

Comments on revised draft rules of July 6

Mark Lindeman and RLA advocates, 7/10/2017 (amended 7/11)

The revised draft rules of July 6 again contain important improvements over the previous draft, and we welcome the opportunity to comment once more in advance of the July 11 public hearing.

It should be noted that the risk-limiting audit (RLA) specified in these draft rules, and in Colorado statute (1-7-515, C.R.S.) – like the legacy audit that it supersedes (1-7-514, C.R.S. and proposed Rule 25.3) – only applies to the tabulation process. This tabulation process includes the “interpretation of expressions of voter intent and aggregation of those into election results.” The RLA described in these rules does not apply to other important election processes. More specifically, it does not include voter address accuracy, voter signature availability, ballot delivery timeliness, ballot style delivery accuracy, signature comparison accuracy and fairness, and proper safekeeping of accepted ballots awaiting tabulation.

We emphasize the importance of retaining the requirement that RLAs entail either a (ballot-level) comparison audit or a ballot polling audit based on a simple random sample of ballots. Suggestions that hand counts of entire batches of ballots can be treated as if they were multiple ballot-level comparisons are incorrect, and doing so would violate Colorado law.

Our group comments on the revised draft are as follows:

Page 4, line 31: Here and/or at 7.5.13 (see page 6 below), we recommend prescribing: “To the extent practicable, the ballot style of each voted ballot to be counted shall be recorded.”

Page 5, lines 35-38: We strongly support this revision to dissociate counting batches from SCORE batch numbers *before tabulating ballots*. This change is crucial in order to allow audit participants and observers to do their work without violating voter privacy and without changing batches after tabulations have begun.

Page 6, line 31: As on page 4, here or nearby, we recommend prescribing that, if practicable, the ballot style shall be recorded.

Page 16, lines 3-4 (ballot polling audit): “seeking strong evidence that the reported tabulation outcome is correct”: this language seems redundant (given that this is defined as a “type of risk-limiting audit”) and also imprecise (because the current draft does not define “correct” or “incorrect”). We recommend removing it.

Page 16, lines 7-8 (comparison audit): change “then compares them [voter markings] to the voting system’s tabulation...” with “then these are compared to the voting system’s tabulation...” This comparison can and should be done in software by the Secretary of State’s office, using the previously submitted CVR data – not by the audit board itself.

Page 16, lines 40-42 (reported tabulation outcome): This new term of art doesn’t seem helpful. In particular, replacing “reported outcome” with “reported tabulation outcome” doesn’t allow one to talk about “correcting” an “incorrect” outcome without defining those terms. A reader

might or might not infer that the RLA only checks the outcome with respect to the tabulation. We recommend restoring all references to “reported tabulation outcome” to “reported outcome” and clarifying the definition of risk limit (see next point).

Page 16, lines 43-45 (risk limit): Again, the meaning of an “incorrect reported tabulation outcome” is not defined in rule. An RLA of the vote tabulation can only “correct” outcomes to the extent that a full hand count of ballots can do so. One simple way to resolve the problem is to parallel the language of the definition of RLA that follows: “‘Risk limit’ means the pre-specified maximum chance of failing to require a full hand count if the outcome of a full hand count would differ from the reported tabulation outcome.” (The minimum chance is 100% minus the risk limit.)

Page 17, line 7 (RLA tool): replace “in order for counties to conduct RLAs” with “to assist with and help coordinate RLAs.” This language better depicts how the tool facilitates communication and coordination between counties and the Secretary of State’s office.

Page 17, after line 7: we suggest defining “**tabulation**”: “ ‘Tabulation’ means the interpretation of expressions of voter intent and aggregation of the interpretations into election results.”

Page 17, line 8: consistently hyphenate “risk-limiting audit”

Page 17, line 37 and following (ballot manifest): (1) We recommend inserting (at line 39, after the first sentence), “The ballot manifest should be obtained from a source separate and independent of the voting system – for example, by counting ballot pages independently (either by hand or with a device independent of the voting system) as soon as possible after opening and screening for eligibility discrepancies.” This independence is crucial to the audit. For instance, if the ballot manifest simply “echoes” the CVRs, it is possible for some ballots to be excluded from the audit because they have no corresponding CVRs.

We generally agree with Harvie Branscomb’s additional recommendations here, in particular the next sentence: “Ballots should be kept in the same order in containers as shown on the ballot manifest throughout the process, and the ballot manifest should be confirmed just before ballots are placed in containers after tabulation.” Thus, the ballot manifest comprehensively accounts for ballots, by batch, from early stages of processing (before tabulation) up to when they are stored after tabulation.

(2) At lines 40-41, delete “, the scanner on which the ballot is scanned.” The purpose of the ballot manifest is to enable retrieval of individual ballots – again, independent of the voting system. (Indeed, we think ballots should be added to the manifest before they are scanned.) If it is desirable to associate individual ballots with scanners, the logical place to do that is in the CVRs themselves. It may be useful (especially in non-CVR counties) to record that entire batches were scanned by particular scanners, but we presently see no reason to put this information in the ballot manifest.

