Type or significance of deficiencies found
- Total number of deficiencies, excluding source code coding convention deficiencies
- Defect Density Ratio
- A maximum number of errors in each of four categories, as defined later on in this section

Note: A deficiency, for the purposes of this document, is considered a non-conformity to the voting standard to which the voting system is being certified.

Voting systems shall be returned to a manufacturer for further readiness review and/or QA testing if any of the following conditions occur:

- Testing continues for more than 18 months without a test report being issued;
- Inactivity as a result of a manufacturer's decision or lack of action, which hinders the reasonable progression of the test campaign, that exceeds 90 calendar days;
- A significant deficiency caused by one or more major architectural flaws, requiring significant redesign to adequately eliminate the deficiency;
 - Two factors shall be considered in determining the significance of a deficiency:
 - The consequences of the deficiency to proper voting system function.
 - The extent of redesign necessary to fully remedy the deficiency. A full remedy goes beyond a superficial response to the symptoms, which leaves an underlying architectural flaw unaddressed, creating the potential for other manifestations of the deficiency to re-occur. A full remedy addresses the root cause of the deficiency and removes the cause of the problem that created the deficiency.
- The occurrence of 250 or more unique deficiencies, excluding coding convention deficiencies;
- Software defect density ratio (errors per 1000 lines of code) of
 - > 2.00 for voting systems of less than 250,000 lines of code

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- > 1.75 for voting systems between 250,000 and 500,000 lines of code
- > 1.50 for voting systems of more than 500,000 lines of code;

Additionally, the following four categories of deficiencies shall also be used to determine when to return a voting system to a manufacturer:

- **Category 1 (Fatal Deficiency):** A logic defect responsible for the incorrect recording, tabulation, or reporting of a vote.
 - Voting systems shall be returned to a manufacturer if one or more unique fatal deficiencies are discovered during one test campaign.¹
- **Category 2 (Severe Deficiency):** A deficiency that causes program execution to abort or causes a program not to perform properly or to produce unreliable results.
 - Voting systems shall be returned to a manufacturer if 10 or more unique severe deficiencies are discovered during one test campaign.
- **Category 3 (Significant Deficiency):** A deficiency that is not a Category 1 or Category 2 deficiency.
 - Voting systems shall be returned to a manufacturer if 200 or more unique significant deficiencies are discovered during one test campaign.
- **Category 4 (Insignificant Deficiency):** A minor deficiency, (including a source code coding convention deficiency, e.g. naming convention, control construct, coding or comment convention deficiency), a documentation deficiency, or a deficiency caused by a typographical error, and is not a Category 1, 2, or 3 deficiency.
 - Category 4 deficiencies are unlimited.

Two or more instances of a deficiency are considered to be the same unique deficiency if: 1) the outputs of each instance are identical; and 2) the same, specific remedy cures all instances of the deficiency. If a second deficiency is discovered that results in the same output as the first deficiency, but requires a different remedy to cure it, it shall be considered a second unique deficiency. Two similar deficiencies that require a modification within different areas of the source code to remedy the deficiency are to be considered separate and unique deficiencies.

¹ Note that for some requirements, for example the accuracy requirements, some errors are allowed, so long as they remain below a specified threshold. A voting system that had errors under the specified threshold would not be judged deficient because the system meets the requirements of the voting system standard.

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Note: The above categories of deficiencies describe conditions under which the voting system is returned to a manufacturer for further readiness review and/or QA testing. However, even if the thresholds for return to a manufacturer are not met, **all deficiencies** shall be corrected for a certificate to be issued.

The VSTL shall make the initial assignment for each deficiency into one of the four categories described above. The VSTL shall ensure that each deficiency is described and documented accurately in order to ensure the correct categorization of each deficiency. The EAC shall review the determinations of the VSTL and make the final determinations as to the categorization of deficiencies.

When a voting system is returned to a manufacturer for reasons described in this section, the manufacturer shall perform a thorough QA analysis to determine the reason for the deficiencies (root cause analysis). In addition, the manufacturer shall review its quality process and perform an analysis of how the identified deficiencies passed through its quality system. The manufacturer shall perform an extensive quality review to determine the extent of the QA issues and shall document the appropriate measures that are implemented to ensure that similar deficiencies do not occur again. Specifically, the manufacturer shall detail the specific changes made to its quality process and then the voting system to remedy the failures in the design and the quality process. All such documentation shall be submitted to the EAC for review. The manufacturer may re-apply for certification only after the EAC makes the determination that the QA analysis/review and the measures put in place, in both the quality system and the voting system design, are deemed adequate.

4.8. Test Report. Manufacturers shall enable VSTLs 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.

4.8.1. 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's website: www.eac.gov.

4.8.2. Format. Manufacturers shall ensure VSTLs submit reports consistent with the requirements in the VVSG and in the format outlined in Appendix E of this Manual. All information provided in the Test Report shall be provided in a clear, complete and unambiguous manner, so that a wide range of readers and users of the document will be able to understand the evaluation supporting a system's certification. In addition, the Test Report

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must show that all mandatory (shall) requirements in the standard have been tested and successfully completed by the voting system as a prerequisite to certification.

4.8.3. 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.

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

4.8.4.1. Recommend certification of the voting system consistent with the reviewed test report and forward it to the Decision Authority for action (Initial Decision); OR

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

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

4.9.1. An Initial Decision granting certification shall be processed consistent with Chapter 5 of this Manual.

4.9.2. An Initial Decision denying certification shall be processed consistent with Chapter 6 of this Manual.

5. Grant of Certification

- 5.1. Overview.** The grant of certification is the formal process through which the EAC acknowledges that a voting system has successfully completed conformance testing to an appropriate set of standards or guidelines. The grant of certification begins with the Initial Decision of the Decision Authority. This decision becomes final after the Manufacturer confirms 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 5.6), placed in an EAC-approved repository (see Section 5.7), and can be verified using the Manufacturer's system identification tools (see Section 5.8). After a certification is issued, the Manufacturer is provided a Certificate of Conformance and relevant information about the system is added to the EAC's website. Manufacturers with certified voting systems are responsible for ensuring that each system it produces is properly labeled as certified.
- 5.2. Applicability of This Chapter.** This chapter applies when the Decision Authority makes an Initial Decision to grant a certification to a voting system based on the materials and recommendation provided by the Program Director.
- 5.3. Initial Decision.** The Decision Authority shall make a written decision on all voting systems submitted for certification and issue the decision to a Manufacturer. When such decisions result in a grant of certification, the decision shall be considered preliminary and referred to as an *Initial Decision* pending required action by the Manufacturer. The Initial Decision shall:
- 5.3.1.State the preliminary determination reached (granting certification).
 - 5.3.2.Inform the Manufacturer of the steps that must be taken to make the determination final and receive a certification. This action shall include providing the Manufacturer with specific instructions, guidance, and procedures for confirming and documenting that the final certified version of the software meets the requirements for:
 - 5.3.2.1. Performing and documenting a trusted build pursuant to Section 5.6 of this chapter.
 - 5.3.2.2. Depositing software in an approved repository pursuant to Section 5.7 of this chapter.
 - 5.3.2.3. Creating and making available system verification tools pursuant to Section 5.8 of this chapter.
 - 5.3.3.Certification is not final until the Manufacturer accepts the certification and all conditions placed on the certification.

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5.4. Pre-Certification Requirements. Before an Initial Decision becomes final and a certification is issued, 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 5.6), has been delivered for deposit in an EAC-approved repository (see Section 5.7), and can be verified using Manufacturer-developed identification tools (see Section 5.8). The Manufacturer must provide the EAC documentation demonstrating compliance with these requirements.

5.5. 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. The primary function of a trusted build is to create a chain of evidence which allows stakeholders to have an approved model to use for verification of a voting system. Specifically, the build will:

5.5.1. Demonstrate that the software was built as described in the TDP.

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

5.5.3. Demonstrate that no elements other than those included in the TDP were introduced in the software build. The vendor or source from which each COTS product was procured must be included in the TDP.

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

5.5.5. Demonstrate that all COTS products are unmodified by requiring the VSTL to independently obtain all COTS products from an outside source.

5.6. Trusted Build Procedure. A trusted build is a three-step process: (1) the build environment is constructed, (2) the executable code and installation disks are created, and (3) the VSTL verifies that the trusted build was created and functions properly. The process may be simplified for a modification to a previously certified system. In each step, a minimum of two witnesses from different organizations are required to participate. These participants must include a VSTL representative and a manufacturer representative. Before creating the trusted build, the VSTL must complete the source code review of the software delivered from the manufacturer for compliance with the VVSG and must produce and record file signatures of all source code modules. Hashes shall use a current FIPS 140-2 level 1 or higher validated cryptographic module. After the trusted build is completed, there shall be no other “final” build. As the final step, the trusted build must be submitted to the EAC on two separate forms of media.

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

5.6.1.1. The device that will hold the build environment shall be completely erased, in accordance with Department of Defense or NIST approved methods. The VSTL shall ensure a complete erasure of the device.

5.6.1.2. The VSTL, with manufacturer observation, shall construct the build environment.

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

5.6.1.4. A clone of the build environment computer's main storage media shall be created. File signatures shall be taken by the VSTL for verification purposes.

5.6.2.Creating the Executable Code and Installation Disks. After successful source code review the VSTL shall:

5.6.2.1. Check the file signatures of the source code modules and build environment to ensure they are unchanged from their original form.

5.6.2.2. Load the source code onto the build environment and produce and record the file signature of the resulting combination.

5.6.2.3. Produce the executable code, and produce and record file signatures of the executable code. A clone of the computer's main storage on which the executable code was created shall be created, with the file signatures verified by the VSTL.

5.6.2.4. The VSTL shall create installation disk(s) from the executable code, and produce and record file signatures of the installation disk(s).

