



THE SENATE
STATE OF MICHIGAN

JIM RUNESTAD
23RD DISTRICT
P.O. BOX 30036
LANSING, MI 48909-7536
PHONE: (517) 373-1758
FAX: (517) 373-0938
senjrunestad@senate.michigan.gov

Aug. 16, 2024

Jonathan Brater, Director of Elections
Michigan Bureau of Elections
430 W. Allegan St.
Richard H. Austin Building - 1st Floor
Lansing, MI 48918

Dear Director Brater,

This letter will also be submitted as written testimony for the Aug. 16 public hearing on the Bureau of Elections rule set, 2024-019 ST.

There are many concerns with the broad-brushed rewrites in this rule set. However, the most egregious concern is that the department has stepped outside its rulemaking authority to insert language that is contrary to current state law and instead mimics policies spelled out in the yet ineffective Senate Bill 603, now Public Act 74 of 2024.

Under the current law – the law under effect through the end of this year – absent voter ballots can be recounted if the said ballots are “securely packaged and sealed.”

That is the current law. It’s unambiguous. However, this proposed rule set ignores this current clear language of the law and utilizes new language from SB 603, which will not be in effect until next year. Instead, this proposed rule set says that it is up to the secretary of state to decide what a satisfactory explanation is in determining if the “security of the ballots has been preserved.” This rule set is not implementing current law but is, in fact, a complete rewrite of the law. The Michigan Constitution is clear that the Legislature is the only branch of government with the authority to pass legislation.

Michigan Election Law, Sec. 168.871

(2) This section does not prohibit the recounting of absent voter ballots tallied in a precinct using an absent voter counting board or in a precinct in which 1 or more voting machines are recountable, if the absent voter ballots are securely packaged and sealed.

On page 50 of the proposed rule set, subsections (3) and (4) do not reflect current statute and instead are policies taken from SB 603/PA 74, particularly those on pages 26 and 27, subsection (2).

R 168.793 Recount, page 50, sections (3) and (4)

“(3) A recount may still be conducted even if the precinct does not satisfy the conditions under subrule (1) of this rule if there is a satisfactory explanation in a sworn affidavit provided by an election inspector, a clerk, or a member of the clerk’s staff to the board of canvassers demonstrating that the security of the ballots has been preserved.

(4) An explanation is satisfactory if it documents that the security of the ballots is otherwise preserved and the board of canvassers determines that it meets the requirements set forth in instructions issued by the secretary of state in determining whether an explanation is satisfactory.”

Senate Bill 603, H-2, Sec. 871, Pages 26 and 27, section (2),

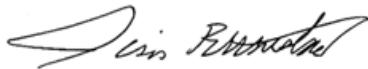
“If a board of canvassers conducting a recount under this chapter determines that the ballots of a precinct are not eligible for recount under subsection (1) (a) or (b), the board of canvassers conducting that recount may still conduct the recount if a satisfactory explanation in a form of a sworn affidavit, in a form as prescribed by the secretary of state, is provided by an election inspector, a clerk, or a member of the clerk’s staff to the board of canvassers. An explanation must not be accepted by a board of canvassers as satisfactory unless the explanation documents that the security of the ballots is otherwise preserved. The secretary of state shall prepare and issue instructions for a board of canvassers to follow when determining if an explanation in a sworn affidavit is satisfactory under this subsection.”

Both of these sections reference alternative means for election officials to initiate a recount and require the official to provide a sworn affidavit with a satisfactory explanation that the security of the ballots has been preserved. Both sections also reference guidelines that will be disseminated by the secretary of state that describe what explanations would be considered satisfactory.

Since SB 603/PA 74 did not receive immediate effect when passed by the Legislature, it will not be effective law until 90 days after the legislative session ends. We contend that administrative rules can only effectuate policies that are effective in state law, meaning the aforementioned subsections of rule set 2024-019 ST cannot be made effective until after SB 603/PA 74 takes effect.

In light of these concerns, I oppose the Bureau of Elections rule set, 2024-019 ST.

Sincerely,



Sen. Jim Runestad
District 23

From: [Sheree Ritchie](#)
To: [MDOS-Elections-PublicComment](#)
Cc: [Dee Davey](#)
Subject: Public Hearing - Testimony Friday August 16 2024 RE Rule Set 2024-19 ST
Date: Friday, August 16, 2024 4:34:20 PM

**CAUTION: This is an External email. Please send suspicious emails to
abuse@michigan.gov**

Elections & Campaign Finance - Administrative Rules for Electronic Voting Systems, Rule Set 2024-19 ST

Public Hearing

To Whom It May Concern:

Scio Township, MI

On Saturday, July 27, 2024, and on Wednesday, July 31, 2024, there occurred statewide outages of the Electronic Poll Book upon polls opening. Observed in person by Dee Davey, election inspector, Ms. Davey's comments are as follows, which Ms. Davey reported in writing to the SCIO Township Clerk, Jessica Flintoft, and Scio Township Deputy Clerk Barbara Calleja:

"EPB Outages Saturday & Wednesday. This is the elephant in the room. I experienced these two outages, have heard & read about this in the press, and heard there was a 'fix', however whenever voting equipment is tied to the internet there are serious security risks. Citizens are concerned, with due cause, that our early voting processes are dependent on CrowdStrike [cybersecurity] and 'real-time internet connection and data transfer.' I have also heard of recent EPB outages due to CrowdStrike in other states, [namely] Ohio and AZ. This should raise alarm bells with everyone, particularly our election officials who we trust and rely on for the administration of our elections. The seriousness of internet-connected vulnerabilities, coupled with the recent CrowdStrike national issues, I believe warrant an independent investigation into the causes and remedies to ensure safe and secure elections, and I am hopeful that you will agree."

Quoted remarks above written by Ms. Dee Davey, and read aloud at the August 16, 2024, Public Hearing by Sheree Ritchie, representing Pure Integrity Michigan Elections; Michigan Fair Elections; Stand Up Michigan; The Freedom Alliance; and Mid-Michigan Women for Conservative Values - these organizations combined encompass more than 300,000 Michigan citizens.

Respectfully submitted,

Sheree Ritchie
1206 Brookside Drive, Lansing MI 48917

517-303-3125
sheree.ritchie@hotmail.com

CC: Dee Davey
8849 Brookville Road, Plymouth, MI 48170
734-233-1513
deedavey@protonmail.com

From: [Patrick Colbeck](#)
To: [MDOS-Elections-PublicComment](#)
Subject: Electronic Copy of Comments Made During August 16, 2024 Public Hearing
Date: Friday, August 16, 2024 12:01:36 PM
Attachments: [MI SoS Electronic Voting System Rules.docx](#)
[Public Testimony of Patrick Colbeck Regarding Proposed MDOS Rules on Electronic Voting Systems.docx](#)

**CAUTION: This is an External email. Please send suspicious emails to
abuse@michigan.gov**

I have attached electronic copies the testimony that I provided at the August 16, 2024 MDOS Public Hearing pertaining to MDOS newly proposed rules for electronic voting systems.

An electronic copy of the report associated with my testimony is provided for your reference as well.

Should you have any questions regarding the proposed revisions to your ruleset, you can reach me at this email address.

Regards,
Patrick Colbeck
President, MI Grassroots Alliance

My name is Patrick Colbeck. I am a former MI State Senator for the citizens of the 7th State Senate District for two terms. During my second term in the Michigan Senate, I served as Vice Chair of the Senate Elections and Government Reform committee. Prior to my service in the Michigan Senate, I had a successful aerospace engineering and management career supplemented by certification as a Microsoft Small Business Specialist. During the 2020 election, I served as a certified poll challenger at the TCF Center in Detroit, MI. In short, I have a unique blend of experience with Michigan election law and election practices coupled with professional experience with information technology.

Upon receiving notice of the proposed Michigan Department of State rules for Electronic Voting Systems which are the topic of discussion for this hearing, I proceeded to conduct a thorough review of the proposed rules which I have documented in the 126-page document that I have shared with the committee. My review evaluated the compliance of the proposed rules with the Michigan Constitution, current Michigan Compiled Law and United States Code. In addition to evaluating compliance of the proposed rules with existing law, I evaluated the proposed rules for any gaps that needed to be filled in order to ensure the accuracy and integrity of our elections based upon my experience.

During my public testimony, I will proceed to provide a summary of my findings.

Finding #1: The proposed rules for electronic voting systems have insufficient scope and rigor to ensure the accuracy and integrity of our elections as required by our Michigan Constitution.

Finding #2: The proposed rules appear to be biased towards diminishing the rights of voters and local election officials in favor of increased control of elections and election records by the Michigan Department of State. Once again, our Michigan Constitution requires that all voting rights be liberally construed in favor of voters' rights in order to effectuate its purpose.

Finding #3: The Michigan Department of State appears to be engaged in deliberate and repeated abuse of the rule-making process to subvert the integrity of our elections

In support of Finding #1 regarding insufficient rigor to ensure the accuracy and integrity of our elections, I submit the following observations:

In a ruleset specific to electronic voting systems, there is notably zero mention of best practices regarding security protocols for electronic systems. There are quite a few references to the use of seals to preserve the integrity of physical records such as ballot containers, but zero references to their digital record equivalents such as user account, device access or network security protocols.

