

DIRECTIVE 2010-101 (Reissue of SOS Directive 2010-85)

December 29, 2010

To: All County Boards of Elections, Members, Directors, and Deputy Directors

Re: Post-Election Audits

R.C. 3505.27 provides minimum requirements for counting and tallying ballots. It further provides that the Secretary of State or a board of elections may order other requirements to “assure an accurate count of all votes cast.” Based on this statutory authority, the Secretary of State undertook a pilot program after the March 4, 2008, presidential primary election, in which eleven boards of elections volunteered to perform post-election audits in accordance with Directive 2008-39. Following the November 4, 2008, general election, the Secretary of State established post-election audit procedures in Directive 2008-113, for post-election audits conducted by all boards of elections.

This experience with post-election audits in 2008 demonstrated that such audits assist in verifying computer tabulated election results, in detecting any ballot-counting errors, and in improving confidence in the reliability of voting machines for precinct-based tabulation and for central tabulation or accumulation of votes from ballots. Ohio law provides that the voter verified paper audit trail is the official ballot for direct recording electronic voting machines, and the optical scan paper ballot is the official ballot for optical scan voting systems. Voter confidence and thereby participation depends on the proven reliability of these vote tabulation systems. Post-election audits provide a means to demonstrate their reliability.

Last year, my office entered into a settlement agreement in the case of *League of Women Voters, et al. v. Brunner* [formerly *Blackwell*], N.D. Ohio No. 3:05-cv-7309. As explained in Advisory 2009-09, the *League of Women Voters* settlement agreement, which was made an order of the court, requires that post-election audits be conducted following general elections in even-numbered years and following presidential primary elections. According to this federal court order, boards of elections are hereby directed that they must conduct post-election audits consistent with the procedures set forth in this directive.

POST-ELECTION AUDIT PROCEDURES

A post-election audit must be conducted and may begin no sooner than five days after the official certification of election results as long as a county board of elections:

- Has not received a written application for a recount, or
- If there is not an automatic recount(s).

No audit shall be held prior to the official canvass and certification of the election. The post-election audit must be completed between six days after the county’s declaration of the official

certification and fifteen days after the declaration of the official certification in a statewide election by the Secretary of State. Since post-election audits are conducted primarily for general elections, this extended time allows boards of elections to account for employee time off during the year-end holidays. Please note, that if an automatic recount or a requested recount is to be held for any race but the governor and lieutenant governor race, the board may at the same time conduct the post-election audit of the governor and lieutenant governor race.

Open to the Public / Public Observers

The post-election audit must be open to the public and to duly appointed observers to enhance voter confidence through a transparent process. Each board of elections must give public notice of the time and place of the post-election audit in the same manner that the board notifies the public of a board of elections meeting.

Observers may be appointed solely for the purpose of observing a post-election audit. Observers of the post-election audit must be appointed by their respective organizations and may observe the post-election audit process utilizing the authority and methods of appointment contained in R.C. 3505.21, 3505.32(B) and 3515.03, and described in Directive 2008-29. Persons who are to serve as observers must be appointed by their appointing authority no later than five days following board notification of the date and time of the post-election audit to be conducted in accordance with this directive. Substitute observers may be appointed if made in writing and filed with the board of elections at least one day before the holding of the post-election audit.

Citizens may be present for the conducting of the post-election audit and must be given sufficient access to verify and observe the random selection of the precincts for the audit and the manual counts of the ballots. The rights of the public during a post-election audit shall not be as extensive as those for duly appointed observers, as is outlined in R.C. 3505.21 for the board of elections office and as explained in Secretary of State Directive 2008-29, Sections III and IV (pages 11 through 17).

Throughout the audit, ballots may **only** be handled by boards of elections members, directors, deputy directors, or other designated employees of the boards. No observer or member of the public may handle a ballot.

