

COMMENTS BY AVANTE ON THE EXCEPTION REPORTS (July 23, 2007)

AVANTE VOTE-TRAKKER: Exceptions to the Criteria (as stated in NJIT reports on July 17, 2007)

Criteria	NJIT Stated Results	AVANTE's Comment
<p>III.A.1 "The printer shall be designed to have a sufficient amount of paper, ink, toner, ribbon or like supply for use in an election, taking into account an election district should have at least one voting machine per 750 registered voters."</p>	<p>Paper replacement is expected after about 600 votes.</p>	<p><u>Exception #1</u></p> <ul style="list-style-type: none"> ▪ The guidelines did not specify that there must be more paper for up to 750 votes without adding paper. Instead, it is asking for provision for ensure that some means be provided to accommodate 750 voters including adding paper during election. ▪ Currently AVANTE procedures specify that new roll of paper with at least 800 ft be installed before any election. This is adequate for more than 750 votes for typical election with paper records of 8-12 inch length. Of course, in the case of longer paper record requirement and more than 750 voters, there may be a need to install new paper roll during the election. ▪ If one assume the typically time requires for voting is 2 minutes each as allowed for each voter by law, for a voting session of 10 hours, one may expect 300 voters. ▪ If one assume 1 minute for each voters, then there may be a usage rate of 600 voters. ▪ The system as is will accommodate most voting scenario. In the extra-ordinary cases, the system will need to change over to new paper roll as allowed by the current guideline..
<p>III.A.1.a "If any addition or replacement of paper, ink, toner, ribbon or other like supply is required, it shall be done with minimal disruption to voting and without circumvention of the security features of the Printer and Storage Unit which protect cast ballots and the secrecy of the vote."</p>	<p>A slit that exists between the storage unit and the printer may allow unauthorized or forged paper records to be slid into the storage unit</p>	<p><u>Exception #2</u></p> <ul style="list-style-type: none"> ▪ Any open slit can be covered with tamper evident tape. This will retard any forged papers being slid into the ballot box. Even if any forged ballots were dropped into the box, the forged identifier on the ballot would not match the unique randomly generated identifier in the voting machine and would be easily recognized during an audit.

<p>III.A.2. “The VVPRS shall have a low-paper indicator that will allow for the timely addition of paper so that each voter can fully verify, without disruption, all of his or her ballot selections.”</p>	<p>If, during voting, the DRE detects the low paper supply, an error message window appears on the DRE screen. Pressing the “OK” button in the error message window closes this window and returns back the DRE screen as normal status. The voter has the opportunity to continue the voting operations and to cast the vote. However, a paper record is not printed out. This situation of no paper records being printed continues with subsequent votes, with no audio or visual signal to the poll worker, until the voter presses “cast ballot” twice, at which time the vote is electronically recorded but without a paper record. The machine has to be reset for the next voter.</p>	<p><u>Exception #3</u></p> <ul style="list-style-type: none"> ▪ A minor revision will be made on software. The current low paper indicator when the paper supply is down to approximately 50 ft will be used to trigger the system to allow the current voter to continue with his vote, print and review the paper record, and then cast his ballot. ▪ No further voting will be allowed on the machine until the paper supply is changed. It will not allow the voter to continue voting with a paper record not being printed. The voter will see the error message on the screen along with a buzzer sound and be advised to seek election official intervention
<p>IV.A.1 The paper record shall include identification of the particular election, the election district, and the voting machine.</p>	<p>The particular election name (e.g., Primary Election or General Election) is not printed on the paper record.</p>	<p><u>Exception #4</u> A minor revision will be made to print the Primary or General election name on the paper record.</p>
<p>IV.C.5 The paper records shall distinguish between accepted and non-accepted ballots. IV.C.5.a. (5) The voter shall have the opportunity to accept or reject the contents of his or her paper record.</p>	<p>There is no clear acceptance information (e.g., “Voided” or “Accepted”):</p> <ul style="list-style-type: none"> ▪ voided paper records have the same identifier number as the final approved paper record cast by the same voter. The VVPRS appends (1) and (2) to that identifier number for the 2nd updated and 3rd updated paper records, respectively. ▪ some voided paper records may be incorrectly considered as accepted paper records if some updated paper records are lost. 	<p><u>Exception #5</u></p> <ul style="list-style-type: none"> ▪ The paper record DOES distinguish between accepted and non-accepted votes. The bottom of each record clearly shows for voter review his first change, reflected as “REPLACEMENT RECORD 1”, and if he makes a second change, it shows “REPLACEMENT RECORD 2”. Each concealed ballot identifier will add a suffix, in the case of replacement 1 there will be a (1) and for replacement 2, there will be a (2). We believe the guidelines are written to allow many approaches to achieve the same goal with a technology neutral position. ▪ If forced to do a recount, each paper record, and the changes, ties to an audit log included with the voting days results. All changes are tracked there. If the situation exists that replacement record 2 is lost, one would know that it actually exists when examining the day’s event log. Of course, if any paper records are lost even if other format of printing on them will need to do the same. They will be discovered in the audit. Audit will then lead to the investigation of audit log as well as the electronic copies of all of the ballot images stored in the “write-once-read-many” CD-R.