In a ruleset specific to electronic voting systems, there is notably zero reference to secure digital record transfers for systems designed to connect to the internet as evidenced by election official communications, election procedure manuals, contracts between electronic voting system vendors, my own personal observations as a Certified Microsoft Small Business Specialist, and even the Department of State's own website where it encourages clerks experiencing difficulties with internet connections to contact their friends at Connected Nation.

In a ruleset specific to electronic voting *systems*, there are rules pertaining only to the use of two components of that system – hand-fed polling location tabulators and voter accessible devices.

The ruleset ignores any usage guidance for batch-fed tabulators, electronic pollbooks, adjudication equipment, vote tally equipment, networking equipment and election night reporting.

In a ruleset specific to electronic voting systems, the requirement for end-to-end system testing replicating how this critical infrastructure performs on election night is prefaced with the words “if practicable”. So, we only need to test the full system if it is convenient. It should be noted that the 7,060 vote flipped experienced in Antrim County would have been detected if end-to-end testing of the election day configuration had been performed.

in a ruleset specific to electronic voting systems, there seems to be an inexplicable focus upon the security of physical records NOT digital records.

In support of Finding #2 regarding a bias against voters’ rights, I submit the following observations:

Many voters have expressed concerns with the integrity of mail-in voting, yet the ruleset fails to provide any substantive guidance on the components integral to the mail-in voting process such as batch-fed tabulators, electronic pollbooks, and adjudication equipment.

Many voters have expressed concerns with the integrity of our voter rolls. Investigators have shared evidence of dead voters, people who have moved out of a given jurisdiction, people registered illegal addresses such as businesses or apartments without an apartment number, or people who are not American citizens – all being listed on our active voter rolls. The July 2024 QVF, which is statutorily required to maintain voter history records for a period of not less than 5 years, shows that there were 302,380 more ballots cast in 2020 election than there were voters. Against this backdrop, the proposed ruleset governing electronic voting systems provides zero substantive guidance on the use of electronic pollbooks and the state Qualified Voter File.

Many voters have expressed concerns with vote tally anomalies, yet the ruleset fails to provide any substantive guidance on the components of the vote tally chain of custody including vote tally equipment and election night reporting.

Many voters have expressed concerns with internet connections, yet the ruleset makes zero references to network security protocols regarding either official or unofficial record transfers.

Many voters have expressed concerns with fractional voting, yet the ruleset makes no reference to the need for electronic voting systems to store and report vote tally data as integers not fractions.

Voters are guaranteed the right to an audit of statewide elections to ensure their accuracy and integrity. In order to accomplish any such audit, any auditor must be provided with an audit trail sufficient to verify the accuracy and integrity of our elections. The startling gaps in the audit trail enabled by the proposed ruleset for electronic voting system are either the result of gross negligence on the matter of securing a critical system of our nation’s infrastructure or indicate a deliberate attempt to enable election fraud.

In support of Finding #3 regarding a pattern of abuse of the rule-making process, I submit the following observations:

Michigan Secretary of State Jocelyn Benson has been found by seven different courts to have issued unlawful guidance regarding elections. Seven. During oral testimony on October 3, 2023 in

the O'Halloran v Benson case before the Michigan Court of Appeals, Department of State lawyer Heather Meingast demonstrated her client's flagrant disregard for the law in the following concerning statement:

"I don't think we would want to create a war between the branches and if there was something telling us to do something and we thought it was OK, we would probably do it. But if ... this isn't something that we can really do because we couldn't really control it or it's a bad idea we might just choose not to do it you could leave that statute sitting there and we could continue to issue instructions and give guidance and somebody would probably sue us."

Voters were forced to sue her multiple times at their own expense, often AFTER the impact of her unlawful guidance was already inflicted upon the conduct of our elections. This blatant disregard for the rule of law is concerning. This behavioral pattern underscores the need for a professional review of these proposed rules for electronic voting systems BEFORE they go into effect.

Electronic voting systems are complex. We rely upon the integrity of regulatory bodies to secure these complex systems. These regulatory bodies in turn delegate this responsibility to non-government organizations with personnel that have the necessary skillsets to evaluate the security of such systems. These NGO's are not subject to any substantive oversight. NGO's, including electronic voting system vendors, are not subject to FOIA requests for example. This oversight is made even more problematic by the fact that the contracts between government bodies and electronic voting system vendors feature illusory provisions. These illusory provisions prevent examination of the design and implementation of these systems by all but a select group of election officials. Meanwhile, more and more of our election processes are being ceded to these NGO's because of the complexity of elections featuring electronic voting systems.

During my aerospace engineering career, I was responsible for designing elements of the International Space Station life support system. Since the lives of the Astronauts depended upon the effectiveness and integrity of my design for their very lives, my systems were viewed as "critical infrastructure". There was a significant degree of rigor applied to the design, analysis and testing of these systems. We conducted rigorous failure modes and effects analyses, conducted rigorous component-level and system-level tests based in large part upon these analyses, and enacted strict configuration control practices to prevent tampering with the integrity of our flight articles.

Our election systems have also been designated as critical infrastructure. This proposed ruleset, however, does not come anywhere close to the rigor needed to ensure the accuracy and integrity of our electronic voting systems. In fact, this proposed ruleset for electronic voting systems does not come close to providing the level of security evident in the regulations for children toys much less what is needed for an element of our nation's critical infrastructure. We need to do better. The 126-page report that I submit to you today is my attempt to assist the Michigan Department of State achieve its constitutional obligation to ensure the accuracy and integrity of our elections.

Evaluation of Proposed Electronic Voting System Rules

AS PROPOSED BY MICHIGAN DEPARTMENT OF STATE ON
JULY 31, 2024

PREPARED BY

PATRICK COLBECK
FORMER MICHIGAN STATE SENATOR

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Table of Contents

1	Introduction.....	6
2	Background	6
3	Governing Statutes.....	8
3.1	Referenced Statutes	8
3.1.1	MCL 168.31	8
3.1.2	MCL 168.37	10
3.1.3	MCL 168.794	11
3.1.4	MCL 168.794c	11
3.1.5	MCL 168.797b	12
3.1.6	MCL 168.720c	12
3.2	Additional Applicable Statutes	12
4	Rule Adoption Timeline	13
5	Key Definitions.....	15
5.1	Election Equipment	15
5.2	Election Management System	15
5.3	Program	15
5.4	Qualified Voter File	15
5.5	Tabulator	15
5.6	Voting Station	15
6	Issues with Proposed MDOS Rule Changes	15
6.1	R 168.771 Definitions.....	15
6.1.1	Ballot	15
6.1.2	Status Report	16
6.1.3	Totals Tape	17
6.1.4	Voting System.....	17
6.1.5	Pollbook References	22
6.1.6	Election Materials	22
6.1.7	Summary Zero Report	23
6.1.8	Ballot Summary Page.....	23
6.1.9	Adjudication Equipment.....	24

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.1.10	Vote Tally Equipment.....	24
6.1.11	Networking Equipment.....	25
6.1.12	Election Night Reporting.....	25
6.1.13	Audit	25
6.1.14	Electronic Pollbook Activity Log Report	25
6.1.15	Electronic Pollbook Remarks Report.....	26
6.1.16	Electronic Pollbook Voter List Report	26
6.2	R 168.772 General Provisions.....	26
6.2.1	Proposed MDOS Rule.....	26
6.2.2	Issue(s)	27
6.2.3	Proposed Revision	28
6.3	R 168.773 Preparation of Program	29
6.3.1	Proposed MDOS Rule.....	29
6.3.2	Issue(s)	50
6.3.3	Proposed Revision	50
6.4	R 168.774 Preparation of Ballots.....	71
6.4.1	Proposed MDOS Rule.....	71
6.4.2	Issue(s)	73
6.4.3	Proposed Revision	74
6.5	R 168.775 Preparation of Tabulators	76
6.5.1	Proposed MDOS Rule.....	76
6.5.2	Issue(s)	77
6.5.3	Proposed Revision	78
6.6	R 168.776 Preparation of Official Test Deck.....	80
6.6.1	Proposed MDOS Rule.....	80
6.6.2	Issue(s)	82
6.6.3	Proposed Revision	83
6.7	R 168.777 Preliminary Accuracy Test	85
6.7.1	Proposed MDOS Rule.....	85
6.7.2	Issue(s)	85
6.7.3	Proposed Revision	85
6.8	R 168.778 Public Accuracy Test	86

