

DEPARTMENT OF STATE

Division of Elections

RULE NO.:1S-5.002

RULE TITLE: Voting System Equipment Regulations
Supplement: Minimum Standards for Voter Verifiable
Paper Audit Records.

PURPOSE AND EFFECT: The purpose of the proposed rule is to supplement the practices and procedures associated with the certification of voting systems for the State of Florida. The effect is to ensure the suitability and effectiveness of printer and paper items that produce voter verifiable paper audit records from direct recording electronic voting devices based on a set of minimum standards for voter verifiable paper audit records.

SUMMARY: This proposed rule provides applicable definitions, paper and archival storage requirements, printer requirements, and specified uses for the voter verifiable paper record.

SUMMARY OF STATEMENT OF ESTIMATED REGULATORY COST: No Statement of Estimated Regulatory Cost was prepared. Any person who wishes to provide information regarding a statement of estimated regulatory costs, or provide a proposal for a lower cost regulatory alternative must do so in writing within 21 days of this notice

SUBJECT AREA TO BE ADDRESSED: Florida Voting Systems Standards

SPECIFIC AUTHORITY: 101.015, 101.294, FS.

LAW IMPLEMENTED: 101.5605, 101.5606, 101.5602, 101.5607, 102.141, 102.166, FS.

A PUBLIC HEARING WILL BE HELD AT THE DATE, TIME AND PLACE SHOWN BELOW:

DATE AND TIME: Monday, May 14, 2007, from 1:00 pm -2:30 pm.

PLACE: Florida Heritage Hall, Plaza Level, Ground Level, R.A. Gray Building, 500 S. Bronough Street, Tallahassee, Florida

NOTICE UNDER THE AMERICANS WITH DISABILITIES ACT: Any person needing special accommodations to participate in this proposed rule hearing should contact the Department of State at 1(850)245-6500 no later than Monday, May 7, 2007. Any person who is hearing or speech impaired may contact the Department by using the Florida Relay Service with the following toll free numbers: 1(800)955-8770 (voice) or 1(800)955-8771 (TDD).

THE PERSON TO BE CONTACTED REGARDING THE PROPOSED RULE IS: Amy Tuck, Director, Division of Elections, Department of State, 500 S. Bronough Street, Tallahassee, Florida 32399-0250, at (850)245-6500. Written comments may be submitted directly to the above address or electronically through the Florida Department of State's E-rulemaking (Electronic rulemaking) System at: <https://www.flrules.org>.

THE FULL TEXT OF THE PROPOSED RULE IS:

1S-5.002 Voting System Equipment Regulations Supplement: Minimum Standards for Voter Verifiable Paper Audit Records.

(1) PURPOSE. To establish minimum standards for assessing the suitability and effectiveness of printer and paper items that produce voter verifiable paper audit records from direct recording electronic voting devices.

(2) DEFINITIONS. As used in this rule, the term:

(a) "Ballot" when used in reference to:

1. "Paper audit record" means that printed strip of paper created by a voting device that serves as an independent verification tool to assist the voter in determining that the voter's electronic vote selections are correctly indicated. This paper record serves as an unalterable storage media that may be used as the official ballot for the purposes of a recount or audit.

2. "Electronic or electromechanical device" means a ballot that is voted by the process of electronically designating, including by touchscreen, or marking with a marking device for tabulation by automatic tabulating equipment or data processing equipment.

(b) "Voted Ballot" means a ballot as defined above, which an elector casts by positive action.

(c) “Voting System” means a method of casting and processing votes that functions wholly or partly by use of electromechanical or electronic apparatus or by use of paper ballots and includes, but is not limited to, the procedures for casting and processing votes and the programs, operating manuals, tabulating cards, printouts, and other software necessary for the system’s operation.

(d) “Voting Device” means any apparatus by which votes are registered electronically.

(e) “Verifiable” means the capability for the voter to independently take positive action to confirm that the electronic record and the paper record correctly reflect the voter’s selections.

(f) “Thermal printer” means an electromechanical device that produces a printed image by selectively heating coated thermal paper when the paper passes over the thermal print head.