5.6.3.Verification of the Created Media. Upon completion of all the tasks outlined above, the VSTL shall perform the following tasks:

5.6.3.1. Install the executable code onto the system submitted for testing and certification before the completion of system testing.

5.6.3.2. Produce and record file signatures of each voting system file resident on each device.

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5.6.3.3. Verify that all media to be included in the Trusted Build and submitted to the EAC functions properly.

5.6.4. Trusted Build for Modifications. The process of building new executable code when a previously certified system has been modified can be somewhat simplified, if the build environment of the modification's original certification can be obtained.

5.6.4.1. The build environment used in the original certification is removed from storage and its file signature verified.

5.6.4.2. After source code review, the modified files are placed onto the verified build environment and new executable files are produced.

5.6.4.3. If the original build environment is unavailable or its file signatures cannot be verified against those recorded from the original certification, then the full process of creating the build environment must be performed. Further source code review may be required to validate that files are unmodified from the originally certified versions.

5.7. Depositing Software in the EAC Repository. After EAC certification has been granted, the VSTL's project manager, or an appropriate designee of the project manager, shall deliver for deposit the following elements into the EAC repository:

5.7.1. Description of items located on the deposit media, including a description of items to be deposited. This description should include:

5.7.1.1. Deposit size (physical and logical).

5.7.1.2. Utilities or third-party applications used to create the deposit such as OS utilities or third party software.

5.7.1.3. Encryption information, required passwords and/or crypto-keys or software programs required to access the deposited materials.

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

5.7.3. List identifying all known dependencies between components.

5.7.4. The final TDP of the voting system submitted for testing including all product bills of material, assembly drawings and schematics for the version being certified.

5.7.5. Build environment setup and configuration, including configuration settings for all compilers and third party components and whether the build process requires source code to be loaded to a specific location.

5.7.6. Build control files and/or scripts that control the build process.

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- 5.7.7. Executable code produced by the trusted build and the file signatures of all files produced.
 - 5.7.8. A detailed description of the Build Environment.
 - 5.7.9. Installation device(s) and the file signatures of the installation devices.
 - 5.7.10. Build instructions describing how to compile the escrow deposit and build executable code. (Include hardware descriptions and OS system requirements, particularly any custom settings required.
 - 5.7.11. Names of all required applications necessary to compile and build executable code, objects, dynamic libraries, etc.
 - 5.7.12. A working copy of the certified version of the EMS for the voting system.
 - 5.7.13. The computer on which the trusted build was created shall have its hard disk drive, or other applicable storage media that contained the trusted build, removed and submitted to the EAC.
 - 5.7.14. The Manufacturer must provide hashes to the EAC.
- 5.8. 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 deem appropriate or as required by the EAC. 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. VSTLs shall test system identification tools during the test campaign to make sure they function properly and as intended. System identification tools include the following examples:
- 5.8.1. Hardware is commonly identified by a 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 to the unit being verified.
 - 5.8.2. 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 the application files access during their operation. Note that the creation of such a CD requires having a file map of all nonvolatile files 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

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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.

- 5.9. Documentation.** Manufacturers shall provide documentation to the Program Director verifying 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 5.6 of this Manual, (2) deposited software consistent with Section 5.7 of this Manual, and (3) created and made available system identification tools consistent with Section 5.8 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.
- 5.10. 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 certification and providing the Manufacturer with a certification number and Certificate of Conformance.
- 5.11. Certification Document.** A Certificate of Conformance will be provided to Manufacturers for voting systems that have successfully met the standard of the EAC Certification Program. The document will serve as the Manufacturer's evidence that a particular system is certified to a particular set of voting system standards. The EAC certification and certificate apply only to the specific voting system configuration(s) identified, submitted and evaluated under the Certification 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 each of the various configurations of the voting system's components that may be represented as certified.
- 5.12. Certification Number and Version Control.** Each system certified by the EAC will receive a certification number unique to the system which will remain with the system until such time as the system is decertified, sufficiently modified, or tested and certified to newer standards. Generally, when a previously certified system is issued a new certification number, the Manufacturer will be required to change the system's name or version number.
- 5.12.1. New Voting Systems and Those Not Previously Certified by the EAC.** All systems receiving their first certification from the EAC will receive a new certification number. Manufacturers must provide the EAC with the voting system's name and version number during the application process (Chapter 4). Systems previously certified by another body may retain the previous system name and version number unless the system was modified

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before its submission to the EAC. Such modified systems must be submitted with a new naming convention (i.e., a new version number).

- 5.12.2. Modifications. Voting systems previously certified by the EAC and submitted for certification of a modification will generally receive a new voting system certification number. Such modified systems must be submitted with a new naming convention. In rare instances, the EAC may authorize retention of the same certification and naming convention when the modification is so minor that it does not represent a substantive change to the voting system. A request for such authorization must be made and approved by the EAC during the application phase of the program.
- 5.12.3. Certification Upgrade. Voting systems previously certified and submitted (without modification) for testing to a new version of the VVSG will receive a new certification number. In such cases, however, the Manufacturer will not be required to change the system name or version number.
- 5.12.4. De Minimis Change. Voting systems previously certified and implementing an approved De Minimis Change Order (per Chapter 3) will not be issued a new certification number and are not required to implement a new naming convention.
- 5.13. Publication of EAC Certification.** The EAC will publish and maintain on its website a list of all certified voting systems, including copies of all Certificates of Conformance, supporting test reports, and voting system and Manufacturer information. Such information will be posted immediately following the Manufacturer's receipt of the EAC Final Decision and Certificate of Conformance.
- 5.14. Representation of EAC Certification.** Manufacturers may not represent or imply a voting system is EAC certified unless it has received a Certificate of Conformance for the system. Statements regarding EAC certification in brochures, on websites, 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. Manufacturers must provide a copy of the Certificate and Scope of Certification document (found at www.eac.gov) to any jurisdiction purchasing an EAC certified system.
- 5.15. Mark of Certification Requirement.** Manufacturers shall post a Mark of Certification (Mark) on all EAC-certified voting systems produced. This mark or label must be securely attached to the system before sale, lease, or release to third parties. A mark of certification shall be made using an EAC-mandated template. These templates identify the version of the VVSG or VSS to which the system is certified. Use of this template shall be mandatory and the EAC will provide the Mark as a template in .jpg, .eps, .pdf, and .tif formats. Manufacturers who need access to the Mark pursuant to labeling an EAC certified voting system should send

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a formal request, via email or letter, to the Director. The request must include the specific voting system and version number(s), indication of where the Mark will be displayed on the voting system, and specification of the format in which the Mark will be reproduced. The EAC Mark must be displayed as follows:

- 5.15.1. The Manufacturer may use only the Mark of Certification that accurately reflects the certification held by the voting system as a whole. The certification of individual components or modifications shall not be independently represented by a Mark of Certification. In the event a system has components or modifications tested to various (later) versions of the VVSG, the system shall bear only the Mark of Certification of the standard to which the system (as a whole) was tested and certified (i.e. the lesser standard). Ultimately, a voting system shall only display the Mark of Certification of the oldest or least rigorous standard to which any of its components are certified.
 - 5.15.2. The Mark shall be placed on the outside of a unit of voting equipment in a place readily visible to election officials. The Mark need not be affixed to each of the voting system's components. The Mark shall be affixed to either (1) each unit that is used to cast ballots or (2) each unit that is used to tabulate ballots.
 - 5.15.3. All labels bearing the EAC Mark of Certification shall be designed and applied to voting equipment so that the labels will remain in place and be clear and legible during the customary conditions of distribution, storage, voting and routine testing and maintenance. The materials used for the label, printing and adhesives shall be reasonably expected to last the normal and projected lifespan of the voting system. If using an adhesive type label for the Mark of Certification, the label stock material shall be such that the label cannot be removed intact and reapplied. The label shall also be designed to resist the effects of cleaning agents specified by the manufacturer. The Mark of Certification shall remain clear and legible after the use of any recommended cleaning agents as specified by the manufacturer and adhesive labels, if used, shall not have become loose or curled at the edges.
 - 5.15.4. If the EAC determines a voting system is not in compliance with the VVSG, and the system has already been sold or otherwise distributed bearing the Mark of Certification, the EAC shall provide written notice to the Manufacturer. If the Manufacturer fails to take corrective action within 15 days of receipt of such notice, the EAC shall have the right to announce publicly that the voting system may no longer comply with its original certification, and may choose to initiate decertification actions as outlined in Chapter 7 of the *Manual*, and/or suspension of Manufacturer Registration as outlined in Section 2.6 of the *Manual*. Corrective action may include modification of the voting system to bring it into compliance with the VVSG, or removal of the Mark of Certification from the product.
- 5.16. Information to Election Officials Purchasing Voting Systems.** The user's manual or instruction manual for a certified voting system shall warn purchasers that any changes or

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modifications to the system not tested and certified by the EAC will void the EAC certification of the voting system. In cases in which the manual is only provided in a form other than paper, such as on a CD or via the Internet, the information required in this section may be included in this alternative format provided the election official can reasonably be expected to have the capability to access information in that format.