A. Post-Election Audit Instructions Applicable to All Voting Systems

1. As part of the audit preparation process, following are instructions for reconciliation of paper ballots for precincts and/or multi-precinct polling locations once they are randomly selected for the post-election audit and/or for all ballots cast, where the latter is applicable:
 - a. select the precincts and/or multi-precinct polling locations to be used in the post-election audit (see subsequent procedures for making such random selection);
 - b. make available for inspection, upon request of observers or members of the public, receipts or other documents used to order or receive paper ballots that have been ordered from printers, including ballot stock used for ballot on demand machine ballot production, that show the total number of ballots and/or ballot stock ordered for the precincts and/or multi-precinct polling locations included in the post-election audit (including absentee voting) to document an original number of ballots printed for each precinct included in the post-election audit. Photocopied ballots and ballot remakes should be included in this number and itemized as such per precinct that is included in the post-election audit;

- c. make available for inspection, upon request of observers or members of the public, documentation that shows for the precincts and/or multi-precinct polling locations included in the post-election audit the number of ballots voted, spoiled and unvoted, including absentee and provisional ballots and photocopied ballots and ballot remakes, with itemization by type of ballot per precinct and/or multi-precinct polling location that is included in the post-election audit;
 - d. make available for inspection, upon request of observers or members of the public, documentation that shows for all absentee ballots and individually for the precincts and/or multi-precinct polling locations included in the post-election audit, where applicable, subtotals of numbers by the type of absentee ballot (regular absentee, provisional absentee, military absentee and overseas absentee) for each total:
 - the number of absentee ballots printed, whether by a printer or through ballot on demand,
 - the number of absentee ballots mailed, e-mailed, and faxed,
 - the number of absentee ballots voted in person,
 - the number of absentee ballots returned unvoted,
 - the number of absentee ballots returned voted,
 - the number of absentee ballots returned voted but returned and/or received after the applicable statutory deadline,
 - the number of absentee ballots rejected and not counted, even if returned,
 - the number of absentee ballots with ID envelopes containing errors that prevented the counting of such ballots, and
 - the number of absentee ballots with ID envelopes containing errors that were corrected by a voter within the 10-day period after the election and able to be counted.
 - e. make available for inspection, upon request of observers or members of the public, documentation that shows the number of provisional ballots printed, whether by a printer or through ballot on demand, the number of provisional ballots voted, and the number of provisional ballots that were supplemented by the voter with required ID within the 10-day period after the election.
2. As part of the audit preparation process, following are instructions verifying the ballot production for direct recording electronic, AutoMark and optical scan (whether precinct-based or central count) vote tabulation machines for precincts and/or multi-precinct polling locations randomly selected for the post-election audit:
 - a. select the precincts and/or multi-precinct polling locations to be used in the post-election audit (see subsequent procedures for making such random selection). Only one selection process is necessary for both VVPAT and optical scan paper ballots for the same selected precincts and/or multi-precinct polling locations for the audit;
 - b. make available for inspection, upon request of observers or members of the public, documentation that shows (1) whether the office type ballot and any other ballot containing races or issues that are also the subject of the post-election audit was programmed in-house and by whom, or through an outside service such as an agent of a voting machine manufacturer or servicing company and by which individual(s), and (2) when programming took place and how many times programming occurred for the machines in question for the election; and
 - c. make available for inspection, upon request of observers or members of the public, documentation that shows when and by whom the voting machines of precincts

and/or multi-precinct polling locations randomly selected for the post-election audit in question were logic and accuracy tested.