<p>IV.C.5. a (4) “If a mechanical error in recording or printing a paper record occurs, the record shall be counted as a spoiled paper record. It will not be counted as one of the voter’s three attempted votes.”</p> <p>V.G “If a mechanical error or malfunction occurs (such as, but not limited to, a paper jam or running out of paper), the DRE and VVPRS shall suspend voting operations, not record votes, and present a clear indication of the malfunction to the voter and election officials.”</p>	<p>If a mechanical error or malfunction occurs (such as a paper jam, running out of paper, paper torn in half, or paper inserted improperly), the DRE displays an error message on the screen to the voter, but no warning signals are sent to notify the election officials at the polling place. The DRE does not suspend voting operations. The voter has the opportunity to continue voting and cast the vote but the paper record is not printed. The vote is, however, electronically recorded.</p>	<p><u>Exception #6</u> A revision will be made. If a printer error occurs, voting will stop. It will not allow the voter to continue voting with a paper record not being printed. An error message along with buzzer will appear for the voter to seek election official intervention.</p>
<p>V.E. “The printer shall be connected to the voting machine either by completely concealing the printer connection or via a security tag to prevent tampering.”</p>	<p>The printer connection between the printer and a particular voting machine is not completely concealed to prevent tampering. Furthermore, the exposed part of the connection between the VVPRS and the voting machine is covered with plastic wrap, but not completely, allowing access to the cable.</p>	<p><u>Exception #7</u> There were a strain relief and cover made and placed on all of the exposed ports on the printer side. No one can access the printer ports other than cutting the cable. When the cable is cut, it will also trigger the machine to stop working when it try to print and thus whoever is trying to tamper with the machine during voting will be caught relatively easily.. Please see the attached picture below.</p>
<p>V.F. “The DRE shall detect and notify the election officials at the polling place of any errors and malfunctions, such as paper jams or low supplies of consumables (e.g. paper) that may prevent paper records from being correctly displayed, printed or stored.”</p>	<p>Although the DRE can detect problems that may prevent paper records from being correctly displayed, printed, or stored (like paper jams or low paper), no warning signals are sent to notify the election officials at the polling place.</p>	<p><u>Exception #8</u> Error messages related to printer performance will be indicated on the touch screen to the voter. The voter will notify and seek assistance from an election official to rectify the problem. We will add the triggering of buzzer sound to alert the poll worker as well as previous stated.</p>
<p>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.”</p>	<p>If the connection between the voting machine and the printer breaks during the voting process, the DRE displays an error message on the screen to the voter, but no warning signals are sent to notify the election officials at the polling place. The DRE does not suspend voting operations. The voter has the opportunity to continue voting and cast the vote without printing any paper record. The vote is, however, electronically recorded.</p>	<p><u>Exception #9</u> As indicated in the previous exception on the printer error, a minor revision will be made to shut down the system if the printer malfunctions because of paper jam, low paper, and loss of communication between printer and voting unit. Voting operations will be suspended and buzzer sound along with on-screen instruction will enable election official to respond. The voter will not be allowed to continue voting and cast the vote without printing a paper record.</p>

	<p>Miscellaneous For the fleeing voters who have yet not printed any paper records, the DRE displays the correct warning, which allows intervention by the poll worker to spoil or cast the ballot. However, once a paper record has been printed by the voter, the DRE will automatically cast the ballot as the fleeing voter left it, without review and approval by the voter, and without any intervention by the poll worker.</p>	<p><u>Exception #10</u></p> <ol style="list-style-type: none"> 1. Our system follows NJ law. If the voter flees as determined by the system not receiving any input from the voter for pre-set amount of time (default is 100 seconds normally) without finishing their vote the system will trigger a pollworker-election official intervention screen after a pre-set amount of time of asking the voter to touch the screen on anywhere. The selections made by the voters will be “blanked out” to preserve the privacy of the voter. The official (at least two) may spoil the ballot upon the voter’s request (for example, wrong ballot is given to the voter) or cast the ballot for the voter if the voter is no longer around. 2. If the voter finished all voting but flees without asking the machine to retrieve the paper record, the system is currently programmed to have the system automatically retrieve the paper record to preserve the voter’s privacy. There is no need and should not ask for election official intervention so that voter’s privacy is preserved. This is what we believe to the intent of NJ election code (not the same for some of the Southern State). If the election code changes in NJ, the system can of course provide different option.
<p><u>NOTE ON MODIFICATIONS ALREADY MADE BY AVANTE BUT NOT INSTALLED:</u></p> <ol style="list-style-type: none"> 1. The tests is done on the current model of FULL-FACE VOTE-TRAKKER is certified to EAC 2002 VVS. AVANTE was instructed by AG not to make any modifications to the software for this test. 2. AVANTE has made all of the minor software modifications to meet NJ VVPAT laws. 3. The AG office of New Jersey is in the process of determining whether and how to certified such changes as the original ITA is still in the limbo of NIST certification. 4. Once a process is established, these minor changes will be installed to meet all anticipated requirements. 		