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.8.1	Proposed MDOS Rule.....	86
6.8.2	Issue(s)	87
6.8.3	Proposed Revision	88
6.9	R 168.779 Preparation and Delivery of Election Materials	90
6.9.1	Proposed MDOS Rule.....	90
6.9.2	Issue(s)	91
6.9.3	Proposed Revision	91
6.10	R 168.780 Clerks and Election Inspectors; Duties Before Opening of Polls	92
6.10.1	Proposed MDOS Rule.....	92
6.10.2	Issue(s)	93
6.10.3	Proposed Revision	93
6.11	R 168.781 Conduct of elections and manner of voting.....	95
6.11.1	Proposed MDOS Rule.....	95
6.11.2	Issue(s)	96
6.11.3	Proposed Revision	96
6.12	R 168.782 Election Inspectors; Duties After Polls Are Closed.....	97
6.13	R 168.784 Processing Write-In Ballots	98
6.14	R 168.785 Duplication of Ballots	98
6.15	R 168.786 Absentee Ballots; Issuance, Processing and Tabulation.....	98
6.16	R 168.788 Receiving Station; Receiving Board	98
6.17	R 168.789 Absent Voter Counting Board	98
6.17.1	Proposed MDOS Rule.....	98
6.17.2	Issue(s)	99
6.17.3	Proposed Revision	99
6.18	R 168.790 Closing Procedures; Ballot Retention	100
6.18.1	Proposed MDOS Rule.....	100
6.18.2	Issue(s)	102
6.18.3	Proposed Revision	103
6.19	R 168.791 Challengers.....	106
6.19.1	Proposed MDOS Rule.....	106
6.19.2	Issue(s)	106
6.19.3	Proposed Revision	106

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.20	R 168.792 Canvass	107
6.20.1	Proposed MDOS Rule.....	107
6.20.2	Issue(s)	107
6.20.3	Proposed Revisions.....	108
6.21	R 168.793 Recount	108
6.21.1	Proposed MDOS Rule.....	108
6.21.2	Issue(s)	110
6.21.3	Proposed Revision	110
7	Proposed New Rules	112
7.1	R 168.775a Preparation of Accessible Voting Device	112
7.2	R 168.780a Early Voting.....	112
7.2.1	Proposed MDOS Rule.....	112
7.2.2	Issue(s)	114
7.2.3	Proposed Revision	114
7.3	[New] User Account Security.....	117
7.3.1	Issue(s)	117
7.3.2	Proposed New Rule.....	117
7.4	[New] Network Connections	118
7.4.1	Issue(s)	118
7.4.2	Proposed New Rule.....	120
7.5	[New] Election Night Reporting.....	121
7.5.1	Issue(s)	121
7.5.2	Proposed New Rule.....	121
7.6	[New] Software Configuration	122
7.6.1	Issue(s)	122
7.6.2	Proposed New Rule.....	122
7.7	[New] Preservation of Digital and Physical Records	122
7.7.1	Issue(s)	122
7.7.2	Proposed New Rule.....	123
8	Proposed Rule Deletions	123
8.1	R 168.783 Hanging Chads	123
8.2	R 168.787 Delegate to County Convention	123

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

9	Findings.....	123
9.1	Insufficient Rigor to Ensure Accuracy and Integrity of Elections	124
9.2	Bias Towards Diminishing Rights of Voters	124
9.3	Continued Abuse of Rule-Making Process	125
10	Conclusion	126

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

1 Introduction

The Michigan Constitution guarantees our citizens the right to an audit of statewide election results sufficient to ensure the accuracy and integrity of those results. It goes on to assert that this right is self-executing and should be liberally construed in favor of voters' rights to effectuate its purpose. Clearly, it is incumbent upon the Michigan Secretary of State along with the Michigan Bureau of Elections to implement rules that comply with these important provisions of our Michigan Constitution. The enclosed report seeks to recalibrate the rules proposed by Michigan Secretary of State in order to comply with these provisions.

2 Background

On January 6, 2017, Election Infrastructure was designated by Department of Homeland Security Secretary Jeh Johnson as a Critical Infrastructure Subsector. This designation indicates that there needs to be a high degree of rigor applied to the security practices pertaining to the conduct of our elections. Upon issuing the designation, the federal government pursued the creation of an Election Integrity Information Sharing and Analysis Center (EI-ISAC). The EI-ISAC is dedicated to monitoring threats to our election infrastructure.

Statement by Secretary Jeh Johnson on the Designation of Election Infrastructure as a Critical Infrastructure Subsector

Release Date: January 6, 2017

For Immediate Release
Office of the Press Secretary
Contact: 202-282-8010

I have determined that election infrastructure in this country should be designated as a subsector of the existing Government Facilities critical infrastructure sector. Given the vital role elections play in this country, it is clear that certain systems and assets of election infrastructure meet the definition of critical infrastructure, in fact and in law.

Figure 1 DHS Press Release on Elections as Critical Infrastructure

Electronic voting systems introduce unique security concerns when it comes to ensuring the accuracy and integrity of our elections. On July 28, 2020, the Federal Cybersecurity and

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Infrastructure Security Agency (CISA) released their Critical Infrastructure Security and Resilience Note addressing some of these concerns. The note (aka report) features a framework for evaluating the cybersecurity risks posed to our election system. The critical components of this system are defined in Figure 2. For each of these components, CISA has evaluated the risks to voter confidence, election integrity, and availability as a result of compromises to their security. The consequences of these risks would be significant. Any rules pertaining to our electronic voting systems should therefore seek to prevent these consequences or at least mitigate their severity.

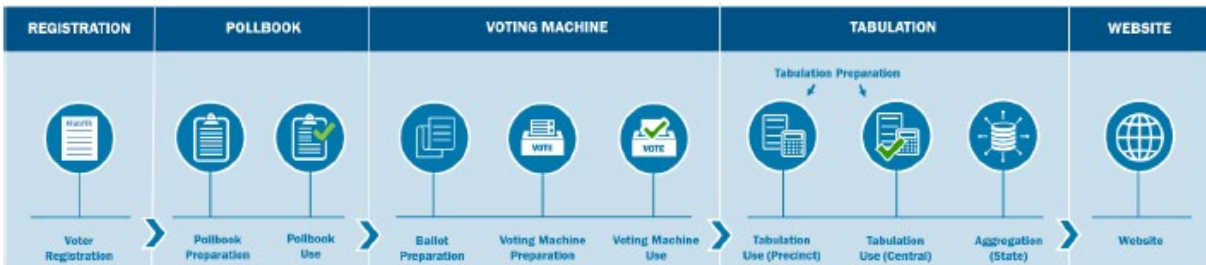


Figure 2 CISA Election System Functional Ecosystem

In October 2020, the Michigan Election Security Advisory Commission released their Report and Recommendations pertaining to election security (See Figure 3). Their recommendations included enhanced user account security protocols, expanded monitoring, enhanced Qualified Voter File (QVF) security, providing transparency, prohibiting connecting tabulators to the internet, phasing out “modeming in” of election night results, building redundancies into electronic reporting, observing best practices when using removable drives, enhanced vendor accountability and reporting, and prioritizing accuracy over speed when it comes to election night reporting.



Figure 3 October MESAC Report and Recommendation

On July 31, 2024, LARA released a notice of public hearing regarding proposed rule changes by the Michigan Department of State governing electronic voting systems. The scope of the proposed rule changes features revisions to R 168.771, R 168.772, R 168.773, R 168.774, R 168.775, R 168.776, R

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

168.777, R 168.778, R 168.779, R 168.780, R 168.781, R 168.782, R 168.784, R 168.785, R 168.786, R 168.788, R 168.789, R 168.790, R 168.791, R 168.792, and R 168.793 of the Michigan Administrative Code, addition of R 168.775a and R 168.780a, and deletion of R 168.783 and R 168.787.

These proposed changes merit serious examination. Do they address the security risks identified by CISA? Do they address the MESC recommendations? Do they comply with the law?

This report is my attempt to answer these important questions. As the former Vice Chair of the Michigan Senate Elections and Government Reform Committee, I am very familiar with the statutory environment pertaining to elections and the obligations of the executive branch to conduct elections in accordance with these statutes. As a certified Microsoft Small Business Specialist, I am uniquely qualified to address concerns with the implementation and security of electronic voting systems. As a certified poll challenger in both the 2020 and 2022 elections, I am also equipped to address concerns as to how our elections are actually conducted in the field. I believe that most objective observers would agree that this background indicates the experience and expertise necessary to conduct such a professional review of the proposed rule changes for electronic voting systems.

3 Governing Statutes

Any rules issued by MDOS are subordinate to the Michigan Constitution and Michigan Compiled Law.

3.1 Referenced Statutes

The statutes within this section were referenced in the MDOS proposed rule revisions.

3.1.1 MCL 168.31

(1) The secretary of state shall do all of the following:

(a) Subject to subsection (2), issue instructions and promulgate rules pursuant to the administrative procedures act of 1969, 1969 PA 306, MCL 24.201 to 24.328, for the conduct of elections and registrations in accordance with the laws of this state.

(b) Advise and direct local election officials as to the proper methods of conducting elections.

(c) Publish and furnish for the use in each election precinct before each state primary and election a manual of instructions that includes specific instructions on assisting voters in casting their ballots, directions on the location of voting stations in polling places, procedures and forms for processing challenges, and procedures on prohibiting campaigning in the polling places as prescribed in this act.

(d) Publish indexed pamphlet copies of the registration, primary, and election laws and furnish to the various county, city, township, and village clerks a sufficient number of copies for their own use

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

and to enable them to include 1 copy with the election supplies furnished each precinct board of election inspectors under their respective jurisdictions. The secretary of state may furnish single copies of the publications to organizations or individuals who request the same for purposes of instruction or public reference.