3. Only the race for governor and lieutenant governor, including the votes for all candidates whose names appear on the ballot and the write-in candidates, must be audited for the November 2, 2010, general election. A countywide candidate race, or a particular subdivision's question or issue, may also be randomly chosen for auditing, if a board of elections chooses to do so. Decisions on additional races, or questions or issues to audit, should be based on staffing and time considerations so as to ensure accurate and timely auditing of the gubernatorial race.
4. The post-election audit must be conducted by teams of elections officials equally divided among the state's two major political parties (e.g., 2, 4, 6, etc.).
5. A post-election audit team of at least two election officials must compare the total number of votes cast in the candidate races and question or issue elections being audited to the number of voters listed in the poll book, poll list or signature poll book records. If more votes in a precinct (including precincts contained in multi-precinct polling locations) appear for a particular race or issue than the number of marked names in the poll book, poll list or signature poll book records (showing voters who voted, including absentee and provisional voters), such problem must be documented and reported to the Secretary of State immediately. Please note that each team must be comprised of election officials equally divided among the two major political parties. Any chain of custody logs for the ballots, poll worker reconciliation results, and board of elections reconciliation results should also be reviewed for each precinct being audited. These records must be available for visual inspection by observers upon request. The observers and members of the public shall not be permitted to handle the records.
6. Ballots must be checked to verify that each candidate's race, or a question or issue has been properly identified. Observers and members of the public may observe the inspection of the ballots but may **not** handle ballots.
7. Regular absentee ballot identification envelopes returned to or received by the board of elections *after the relevant statutory deadline for that type of ballot to be eligible to be counted* may be viewed by observers and members of the public, but they may not be handled by such an observer or citizen, and such ballots must remain sealed without viewing the actual ballot contained within the envelope. Any social security numbers (whole or partial) written on the absentee ballot identification envelope shall be covered temporarily in a manner that prevents the observers and the public from seeing the numbers but not in a manner that permanently alters or obscures the numbers.
8. Ballots and envelopes, whether they are outside envelopes on late returned ballots or ID envelopes for absentee or provisional ballots, must be handled only by the members of the board of elections, its director, deputy director, or other designated employees of the board.
9. The board must randomly select whole precincts or multi-precinct polling locations whose vote totals equal at least 3% of the total vote. A multi-precinct polling location is eligible to be included in the audit **only** if the polling location was set up so that a voter from any of the precincts casting a ballot at that polling location could cast his or her ballot on any of the voting machines at the polling location – i.e., the voting machines were not programmed to be precinct-specific.

10. The ballots for these precincts must then be manually hand counted using the procedures set forth in Directive 2008-34 (Manual Hand Count Procedures).
11. For the purposes of this directive, “randomly select” means the following:

- a. Whole precincts and/or multi-precinct polling locations shall be selected for the audit.

NOTE: Each precinct or multi-precinct polling location’s ballots shall include for the audit all relevant regular ballots (VVPAT and/or optical scan paper ballots), provisional ballots, and absentee ballots of all types (including provisional absentee ballots) tallied and recorded as part of the official certification. Sealed VVPAT canisters may be opened for the purposes of conducting the post election audit, even if there is not a recount in the precinct.

- b. Enough precincts and/or multi-precinct polling locations shall be selected for the audit whose total votes cast, when taken together, equal at least 3% of the total votes cast in the election at issue in the county. To calculate this percentage, multiply the number of total votes cast in the county by 0.03 and then round up to the next whole number if necessary.
- c. Before the scheduled post-election audit, each board shall create a printable list of precinct and/or multi-precinct polling location names/numbers for the entire county (whatever is used by that board to describe a precinct or multi-precinct polling location). The name of each precinct and/or multi-precinct polling location must be printed in a table that contains equally sized boxes that are at least 1 inch high and two inches long. During the scheduled post-election audit, the board shall randomly select the precincts and/or multi-precinct polling locations to be audited according to the following steps in the presence of observers:
- Step 1: allow any interested observer or member of the public to review the list.
 - Step 2: cut the pages into equally sized pieces so that the designated name of each precinct or multi-precinct polling location is on its own piece of paper.
 - Step 3: turn the container upside down and allow any public observer to view the container to confirm it is empty before placing any and all pieces of paper in the container. Place the pieces of paper in a container large enough to hold all of them. A transparent material for the container is a good idea.
 - Step 4: mix the pieces in the container thoroughly.
 - Step 5: pick one precinct or multi-precinct polling location at a time without looking in the container.
 - Step 6: one post-election audit team member shall announce the precinct or multi-precinct polling location name/number selected and remaining team members shall confirm the name/number of the selection.
 - Step 7: the teams shall allow any observer to view and confirm for members of the public the piece of paper selected.

- **Step 8:** continue selecting precinct or multi-precinct polling location names/numbers in accordance with these steps until the number of voters in the precincts and/or multi-precinct polling locations selected equals at least the number that would comprise 3% of the total votes cast in the gubernatorial election in the county. (If by chance, more votes were cast in a race other than the race for governor and lieutenant governor for which a post-election audit is being conducted, the 3% should be of the higher number of votes cast in the highest voter turnout race being audited and applied to all races being audited. This enables only one random selection made for any and all races being audited.)
- **Step 9:** set aside the container with the remaining pieces of paper with precinct names/numbers on them for any further draws, if necessary.

