**DRAFT Test Assertions for VVSG 1.0 Section 7.9.6**

**August 24, 2015**

**Requirement 7.9.6a**

**VVSG 1.0 Requirement 7.9.6a:** All usability requirements from Subsection 3.1 shall apply to voting machines with VVPAT.

**Test Assertions**

**TA796a-1:** For any implementation of the VVPAT, the VVPAT SHALL conform to the usability requirements of 3.1.

**TA796a-2:** For any implementation of the VVPAT, the VVPAT SHALL conform to the test assertions of 3.1.

**Requirement 7.9.6b**

**VVSG 1.0 Requirement 7.9.6b:** The voting equipment shall be capable of showing the information on the paper in a font size of at least 3.0 mm and should be capable of showing the information in at least two font ranges; 3.0-4.0 mm, and 6.3-9.0 mm, under control of the voter or poll worker.

**Test Assertions**

**TA796b-1:** For DREs with a VVPAT, which is printed and stored on a continuous spool-to-spool paper roll where the voter views the paper record in a window, the voting equipment SHALL be under control of the voter OR the voting equipment SHALL be under control of the poll worker.

**TA796b-2:** For DREs with a VVPAT, which is printed on separate pieces of paper, which are deposited in a secure receptacle, the voting equipment SHALL be under control of the voter OR the voting equipment SHALL be under control of the poll worker.

**TA796b-3:** For DREs with a VVPAT, which is printed and stored on a continuous spool-to-spool paper roll where the voter views the paper record in a window, the voter or poll worker SHALL be able to show all information on the paper in a font size of at least 3.0 mm.

**TA796b-4:** For DREs with a VVPAT, which is printed on separate pieces of paper, which are deposited in a secure receptacle, the voter or poll worker SHALL be able to show all information on the paper in a font size of at least 3.0 mm.

**TA796b-5:** For DREs with a VVPAT, which is printed and stored on a continuous spool-to-spool paper roll where the voter views the paper record in a window, the voter or poll worker SHOULD be able to show all information in font sizes within the range of 3.0-4.0 mm, inclusive, as measured on the screen.

**TA796b-6:** For DREs with a VVPAT, which is printed on separate pieces of paper, which are deposited in a secure receptacle, the voter or poll worker SHOULD be able to show all information in font sizes within the range of 3.0-4.0 mm, inclusive, as measured on the screen.

**TA796b-7:** For DREs with a VVPAT, which is printed and stored on a continuous spool-to-spool paper roll where the voter views the paper record in a window, the voter or poll worker SHOULD be able to show all information in font sizes within the range of 6.3-9.0 mm, inclusive, as measured on the screen.

**TA796b-8:** For DREs with a VVPAT, which is printed on separate pieces of paper, which are deposited in a secure receptacle, the voter or poll worker SHOULD be able to show all information in font sizes within the range of 6.3-9.0 mm, inclusive, as measured on the screen.

**TA796b-9:** The paper record SHOULD use the same font sizes as displayed by the voting machine. (from Discussion)

**Requirement 7.9.6c**

**VVSG 1.0 Requirement 7.9.6c:** The voting equipment shall display, print and store the paper record in any of the written alternative languages chosen for the ballot.

**Test Assertions**

**TA796c-1:** Candidate names on the paper record SHALL be presented in the same language as used on the DRE summary screen.

**TA796c-2:** IF a specific language is supported by the manufacturer of a voting system THEN the voting equipment shall print the paper record in that language.

**TA796c-3:** IF a specific language is supported by the manufacturer of a voting system THEN the voting equipment shall store the paper record in that language.

**Requirement 7.9.6ci**

**VVSG 1.0 Requirement 7.9.6ci:** To assist with manual auditing, candidate names on the paper record shall be presented in the same language as used on the DRE summary screen.

**Test Assertions**

**TA796ci-1:** Candidate names on the paper record SHALL be presented in the same language as used on the DRE summary screen.

**Requirement 7.9.6cii**

**VVSG 1.0 Requirement 7.9.6cii:** Information on the paper record not needed by the voter to perform verification shall be in English.

**Test Assertions**

**TA796cii-1:** IF information on the paper record is not needed by the voter to perform verification, such as precinct and election identifiers, THEN that information SHALL be displayed in English.

**TA796cii-2:** IF information on the paper record is not needed by the voter to perform verification, such as precinct and election identifiers, THEN that information SHALL be printed in English.

**TA796cii-3:** IF information on the paper record is not needed by the voter to perform verification, such as precinct and election identifiers, THEN that information SHALL be stored in English.

**Requirement 7.9.6d**

**VVSG 1.0 Requirement 7.9.6d:** The paper and electronic records shall be presented to allow the voter to read and compare the records without the voter having to shift his or her position.

**Test Assertions**

**TA796d-1:** IF the voter is in a position and orientation sufficient for operating the voting machine, THEN both the paper and electronic records SHALL be visible to the voter.

**TA796d-2:** IF the voter is in a position and orientation sufficient for operating the voting machine, THEN both the paper and electronic records SHALL be legible to the voter.

**TA796d-3:** The records SHALL be presented in a manner that allows the voter to compare the paper and electronic records simultaneously.

**Requirement 7.9.6e**

**VVSG 1.0 Requirement 7.9.6e:** If the paper record cannot be displayed in its entirety on a single page, a means shall be provided to allow the voter to view the entire record.

**Test Assertions**

**TA796e-1:** IF the paper record takes more than one page to display it THEN a means SHALL be provided to allow the voter to view the entire record.

**TA796e-2:** The voting equipment MAY scroll the paper to allow the vote to view the entire record.

**TA796e-3:** The voting equipment MAY print a new sheet of paper to allow the vote to view the entire record.

**TA796e-4:** IF the voting equipment scrolls the paper to allow the vote to view the entire record AND it is not possible to scroll in reverse THEN the voting equipment SHOULD notify the voter that it is not possible to scroll in reverse, so the voter will know to complete verification in one pass.

**Requirement 7.9.6f**

**VVSG 1.0 Requirement 7.9.6f:** If the paper record cannot be displayed in its entirety on a single page, each page of the record shall be numbered and shall include the total count of pages for the record.

**Test Assertions**

**TA796f-1:** IF the paper record takes more than one page to display THEN each page of the record SHALL be numbered.

**TA796f-2:** IF the paper record takes more than one page to display THEN each page of the record SHALL include the total count of pages for the record.

**TA796f-3:** The numbering scheme of the paper record MAY include “Page X of Y.”

**Requirement 7.9.6g**

**VVSG 1.0 Requirement 7.9.6g:** The instructions for performing the verification process shall be made available to the voter in a location on the voting machine.

**Test Assertions**

**TA796g-1:** The instructions for performing the verification process SHALL be made available to the voter in a location on the voting machine.

**TA796g-2:** For DREs with a VVPAT, which is printed and stored on a continuous spool-to-spool paper roll where the voter views the paper record in a window, all usability requirements and test assertions from Subsection 3.1 SHALL apply to the instructions for performing the verification process.

**TA796g-3:** For DREs with a VVPAT, which is printed on separate pieces of paper, which are deposited in a secure receptacle, all usability requirements and test assertions from Subsection 3.1 SHALL apply to the instructions for performing the verification process.