6. Denial of Certification

- 6.1. Overview.** When the Decision Authority issues an Initial Decision denying certification, 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 request that the Decision Authority reconsider the Initial Decision after the Manufacturer has had the opportunity to review the record and submit supporting written materials, data, and the rationale for its position. Finally, in the event reconsideration is denied, the Manufacturer may appeal the decision to the Appeal Authority.
- 6.2. Applicability of This Chapter.** This chapter applies when the Decision Authority makes an Initial Decision to deny an application for voting system certification based on the materials and recommendation provided by the Program Director.
- 6.3. Form of Decisions.** All agency determinations shall be made in writing. All materials and recommendations reviewed, or used by agency decision makers in making an official determination, shall be in written form.
- 6.4. 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 shall be 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.
- 6.5. 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:
- 6.5.1. The Program Director's report and recommendation to the Decision Authority.
 - 6.5.2. The Decision Authority's Initial Decision and Final Decision.
 - 6.5.3. Any materials gathered by the Decision Authority that serve as a basis for a certification determination.
 - 6.5.4. All relevant and allowable materials submitted by the Manufacturer upon request for reconsideration or appeal.
 - 6.5.5. All correspondence between the EAC and a Manufacturer after the issuance of an Initial Decision denying certification.
- 6.6. Initial Decision.** The Decision Authority shall make and issue a written decision for voting systems submitted for certification. When such decisions result in a denial of certification, the

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decision shall be considered preliminary and referred to as an *Initial Decision*. Initial 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.

6.6.1. Basis and Explanation. The Initial Decision of the Decision Authority shall accomplish:

6.6.1.1. Clearly state the agency's decision on certification.

6.6.1.2. Explain the basis for the decision, including:

6.6.1.2.1. The relevant facts.

6.6.1.2.2. The applicable EAC voting system standard.

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

6.6.1.2.4. The reasoning behind the decision.

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

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

6.6.2.1. Right to request reconsideration. The Manufacturer shall be informed of its right to request a timely reconsideration (see Section 6.9). Such request must be made within 10 calendar days of the Manufacturer's receipt of the Initial Decision.

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

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

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

6.8. Opportunity to Cure. Within 10 calendar days of receiving the EAC's Initial Decision on certification, a Manufacturer may request an opportunity to cure the defects identified in the

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EAC's Initial Decision. If the request is approved, a compliance plan must be created, approved, and followed. If this cure process is successfully completed, a voting system denied certification in an Initial Decision may receive a certification without resubmission.

- 6.8.1. Manufacturer's Request to Cure. The Manufacturer must request to cure in writing to the Program Director within 10 calendar days of receipt of an Initial Decision.
- 6.8.2. EAC Action on Request. The Decision Authority will review the request and notify the manufacturer in writing if the request to cure is approved or denied. 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. If the Manufacturer's request to cure is denied, it shall have 10 calendar days from the date it received such notice to request reconsideration of the Initial Decision pursuant to Section 6.6.2.
- 6.8.3. Manufacturer's Compliance Plan. Upon approval of the Manufacturer's request for an opportunity to cure, the manufacturer 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 (testing the system consistent with Section 4.4.2.3). 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.
- 6.8.4. 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 cure process. The Manufacturer shall have 10 calendar days from the date it receives such notice to request reconsideration of the Initial Decision pursuant to Section 6.6.2.
- 6.8.5. 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.
- 6.8.6. 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 an Initial Decision on Certification.

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6.9. Requests for Reconsideration. Manufacturers may request reconsideration of an Initial Decision.

6.9.1. Submission of Request. A request for reconsideration must be made within 10 calendar days of the Manufacturer's receipt of an Initial Decision. The request shall be made and sent to the Decision Authority.

6.9.2. Acknowledgment of Request. The Decision Authority shall acknowledge receipt of the Manufacturer's request for reconsideration. This acknowledgment shall either enclose all information that served as the basis for the Initial Decision (the record) or provide a date by which the record will be forwarded to the Manufacturer.

6.9.3. Manufacturer's Submission. Within 30 calendar days of receipt of the record, a Manufacturer may submit written materials in support of its position, including the following:

6.9.3.1. A written argument responding to the conclusions in the Initial Decision.

6.9.3.2. Documentary evidence relevant to the issues raised in the Initial Decision.

6.9.4. Decision Authority's Review of Request. The Decision Authority shall review and consider all relevant submissions of the Manufacturer. In making a decision on reconsideration, the Decision Authority shall also consider all documents that make up the record and any other documentary information he or she determines relevant.

6.10. Agency Final Decision. The Decision Authority shall issue a written Final Decision after review of the Manufacturer's request for reconsideration. This Decision shall be the decision of the agency and shall include:

6.10.1. The agency's determination on the application for certification.

6.10.2. The issues raised by the Manufacturer in its request for reconsideration.

6.10.3. All facts, evidence, and EAC voting system standards that serve as the basis for the decision.

6.10.4. The reasoning behind the determination.

6.10.5. Any additional documentary information identified and provided as an attachment that serves as a basis for the decision and was not part of the Manufacturer's submission or the prior record.

6.10.6. The Manufacturer notice of its right to appeal.

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6.11. Appeal of Agency Final Decision. A Manufacturer may, upon receipt of a Final Decision denying certification, issue a request for appeal.

6.11.1. Requesting Appeal. A Manufacturer may appeal a final decision of the agency by issuing a written request for appeal.

6.11.1.1. *Submission.* Requests must be submitted in writing to the Program Director, addressed to Chair of the U.S. Election Assistance Commission.

6.11.1.2. *Timing of Appeal.* The Manufacturer may request an appeal within 20 calendar days of receipt of the Agency Final Decision. Late requests will not be considered.

6.11.1.3. *Contents of Request.*

6.11.1.3.1. The request must clearly state the specific conclusions of the Final Decision it wishes to appeal.

6.11.1.3.2. The request may include additional written argument.

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

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

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

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

6.11.2.3. 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 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.

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

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6.12.1. Contents. The following are required to be contained in the Decision on Appeal:

- 6.12.1.1. The final determination of the agency.
- 6.12.1.2. The matters raised by the Manufacturer on appeal.
- 6.12.1.3. The reasoning behind the decisions.
- 6.12.1.4. Statement that the Decision on Appeal is final.

6.12.2. Determinations. The Appeal Authority may make one of two determinations.

- 6.12.2.1. *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 5.
- 6.12.2.2. *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 denied.

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

7. Decertification

7.1. Overview. Decertification is the process by which the EAC revokes a certification previously granted to a voting system. It is an important part of the Certification Program because it serves to ensure the standards of the program are followed and certified voting systems fielded for use in Federal elections maintain the same level of quality as those presented for testing. Decertification is a serious matter. Its use will significantly affect Manufacturers, State and local governments, the public, and the administration of elections. As such, the process for Decertification is complex. It is initiated when the EAC receives information that a voting system may not be in compliance with the Voluntary Voting System Guidelines or the procedural requirements of this Manual. Upon receipt of this information, the Program Director may initiate an Informal Inquiry to determine the credibility of the information. If the information is credible and suggests the system is non-compliant, a Formal Investigation will be initiated. If the results of the Formal Investigation demonstrate non-compliance, the Manufacturer will be provided a Notice of Non-Compliance. Before a final decision on Decertification is made, the Manufacturer will have the opportunity to remedy any defects identified in the voting system and present information for consideration by the Decertification Authority. A Decertification of a voting system may be appealed in a timely manner.

7.2. Decertification Policy. Voting systems certified by the EAC are subject to Decertification. Systems shall be decertified if (1) they are shown not to meet applicable Voluntary Voting System Guidelines standards, (2) they have been modified or changed without following the requirements of this Manual, or (3) the Manufacturer has otherwise failed to follow the procedures outlined in this Manual and the quality, configuration, or compliance of the system is in question. Systems will be decertified only after completion of the process outlined in this chapter.

7.3. Informal inquiry. An Informal Inquiry is the first step taken when information is presented to the EAC that suggests a voting system may not be in compliance with the Voluntary Voting System Guidelines standards or the procedural requirements of this Manual.

7.3.1. Informal Inquiry Authority. The authority to conduct an Informal Inquiry shall rest with the Program Director.

7.3.2. Purpose. The sole purpose of the Informal Inquiry is to determine whether a Formal Investigation is warranted. The outcome of an Informal Inquiry is limited to a decision on referral for investigation.

7.3.3. Procedure. Informal Inquiries do not follow a formal process.

7.3.3.1. Initiation. Informal Inquiries are initiated at the discretion of the Program Director. They may be initiated any time the Program Director receives

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attributable, relevant information that suggests a certified voting system may require Decertification. The information shall come from a source that has directly observed or witnessed the reported occurrence. Such information may be a product of the Certification Quality Monitoring Program (see Chapter 8). Information may also come from State and local election officials, voters or others who have used or tested a given voting system. The Program Director may notify a Manufacturer that an Informal Inquiry has been initiated, but such notification is not required. Initiation of an inquiry shall be documented through the creation of a Memorandum for the Record.

7.3.3.2. *Inquiry.* The Informal Inquiry process is limited to inquiries necessary to determine whether a Formal Investigation is required. In other words, the Program Director shall conduct such inquiry necessary to determine (1) the accuracy of the information obtained; and (2) if the information, if true, would serve as a basis for Decertification. The nature and extent of the inquiry process will vary depending on the source of the information. For example, an Informal Inquiry initiated as a result of action taken under the Certification Quality Monitoring Program will often require the Program Director merely to read the report issued as a result of the Quality Monitoring action. On the other hand, information provided by election officials or by voters who have used a voting system may require the Program Director (or assigned technical experts) to perform an in-person inspection or make inquiries of the Manufacturer.

7.3.3.3. *Conclusion.* An Informal Inquiry shall be concluded after the Program Director determines the accuracy of the information that initiated the inquiry and whether that information, if true, would warrant Decertification. The Program Director may make only two conclusions: (1) refer the matter for a Formal Investigation or (2) close the matter without additional action or referral.

7.3.4. Closing the Matter without Referral. If the Program Director determines, after Informal Inquiry, a matter does not require a Formal Investigation, the Program Director shall close the inquiry by filing a Memorandum for the Record. This document shall state the focus of the inquiry, the findings of the inquiry and the reasons a Formal Investigation was not warranted.