B. Optical Scan Voting Machines

1. Verify ballots

- a) After the board has randomly selected one or more precincts and/or multi-precinct polling locations, the sum of whose total votes cast equals at least 3% of the total votes cast for the candidate races or question or issue elections being audited, the board shall select the paper ballots to be compared with the electronic results for the precincts and/or multi-precinct polling locations randomly selected for the post-election audit.
- b) Ballots must be checked to verify that each candidate's race, question or issue has been properly identified.
- c) Ballots selected must be inspected for mutilations and other invalidities not accounted for by ballot remakes (see Directive 2010-77).
- d) The ballot chain of custody forms for the ballots cast in all of the randomly selected precincts and/or multi-precinct polling locations must be inspected to ensure proper completion. If the audit team determines that any of the ballot chain of custody forms were not properly completed, or that election officials failed to complete the ballot chain of custody forms, this must be noted on the audit report.

2. The Audit

- a) For each candidate race or question or issue election to be audited, a hand count of the votes cast on the optical scan paper ballots for each randomly selected precinct or multi-precinct polling location must be made by physical examination of and hand count of the ballots (see Directive 2008-34). All types of ballots must be included in the hand count (regular, absentee of all types, and provisional ballots that were counted, including remakes for any of these types of ballots). The hand count must then be compared to the recorded electronic summary or in the case of "double bubble" votes as is described in Directive 2010-77, combination electronic/hand counted summary of the votes as

contained in the official certification of the votes for that race or issue in that precinct or the precincts contained within that multi-precinct polling location. A record of the comparison must be made for each precinct (including precincts contained in multi-precinct polling locations) included in the post-election audit. If there is no difference between a hand count and the recorded electronic ballot summary or combination electronic/hand counted summary of the votes contained in the official certification results for that precinct, the official certification results shall be presumed to be the accurate count for the candidate's race, question or issue being audited for the precinct.

- b) If any comparison of the hand count and official certification results as noted above results in a difference between the hand count and the official certified ballot summary, it must be determined if a hand counting mistake occurred. If it is determined that no counting mistake has occurred, the hand count of the ballots shall be taken to be the accurate count, and the board shall provide written notification to the Secretary of State of any such discrepancy occurring between a hand count and the official certified summary for each affected precinct and for the total number of precincts (including precincts contained in multi-precinct polling locations) included in the post-election audit.
- c) If for all precincts (including precincts contained in multi-precinct polling locations) included in the post-election audit the official certification results for each precinct, when taken together, do not match the related hand counts of ballots with a total difference of two or less votes, and after rechecking the hand counted results, the hand counted results and the official certification results are still not equal, or within two or less votes, the hand count shall be the official certified results for the race(s) or issue(s) being audited in this first phase of the audit, and additional precincts and/or multi-precinct polling locations for further verification and audit must be selected.
- d) The additional precincts and/or multi-precinct polling locations selected must be precincts or multi-precinct polling locations not previously included in the post-election audit and equal the number of precincts and/or multi-precinct polling locations whose vote totals for the race(s) or issue(s) being audited equals at least 3% of the total votes cast for the election being audited in the county.
- e) The additional precincts and/or multi-precinct polling locations must be randomly selected (following steps 4 through 8 in Section A.11(c) above) in the same manner as those precincts and/or multi-precinct polling locations selected for the original 3% of the vote. These additional precincts' and/or multi-precinct polling locations' votes for the candidate(s) or issue(s) being audited must be hand counted in accordance with Directive 2008-34 and as set forth in Section B.2.(f) below.
- f) The board must perform the audit steps a), b) and c) that are listed directly above with the additional 3% or more of the candidate(s) or issue(s) being audited, with the exception that, if for all precincts (including precincts contained in multi-precinct polling locations) included in the second phase of this post-election audit, the official certification results for each precinct in the additional 3% or more of votes for the candidate(s) or issue(s) being audited, when taken together, do not match the related hand counts of ballots with a total difference of two or less votes, and after rechecking the hand counted results, the hand counted results and official certified ballot summary are still not equal or within two or less votes, all votes on all ballots in the county for the race(s) and/or issue(s) being audited must be hand counted, with the official certification amended to

match the hand count for the entire county's ballots for the race(s) or issue(s) being audited. In such case each team performing the hand counts in county-wide hand count must verify its results by performing two such hand counts for each precinct that match in total.