(3) Near page 18, line 1, add, “Whenever practicable, the ballot manifest shall include the ballot style of each ballot by position within the batch.” This requirement facilitates auditing of contests that do not appear on all ballots.

(4) Near line 5, add “These documents [or, “Records that substantiate chain-of-custody”] must be accessible for review outside the container.” This may seem obvious, but we have heard of instances in other states in which local election workers have placed these documents into the ballot bags, so they could only be retrieved and inspected by breaking the seals.

(5) A procedural comment: ideally, each batch should contain relatively few ballots (to facilitate retrieval of an individual ballot by counting to its sequential position) and relatively few ballot style (to facilitate auditing of contests that do not appear on all ballots).

Page 19, near line 23 (seeds): add language to the effect that “The Secretary of State will also publish video documentation of the seed creation on the Audit Center as soon as is practicable.”

Page 19, line 31 and following (contest selection): (1) At line 33, we recommend adding “all federal contests, and if applicable,” before “at least one statewide contest [etc].”

(2) Near line 36, we recommend adding “The Secretary of State and county audit boards may select additional contests for audit at their discretion.”

Page 20, line 4 (opportunistic auditing): we recommend adding “without requiring them to achieve a specified risk limit.” This clarifies the intent of opportunistic auditing.

Page 20, lines 7-10 (number of ballots to audit): (1) Change “the number of ballots to audit” to “the initial minimum number of ballots to audit” (it may be desirable to add “and subsequently, any additional number needed due to discrepancies found”). The total number of ballots to audit cannot be known in advance!

(2) Change “based on the ballot manifests submitted by the counties” to “based on the ballot manifests and other data submitted by the counties.” The ballot manifests allow the SoS to select individual ballots (lines 32-33), but it’s primarily the reported vote counts (and margins) that enable the initial sample sizes to be reckoned.

(3) We recommend adding, at line 10, “beyond a per-county minimum of sixteen,”

(4) We again recommend adding a provision to the effect that “Any additional statistical methods used for auditing will be published by the Secretary of State no later than __ days preceding the election.” It is possible that considerable efficiencies could be gained by using methods not contained in the sources presently referenced here. (Of course, these methods should be carefully vetted by appropriate experts.)

Page 20, lines 32-39 (random selection of ballots): (1) To clarify the implementation, replace the first sentence with “The Secretary of State will publish a list of the order in which randomly selected individual ballots shall be audited.”

(2) Similarly, at line 38, replace “the randomly selected ballots that each county must audit” with “the sequential list of randomly selected ballots that each county may be required to audit.” At the end of the paragraph, add language to this effect: “The Secretary shall also periodically publish as needed the required number of ballots from the list to be audited. A county may audit additional ballots chosen sequentially from the list at its discretion.” (It should be made clear that

if at a given time a county is required to audit, say, 31 ballots, then the first 31 ballots on the sequential list should be audited – although it is not literally necessary, from a statistical standpoint, to audit these 31 ballots in order, provided that they all are audited.)

Page 21, lines 3-14 (auditing individual ballots): (1) At line 3, prepend “Prior to any examination of the CVR,” It is crucial for the interpretation of votes to be done “blind,” and publicly committed to, before the CVR is examined.

(2) At line 5, after “voter markings or choices,” add language to the effect: “for all contests with opposition on the ballot.” (In the alternative, if the SoS intends to limit the scope of contests subject to opportunistic audit – or, as may be desirable, the extent of those opportunistic audits – this language should make clear that all contests currently subject to audit, with or without a risk limit, are thus recorded.)

(3) At lines 6-9, the suggestion to use digital images to confirm that the right ballot was retrieved raises the unnerving possibility that the CVRs and associated images could *systematically disagree with the ballots*. If, say, what was believed to be the 73rd ballot does not agree with the 73rd image or CVR, but the previous ballot does, it should not simply be assumed that the audit team inadvertently retrieved the 74th ballot. The ballots should be rechecked, and if the 73rd ballot indeed was retrieved, the mismatch should be reported as a discrepancy and further investigated to determine its cause. We recommend that this provision be reworded to clarify how discrepancies should be handled.

If digital images are used as part of the auditing process, it is important not to simultaneously reveal a copy of the cast vote record: in particular, the Dominion AuditMark should not be accessible before or during the process of interpreting and recording voter markings or choices.

(4) At line 14, add, “The audit board shall upload a color photograph of each side of each audited ballot, as well as the digital file containing the voting system scanned image of that ballot.”

Page 21, line 17 (voter intent): add “and Colorado statute.”

Page 21, lines 24-26: replace “the Secretary of State will randomly select additional ballots for audit” with “the Secretary of State will specify an additional number of ballots from the published list for audit” (parallel to the changes on page 20, lines 32-39).

Page 21, after line 26: add a new section (e) in the following vein: “With the canvass report, the county shall submit a report by the audit board of actions taken and exceptions encountered, including any divergence from expected or standard practice, and a detailed accounting of workload including numbers and hours of any audit personnel.” Some such reporting will be invaluable in refining audit protocols and processes going forward.