7.3.5. Referral. If the Program Director determines, after Informal Inquiry, a matter requires a Formal Investigation, the Program Director shall refer the matter in writing to the Decision Authority. In preparing this referral, the Program Director:

7.3.5.1. State the facts that served as the basis for the referral.

7.3.5.2. State the findings of the Program Director.

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7.3.5.3. Attach all documentary evidence that served as the basis for the conclusion.

7.3.5.4. Recommend a Formal Investigation, specifically stating the system to be investigated and the scope and focus of the proposed investigation.

7.4. Formal Investigation. A Formal Investigation is an official investigation to determine whether a voting system warrants Decertification. The end result of a Formal Investigation is a Report of Investigation.

7.4.1. Formal Investigation Authority. The Decision Authority shall have the authority to initiate and conclude a Formal Investigation by the EAC.

7.4.2. Purpose. The purpose of a Formal Investigation is to gather and document relevant information sufficient to make a determination on whether an EAC-certified voting system warrants Decertification consistent with the policy put forth in Section 7.2.

7.4.3. Initiation of Investigation. The Decision Authority shall authorize the initiation of an EAC Formal Investigation.

7.4.3.1. *Scope.* The Decision Authority shall clearly set the scope of the investigation by identifying (in writing) the voting system (or systems) and specific procedural or operational non-conformance to be investigated. The non-conformance to be investigated shall be set forth in the form of numbered allegations.

7.4.3.2. *Investigator.* The Program Director shall be responsible for conducting the investigation unless the Decision Authority appoints another individual to conduct the investigation. The Program Director (or Decision Authority appointee) may assign staff or technical experts, as required, to investigate the matter.

7.4.4. Notice of Formal Investigation. Upon initiation of a Formal Investigation, notice shall be given to the Manufacturer of the scope of the investigation, which shall include:

7.4.4.1. Identification of the voting system and specific procedural or operation non-conformance being investigated (scope of investigation).

7.4.4.2. An opportunity for the manufacturer to provide relevant information in writing.

7.4.4.3. An estimated timeline for the investigation.

7.4.5. Investigation. Investigations shall be conducted impartially, diligently, promptly, and confidentially and shall utilize appropriate techniques to gather the necessary information.

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- 7.4.5.1. *Fair and Impartial Investigation.* All Formal Investigations shall be conducted in a fair and impartial manner. All individuals assigned to an investigation must be free from any financial conflicts of interest.
- 7.4.5.2. *Diligent Collection of Information.* All investigations shall be conducted in a meticulous and thorough manner. Investigations shall gather all relevant information and documentation that is reasonably available. The diligent collection of information is vital for informed decision making.
- 7.4.5.3. *Prompt Collection of Information.* Determinations that may affect the administration of Federal elections must be made in a reasonable, yet expedited manner. The EAC's determinations on Decertification will affect the actions of State and local election officials conducting elections and as such, all investigations regarding Decertification must proceed with an appropriate sense of urgency.
- 7.4.5.4. *Confidential Collection of Information.* Consistent with Federal law, information pertaining to a Formal Investigation should not be made public until the Report of Investigation is complete. The release of incomplete and unsubstantiated information or predecisional opinions that may be contrary or inconsistent with the final determination of the EAC could cause public confusion or could unnecessarily negatively affect public confidence in active voting systems. Such actions could serve to impermissibly affect election administration and voter turnout. All predecisional investigative materials must be appropriately safeguarded.
- 7.4.5.5. *Methodologies.* Investigators shall gather information by means consistent with the four principles noted above. Investigative tools include (but are not limited to) the following:
- 7.4.5.5.1. Interviews. Investigators may interview individuals (such as State and local election officials, voters, or manufacturer representatives). All interviews shall be reduced to written form; each interview should be summarized in a statement that is reviewed, approved, and signed by the interviewee.
 - 7.4.5.5.2. Field audits.
 - 7.4.5.5.3. Manufacturer site audits.
 - 7.4.5.5.4. Written interrogatories. Investigators may pose specific, written questions to the Manufacturer for the purpose of gathering information relevant to the investigation. The Manufacturer shall

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respond to the queries within a reasonable timeframe (as specified in the request).

7.4.5.5.5. System testing. Testing may be performed in an attempt to reproduce a condition or failure that has been reported. This testing will be conducted at a VSTL as designated by the EAC.

7.4.5.6. *Report of Investigation*. The end result of a Formal Investigation is a Report of Investigation.

7.4.6. Report of Investigation. The Report of Investigation serves primarily to document: (1) all relevant and reliable information gathered in the course of the investigation; and (2) the conclusion reached by the Decision Authority.

7.4.6.1. *When Complete*. The report is complete and final when certified and signed by the Decision Authority.

7.4.6.2. *Contents of the Report of Investigation*. The following shall be included in the written report:

7.4.6.2.1. The scope of the investigation, identification of the voting system and specific matter investigated.

7.4.6.2.2. Description of the investigative process employed.

7.4.6.2.3. Summary of the relevant and reliable facts and information gathered in the course of the investigation.

7.4.6.2.4. All relevant and reliable evidence collected in the course of the investigation that documents the facts shall be documented and attached.

7.4.6.2.5. Analysis of the information gathered.

7.4.6.2.6. Statement of the findings of the investigation.

7.4.7. Findings, Report of Investigation. The Report of Investigation shall state one of two conclusions. After gathering and reviewing all applicable facts, the report shall find each allegation investigated to be either (1) substantiated or (2) unsubstantiated.

7.4.7.1. *Substantiated Allegation*. An allegation is substantiated if a preponderance of the relevant and reliable information gathered requires the voting system in question

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to be decertified (consistent with the policy set out in Section 7.2). If any allegation is substantiated a Notice of Non-Compliance shall be issued.

7.4.7.2. *Unsubstantiated Allegation.* An allegation is unsubstantiated if the preponderance of the relevant and reliable information gathered does not warrant Decertification (see Section 7.2). If all allegations are unsubstantiated, the matter shall be closed and a copy of the report forwarded to the Manufacturer.

7.4.8. Publication of Report. The report shall not be made public nor released to the public until final.

7.5. Effect of Informal Inquiry or Formal Investigation on Certification. A voting system's EAC certification is not affected by the initiation or conclusion of an Informal Inquiry or Formal Investigation. Systems under investigation remain certified until a final Decision on Decertification is issued by the EAC.

7.6. Notice of Non-Compliance. If an allegation in a Formal Investigation is substantiated, the Decision Authority shall send the Manufacturer a Notice of Non-Compliance. The Notice of Non-Compliance is not, itself, a Decertification of the voting system. The purpose of the notice is to (1) notify the Manufacturer of the non-compliance and the EAC's intent to Decertify the system; and (2) inform the Manufacturer of its procedural rights so that it may be heard prior to Decertification.

7.6.1. Noncompliance Information. The following shall be included in a Notice of Non-Compliance:

7.6.1.1. A copy of the Report of Investigation to the Manufacturer.

7.6.1.2. The non-compliance, consistent with the Report of Investigation.

7.6.1.3. Notification to the Manufacturer that if the voting system is not made compliant, the voting system will be decertified.

7.6.1.4. State the actions the Manufacturer must take, if any, to bring the voting system into compliance and avoid Decertification.

7.6.2. Manufacturer's Rights. The written Notice of Non-compliance shall also inform the Manufacturer of its procedural rights under the program, which include the following:

7.6.2.1. *Right to Present Information Prior to Decertification Decision.* The Manufacturer shall be informed of its right to present information to the Decision Authority prior to a determination of Decertification.

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7.6.2.2. *Right to Have Access to the Information That Will Serve as the Basis of the Decertification Decision.* The Manufacturer shall be provided the Report of Investigation and any other materials that will serve as the basis of an agency Decision on Decertification.

7.6.2.3. *Right to Cure System Defects Prior to the Decertification Decision.* A Manufacturer may request an opportunity to cure within 20 calendar days of its receipt of the Notice of Non-Compliance.

7.7. Procedure for Decision on Decertification. The Decision Authority shall make and issue a written Decision on Decertification whenever a Notice of Non-Compliance is issued. The Decision Authority will not take such action until the Manufacturer has had a reasonable opportunity to cure the non-compliance and submit information for consideration.

7.7.1. Opportunity to Cure. The Manufacturer shall have an opportunity to cure a non-conformant voting system in a *timely* manner prior to Decertification. A cure shall be considered timely when the process can be completed before the next Federal election, meaning that any proposed cure must be in place before *any* individual jurisdiction fielding the system holds a Federal election. The Manufacturer must request the opportunity to cure and if the request is approved, a compliance plan must be created, approved by the EAC, and adhered to. If the cure process is successfully completed, a Manufacturer may modify a non-compliant voting system, remedy procedural discrepancies, or otherwise bring its system into compliance without resubmission or Decertification.

7.7.1.1. *Manufacturer's Request to Cure.* Within 10 calendar days of receiving the EAC's Notice of Non-Compliance, a Manufacturer may request an opportunity to cure all defects identified in the Notice of Non-Compliance in a *timely* manner. The request must be sent to the Decision Authority and outline how the Manufacturer intends to modify the system, update the technical information (as required by Section 4.3.2), have a VSTL create a test plan and test the system, and obtain EAC approval before the next election for Federal office.

7.7.1.2. *EAC Action on Request.* The Decision Authority will review the request and approve it if the defects identified in the Notice of Non-Compliance may reasonably be cured before the next election for Federal office.

7.7.1.3. *Manufacturer's Compliance Plan.* Upon approval of the Manufacturer's request for an opportunity to cure, the Manufacturer shall submit a compliance plan to the Decision Authority for approval. This compliance plan must set forth the steps to be taken (including time frames) to cure all identified defects in a timely manner. The plan shall describe the proposed changes to the system, provide for modification of the system, update the technical information required by Section 4.3.2, include a test plan delivered to the EAC by the VSTL (testing the system

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consistent with Section 4.4.2.3), and provide for the VSTL's testing of the system and submission of the test report to the EAC for approval. The plan shall also include a schedule of periodic progress reports to the Program Director.²

7.7.1.4. *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.

