



December 7, 2007

State of New Jersey
Office of the Attorney General
Department of Law and Public Safety
P. O. Box 080
25 Market Street
Trenton, New Jersey 08625-0080

Attention: Ms. Donna Kelly, DAG

Re: Sequoia Voting Systems, Inc. – Voter Verified Paper Record System

Dear Ms. Kelly:

Sequoia Voting Systems, Inc. (“Sequoia”) submits this letter pursuant to the report from NJIT dated December 5, 2007 regarding the testing of the Edge1 with VVPAT (VVPRS). Enclosed are Sequoia’s comments addressing the one “exception” and two “concerns” raised in the Report.

Respectfully submitted,

SEQUOIA VOTING SYSTEMS, INC.

A handwritten signature in black ink that reads "Edwin B. Smith, III".

By: _____
Edwin B. Smith, III
Vice President, Compliance/
Quality/Certification

VVPRS for Sequoia Edge Voting Units:

Exception:

IV.C.5. a.(4)

- *If the power switch at the back of the DRE is turned to the “OFF” position during a voting session, and the voter presses the “Cast Ballot” on the DRE touch screen before the DRE actually shuts down:*
 - * *A discrepancy results between the number of cast electronic records stored in the DRE’s memory and those written in the cartridge. Upon DRE restart, this discrepancy is detected and the DRE shows the error message “Election Verify Summary Compare Error: Ballot Verification Failure, Failed Summary Comparison Check.”*
 - * *The poll must be closed.*
 - * *All electronic records stored in the cartridge are lost and unrecoverable.*
 - * *No reports, except the Event Log report, can be generated from the cartridge.*

The doors to both the Power ON/OFF knob as well as the Polls Open/Closed knob are sealed by Salem County to deny access. Established County procedures render this test result moot. Likewise, pollworkers do not allow voter access to the rear of the machine during voting hours.

Sequoia Voting Systems agrees only with the first two bullet points (regarding receipt of an error condition and the need to close polls on the unit) and that under the test conditions those two results can be obtained; however, the test condition cannot be repeated on Election Day therefore this exception should be struck from the Report regardless. Sequoia Voting Systems disagrees that the last two bullet points (electronic records lost and unrecoverable, and inability to generate reports) are true. Regardless, this scenario cannot be repeated under election conditions and is thus moot.

Concerns:

IV.A.2.b

- “If the corresponding electronic record contains a digital signature, the digital signature shall be included in the barcode on the paper record.”*
- *The DRE does generate an individual digital signature for each electronic ballot image record of an accepted paper record, and it is calculated based on the CRC (cyclic redundancy check) value and vote selections.*
 - *The VVPRS does generate an individual digital signature for each barcode printed on a paper record. This digital signature is calculated based on the contents of the paper record.*
 - *Requirement IV.A.2.b seems to imply that both digital signatures shall be the same. Our testing reveals that they are two different digital signatures, one based on the electronic ballot image record, and the other based on the paper record.*

Regardless of any perceived implication, there is no finding that the Edge system violates the VVPRS criteria. The signature workflow used in the Edge meets the criteria functional requirements.

V.H

“If the connection between the voting machine and the printer has been broken, the voting machine shall detect and provide notice of this event and record it in the DRE’s internal audit log. Voting operations shall be suspended and no votes shall be recorded.”

A printer disconnection prompts the correct error message on the DRE screen, but it is recorded as “unused” (error message) in the DRE’s internal audit log, not clearly reflecting the nature of the error.

This issue was due to the name of the error in the WinEDS Election Management System being unassigned at the time of testing. This has since been updated. Sequoia representatives will display an updated audit log report to the Technical Committee at the Certification Hearing December 12th.