(g) “Contact storage container” refers to a container that prevents direct contact of thermal paper with vinyl, plastics, shrink wraps, adhesives, wet-toner, or carbon papers. The container may also prevent or minimize the content’s exposure to ultraviolet (UV) light and humid conditions. The use of a barrier bag would be considered an acceptable contact storage container and this may serve as an inner pack with another container serving as an outer pack.

(h) “Shelf life” means the paper manufacturer’s stated maximum length of storage from the date of manufacture with unopened factory wrap within the manufacturer’s specified environment that does not impact the paper’s satisfactory performance or the specified image life.

(i) “Image life” refers to the expected life of a fully developed image produced by a thermal printer on thermal paper that has not exceeded its shelf life and is stored in a compatible contact storage container within the specified environment.

(j) “Useful life” refers to the retention period for voting records as set forth in the General Records Schedule GS3 for Election Records.

(3) PAPER REQUIREMENTS. Paper audit records must meet the following requirements:

(a) The records must be produced by a thermal printer or other suitable print technology that minimizes the number of mechanical elements, consumables, and likely print failures.

(b) The paper quality must be able to retain a fully developed image for a minimum of 7 years when stored under archival dark environmental conditions in a compatible contact storage container. The paper manufacturer's environmental storage requirements must be documented and provided to the county by the voting system vendor. If the county chooses to acquire paper from a source other than the voting system vendor, then the county is obligated to adhere to the paper manufacture's environmental storage requirements.

(c) The paper must be of sufficient quality and reliability to permit the paper record to be audited at least twice; at the start of the initial archival storage period and once again at the end of its useful life.

(4) PAPER STORAGE REQUIREMENTS PRIOR TO USE. Storage of voter verifiable paper must be compatible with the following requirements:

(a) Shelf life is applicable to thermal paper and should exceed a minimum of 3 years of storage from the date of manufacture within its unopened factory wrap under the following environmental conditions:

1. Maximum storage temperature for thermal paper must comply with the paper manufacturer's specification. If not specified by the manufacturer, the voting system vendor should state that the maximum storage temperature for thermal paper is 77°F (25°C).

2. Paper that has exceeded its maximum shelf life should not be purchased and shall not be used in an election.

3. Paper that has exceeded the maximum storage temperature should not be purchased and shall not be used in an election.

(5) ARCHIVAL STORAGE REQUIREMENTS FOR PAPER AUDIT RECORD. Storage of voter verifiable paper audit records must be compatible with the following requirements.

(a) Image life must be capable of meeting or exceed a minimum of 7 years for thermal paper after producing a fully developed image when stored in a compatible contact storage container under the following dark environmental conditions:

1. Relative humidity within the thermal paper's contact storage container must comply with the paper manufacturer's specification. If the relative humidity is not specified by the paper manufacturer, the voting system vendor should state the contact storage container should be between 45% to 65% relative humidity. Humidity may be determined by the use of one or more humidity indicator cards suitable for this purpose.

2. Maximum temperature not to exceed 77°F (25°C).

(b) Paper that has experienced an environment exceeding the maximum temperature and/or humidity requirements prior to nine months from the end of its useful life must be evaluated to determine the need for alternate preservation action by any suitable means.

(6) PRINTER REQUIREMENTS. A printer that produces voter verifiable paper audit records must demonstrate that it meets the following requirements:

(a) Completes a mass ballot count test of 9,900 ballots cast on a single precinct voting device for an assessment of the printer's reliability. In addition, the voting system vendor or the thermal paper manufacturer should provide an assessment of the thermal paper's aging properties. This may be satisfied by assessing the loss of optical density under dry heat and wet heat conditions and by assessing the paper's sensitivity to long-term exposure to light.

(b) Minimizes the number of mechanical elements and consumables. To satisfy this requirement, the use of thermal paper printers is strongly recommended.

(c) Maintains the audit record as a continuous spool of paper or provides the audit record as cut sheets. However, each cut sheet must be a complete record of a cast ballot. In the event that the last ballot record on the spool does not represent a complete record, the voting device must void that record and allow the voter to continue voting once the paper has been refilled. This voided record must not count against the voter's allowed number of spoiled records. The audit record must not be touched by the voter or otherwise be capable of being in the possession of the voter.