(e) Prescribe and require uniform forms, notices, and supplies the secretary of state considers advisable for use in the conduct of elections and registrations.

(f) Prepare the form of ballot for any proposed amendment to the constitution or proposal under the initiative or referendum provision of the constitution to be submitted to the voters of this state.

(g) Require reports from the local election officials the secretary of state considers necessary.

(h) Investigate, or cause to be investigated by local authorities, the administration of election laws, and report violations of the election laws and regulations to the attorney general or prosecuting attorney, or both, for prosecution.

(i) Publish in the legislative manual the vote for governor and secretary of state by townships and wards and the vote for members of the state legislature cast at the preceding November election, which shall be returned to the secretary of state by the county clerks on or before the first day of December following the election. All clerks shall furnish to the secretary of state, promptly and without compensation, any further information requested of them to be used in the compilation of the legislative manual.

(j) Establish a curriculum for comprehensive training and accreditation of all county, city, township, and village officials who are responsible for conducting elections.

(k) Establish a continuing election education program for all county, city, township, and village clerks.

(l) Establish and require attendance by all new appointed or elected election officials at an initial course of instruction within 6 months before the date of the election.

(m) Establish a comprehensive training curriculum for all precinct inspectors.

(n) Create an election day dispute resolution team that has regional representatives of the department of state, which team shall appear on site, if necessary.

(2) Pursuant to the administrative procedures act of 1969, 1969 PA 306, MCL 24.201 to 24.328, the secretary of state shall promulgate rules establishing uniform standards for state and local nominating, recall, and ballot question petition signatures. The standards for petition signatures may include, but need not be limited to, standards for all of the following:

(a) Determining the validity of registration of a circulator or individual signing a petition.

(b) Determining the genuineness of the signature of a circulator or individual signing a petition, including digitized signatures.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(c) Proper designation of the place of registration of a circulator or individual signing a petition.

3.1.2 MCL 168.37

(1) The secretary of state shall select a uniform voting system under the provisions of this section. The secretary of state shall convene an advisory committee on the selection of the uniform voting system, whose membership represents county, city, and township election officials and other relevant organizations. In addition, the speaker and minority leader of the house of representatives and the majority and minority leaders of the senate may each appoint 1 advisory committee member.

(2) The secretary of state may conduct tests of a voting system in order to select the uniform voting system. The secretary of state shall not consider a voting system for selection as the uniform voting system unless the voting system is approved and certified as provided in section 795a. At the secretary of state's request, the board of state canvassers shall perform the approval and certification review, as provided in section 795a, of a voting system that the secretary of state wants to consider for selection as the uniform voting system.

(3) When the uniform voting system is selected or at an earlier time that the secretary of state considers advisable, the secretary of state shall notify each county, city, and township about the selection or impending selection of the uniform voting system. A governmental unit that is notified under this subsection shall not purchase or enter into a contract to purchase a voting system other than the uniform voting system after receipt of the notice.

(4) After selection of the uniform voting system, the secretary of state shall establish a schedule for acquisition and implementation of the uniform voting system throughout this state. The secretary of state may devise a schedule that institutes the uniform voting system over several election cycles. The secretary of state shall widely publicize the schedule and changes to the schedule. If, however, a jurisdiction has acquired a new voting system within 8 years before the jurisdiction receives notice from the secretary of state under subsection (3), that jurisdiction is not required to acquire and use the uniform voting system until the expiration of 10 years after the date of the original purchase of the equipment.

(5) If, after selection of the uniform voting system, the secretary of state determines that the uniform voting system no longer serves the welfare of the voters or has become out of date in regards to voting system technology, the secretary of state may repeat the process for selecting the uniform voting system authorized under this section.

(6) This section does not apply until money is appropriated for the purpose of selecting, acquiring, and implementing the uniform voting system. If federal money becomes available for the purposes described in this section, the secretary of state shall, and the legislature intends to, take the steps necessary to qualify for and appropriate that money for the purposes described in this section.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

3.1.3 MCL 168.794

(1) Subject to this section, the board of commissioners of a county, the legislative body of a city or village, the township board of a township, or the school board of a school district, by a majority vote, may authorize, acquire by purchase, lease, or otherwise, adopt, experiment with, or abandon an electronic voting system approved for use in this state in an election, and may use the system in all or a part of the precincts within its boundaries, or in combination with other approved voting systems.

(2) A new electronic voting system shall not be used at a general election in a county, city, or township unless, in addition to the other requirements of this act, all of the following requirements are met:

(a) The county, city, or township purchases or otherwise acquires the electronic voting system 6 months or more before the next general election to be held in that county, city, or township.

(b) The county, city, or township uses the electronic voting system at a primary, special, or other local election held in the county, city, or township before the general election.

(3) The appropriate board of election commissioners shall provide for an accuracy test of an electronic voting system in the manner prescribed in rules promulgated by the secretary of state. The secretary of state shall prescribe procedures for preparing test decks and conducting accuracy tests for electronic voting systems in this state.

(4) Before an election held in a county, city, township, village, or school district, the secretary of state may randomly select and test for accuracy an electronic voting system to be used by the county, city, township, village, or school district in that election. The secretary of state shall use the test decks prepared by the secretary of state to conduct the random tests allowed under this subsection.

(5) A board of election commissioners shall not use in an election an electronic voting system that has failed the most recent accuracy test performed on that voting system under this act. An electronic voting system may be used after any necessary corrections are made and an accuracy test is passed on the system.

(6) Subsection (1) does not apply to a county, city, village, township, or school district after the county, city, village, township, or school district receives the secretary of state's notice under section 37. Subsection (2) shall apply to a county, city, village, township, or school district after it receives the secretary of state's notice under section 37 if, at the time of the notice, the county, city, village, township, or school district is using an electronic voting system that is the same type as the uniform voting system.

3.1.4 MCL 168.794c

Sec. 794c.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

The provisions of sections 794 to 799a control with respect to elections where electronic voting systems are used, and shall be liberally construed so as to carry out the purpose of the provisions. A provision of law relating to the conduct of elections that conflicts with sections 794 to 799a does not apply to the conduct of elections with an approved electronic voting system. The secretary of state shall promulgate rules to implement the provisions of sections 794 to 799a, in accordance with the administrative procedures act of 1969, Act No. 306 of the Public Acts of 1969, being sections 24.201 to 24.328 of the Michigan Compiled Laws.

3.1.5 MCL 168.797b

Sec. 797b.

The secretary of state shall promulgate rules pursuant to the administrative procedures act of 1969, Act No. 306 of the Public Acts of 1969, being sections 24.201 to 24.328 of the Michigan Compiled Laws, governing the tabulation of ballots, certification of results, delivery of ballots and certified results, and sealing of devices and ballot boxes after the polls are closed.

3.1.6 MCL 168.720c

(4) The secretary of state shall provide guidance to county and municipal election officials regarding the process for securing equipment and ballots at the conclusion of each day of early voting.

(5) The secretary of state shall issue instructions regarding ballots produced by an on-demand ballot printing system and that are subject to challenge.

3.2 Additional Applicable Statutes

The following laws were not referenced in the MDOS proposed rules but compliance with them is as significant as compliance with the laws that were referenced.

- United States Code Title 52
- MI Constitution Article II Section 4
- Michigan Compiled Law
 - Administrative Procedures Act
 - MCL 24.242
 - MCL 24.244
 - MCL 24.245
 - MCL 24.245a
 - MCL 168.765
 - MCL 168.794
 - MCL 168.795
 - MCL 168.812
 - MCL 168.813

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

4 Rule Adoption Timeline

All rules must go through the listed process which includes departmental review, public hearing, referral to JCAR, and filing with the secretary of state. This means that the rules cannot be filed with the secretary of state until they have gone through the whole process. This process is described in Figure 4.

Once the public hearing on August 16, 2024 has been completed, the rules can then be referred to JCAR Committee. After 15 joint session days (i.e. both the house and senate in session with a quorum), the rules are filed with the Secretary of State and enacted. The department (bureau of elections) can request that JCAR waive the remaining session days. The chair of JCAR then has to agree, holding a committee hearing, and vote with a majority to waive the remaining days. In light of the number of likely joint session days before the November 5, 2024 general election, we anticipate an attempt to expedite the enactment of these rules.

