

Standard Operating Procedure



Logic and Accuracy Testing Procedures

Department:	City Clerk's Office
Division:	ELE - Elections
Category:	EQ - Equipment
SOP Number:	014
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Last Revision Date:	May 31, 2022

Purpose

To outline the logic and accuracy procedures for tabulators and accessible voting equipment prior to use at a voting location or central tabulation at City Hall.

Application

This procedure applies to all eligible electors, candidates, scrutineers and election officials.

Procedure

- a) Prior to voting day, the City Clerk shall have the vote tabulators and accessible voting equipment tested to ensure that they will accurately record and count the votes for all candidates that are marked with the ballot marking pen provided and with a valid mark in the designated area. This is called logic and accuracy testing.

Security During Testing

- a) Adequate safeguards shall be taken when testing the tabulators to ensure that any part of the system used for tabulating votes is isolated from all other applications, or programs and that no remote devices are capable of gaining access to the system.

Conducting the Test

- a) The test shall be conducted on all tabulators as follows:
 1. Assign a varying number of votes to a pre-audited group of ballots marked with the designated black ballot marking pen in designated areas;
 2. Manually count each valid vote and record the results;
 3. Tabulate the pre-audited ballots using the vote tabulator; and
 4. Compare the output of the tabulator with the pre-audited results.

5. If an error is detected while conducting any test, the cause of the error shall be ascertained and corrected. The test will be repeated until an errorless count is confirmed.

Testing Phases

- a) There are several testing phases before the voting equipment is ready for use during the advance voting period or for voting day.
- b) A diagnostic test will be conducted to ensure that the clock, LCD display, system memory, printer, serial port, auxiliary port, and ballot reader are all functioning properly.
- c) Testing memory cards will verify every memory card is operational and not defective.
- d) A test deck of ballots shall be prepared and tested on each machine. It will include every type of ballot and be comprised of samples of blank ballots, under-voted ballots, over-voted ballots, and properly completed ballots.

Testing Accessible Voting Devices

- a) Every type of accessibility equipment to that may be used will also be tested. The test shall be conducted as follows:
 1. Using all types of accessibility equipment connected to a tabulator, the votes for all races in the election are to be cast according to the predetermined list.
 2. The results will be compared from the tape of the voting machine against the predetermined list of votes to be cast.

Defective Machines and Spare Tabulators

- a) In the event that a memory card or vote tabulator must be replaced, a new vote tabulator, which has previously been tested, will be put into operation.
- b) Prior to voting day, any spare vote tabulators shall be tested using the same procedures along with the other vote tabulators.

Documentation

- a) Upon testing completion, the City Clerk will retain all printouts, reports, and test materials in the manner the Act requires for election records.

Definitions

"Act" means the [Municipal Elections Act, 1996, S.O. c 32](#) as amended.

"Advanced voting period" means the period of voting prior to voting day in accordance with the Act.

"Ballot" means a ballot prepared under subsections 41(1), 41(2) and 41(6) of the Act.

"Ballot-Marking Pen" means the designated ballot-marking pen provided by an election official for the use of a voter to mark the ballot.

“Candidate” means a person who has been nominated under section 33 of the Elections Act.

“City Clerk” means the Clerk of the municipality, responsible for conducting election duties as outlined in the Elections Act.

“Memory card” means a removable device where all tabulated ballot totals are stored.

“Over-vote” means when an office on the ballot has been marked to select more than the number of candidates indicated as permitted on the ballot. At voting locations, the tabulator will indicate when a ballot has over-voted offices and the voter will be given an opportunity to remark a new ballot or cast the over-voted ballot. If a ballot is cast with an over-voted office, no votes will be counted for that office.

“Under-vote” means when a ballot has been marked to select less than the number of candidates indicated as permitted on the ballot. Voters are allowed to under-vote a ballot if they choose. If a paper ballot is cast with an under-voted office, the tabulator will not indicate this, and those votes cast will be counted.

“Valid mark” means a mark made, in accordance with the instructions on the ballot, in the designated space on the ballot next to a candidate’s name using the black ballot-marking pen provided by the election official.

“Vote tabulator” means a machine that digitally scans the ballots to read the votes and tabulate the results on a memory card.

“Voting day” means the day on which the final votes will be taken in accordance with Section 5 of the Act. This Municipal Election voting day will be October 24, 2022.

References

[Municipal Elections Act, 1996.](#)