- g) If a comparison of the results of the official certification count and the hand counted ballots in the second batch are equal, and the difference between the hand count and the official certification count in the first batch is no more than two votes, counties may use the totals from the official certification of the results for the votes cast for the candidate(s) or issue(s) audited in the remaining 3% random sample of precincts and/or multi-precinct polling locations and add this to the hand count total of the initial 3% random sample of precincts and/or multi-precinct polling locations. Otherwise, all ballots for candidate(s) or issue(s) to be audited shall be hand counted.
- h) In any case where the hand count of any random sample of precincts (including precincts contained within multi-precinct polling locations) or the entire county's hand counted ballots differ from the official certified results of that group of precincts, the official certified results shall be amended consistent with the applicable hand counted results.

C. Direct Recording Electronic (DRE) Voting Machines

In accordance with R.C. 3506.18, the voter verified paper audit trail (VVPAT) serves as the official ballot to be audited for the ballots cast on a DRE voting machine.

1. Verify VVPAT

- a) After the board has randomly selected one or more precincts and/or multi-precinct polling locations, the sum of whose total votes cast equals at least 3% of the total votes cast for the candidate races or question or issue elections being audited, the board shall examine the VVPATs to be compared with the electronic results for the precincts and/or multi-precinct polling locations randomly selected for the post-election audit.
- b) VVPATs must be checked to verify that each candidate's race, question or issue has been properly identified.
- c) Check the public counters to verify the numbers on those counters correspond to the numbers on the VVPAT and the poll book, poll list, or signature poll book records.
- d) Inspect the VVPATs for mutilations and other invalidities. If any of the following are found, it must be noted on the audit report:
 - The canister was not sealed;
 - The security seal number has been tampered with or does not match the serial number recorded on election night (unless the board of elections has records of needing to open and re-seal the VVPAT that show a matching seal number); or
 - The zero report was not found or does not contain "0" voters for all candidates in the race being audited.

2. Verify optical scan ballots

- a) After the board has randomly selected one or more precincts and/or multi-precinct polling locations, the sum of whose total votes cast equals at least 3% of the total votes cast for the candidate races or question or issue elections being

audited, the board shall select the optical scan paper ballots cast in the precincts (including precincts contained within multi-precinct polling locations), including the ballots required by Directive 2010-61, absentee ballots, provisional ballots, and remakes to be compared with the electronic results for the precincts and/or multi-precinct polling locations randomly selected for the post-election audit.

- b) Ballots must be checked to verify that each candidate's race, question or issue has been properly identified.
- c) Ballots selected must be inspected for mutilations and other invalidities not accounted for by ballot remakes (see Directive 2010-77).
- d) The ballot chain of custody forms for the ballots cast in all of the randomly selected precincts and/or multi-precinct polling locations must be inspected to ensure proper completion. If the audit team determines that any of the ballot chain of custody forms were not properly completed, or that election officials failed to complete the ballot chain of custody forms, this must be noted on the audit report form.

3. The Audit

- a) Perform a hand count of the VVPATs in the randomly selected precincts and/or multi-precinct polling locations using the procedures in Directive 2008-34 (Manual Hand Count Procedures).
- b) Perform a hand count of all other types of ballots included in the official certification, including regular optical scan ballots (ballots required per Directive 2010-61, absentee ballots of all types and provisional ballots, including remakes). Follow the procedures in Directive 2008-34 (Manual Hand Count Procedures) for the hand count of optical scan ballots.
- c) Compare the totals from the hand counted VVPATs and optical scan ballots to the recorded electronic summary or, in the case of "double bubble" votes as is described in Directive 2010-77, combination electronic/hand counted summary as contained in the official certification results. A record of the comparison must be made for each precinct (including precincts contained in multi-precinct polling locations) included in the post election audit. If there is no difference between a hand count and official certification results in that precinct, the official certification results shall be presumed to be the accurate count for the candidate's race, question or issued being audited for the precinct.
- d) If any comparison of the hand count and the official certification results in a difference between the hand count and the official certification results, it must be determined if a hand counting mistake occurred. If it is determined that no counting mistake occurred, the hand count of the ballots shall be taken to be the accurate count, and the board shall provide written notification to the Secretary of State of any such discrepancy occurring between a hand count and the official certified summary for each affected precinct and for the total number of precincts (including precincts contained in multi-precinct polling locations) included in the post-election audit.
- e) If for all precincts (including precincts contained in multi-precinct polling locations) included in the post-election audit the official certification results for each precinct, when taken together, do not match the related hand counts of ballots with a total difference of two or less votes, and after rechecking the hand

counted results, the hand counted results and official certification results are still not equal, or within two or less votes, the hand count shall be the official certified results for the race(s) or issue(s) being audited in this first phase of the audit, and additional precincts and/or multi-precinct polling locations for further verification and audit must be selected.