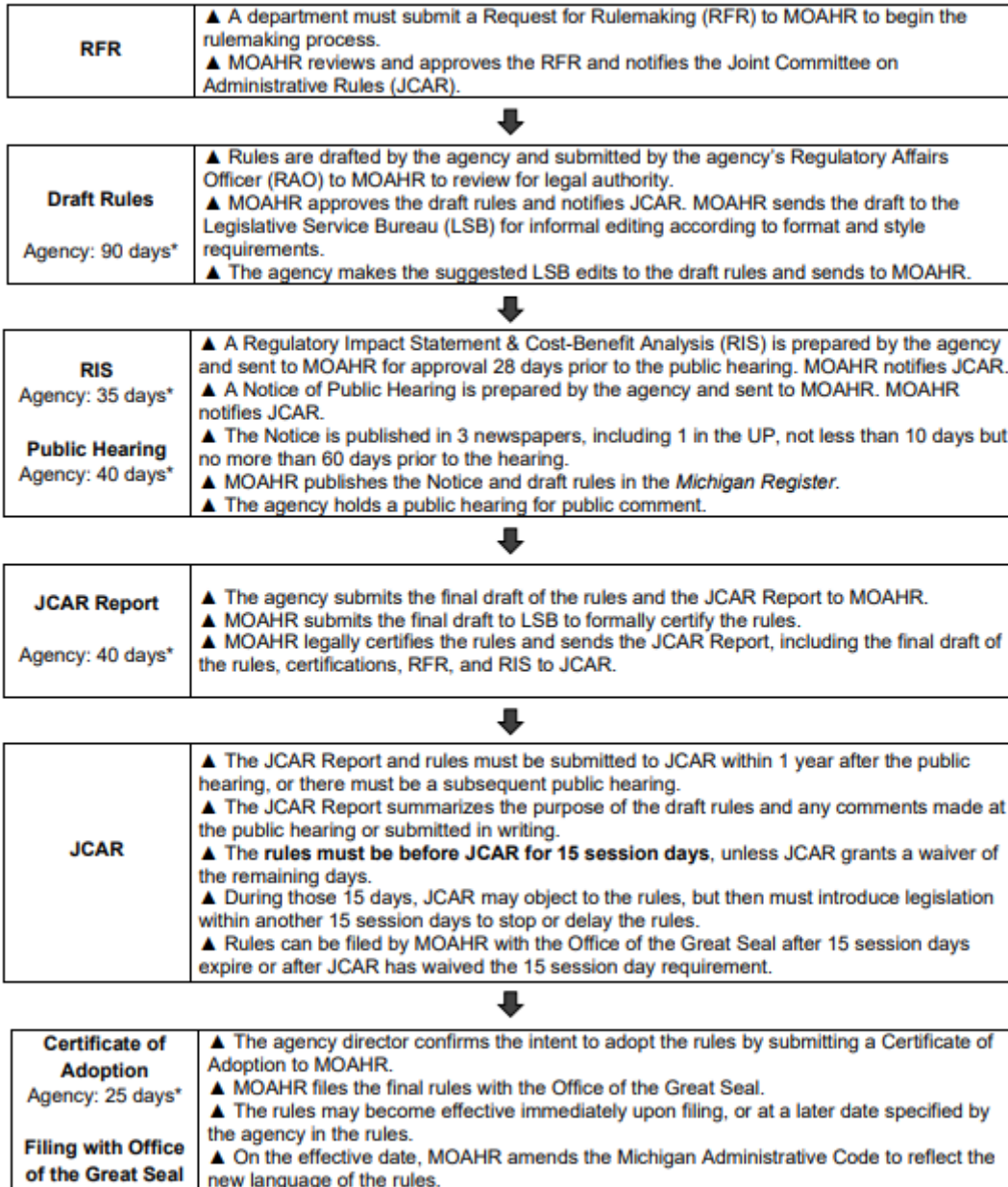
There are additional considerations pertinent to the rule adoption timeline including programming, ballot printing and ballot mailing timelines. This begs the question why these proposed rule changes were delayed in such a manner that would likely lead to timeline conflicts for these important election preparation activities.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Rulemaking Process Summary

The process for creating, amending, and rescinding administrative rules is governed by the Administrative Procedures Act of 1969, 1969 PA 306, MCL 24.201 to 24.328. (Note this is an overview and does not include all required provisions).



* Estimated number of days it takes for an agency to submit rulemaking document.

Revised: January 31, 2020

Figure 4 https://www.michigan.gov/lara/-/media/Project/Websites/lara/moahr/ARD/Education/Rulemaking_Process_Summary.pdf?rev=7450cb60e46f45b69bc4d4b4edd8f796&hash=7EF8B9900A5F36281031A8AE68F2A4D7

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

5 Key Definitions

5.1 Election Equipment

(k) “Election equipment” means equipment used in administering elections, including, but not limited to, a voting machine, voting device, or voting system.

5.2 Election Management System

(l) “Election management system” means a system that has been approved by the board of state canvassers to produce a program and produce results.

5.3 Program

(q) “Program” means the operating instructions for a voting system by which it examines, counts, tabulates, and produces the results of the votes cast on a ballot.

5.4 Qualified Voter File

(r) “Qualified voter file” means the official file of voters for the conduct of all elections held in this state as described in section 509o of the act, MCL 168.509o.

5.5 Tabulator

(w) “Tabulator” means automatic tabulating equipment that scans and accumulates results.

5.6 Voting Station

(y) “Voting station” or “voting booth” means a unit containing an accessible voting device or a surface that allows the voter to mark the ballot that provides privacy and blocks an individual’s view on not less than 3 sides.

6 Issues with Proposed MDOS Rule Changes

This section reviews each of the proposed rule changes, highlights any issues with the proposed changes, and provides recommended revisions to the proposed rules or new rules as applicable.

6.1 R 168.771 Definitions

6.1.1 Ballot

6.1.1.1 *Proposed MDOS Rule*

(e) “Ballot” means an approved paper form or a medium through which votes are recorded that is produced as a paper form.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.1.1.2 Issue(s)

Ballots have multiple states – Pre-Cast, Cast and Ballot Image. It is important to differentiate between each state as differentiating between these states is an important element of any professional audit of election results. Before they cast their vote, voters are handed a pre-cast ballot that includes a perforated seam that separates the section containing the ballot ID tracked in pollbooks (i.e. ballot stub) from the section of the ballot capturing voter intent for each ballot measure. Before a ballot is scanned and tabulated, the ballot stub is removed from the ballot making it impossible to connect an individual voter with the cast ballot. When the ballot stub is removed, the ballot is referred to as a cast ballot. Cast ballots are converted to ballot images by scanners. Scanners transfer these ballot images to tabulators. Ballot images are what tabulators read to determine voter intent during tabulation of votes, yet there are no references to ballot images in the proposed rule set. The rules also lack any reference to cast vote records which log such tabulation activities. As such, pre-cast ballots, cast ballots, ballot stubs, ballot images and cast vote records are critical components of the election record chain of custody and necessary for the conduct of any professional audit of election results.

6.1.1.3 Proposed New Rules

(e) “Pre-Cast Ballot” means an approved paper form or a medium through which votes are recorded that is produced as a paper form and includes an attached ballot stub indicating a unique ballot id.

(cc) “Cast Ballot” means an approved paper form or a medium through which votes are recorded that is produced as a paper form and has been separated from the ballot stub indicating a unique ballot id.

(dd) “Ballot Stub” means the perforated paper stub containing a unique ballot id that is separated from a cast ballot.

(ee) “Cast Vote Records” means a log of tabulation activities including the following information as a minimum: Municipality, precinct, tabulator ID, ballot sequence id or batch id, ballot type ID, number of ballots in batch, beginning timestamp, end timestamp, ballot status, contest, contest vote tally, ballot or batch status.

(ff) “Ballot” means either a Pre-Cast Ballot or Cast Ballot when not specifically delimited as such.

6.1.2 Status Report

6.1.2.1 Proposed MDOS Rule

(v) “Status report” means a report generated from each tabulator or other election equipment at the close of each day of early voting.

6.1.2.2 Issue(s)

There is insufficient clarity as to the contents of the status report. Without such clarity, it is impossible to discern if the report would contain data sufficient to support a professional audit of election records.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.1.2.3 *Proposed Revision*

(v) “Status report” means a report generated from each tabulator or other election equipment at the close of each day of early voting or on election day that includes the following information as a minimum: machine ID, election, time/date stamp, user account printing status report, machine model, software version, software installation date, machine serial number, and for each precinct the total scanned votes and total voters.

6.1.3 Totals Tape

6.1.3.1 *Proposed MDOS Rule*

(x) “Totals tape” or “results report” or “summary totals tape” means a report generated from each tabulator or other election equipment after the close of polls on election day.

6.1.3.2 *Issue(s)*

There is insufficient clarity as to the contents of the totals tape. Without such clarity, it is impossible to discern if the tape would contain data sufficient to support a professional audit of election records.

6.1.3.3 *Proposed Revision*

(x) “Totals tape” or “results report” or “summary totals tape” means a report generated from each tabulator or other election equipment after the close of polls on election day, that includes the following information as a minimum: machine ID, election, time/date stamp, user account printing status report, machine model, software version, software installation date, machine serial number, and, for each precinct, the total scanned votes, and total voters plus the following information for each ballot measure for each precinct: the total votes, number of overvotes, and number of undervotes.

6.1.4 Voting System

6.1.4.1 *Proposed MDOS Rule*

(z) “Voting system” means 1 or more pieces of automatic tabulating equipment that examines, tabulates, and counts votes recorded on ballots and produces results, as specified in sections 37 and 794a of the act, MCL 168.37 and 168.794a.