(d) Does not permit the voting device or system to alter the paper record once the ballot is cast.

(e) Prints the audit record in a default font size not to fall below 10 pt on the E-scale as measured using a type gage. Able to display a font size larger than the default, but may not exceed 36 pt on the E-scale. The larger font may be displayed by the use of a larger variable or fixed printer font selected by either the voter or the poll worker or the larger font may be achieved by the use of a magnification lens that does not impede the readability of the audit record. The use of a larger variable or fixed printer font may force a line-wrap, but must not wrap more than once.

(f) Permits the paper record to be temporarily stored in a sealable canister that is to be considered a ballot box.

1. Permit a full canister to be replaced by an empty canister without exposing the paper audit record. This requirement may be met by complete removal and replacement of the printer and paper canister assembly.

(g) Prevents a voter from spoiling more than two audit records.

(h) Prints the audit record in English, and if different, also in the same language as appeared on the electronic review screen. The audit record must also be able to indicate clearly:

1. A spoiled audit record.

2. A provisional audit record.

3. An undervoted contest.

4. An accepted audit record.

(i) Limits the paper audit record printer's functionality to printing only the paper audit record. The printer should not be used to print the zero or results tapes unless these tapes can be extracted without compromising the audit record.

(j) Provides a capability to detect errors, malfunctions, and/or low consumables and suspend further usage of the voting device until the error condition is corrected.

Either the voting device and/or the printer must indicate the error condition. If the error can be addressed by the voter, then the error message must be displayed in the voter's selected language. If the error must be addressed by the poll worker, then the error message must be displayed in the language common to the election officials who would

have to address the issue. Actions taken by election officials to correct an error condition must be in accordance with Florida Statutes that protect the ballot from disclosure. Failure to resolve an error condition must prevent that active ballot from being cast both electronically and as an audit record. The voter must be permitted to cast their ballot on another voting device regardless of the number of spoiled ballots already consumed.

(k) Provides a means to protect the paper audit record when displayed to the voter. The display or transparent protective cover must be maintainable and/or replaceable. The use of a transparent protective cover must not obscure the paper audit record. There must be a method for periodically cleaning the display's or the transparent protective cover's surface.

(l) Provides the voter with the means to compare the electronic review screen paper record side-by-side and inform the voter is scrolling the paper record is necessary to complete this comparison.

(m) Informs the voter that scrolling the paper record in reverse is either possible or not possible. Scrolling in reverse should not be an option if it could cause a paper jam.

(n) Optionally:

1. May use a unique identifier that provides a capability to link a voter verifiable paper audit record to the electronic record. However, this link may not circumvent voter secrecy.

2. Allows the voter to privately and independently verify the content of the permanent paper ballot through the conversion of printed content into an accessible media. Accessible voting equipment should provide an automated reader that converts the paper record contents into audio output.

3. Permits an alternate and independent method to tabulate the votes cast from the paper audit record.

4. Identifies multiple review pages, such as page x of y.

(7) USE of the VOTER VERIFIABLE PAPER RECORD. The voter verifiable paper record must:

(a) Provide the voter the option to verify that the paper audit record matches the electronic summary record prior to allowing the voter to cast the ballot.

(b) Serve as an official ballot for the purposes of an audit and/or recount.

_____ (c) Store a duplicate of the audit record in another format in addition to the human readable form.

_____ (d) Not reveal the identity of the voter.

Specific Authority: 101.015, 101.294, FS. Law Implemented: 101.5605, 101.5606, 101.5602, 101.5607, 102.141, 102.166, FS. History –New _____.

NAME OF PERSON ORIGINATING PROPOSED RULE: David A. Drury, Chief, Bureau of Voting Systems Certification.

NAME OF SUPERVISOR OR PERSON WHO APPROVED THE PROPOSED RULE: Amy Tuck, Director, Division of Elections.

DATE PROPOSED RULE APPROVED BY AGENCY HEAD:

DATE NOTICE OF PROPOSED RULE DEVELOPMENT PUBLISHED IN FAW:
March 2, 2007