7.7.1.5. *VSTL's Submission of the Compliance Plan Test Report.* The VSTL shall submit the test report created pursuant to the Manufacturer's EAC-approved Compliance Plan. The EAC shall review the test report and any other necessary or relevant materials. The report will be reviewed by the EAC in a manner similar to the procedures described in Chapter 4 of this Manual.

7.7.1.6. *EAC Decision on the System.* After receipt of the VSTL's test report, the Decision Authority shall issue a decision within 20 working days.

7.7.2. Opportunity to Be Heard. The Manufacturer may submit written materials in response to the Notice of Non-Compliance and Report of Investigation. These documents shall be considered by the Decision Authority when making a determination on Decertification. The Manufacturer shall ordinarily have 20 calendar days from the date it received the Notice of Non-Compliance (or in the case of a failed effort to cure, the termination of that process) to deliver its submissions to the Decision Authority. When warranted by public interest (because a delay in making a determination on Decertification would affect the timely, fair, and effective administration of a Federal election), the Decision Authority may request a Manufacturer to submit information within a condensed timeframe. This alternative period (and the basis for it) must be stated in the Notice of Non-Compliance and must allow the Manufacturer a reasonable amount of time to gather its submissions. Submissions may include the following materials:

7.7.2.1. A written argument responding to the conclusions in the Notice of Non-Compliance or Report of Investigation.

7.7.2.2. Documentary evidence relevant to the allegations or conclusions in the Notice of Non-Compliance.

² Manufacturers should also be cognizant of State certification procedures and local pre-election logic and accuracy testing. Systems that meet EAC guidelines will also be impacted by independent State and local requirements. These requirements may also prevent a system from being fielded, irrespective of EAC Certification.

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7.7.3. Decision on Decertification. The Decision Authority shall make an agency determination on Decertification.

7.7.3.1. *Timing.* The Decision Authority shall promptly make a decision on Decertification. The Decision Authority may not issue such a decision, however, until the Manufacturer has provided all of its written materials for consideration or the time allotted for submission (usually 20 calendar days) has expired.

7.7.3.2. *Considered Materials.* The Decision Authority shall review and consider all relevant submissions by the Manufacturer. To reach a decision on Decertification, the Decision Authority shall consider all documents that make up the record and any other documented information deemed relevant.

7.7.3.3. *Agency Decision.* The Decision Authority shall issue a written Decision on Decertification after review of applicable materials. This decision shall be the final decision of the agency. The following shall be included in the decision:

7.7.3.3.1. The agency's determination on the Decertification, specifically addressing the areas of non-compliance investigated.

7.7.3.3.2. The issues raised by the Manufacturer in the materials it submitted for consideration.

7.7.3.3.3. Facts, evidence, procedural requirements, and/or voting system standards (VVSG or VSS) that served as the basis for the decision.

7.7.3.3.4. The reasoning for the decision.

7.7.3.3.5. Documented information, identified and provided as an attachment, that served as a basis for the decision and that was not part of the Manufacturer's submission or the Report of Investigation.

7.7.3.3.6. Notification to the Manufacturer of its right to appeal.

7.8. Effect of Decision Authority's Decision on Decertification. The Decision Authority's Decision on Decertification is the determination of the agency. A Decertification is effective upon the EAC's Publication or Manufacturer's receipt of the decision (whichever is earlier). A Manufacturer that has had a voting system decertified may appeal that decision.

7.9. Appeal of Decertification. A Manufacturer may, upon receipt of a Decision on Decertification, request an appeal in a timely manner.

7.9.1. Requesting Appeal.

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7.9.1.1. *Submission.* Requests must be submitted by the Manufacturer in writing to the Chair of the U.S. Election Assistance Commission.

7.9.1.2. *Timing of Appeal.* The Manufacturer may request an appeal within 20 calendar days of receipt of the Agency Final Decision on Decertification. Late requests will not be considered.

7.9.1.3. *Contents of Request.* The following actions are necessary for the Manufacturer to write and submit a request for appeal:

7.9.1.3.1. Clearly state the specific conclusions of the Final Decision the Manufacturer wishes to appeal.

7.9.1.3.2. Include additional written argument, if any.

7.9.1.3.3. Do not reference or include any factual material not previously considered or submitted to the EAC.

7.9.1.4. *Effect of Appeal on Decertification.* The initiation of an appeal does not affect the decertified status of a voting system. Systems are decertified upon notice of Decertification in the agency's Decision on Decertification (see Section 7.8).

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

7.9.2.1. The Appeal Authority shall consist of two or more EAC Commissioners or other individual(s) designated by the Commissioners who has not previously served as an investigator, advisor, or decision maker in the Decertification process.

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

7.9.2.3. The decision 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 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.

7.9.3. Decision on Appeal. The Appeal Authority shall issue a written, final Decision on Appeal that shall be provided to the Manufacturer. Each Decision on Appeal shall be final and

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binding and no additional appeal shall be granted. The following shall be included in a Decision on Appeal:

- 7.9.3.1. The final determination of the agency.
- 7.9.3.2. The matters raised by the Manufacturer on appeal.
- 7.9.3.3. The reasoning behind the decision.
- 7.9.3.4. Statement that the decision on appeal is final.

7.9.4. Effect of Appeal.

7.9.4.1. *Grant of Appeal.* If a Manufacturer's appeal is granted in whole, the decision of the Decision Authority shall be reversed and the voting system shall have its certification reinstated. For purposes of this program, the system shall be treated as though it was never decertified.

7.9.4.2. *Denial of Appeal.* If a Manufacturer's appeal is denied in whole or in part, the decertification decision of the Decision Authority shall be upheld. Therefore, the voting system shall remain decertified and no additional appeal shall be made available.

7.10. Effect of Decertification. A decertified voting system no longer holds an EAC certification under the EAC Certification Program. For purposes of this Manual and the program, a decertified system will be treated as any other uncertified voting system. As such, the effects of Decertification are as follows:

- 7.10.1. The Manufacturer may not represent the voting system as certified.
- 7.10.2. The voting system may not be labeled with a Mark of Certification.
- 7.10.3. The voting system will be removed from the EAC's list of certified systems.
- 7.10.4. The EAC will notify State and local election officials of the Decertification.

7.11. Recertification. A decertified system may be resubmitted for certification. Such systems shall be treated as any other system seeking certification. The Manufacturer shall present an application for certification consistent with the instructions of this Manual.

8. Quality Monitoring Program

8.1. 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 consistency of the manufacturing process. The EAC's testing and certification process focuses on voting system design by ensuring that a representative sample of a system meets the technical specifications of the applicable EAC voting system standards. This process, commonly called 'type acceptance,' determines whether the representative sample submitted for testing meets the standards. 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. After a system is certified, the vendor assumes primary responsibility for compliance of the products produced. This level of compliance is accomplished by the Manufacturer's configuration management and quality control processes. The EAC's Quality Monitoring Program, as outlined in this chapter, however, provides an additional layer of quality control by allowing the EAC to perform manufacturing site reviews, carry out fielded system reviews, and gather information on voting system anomalies from election officials. These additional tools help ensure that voting systems continue to meet the EAC's voting system standards as the systems are manufactured, delivered, and used in Federal elections. These aspects of the program enable the EAC to independently monitor the continued compliance of fielded voting systems.

8.2. Purpose. The purpose of the Quality Monitoring Program is to ensure systems used by election jurisdictions are identical to those tested and certified by the EAC as well as to monitor the completeness and adequacy of testing with the desired performance in fielded voting systems. This level of quality control is accomplished primarily by identifying (1) potential quality problems in manufacturing, (2) uncertified voting system configurations, and (3) field performance issues with certified systems.

8.3. Manufacturer's Quality Control. The EAC's Quality Monitoring Program shall not be considered a substitute for the Manufacturer's own 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 and complementary process of quality control that works in tandem with the Manufacturer's efforts.

8.4. Quality Monitoring Methodology. Provides the EAC with four primary tools for assessing the level of effectiveness of the certification process and the compliance of fielded voting systems, which includes: (1) manufacturing site reviews; (2) fielded system reviews; (3) a means for receiving anomaly reports from the field; and (4) technical bulletins or product advisories created by the manufacturer.

8.5. Manufacturing Site Review. Facilities that produce certified voting systems will be reviewed periodically, at the discretion of the EAC, to verify that the system being manufactured,

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shipped, and sold is the same as the certified system. All registered Manufacturers must cooperate with such site reviews as a condition of program participation.

8.5.1. Notice. The site review may be conducted as either a pre-scheduled or as an impromptu visit, at the discretion of the EAC; however a Manufacturer will be given at least 24 hours notice. Scheduling and notice of site reviews will be coordinated with, and provided to, the manufacturing facility's representative and the Manufacturer's representative.

8.5.2. Frequency. At a minimum, at least one manufacturing facility of a registered Manufacturer shall be subject to a site review at least once every 4 years.

8.5.3. The Review. The production facility and production test records must be made available for review. When requested, production schedules must be provided to the EAC. Production or production testing may be witnessed by EAC representatives. If equipment is not being produced during the inspection, the review may be limited to production records. During the inspection, the Manufacturer must make available to the EAC's representative the Manufacturer's quality manual and other documentation sufficient to enable the representative to evaluate the following factors of the facility's production:

8.5.3.1. Manufacturing quality controls.

8.5.3.2. Final inspection and testing.

8.5.3.3. History of deficiencies or anomalies and corrective actions taken.

8.5.3.4. Equipment calibration and maintenance.

8.5.3.5. Corrective action program.

8.5.3.6. Policies on product labeling and the application of the EAC mark of certification.

8.5.4. Exit Briefing. EAC representatives will provide the manufacturing facility's representative with a verbal exit briefing regarding the preliminary observations of the review.