6.1.4.2 *Issue(s)*

MCL 168.37 and MCL 168.794a refer to the electronic voting systems procured by the State of Michigan. The proposed MDOS rules appear to be constraining the definition of voting system so that it does not include all of the components featured in electronic voting system contracts with the State of Michigan. Per the Dominion Voting Systems contract with the State of Michigan, a voting system includes: tabulators, accessible voting system components, election event designer, mobile ballot printing, results transmission, election night reporting, results tally and reporting, networking equipment and Election Management System (EMS) software plus all of the hardware and software needed to satisfy voting system hardware, voting system election management system software, absentee voting, and accessible voting system component technical requirements.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

CONTRACT #071B7700117 

STATE OF MICHIGAN

Voting System Hardware, Firmware, Software and Service

SCHEDULE A STATEMENT OF WORK CONTRACT ACTIVITIES

This Contract is for voting systems approved for use in Michigan for the Michigan Department of State (MDOOS) and includes hardware and firmware (tabulators and all related components, including those for use by voters with disabilities); related Election Management System (EMS) software provided to counties and select local jurisdictions; initial and extended service and maintenance; training and training documentation for county/local jurisdiction clerks and election staff and replacement components/consumables.

This is a multiple-vendor contract award with vendor selection coordinated at the county level and will be a gradual rollout. The rollout is anticipated to begin in conjunction with the August 2017 election, with the anticipated statewide completion by the August 2018 primary election. These schedules will be coordinated at the county level. The accessible voting system component will be rolled out in conjunction with the new voting system. Ownership will be granted directly to the counties and local jurisdictions. Upon agreement with jurisdictions in a county, ownership may be granted to the county for jurisdictions within the county.

A detailed list of the voting system components covered by this Contract, along with associated firmware and EMS software (including version numbers), is included in Exhibit 1 to Schedule A, Federal Voting System Testing / Certification Matrix.

BACKGROUND

In Scope:

This Contract Includes:

- Purchase of voting system tabulators and all related components (Election Day precincts: one tabulator per precinct, and Absent Voter Counting Board, based on a formula determined by the State.) In addition, one tabulator per county.
- Purchase of accessible voting system components, for use by voters with disabilities (one per Election Day polling location [with some exceptions]). In addition, one accessible device per county.
- Related Election Management System or 'EMS' software. Two EMS software options will be available at the county level:
 - 1) Full EMS ("Program Your Own"), for counties that fully program their elections internally (without reliance on the voting system Contractor/subcontractor for programming); and
 - 2) Accumulation-Only EMS, for counties that rely on the voting system Contractor/subcontractor for programming; the accumulation-only functionality for these counties includes the capability to burn media, read media, transmit results and produce accumulation reports.
- Initial training and training documentation for county/local jurisdiction clerks and election staff.
- Voting System component / consumables costs (replacement or additional components not already covered in initial purchase).

26

CONTRACT #071B7700117 

- Initial system/software service and maintenance (acquisition year + four years).
- Extended service and maintenance (after the expiration of the initial service and maintenance period, + 5 years). Note: In the absence of a State appropriation, local counties and jurisdictions will be solely responsible for the cost of extended service and maintenance.
- Preventative maintenance (every two years).
- NOTE: The Contractor shall provide the State with one full set of all system components at no charge (precinct tabulator; AVCB tabulator; accessible voting device; full EMS software ("Program Your Own" version); all related training and documentation).

Figure 5 Pages 26-27 of Contract 071B7700117 between Dominion and State of Michigan

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

1.2 Voting System ELECTION MANAGEMENT SYSTEM (EMS) SOFTWARE Technical Requirements

Exhibit 2, Attachment 1.2 to Schedule A lists detailed voting system **Election Management System (EMS) software** technical specifications and requirements. This attachment is broken into several categories, including:

- A. Election Management System (EMS) General Requirements
- B. EMS Programming Requirements
- C. Ballot Programming and Layout Requirements

27

CONTRACT #071B7700117



- D. Election Night Reporting (ENR) Capabilities / Requirements
- E. Reports Requirements
- F. Audit Capabilities / Requirements
- G. System / Software Ownership Requirements

Refer to Exhibit 2, Attachment 1.2 to Schedule A for additional details of these requirements.

1.3 Voting System ABSENTEE VOTING (AV) Technical Requirements

Exhibit 2, Attachment 1.3 to Schedule A lists detailed voting system **absentee voting (AV)** technical specifications and requirements. This attachment is broken into the following categories:

- A. AV Processing General Requirements
- B. High Speed AVCB Tabulator Requirements

Refer to Exhibit 2, Attachment 1.3 to Schedule A for additional details of these requirements.

1.4 Voting System ACCESSIBLE VOTING SYSTEM COMPONENT Technical Requirements

Exhibit 2, Attachment 1.4 to Schedule A lists detailed voting system **Accessible Voting System Component** technical specifications and requirements. This attachment is broken into several categories, including:

- A. Accessible Voting System General Requirements
- B. Accessible Voting System – Use of Touch Screen Interface Requirements
- C. Accessible Voting System – Use of Paper Ballots (Requirements related to 3 possible scenarios)
- D. Reliability Requirements

Figure 6 Pages 27-28 of Contract 071B7700117 between Dominion and State of Michigan

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

CONTRACT #071B7700117



Democracy Suite Election Management System – The engine that powers your entire election

