

Testimony of Nancy Wallace
on behalf of VerifiedVoting.org
October 26, 2006
before the federal Election Assistance Commission
regarding the draft Testing and Certification Program Manual 2006

Good afternoon. I am testifying today on behalf of VerifiedVoting.org, a non-partisan, nonprofit organization that seeks to protect the right to vote by promoting accurate and transparent election systems and procedures. My remarks today will be supplemented by more detailed comments, submitted by next Tuesday's deadline.

I am a volunteer, but requested the privilege of representing the organization today because in my professional capacity I work for Computer Sciences Corporation (CSC), as supervisor of a team of three software testers handling 12 of the 13 national computer systems which support case adjudication by the US Citizenship and Immigration Service. Thus, I work every day with the challenges of corporate software testing, for a rigorous government customer. I am also in charge of process compliance, or what the Program Manual terms quality control, for the software development and testing for these 12 systems.

In Section 1.4, the "Testing and Certification Program Manual," (TCPM), indicates that one of its purposes is to "Increase voter confidence in the use of voting systems" (1.4.4). Given the current crisis in public confidence in our voting systems (such as recent national polls by Zogby and the PA state poll conducted by Lehigh University), and in the existing EAC process under which those systems were certified, increasing the public's confidence in those systems and processes should be an essential goal of the TCPM. Verified Voting believes that public confidence in these voting systems and certification processes can only be increased by making the process both as open and transparent to the public as possible and by adding peer-review at an open industry standard. In particular, the public must have access to the relevant information on which voting system certification decisions are based in a timely manner, which facilitates input into and participation in that certification process.

Accordingly, we applaud the general policy articulated in Section 1.12 of the TCPM, "Publication and Release of Documents", which states in part that "... it is EAC policy to make the certification process as open and public as possible." Unfortunately, the specific provisions detailed in the subsequent sections fail to live up to that stated policy objective. Rather than making the certification process as open and public as possible, the provisions of the TCPM strictly limit public participation in the certification process and, for the most part, confine the voting public, academic researchers, professionals, and voting integrity groups to spectator status.

It is instructive to note that while the word "manufacturer" appears in the TCPM over 340 times, the word "public" appears only 13 times and the word "voter" only seven times. And of the 13 uses of the word "public", most occur in the context of describing what types of information the EAC will NOT release to the public. These numbers reflect the relative emphasis the TCPM gives to these different stake holders in the certification process.

Another example is that while the TCPM devotes many pages to articulating various "rights" that apply to the manufacturers (e.g., §6.6.2 Manufacturer's Rights, §6.9 Requests for Reconsideration, §6.11 Appeal of Final Decision, §7.6.2 Manufacturer's Rights, §7.7.2 Opportunity to be Heard, §7.9 Appeal of Decertification, §10 Trade Secret, Confidential Commercial, and Personal Information), it provides no comparable enumeration of rights with respect to the participation of the public in the certification process. Rather, only two sections refer to any public participation in the certification

process, and both do so in rather vague terms:

1. In discussing the need for periodic revisions to the TCPM, §1.5.2 states that “substantive input from stake holders and the public will be sought whenever possible.” This phrasing also implies that the public is not a stakeholder, which we believe is the opposite of the true situation. The public is the end user, as well as the ultimate customer paying for the product, in all cases.

2. In discussing the initiation of an informal inquiry regarding possible decertification, §7.3.3.1 states that the relevant information leading to such an inquiry “may also come from voters who have used a given voting system.”

That’s it. Other than these two rather brief and vague provisions, the TCPM makes no explicit provisions for public input into or participation in the certification process. As a result, that process remains a mostly private discussion between the manufacturers, the testing laboratories, and the EAC, with very limited public visibility into that process.

For example, the TCPM provides no mechanism by which academic researchers, independent security experts, or disability rights groups can raise legitimate security or usability concerns pertaining to voting systems being considered for certification. And while State and local elections can submit voting system anomaly reports as part of the “Quality Monitoring Program” defined in §8, the TCPM provides no mechanism by which the voting public can file such reports. In addition, while §1.12 states that “... any documents submitted under this program and not protected from release by law will be made available to the public” it does not specify whether such release will be done in timely manner or whether such release will only occur in response to FOIA requests filed by the public.

Importantly, the test plans are not peer-reviewed by an open industry standard. The adequacy of standard testing methodologies such as negative testing, interface testing, and data corruption cannot be reviewed by any independent professional, to see if the testing is adequate.

It is not even clear that most basic starting point of good software testing, well-written functional requirements may be reviewed by the public. This has been a major weakness of the state procurement processes, with no public comment on the formal statements of requirements, and the TCPM does nothing to remedy that foundation-level defect of the entire testing and certification process.

At CSC we are required to peer review first the requirements, then the test plan, then the test analysis reports. The peer reviews must include the government system owner, the developers, the testers, the quality assurance representatives, and the configuration management team. We test at six levels – unit, system integration, functional quality, integration, performance, and system acceptance. Which of these is being done? How well? How would we know? How well-tested is my voting system? The American voter again has no way of knowing, under this TCPM. If these test plan peer reviews do not happen before the testing, then the testing reports are of greatly diminished value.

Additionally, the financial and legal dependence of any testing organizations on the vendors is completely unacceptable. This was most shocking to me as a professional. The federal government pays many hundreds of millions of dollars each year for independent testing of privately-produced software, for their government systems, by a second company before it is deployed to production. This is a most basic practice of the field. And, as has been often been brought to the attention of the EAC to no avail, there must be no connection or leverage of any sort between testing organizations and the manufacturers.

Another difficulty with implementing the lofty goals of “open and public” is the manual’s statement that the test reports supporting certification will be posted on the web. This seems admirable on the surface. However, by allowing the loophole of “confidential” information to be redacted as the manufacturer likes, there is again control of key information with no ability of the public to evaluate whether testing was adequate.

In a final example, the posting of these test reports after the certification decision, combined with the complete lack of opportunity for public input to the Commission on the certification decision, further undercuts your stated policy of openness. Greater transparency would be achieved if such materials were posted on the EAC’s Web site PRIOR to the certification decision, and with sufficient time for the public to review those materials and submit comments to the EAC as part of the certification process. Some states are already following this procedure, and it seems the federal commitment to public involvement should be equally as solid at this first critical stage of federal certification.

At CSC we are required to share all our Test Problem Reports from within our own corporate computer lab, not only with our government customer, but also with all related other private contractors on the project, even if we have already fixed the problem. This includes simple mistakes that were easily fixed, as well as the unintended impacts on complex interfaces that are understandably difficult to anticipate. It is all out in the open. There is no reason why the full test reports from testing these products for public use should not be made public, without redaction or confidentiality.

If the EAC is truly interested in increasing voter confidence in the use of voting systems, and in the process by which those systems are certified, then it needs to revise the TCPM so that it effectively implements the broad policy objective stated so clearly in §1.12, namely, that “It is the policy of the EAC to make the certification process as open and public as possible.” In our additional written testimony, we will make constructive suggestions as to how the current draft of the TCPM can be revised to accomplish that goal.