8.5.5. Written Report. A written report documenting the review will be drafted by the EAC and provided to the Manufacturer. The report will detail the findings of the review and identify actions that are required to correct any identified deficiencies.

8.6. Fielded System Review and Testing. Upon invitation, or with the permission of a State or local election authority, the EAC may, at its discretion, conduct a review of fielded voting systems. Such reviews will be conducted to ensure that a fielded system is comprised of the same configuration as what was certified by the EAC and that the proper Mark of Certification

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has been applied. This review may include the testing of a fielded system, if deemed necessary. Any anomalies found during this review will be provided to the appropriate election jurisdiction(s) and the Manufacturer. In addition, this review will evaluate the correspondence of the actual configuration and use of the voting system in the field with that envisioned during testing. If anomalies occur, these reviews seek to determine the direct cause, underlying root cause and appropriate remedial and/or preventative actions.

8.7. Field Anomaly Reporting. The EAC will collect information from election officials with fielded EAC-certified voting systems. Information on the actual field performance of a voting system shall be used as a means for assessing the effectiveness of the Certification Program and the manufacturing quality and version control. The EAC will provide a mechanism for election officials to provide input related to voting system anomalies.

8.7.1. Anomaly Report. Election officials may submit notices of voting system anomalies directly to the EAC in either WORD or .pdf format consistent with the requirements in Section 8.7.3 below.

8.7.2. Who May Report? State or local election officials who have experienced voting system anomalies in their jurisdiction may file anomaly reports. The individuals reporting must identify themselves and have firsthand knowledge of or official responsibility over the anomaly being reported. Anonymous or hearsay reporting will not be accepted.

8.7.3. What Is Reported? 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, which resulted in the system or component not functioning as intended or expected. Anomalies resulting from administrator error or procedural deficiencies shall not be considered anomalies for purposes under this chapter. The report shall include:

8.7.3.1. The official's name, title, contact information, and jurisdiction.

8.7.3.2. A description of the voting system that experienced the anomaly.

8.7.3.3. The date and location of the reported occurrence.

8.7.3.4. The type of election.

8.7.3.5. A description of the anomaly witnessed with applicable supporting documentation, if available.

8.7.4. Distribution of Reports. Reports which are deemed to contain credible information will be distributed to State and local election jurisdictions with similar systems, to the Manufacturer of the voting system, and to the VSTLs. Reports are deemed credible if:

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8.7.4.1. The definition of an anomaly under Section 8.7.3 was met;

8.7.4.2. A complete report, per the requirements of Sections 8.7.3.1 – 8.7.3.5 was submitted;

8.7.4.3. Information contained within the report was confirmed by others present at the time of the anomaly; and

8.7.4.4. Was verified by the relevant state's chief election official.

8.8. Manufacturer Created Technical Bulletins or Product Advisories. Manufacturers are required to provide any technical bulletins or product advisories issued on EAC certified voting systems to the EAC at the time they are issued to jurisdictions impacted by the advisory. EAC must receive these via email or postal mail within 24 hours of issuance.

8.9. Use of Quality Monitoring Information. Ultimately, the information the EAC gathers from manufacturing site reviews, fielded system reviews, and field anomaly reports will be used to improve the program and ensure the quality of voting systems. The Quality Monitoring Program is not designed to be punitive but to be focused on improving the process. Information gathered will be used to accomplish the following:

8.9.1. Identify areas for improvement in the EAC's Testing and Certification Program.

8.9.2. Improve the manufacturing quality and change control processes.

8.9.3. Increase voter confidence in voting technology.

8.9.4. Inform Manufacturers, election officials, and the EAC of issues associated with voting systems in a real-world environment.

8.9.5. Share information among jurisdictions that use similar voting systems.

8.9.6. Resolve problems associated with voting technology or manufacturing in a timely manner by involving Manufacturers, election officials, and the EAC.

8.9.7. Strengthen the coordination between certification testing and the desired performance in deployed voting systems.

8.9.8. Provide feedback to the EAC, National Institute of Standards and Technology (NIST), and the Technical Guidelines Development Committee (TGDC) regarding issues that may need to be addressed through a revision to the Voluntary Voting System Guidelines.

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8.9.9. Initiate an investigation when information suggests Decertification is warranted (see Chapter 7).

9. Requests for Interpretations

9.1. Overview. A Request for Interpretation is a means by which a registered Manufacturer or VSTL may seek clarification on a specific EAC voting system standard. An Interpretation is a clarification of the voting system standards and guidance on how to properly evaluate conformance to it. Suggestions or requests for modifications to the standards are provided by other processes. This chapter outlines the policy, requirements, and procedures for submitting a Request for Interpretation.

9.2. Policy. Registered Manufacturers or VSTLs may request the EAC to provide definitive Interpretation of EAC-accepted voting system standards when, in the course of developing or testing a voting system, the meaning of a particular standard becomes ambiguous or unclear. The EAC may self-initiate such a request when it agents identifies 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. An Interpretation does not amend voting system standards, but serves only to clarify existing standards.

9.3. 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, in the process of developing or testing a voting system a means for resolving the meaning of a VVSG requirement. A Request for Interpretation must: (1) be submitted by a registered manufacturer or VSTL; (2) request interpretation of an applicable VVSG requirement; (3) present an actual controversy; and (4) seek clarification on a matter of unsettled ambiguity.

9.3.1. 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.

9.3.2. Applicable Standard. A Request for Interpretation is limited to queries regarding requirements contained in EAC VVSG. A Manufacturer or VSTL may only submit a Request for Interpretation on a version of EAC VVSG to which the EAC currently offers certification.

9.3.3. 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 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 during the development or testing of a voting system. A factual controversy exists when an attempt to apply a specific section of the VVSG to a specific system or piece of technology creates ambiguity.

9.3.4. Unsettled, Ambiguous Matter. Requests for Interpretation must involve actual controversies that have not been previously clarified.

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9.3.4.1. *Actual Ambiguity.* A proper Request for Interpretation must contain an actual ambiguity. The interpretation process is not a means for challenging a clear VVSG requirement or to recommend changes to requirements. An ambiguity arises (in applying a voting system standard to a specific technology) when one of the following occurs:

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

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

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

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

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

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

9.4. Procedure for Submitting a Request for Interpretation. A Request for Interpretation shall be made in writing to the Program Director. EAC interpretations are based upon, and limited to, the facts presented; therefore all requests should be complete and as detailed as possible. . Failure to provide complete information may result in an Interpretation that is non-applicable and ultimately immaterial to the issue at hand. The following shall be included in a Request for Interpretation:

9.4.1. Establish Standing To Make the Request. To make a request, one must meet the requirements identified in Section 9.3. 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 voting system standard; (3) presenting an actual factual controversy; and (4) seeking clarification on a matter of unsettled ambiguity.

9.4.2. Identify the EAC VVSG Requirement To Be Clarified. The request must identify the specific VVSG requirement or requirement(s) to which the requestor seeks clarification. The request

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must state the version of the voting system standards at issue (if applicable) and quote and correctly cite the applicable requirement(s).

9.4.3. State the Facts Resulting in Ambiguity. The request must provide the facts associated with the voting system technology that resulted in the ambiguity. The requestor must provide all necessary information in a clear, concise manner. Any Interpretation issued by the EAC will be based on the facts provided.

9.4.4. Identify the Ambiguity. The request must identify the ambiguity it seeks to resolve and shall:

9.4.4.1. Clearly state a concise question.

9.4.4.2. Be related to, and reference, the voting system standard and voting system technology.

9.4.4.3. Be limited to a single issue. Each question or issue arising from an ambiguous requirement must be stated separately. Compound questions are unacceptable. If multiple issues exist, they should be presented as individual, numbered questions.

9.4.4.4. Be stated in a way that can ultimately be answered *yes* or *no*.

9.4.5. 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 and it should provide the basis and reasoning behind the proposed interpretation.

9.5. EAC Action on a Request for Interpretation. Upon receipt of a Request for Interpretation, the EAC shall:

9.5.1. Review the Request. The Program Director shall review the request to ensure it is complete, clear, and meets the requirements of Section 9.3. Upon review, the Program Director may:

9.5.1.1. *Request Clarification*. If the Request for Interpretation is incomplete, or additional information is otherwise required, the Program Director may request the Manufacturer or VSTL clarify its Request for Interpretation and identify any additional information required.

9.5.1.2. *Reject the Request for Interpretation*. If the Request for Interpretation does not meet the requirements of Section 9.3, 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.

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9.5.1.3. *Notify Acceptance of the Request.* If the Request for Interpretation is accepted, 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 and the notice of acceptance shall state the issues accepted for interpretation.

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

9.5.3. Interpretation. The Program Director 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 shall be included in the Interpretation:

9.5.3.1. The question or questions investigated.

9.5.3.2. The relevant facts that served as the basis of the Interpretation.

9.5.3.3. The voting system standards interpreted.

9.5.3.4. The conclusion reached.

9.5.3.5. The effect of an Interpretation (see Section 9.6).

9.6. 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 individual requirements of EAC VVSG.

9.7. Library of Interpretations. To better serve Manufacturers, VSTLs and those interested in the EAC's voting system standards, the Program Director shall publish EAC Interpretations. All proprietary information contained in an Interpretation will be redacted before publication consistent with Chapter 10 of this Manual. The library of published Interpretations is posted on the EAC's website: www.eac.gov.

10. Release of Certification Program Information

10.1. Overview. Manufacturers participating in the Certification Program will be required to provide the EAC with a variety of documents. In general, these documents will be releasable to the public and, 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 the 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.