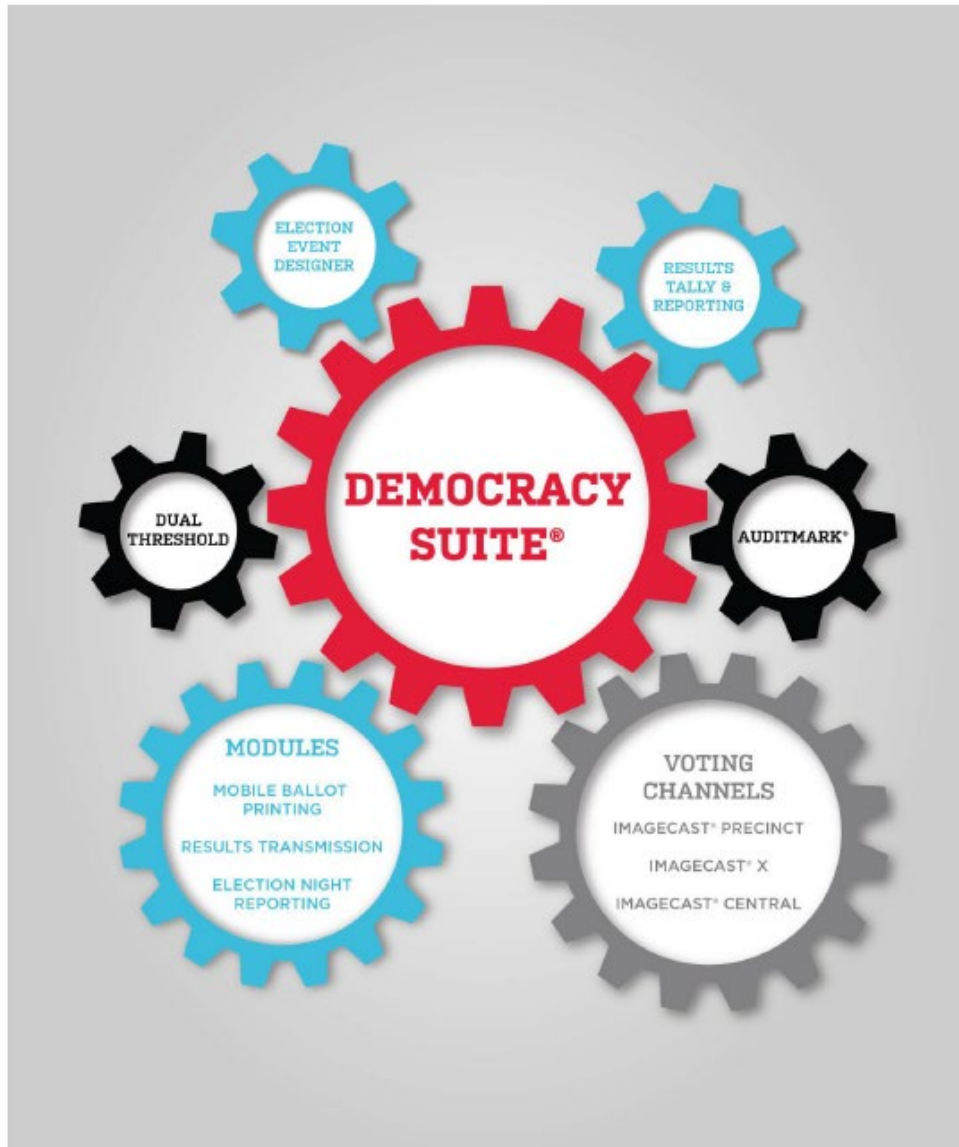


Figure 7 Page 76 of Contract 071B7700117 between Dominion and State of Michigan

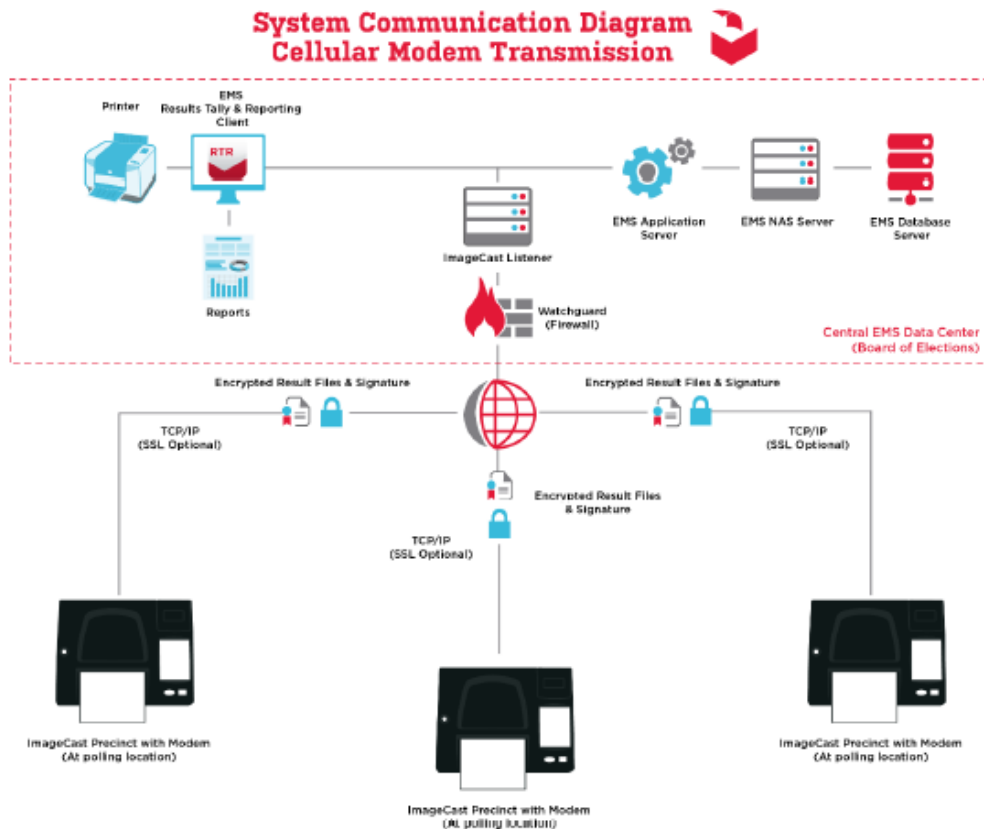
Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

CONTRACT #071B7700117



ImageCast Listener



The ImageCast Listener module is responsible for receiving and tracking encrypted results file transmissions from any ImageCast Election Day tabulator.

Unlike traditional results transmission using FTP/SFTP, the ImageCast Listener uses a secure and proprietary protocol for establishing an authenticated connection with the ImageCast tabulators. The ImageCast Listener verifies the signature of the results file upon receipt and immediately informs election officials whether the file is valid or if any suspicious activity is detected. Results files are encrypted using AES-128 or AES-256. They are signed with SHA-256.

Figure 8 Page 114 of Contract 071B7700117 between Dominion and State of Michigan

6.1.4.3 Proposed Revision

(z) "Voting system" means all hardware and software components necessary to program election artifacts, print ballots, tabulate ballots, report election results and transfer election results as referenced electronic voting system contracts pertaining to sections 37 and 794a of the act, MCL 168.37 and 168.794a.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.1.5 Pollbook References

6.1.5.1 *Proposed MDOS Rules*

(n) “Electronic pollbook” means computer software that receives information from the qualified voter file and is used during elections to process voters and generate reports.

(p) “Physical pollbook” means a paper pollbook in which the election inspectors in a precinct or early voting site shall enter, in the order in which electors are given ballots, the name of each elector who is given a ballot.

6.1.5.2 *Issue(s)*

Electronic Pollbook, Physical Pollbook, Pollbook are all used throughout proposed rules. The proposed definitions are incomplete as they do not include all functions of a poll book notably the capture of poll challenger information and other notes regarding the conduct of elections that would be useful for canvassers evaluating the conduct of an election. Furthermore, the definition uses the term “precinct” to refer to polling location in what appears to be an effort to distinguish a polling location from an early voting site. Precincts are a common jurisdictional voter attribute across polling locations, early voting sites and absent voter counting boards (which were not referenced in definitions). Therefore, regardless of where used, pollbooks (be they electronic or physical) feature precinct-specific voter data used by election inspectors at polling locations, early voting sites and absent voter counting boards.

6.1.5.3 *Proposed Revision*

(n) “Electronic pollbook” means hardware and software that receives qualified voter information from the state qualified voter file and is used by election inspectors to track precinct-specific allocation of ballots to voters, capture challenges, capture other notes, and generate reports based upon this information that would assist canvassers in the execution of their duties.

(p) “Physical pollbook” means a paper pollbook reflecting a printed extract of the state qualified voter file and is used by election inspectors to track precinct-specific allocation of ballots to voters, capture challenges, and capture other notes that would assist canvassers in the execution of their duties.

(bb) “Pollbook” refers to either electronic or physical pollbooks. All pollbooks shall contain the following information as a minimum: voter name, voter signature, voter birthdate, voter address, voter driver’s license number, voting status flags, ballot number issued to voter, and challenges.

6.1.6 Election Materials

6.1.6.1 *Proposed MDOS Rule*

(m) “Election materials” mean materials used in administering elections, including, but not limited to, ballots, physical pollbooks, and other materials described in section 811 of the act, MCL 168.811. Election materials do not include ballot stubs.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.1.6.2 *Issue(s)*

Under Title 52 Section 20701 of the United States Code, ALL records and papers relating to any act requisite to voting shall be preserved for a period on not less than 22 months from the date of any election featuring federal candidates. ALL records means digital as well as physical records yet there is no reference to digital artifacts in the proposed definition of election materials.

Furthermore, ballot stubs are critical elements of any professional audit of elections as they indicate the ballot ID's for all ballots cast in a given precinct. These ID's can be cross-referenced with pollbook data to ensure that only those ballots approved by poll workers using pollbook records are stored in the ballot container(s) for that precinct.

6.1.6.3 *Proposed Revision*

(m) "Election materials" means all digital and physical records used in administering elections, including, but not limited to, ballots, ballot images, cast vote records, physical pollbooks, electronic pollbooks, databases, programs, flash drives, digital transaction logs, digital event logs and other materials described in section 811 of the act, MCL 168.811.

6.1.7 Summary Zero Report

6.1.7.1 *Proposed MDOS Rule*

(aa) "Zero tape" or "zero report" or "summary zero report" means a report generated from a tabulator or other election equipment that shows that no results have been accumulated before the tabulation of ballots.

6.1.7.2 *Issue(s)*

There is insufficient clarity as to the contents of the summary zero report. Without such clarity, it is impossible to discern if the report would contain data sufficient to support a professional audit of election records.

6.1.7.3 *[New Rule] Summary Zero Report*

(x) "Zero tape" or "zero report" or "summary zero report" means a report generated from each tabulator or other election equipment to show how many votes have been accumulated before the tabulation of ballots that includes the following information as a minimum: machine ID, election, timestamp, user account printing status report, machine model, software version, software installation date, machine serial number, and, for each precinct, the total scanned votes, and total voters plus the following information for each ballot measure for each precinct: the total votes, number of overvotes, and number of undervotes.

6.1.8 Ballot Summary Page

6.1.8.1 *Issue(s)*

Ballot Summary Page is referenced in multiple sections of proposed rules (Rule 168.780a(1)(d)(i), Rule 168.780a(1)(d)(v), Rule 168.780a(2)(b)(ii), Rule 168.780a(2)(c)(ii), and Rule 168.782(3)) yet there is no definition of the contents of a Ballot Summary Page.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

On-demand ballot printing is now a standard feature of most early voting centers. In support of a professional audit evaluating the accuracy and integrity of a given election, the number of ballots printed in this manner must be tracked and reflected in official election records.

6.1.8.2 *[New Rule] Ballot Summary Page*

(ff) “Ballot Summary Page” means a section of the Statement of Votes that includes the following information for a specific precinct, jurisdiction and election date: Number of official ballots delivered to precinct for each ballot style, the starting number for ballots delivered to precinct, number of absent voter return envelopes received by board, number of ballots tabulated, number of absent voter ballot envelopes delivered to precinct which did not contain a ballot, number of ballots reissued to voters who spoiled their ballot at the polling place, number of ballots used by election inspectors for ballot duplication, number of on-demand ballots printed, number of provisional ballots, and number of unused ballots.

6.1.9 Adjudication Equipment

6.1.9.1 *Issue(s)*

Adjudication equipment that is used to review scanned ballot images so as to determine voter intent is a key element of the vote tally chain of custody yet is not referred to at all in the proposed new rules.

6.1.9.2 *[New] Adjudication Equipment*

(gg) “Adjudicating equipment” means all hardware and software components necessary to adjudicate voter intent via review of ballot images and adjust tabulated results from these images accordingly.