- f) The additional precincts and/or multi-precinct polling locations must be precincts or multi-precinct polling locations not previously included in the post-election audit and equal the number of precincts and/or multi-precinct polling locations whose vote totals for the race(s) or issues(s) being audited equals at least 3% of the total votes cast for the election being audited in the county.
- g) The additional precincts and/or multi-precinct polling locations must be randomly selected (following steps 4 through 8 in Section A.11(c) above) in the same manner as those precincts and/or multi-precinct polling locations selected for the original 3% of the vote. These additional precincts' and/or multi-precinct polling locations' votes for the candidate(s) or issues(s) being audited must be hand counted in accordance with Directive 2008-34 and as set forth in Section C.3(h) below.
- h) The board must perform the audit steps a), b), c) and d) that are listed directly above with the additional 3% or more of the candidate(s) or issue(s) being audited, with the exception that, if for all precincts (including precincts contained within multi-precinct polling locations) included in the second phase of this post-election audit, the official certification results for each precinct in the additional 3% or more of votes for the candidate(s) or issue(s) being audited, when taken together, do not match the related hand counts of ballots with a total difference of two or less votes, and after rechecking the hand counted results, the hand counted results and official certification results are still not equal, or within two or less votes, all votes on all ballots in the county for the race(s) and/or issue(s) being audited must be hand counted, with the official certification amended to match the hand count for the entire county's ballots for the race(s) or issue(s) being audited. In such case each team performing the hand counts in county-wide hand count must verify its results by performing two such hand counts for each precinct that match in total.
- i) If a comparison of the results of the official certification count and the hand counted ballots in the second batch are equal, and the difference between the hand count and the official certification count in the first batch is no more than two votes, counties may use the totals from the official certification of the results for the votes cast for the candidate(s) or issue(s) audited in the remaining 3% random sample of precincts and/or multi-precinct polling locations and add this to the hand count total of the initial 3% random sample of precincts and/or multi-precinct polling locations. Otherwise, all ballots for candidate(s) or issue(s) to be audited shall be hand counted.
- j) In any case where the hand count of any random sample of precincts (including precincts contained within multi-precinct polling locations) or the entire county's hand counted ballots differ from the official certified results of that group of precincts, the official certified results shall be amended consistent with the applicable hand counted results.

AFTER POST-ELECTION AUDIT IS COMPLETE

As stated above, the post-election audits must begin no later than six days after the official canvass was certified. This is to ensure that no written applications for recounts are received in your county after the auditing process begins. This should also give a board ample time to provide a public notice of the date, time and place of the audit, by either proclamation or posting of the notice. However, the audit must be completed no later than 15 days after the official canvass was certified.

After a board of elections has completed its post-election audit, the board must file the following with the Secretary of State's office:

1. All final results from the audit on the attached audit reporting form.
2. *If* vote totals in the random candidate's race, question or issue change, a certified amended abstract that shows:
 - The votes cast in each precinct in the county in which the candidacy or issue was submitted to electors.
 - The votes of the precincts in which the ballots were audited as shown by the audit.

A board shall amend its certification of the official results of any race or election so affected and submit it to the Secretary of State within the time limits set forth in this directive in the same manner required in the making of its original official declaration of the result of such election.

Boards must transmit their post election audit results **no later than five days after completion** of the post election audit to the Secretary of State's office via fax at (614) 752-4360 (including a cover letter); email to Kathy Malott at: kmalott@sos.state.oh.us; or by certified mail, retaining a copy of all mailed items, to:

Secretary of State Jennifer Brunner
Elections Division, Attn: Kathy Malott
180 East Broad St., 15th Floor
Columbus, Ohio 43215

If you have any questions, please contact the legal staff assigned to your county at (614) 466-2585.

Sincerely,

Jennifer Brunner