10.2. EAC Policy on the Release of Certification Program Information. The EAC seeks to make its Voting System Testing and Certification Program as transparent as possible. The agency believes 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).

10.2.1. 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 the Act.

10.2.2. 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's website (www.eac.gov). The published documents will cover the full spectrum of the program, including information pertaining to:

10.2.2.1. Registered Manufacturers;

10.2.2.2. VSTL Test Plans;

10.2.2.3. VSTL Test Reports;

10.2.2.4. Agency decisions;

10.2.2.5. Denials of Certification;

10.2.2.6. Issuance of Certifications;

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- 10.2.2.7. Information on a certified voting system's operation, components, features or capabilities;
- 10.2.2.8. Appeals;
- 10.2.2.9. Reports of investigation and Notice of Non-compliance;
- 10.2.2.10. Decertification actions;
- 10.2.2.11. Manufacturing facility review reports;
- 10.2.2.12. Official Interpretations (VVSG); and
- 10.2.2.13. Other topics as determined by the EAC.

10.2.3. 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).

10.3. Trade Secrets. A secret, commercially valuable plan, process, or device 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.

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

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

10.3.2. The following examples are likely not trade secrets:

- 10.3.2.1. Information pertaining to a finished product's capabilities or features.

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10.3.2.2. Information pertaining to a finished product's performance.

10.3.2.3. Information regarding product components that would not reveal any commercially valuable information regarding production.

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

10.4.1. *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*.

10.4.2. *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.

10.5. 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:

10.5.1. 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.

10.5.2. 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 action:

10.5.2.1. 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.

10.5.2.2. 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

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submitter and allow them an opportunity to submit their position on the issue prior to release of the information. The submitter shall respond consistent with Section 10.7.1 below.

10.5.3. 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.

10.6. 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 their 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.

10.6.1. Initial Submission of Information. When a Manufacturer submits 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 the following:

10.6.1.1. *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.

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

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

10.6.1.1.3. 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.

10.6.1.2. *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.

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10.6.2. Notification of Potential Release. In the event a Manufacturer is notified that the EAC is considering the release of information that may be protected, the Manufacturer shall:

10.6.2.1. Respond to the notice within 15 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 15-day deadline. Manufacturers that do not respond in a timely manner will be viewed as not objecting to release.

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

10.6.2.2.1. There is no objection to release; OR

10.6.2.2.2. 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 10.7.1.

10.7. 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, individual information and 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:

10.7.1. Social Security Number.

10.7.2. Bank account numbers.

10.7.3. Home address.

10.7.4. Home phone number.

Appendix A

Manufacturer Registration Application Form

Available in electronic format at www.eac.gov

Appendix B

Application for Voting System Testing Form

Available in electronic format at www.eac.gov

Appendix C

Voting System Test Plan Outline

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This outline is provided solely as an aid to test plan development. Note that these items may change significantly, depending on the specific project planned.

1 Introduction

- 1.1 References
- 1.2 Terms and Abbreviations
- 1.3 Testing Responsibilities
 - 1.3.1 Project schedule with
 - 1.3.1.1 Owner assignments
 - 1.3.1.2 Test case development
 - 1.3.1.3 Test procedure development and validation
 - 1.3.1.4 3rd party tests
 - 1.3.1.5 EAC and Manufacturer dependencies
- 1.4 Target of Evaluation Description
 - 1.4.1 System Overview
 - 1.4.2 Block diagram
 - 1.4.3 System Limits
 - 1.4.4 Supported Languages
 - 1.4.5 Supported Functionality
 - 1.4.5.1 Standard VVSG Functionality
 - 1.4.5.2 Manufacturer Extensions

2. Pre-Certification Testing and Issues

- 2.1 Evaluation of prior VSTL testing
 - 2.1.1 Reason for testing and results, listing of modifications from previous to current system
- 2.2 Evaluation of prior non-VSTL testing
 - 2.2.1 Reason for testing and results, states, other 3rd party entities
- 2.3 Known Field Issues
 - 2.3.1 Listing of relevant issues uncovered during field operations

3 Materials Required for Testing

- 3.1 Software
- 3.2 Equipment
- 3.3 Test Materials
- 3.4 Deliverable Materials

4 Test Specifications

- 4.1 Requirements
 - 4.1.1 Mapping of requirements to equipment type and features
 - 4.1.2 Rationale for why some requirements are NA for this campaign
- 4.2 Hardware Configuration and Design

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4.3 Software System Functions

4.4 Test Case Design

4.4.1 Hardware Qualitative Examination Design

4.4.1.1 Mapping of requirements to specific interfaces

4.4.2 Hardware Environmental Test Case Design

4.4.3 Software Module Test Case Design and Data

4.4.4 Software Functional Test Case Design and Data

4.4.5 System-level Test Case Design

4.5 Security functions

4.6 TDP evaluation

4.7 Source Code review

4.8 QA & CM system review

5 Test Data

5.1 Data Recording

5.2 Test Data Criteria

5.3 Test Data Reduction

6 Test Procedure and Conditions

6.1 Facility Requirements

6.2 Test Set-up

6.3 Test Sequence

7 Test Operations Procedures

Proprietary Data

Appendix D

Voting System Modification Test Plan Outline

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Test Plans submitted for modifications to previously EAC certified voting systems should be brief and structured to minimize test plan development and review, while enabling the EAC to maintain solid control of the certification process. The test plan shall *concisely* document the strategy and plan for testing those sections of the VVSG applicable to the modification or modifications submitted. The test plan shall be written with clarity that will allow all constituents to understand what testing will be conducted, to verify compliance to VVSG requirements, and to assure that the test plan will remain a living document throughout the life of the test campaign for the modification.

This outline is provided solely as an aid to test plan development. Note that these items may change significantly, depending on the specific project planned.

1. Introduction

1.1 Description and Overview of EAC certified system being modified

1.1.1 Complete definition of the baseline certified system.

1.1.2 Detailed description of the engineering changes and/or modifications to the certified system and why the modification was implemented.

1.1.3 An initial assessment of the impact that the modifications have on the system and past certification.

1.1.4 Description of what will be regression tested to establish assurance that the modifications have no adverse impact on the compliance, integrity or performance of the system.

1.2 References

1.3 Terms and Abbreviations

1.4 Project Schedule

1.5 Scope of testing

1.5.1 Block diagram (if applicable)

1.5.2 System limits (if applicable)

1.5.3 Supported Languages

1.5.4 Supported Functionality

1.5.5 VVSG

1.5.6 RFIs

1.5.7 NOCs

2. Pre-Certification Testing and Issues

2.1 Evaluation of prior VSTL testing

2.2 Evaluation of prior non-VSTL testing (if applicable)

2.3 Known Field Issues (if applicable)

3. Materials Required for Testing

3.1 Software

3.2 Equipment

EAC Voting System Testing and Certification Program Manual, Version 2.0

- 3.3 Test Materials
- 3.4 Deliverable
- 3.5 Proprietary Data

- 4. Test Specifications
 - 4.1 Requirements
 - 4.1.1 Mapping of requirements to equipment type and features
 - 4.1.2 Rationale for why some requirements are NA for this campaign
 - 4.2 Hardware Configuration and Design (if applicable)
 - 4.3 Software System Functions (if applicable)
 - 4.4 Test Case Design
 - 4.4.1 Hardware Qualitative Examination Design (if applicable)
 - 4.4.2 Hardware Environmental Test Case Design (if applicable)
 - 4.4.3 Software Module Test Case Design and Data (if applicable)
 - 4.4.4 Software Functional Test Case Design and Data (if applicable)
 - 4.4.5 System-level Test Case Design
 - 4.5 Security functions (if applicable)
 - 4.6 TDP evaluation
 - 4.7 Source Code review (if applicable)
 - 4.8 QA & CM system review

- 5. Test Data
 - 5.1 Test Data Recording
 - 5.2 Test Data Criteria

- 6. Test Procedure and Conditions
 - 6.1 Test Facilities
 - 6.2 Test Set-up
 - 6.3 Test Sequence
 - 6.4 Test Operations Procedure

Appendix E

Voting System Test Report Outline

EAC Voting System Testing and Certification Program Manual, Version 2.0

Test Reports produced by VSTLs shall follow the format outlined below. Deviations from this format may be used upon prior written approval of the Program Director.

1. System Identification and Overview
 2. Certification Test Background
 - 2.1 Revision History
 - 2.2 Implementation Statement
 3. Test Findings and Recommendation
 - 3.1 Summary Finding and Recommendation
 - 3.2 Reasons for Recommendation to Reject
 - 3.3 Anomalies
 - 3.4 Correction of Deficiencies
- Appendix A. Additional Findings
- Appendix B. Warrant of Accepting Change Control Responsibility
- Appendix C. Trusted Build
- Appendix D. Test Plan
- Appendix E. State Test Reports

Appendix F

Voting System Modification Test Report Outline

EAC Voting System Testing and Certification Program Manual, Version 2.0

Test Reports produced by VSTLs shall follow the format outlined below. Deviations from this format may be used upon prior written approval of the Program Director.

1. Introduction

1.1 Description of EAC certified system being modified

1.1 References

1.2 Terms and Abbreviations

2. Certification Test Background

2.1 Revision History

2.2 Scope of testing

2.2.1 Modification Overview

2.2.1.1 Detailed list of changes

2.2.2 Block diagram (if applicable)

2.2.3 Supported Languages

2.2.4 VVSG

2.2.5 RFIs

2.2.6 NOCs

3. Test Findings and Recommendation

3.1 Summary Finding and Recommendation

3.1.1 Hardware Testing

3.1.2 System Level Testing

3.1.3 Source code review

3.2 Anomalies and Resolutions

3.3 Deficiencies and Resolutions

4. Recommendation for Certification

Appendix A. Additional Findings

Appendix B. Deficiency report (if applicable)

Appendix C. Anomaly report (if applicable)

Appendix D. Test Plan

Appendix E. State Test Reports (if applicable)

EXHIBIT D - Pro V&V Renewed Certificate of Accreditation



United States Election Assistance Commission

Certificate of Accreditation

Pro V&V, Inc. Huntsville, Alabama

is recognized by the U.S. Election Assistance Commission for the testing of voting systems to the 2005 and 2015 Voluntary Voting Systems Guidelines (VVSG 1.0 & 1.1) under the criteria set forth in the EAC Voting System Testing and Certification Program and Laboratory Accreditation Program. Pro V&V is also recognized as having successfully completed assessments by the National Voluntary Laboratory Accreditation Program for conformance to the requirements of ISO/IEC 17025 and the criteria set forth in NIST Handbooks 150 and 150-22.

Original Accreditation Issued on: 2/24/2015

*Accreditation remains effective until revoked
by a vote of the EAC pursuant to 52 U.S.C. §
20971(c)(2).*

Mona Harrington

Date: 2/1/21

*Mona Harrington
Executive Director, U.S. Election Assistance Commission*

EAC Lab Code: **1501**

EXHIBIT E – SLI Compliance Renewed Certificate of Accreditation



United States Election Assistance Commission

Certificate of Accreditation

SLI Compliance
Division of Gaming Laboratories International, LLC
Wheat Ridge, Colorado

is recognized by the U.S. Election Assistance Commission for the testing of voting systems to the 2005 and 2015 Voluntary Voting Systems Guidelines (VVSG 1.0 & 1.1) under the criteria set forth in the EAC Voting System Testing and Certification Program and Laboratory Accreditation Program. SLI Compliance is also recognized as having successfully completed assessments by the National Voluntary Laboratory Accreditation Program for conformance to the requirements of ISO/IEC 17025 and the criteria set forth in NIST Handbooks 150 and 150-22.

Original Accreditation Issued on: 2/28/2007

Accreditation remains effective until revoked by a vote of the EAC pursuant to 52 U.S.C. § 20971(c)(2).

Mona Harrington

Date: 2/1/21

Mona Harrington
Executive Director, U.S. Election Assistance Commission

EAC Lab Code: **0701**

EXHIBIT F – NTS Huntsville Renewed Certificate of Accreditation



United States Election Assistance Commission

U.S. Election Assistance Commission

VSTL

Certificate of Accreditation

**Wyle Laboratories, Inc.
Huntsville, Alabama**

is recognized by the U.S. Election Assistance Commission for the testing of voting systems to the 2005 Voluntary Voting Systems Guidelines under the criteria set forth in the EAC Voting System Testing and Certification Program and Laboratory Accreditation Program. Wyle is also recognized as having successfully completed assessments by the National Voluntary Laboratory Accreditation Program for conformance to the requirements of ISO/IEC 17025 and the criteria set forth in NIST Handbooks 150 and 150-22.

Effective Through

April 27, 2012

Donetta Davidson Date: 5/04/10

Chair, U.S. Election Assistance Commission

EAC Lab Code: **0704**

**EXHIBIT G – NTS Huntsville Notification of Acquisition of
Wyle Laboratories**



March 5, 2014

**US Election Assistance Commission
Voting System Testing & Certification Program
1201 New York Ave., NW, Suite 300
Washington, DC 2005**

Attention: Mr. Brian Hancock

**Subject: National Technical Systems (NTS) Completes Acquisition of
Wyle Laboratories, Inc.**

Dear Mr. Hancock:

We are pleased to announce that NTS, the leading independent test, inspection, and certification company in the United States, has acquired the testing business of Wyle Laboratories. This acquisition is an exciting part of the significant investments we are making in the capabilities we are able to deliver customers, all in support of our mission to be the natural first choice for the world class companies we serve.

Wyle's three testing laboratories – located in Huntsville, Alabama; El Segundo, California; and San Bernardino, California – will be renamed, joining NTS' national network of over 25 labs. In particular, this combination, and the significant technological, personnel, and capital investments we are making in support of it, will create extraordinary centers of excellence in Alabama and Southern California with truly exceptional capabilities to serve your team's needs.

The NTS management team is, of course, fully committed to not only providing, but also enhancing, the high quality performance and superior customer service you have become accustomed to over the past 60 years. You will continue to interface with the same people as you have in the past, but you will also notice upgraded technologies and capabilities and be provided access to our growing network of NTS facilities across the United States. We expect the transition to be seamless, and – most importantly – note that all of your projects will continue as planned without interruption.

We are enthusiastic about the investments we are making in being your natural first choice for test, inspection, and certification services and look forward to sharing the exciting things we're doing to further enhance the leading network of capabilities we'll be making available to the



www.nts.com



leading customers we serve. We sincerely appreciate your business and are always here in support of your team; if you have any questions, please don't hesitate to contact me, Keith Wilson, at 256/719-4227 or your Contracts representative (Neil Bunn at 256/716-4120, Megan Toomey at 256/716-4276, Shannon Roden at 256/716-4361, or Dawn Bates at 256/716-4590).

Sincerely,

A handwritten signature in black ink, appearing to read "Keith Wilson".

Keith Wilson
Vice President & General Manager
NTS Huntsville, formerly Wyle Laboratories

A handwritten signature in black ink, appearing to read "Bill McGinnis".

Bill McGinnis
President and CEO
NTS

EXHIBIT H – NTS Huntsville Voluntary Withdrawal



March 13, 2017

U.S. Election Assistance Commission

1335 East West Highway
Suite 4300
Silver Spring, MD. 20910

Subject: NTS is voluntarily withdrawing from the role and responsibility as an independent Voting System Test Lab (VSTL)

To whom it may concern:

This letter serves as the official notification to EAC, that NTS is voluntarily withdrawing from the role and responsibility as an independent Voting System Test Lab (VSTL), as accredited by the EAC.

NTS will continue to provide support for all past vendors requiring data collection until March 31, 2017.

NTS will continue to provide hardware testing for any and all vendors, test labs, entities and/or individuals as contracted and/or subcontracted.

Should you require additional information or have any questions, please feel free to contact either Bobby Hardy (by phone 256-716-4437 or e-mail bobby.hardy@nts.com) or me (by phone 256-716-4361 or e-mail shannon.roden@nts.com).

Sincerely,

NTS TECHNICAL SYSTEMS

**SHANNON RODEN, CPCM
CONTRACTS MANAGER
NTS HUNTSVILLE**

EXHIBIT I – EAC Notification to NTS Huntsville of Continuing Responsibilities



U. S. ELECTION ASSISTANCE COMMISSION
1335 East-West Highway, Ste. 4300
Silver Spring, MD. 20910
www.eac.gov

April 6, 2017

Shannon Roden, CPCM
Contracts Manager
NTS Technical Systems
Huntsville Operations
7800 Hwy. 20 West
Huntsville, AL 35806

shannon.roden@nts.com

Re: Withdrawal from Election Assistance Commissions
Voting Systems Test Laboratory Program

Dear Ms. Roden,

Thank you for your email and letter dated March 13, 2017 informing the Election Assistance Commission (EAC) that NTS will be withdrawing from its role as a "testing laboratory" from the EAC's Voting Systems Test Laboratory Program. I also understand that a similar letter has been forwarded to the National Voluntary Laboratory Accreditation Program (NVLAP) at NIST.

In your letter, you indicated that NTS' withdrawal would be effective as of March 31, 2017. While we interpret that date certain to mean that you will no longer be accepting voting systems for testing after that date, we are obligated to remind you of your responsibility to maintain certain records and documents which you have acquired during your tenure in the Program for the required period of time (5 years) as set forth in the Voting System Test Laboratory Program Manual.

Pursuant to Section 2.23 (Recordkeeping) of the *Voting System Test Laboratory Program Manual*:

*"As a condition of accreditation, all laboratories shall have a written policy regarding the proper storage, management and retention of all records relating to the testing of voting systems. At a minimum, **this policy shall require all forms, reports, test records, observations, calculations, and derived data for all tests performed on a given voting system (or component of said system) be retained for a period of at least 5 years after the last test performed on any version of that system (or component of any version of said system).** The policy shall require that all documents are maintained in a safe and secure environment and stored in a manner that provides for organized and timely identification and retrieval. Additionally, all records must be kept in a data format usable and available to the EAC."*

(Emphasis added)

Our records indicate that you have provided testing for a large number of jurisdictions and for multiple vendors regarding multiple voting systems. We also understand that you may also be serving as a “source code” escrow agent for multiple jurisdictions. As a current repository for what is an undoubtedly a large volume of records, please advise us on how you will continue to store and provide access to the records you have amassed over the years.

And while you do not directly house any “source code” data for the EAC, it will be helpful for us to be able to communicate to the jurisdictions that have used your services on what they can expect and what steps they may need to take to ensure access to their data or to effectuate the transfer of their data for future access.

We assume voting system manufacturers that have worked with NTS/Wyle over the past years will be contacting you shortly to work out a mutually agreeable way to transfer any data, hardware, software or other materials necessary back into their custody in a reasonable timeframe, as well as the transfer of escrowed software to another trusted third party escrow agent for the State.

As these transfers may take time, and because of the highly important nature of this information, particularly since the designation of elections as Critical Infrastructure by the Secretary of Homeland Security, we believe it is imperative that NTS be available and able to work with these jurisdictions and entities well beyond your stated date of March 31, 2017.

We look forward to hearing from you on how you intend to proceed in regard to the above-mentioned necessary actions.

Thank you for your prompt response and for your years of dedicated service as an EAC voting system test laboratory.

Sincerely,

A handwritten signature in blue ink, appearing to read 'BDN', is positioned above the typed name of the sender.

Brian D. Newby, Executive Director

U.S. Election Assistance Commission