6.1.10 Vote Tally Equipment

6.1.10.1 *Issue(s)*

While tabulators are the starting points in the vote tally chain of custody, they are often not the devices which produce the official election results. In Detroit, for example, the official election results are produced by their Dominion Election Management System (EMS) Server. This server in turn receives data from Dominion ImageCast Precinct tabulators at each polling location and the Results and Tally Reporting (RTR) Server residing at their Absent Voter Counting Board. The RTR server in turn aggregates the vote tallies across all Dominion ImageCast Central tabulators and Adjudicator Workstations at the Absent Voter Counting Board.

6.1.10.2 *[New] Vote Tally Equipment*

(hh) “Vote Tally Equipment” means all hardware and software components necessary to merge vote tally data from one or more tabulators and/or adjudicators.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.1.11 Networking Equipment

6.1.11.1 *Issue(s)*

Networking equipment plays a central role in the transfer of digital election records. Seals and logs are associated with physical election records and election equipment, however, digital records are not secured with similar rigor.

6.1.11.2 *[New] Networking Equipment*

(ii) “Networking Equipment” means all hardware and software components necessary to transfer digital election record data from one storage device to another storage device.

6.1.12 Election Night Reporting

6.1.12.1 *Issue(s)*

Election Night Reporting (ENR) is a component of the contracts for all of Michigan’s electronic voting system vendors. ENR is arguably the most important component of the election process to candidates and voters alike is that of Election Night Reporting. The proposed rules, however, make zero mention of election night reporting.

6.1.12.2 *[New] Election Night Reporting*

(ii) “Election Night Reporting” pertains to the transfer of vote tally election records from vote tally equipment to the general public, media and other stakeholders.

6.1.13 Audit

6.1.13.1 *Issue(s)*

The Michigan Constitution guarantees citizens the right to an audit of statewide election results. The MI Secretary of State has attempted to use Risk-Limiting Audits (RLA) to satisfy this provision of our constitution despite RLA’s focus upon recounting a select number of ballots. RLA’s are not of sufficient rigor to satisfy the constitutional requirement for audits that ensure the accuracy and integrity of our elections. Furthermore, all rights conferred under this provision of our Constitution are to be liberally construed in favor of voter rights.

6.1.13.2 *[New] Audit*

(jj) “Audit” is an independent examination and thorough review of pre-election, absentee voting, early voting, and election day records to determine if procedures were properly followed according to the Constitution, state statute, governing regulations, and established procedures.

6.1.14 Electronic Pollbook Activity Log Report

6.1.14.1 *Issue(s)*

Electronic pollbooks are used to conduct of election operations. Every activity captured in the electronic pollbook becomes part of the election audit trail which must be preserved.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.1.14.2 *[New] Electronic Pollbook Activity Log Report*

(kk) “Electronic pollbook activity log report” is a record of all activities pertaining to the conduct of an election that were recorded on an electronic pollbook. It is a key component of an election audit trail.

6.1.15 Electronic Pollbook Remarks Report

6.1.15.1 *Issue(s)*

Electronic pollbooks are used to capture remarks regarding the conduct of election operations. All poll workers are instructed as to what remarks should be recorded in electronic pollbooks.

6.1.15.2 *[New] Electronic Pollbook Remarks Report*

(ll) “Electronic pollbook remarks report” is a record of all remarks entered by an election worker during the conduct of an election that were recorded on an electronic pollbook. It is a key component of an election audit trail.

6.1.16 Electronic Pollbook Voter List Report

6.1.16.1 *Issue(s)*

Electronic pollbooks are used to track which eligible voters have been allocated a ballot. The subsequent list of voters for a given election is a key component of the election audit trail.

6.1.16.2 *[New] Electronic Pollbook Voter List Report*

(mm) “Electronic pollbook voter list report” is a record of all voters who were issued a ballot during an election. It is a key component of an election audit trail.

6.2 R 168.772 General Provisions

6.2.1 Proposed MDOS Rule

Rule 2. (1) The paper ballot procedures in the act ~~are shall be~~ applicable in elections in which electronic voting systems are used, except where superseded by specific provisions of the act or these rules.

(2) A precinct in which electronic voting systems are used shall not contain more than the number of registered voters **allowed permitted** by the act in a precinct ~~using voting machines~~.

(3) Where the board of county commissioners provides for the purchase and use of an electronic voting system in a county, the county clerk shall have custody of the devices and ~~beis~~ is responsible for their maintenance, repair, and preparation for elections.

(4) Where the legislative body of a city, ~~or township, or village~~ provides for the purchase and use of an electronic voting system, the clerk of the city, ~~or township, or village~~ shall have custody of the devices and ~~beis~~ is responsible for their maintenance, repair, and preparation for elections.

(5) ~~If a county owns the voting devices and the election is an election at which state or county offices or proposals are to be voted upon, or an election at which state, county, and local offices are to be voted upon, the county election commission shall provide programming and computer time and furnish the necessary supplies, including printing. Notwithstanding subrules (3) and (4) of this rule, maintenance, repair, and preparation of election equipment used in early~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

voting must be conducted in accordance with applicable county or municipal early voting agreements.

~~–(6) If a county owns the voting devices and the election is an election at which only local offices and proposals are to be voted upon, the county election commission shall provide programming and computer time and furnish the necessary supplies, including printing, and the local unit shall reimburse the county for the costs of the supplies; or the local unit may agree with the county that the local unit shall perform the functions required by this rule to be performed by the county.~~

~~–(7) If a city or township owns the voting devices and the election is an election at which state or county offices or proposals are to be voted upon, or an election at which state, county, and local offices and proposals are to be voted upon, the city election commission shall provide the devices, programming, and computer time, and the county election commission shall provide ballot cards, ballot envelopes, and the printing of the ballot labels. A city or township and a county may enter into a mutual agreement that the county shall provide programming or computer time, or both.~~

~~–(8) If a city or township owns the voting devices and the election is an election at which only local offices and proposals are to be voted upon, the city or township election commission shall provide the devices, programming, computer time, ballot cards, ballot envelopes, and the printing of ballot labels. A city or township and a county may enter into a mutual agreement that the county shall provide programming or computer time, or both.~~

~~–(9) A village or school district may contract with a city, county, or township for the use of voting devices, programming, and computer time.~~

~~(10) Notwithstanding any other **another** provision of these rules, the election commissions of local units of government may enter into a mutual agreement for the joint use of a program and computer. The agreement shall state which **the local unit units shall own** has control of the programs and computer **election management system**. An agreement may be made with the county election commission stating **and the control of the program and computer election management system shall be is** vested in the county clerk. **The county clerk or the county clerk's designee shall program the election management system and election equipment.**~~

~~(11) For the purpose of these rules, when a school election is conducted and the school district is supplying the program, the term “election commission” means the secretary and president of the school board and the superintendent of the school district.~~

6.2.2 Issue(s)

6.2.2.1 *Compliance Measures Lacking*

A precinct in which electronic voting systems are used shall not contain more than the number of registered voters allowed by the act in a precinct, yet there is insufficient information available to election observers to confirm compliance with this provision particularly in communities with AV Counting Boards covering multiple precincts.

6.2.2.2 *Local Units of Government Contract Conflicts*

If local units of government purchase an electronic voting system, local clerks have custody of electronic voting system and are responsible for their maintenance, repair, and preparation for elections however, due to illusory provisions within the state contracts with electronic voting system vendors, they are not provided with the authority to engage vendors which they trust in the fulfillment of these responsibilities.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.2.2.3 County Contract Conflicts

If the county commissioners purchase an electronic voting system, local units of government own the programs and election management system, but the County Clerk is explicitly granted control over the program and election management system however, due to illusory provisions within the state contracts with electronic voting system vendors, they are not provided with the authority to engage vendors which they trust in the fulfillment of these responsibilities.

6.2.3 Proposed Revision

Rule 2. (1) The paper ballot procedures in the act ~~are shall be~~ applicable in elections in which electronic voting systems are used, except where superseded by specific provisions of the act or these rules.

(2) A precinct in which electronic voting systems are used shall not contain more than the number of registered voters **allowed** ~~permitted~~ by the act in a precinct ~~using voting machines~~. Polling locations, early voting sites, and Counting Boards within an Absent Voter Counting Board facility must provide a public display during the election period of the number of the number of registered voters for each precinct represented as specified in MCL 168.658.

(3) Where the board of county commissioners provides for the purchase and use of an electronic voting system in a county, the county clerk shall have custody of the devices and ~~be~~ is responsible for their maintenance, repair, and preparation for elections regardless of any illusory provisions contained in contracts between units of government and electronic voting system vendors preventing such activities at the discretion of county officials.

(4) Where the legislative body of a city, ~~or township, or village~~ provides for the purchase and use of an electronic voting system, the clerk of the city, ~~or township, or village~~ shall have custody of the devices and ~~be~~ is responsible for their maintenance, repair, and preparation for elections regardless of any illusory provisions contained in contracts between units of government and electronic voting system vendors preventing such activities at the discretion of county officials.

(5) ~~If a county owns the voting devices and the election is an election at which state or county offices or proposals are to be voted upon, or an election at which state, county, and local offices are to be voted upon, the county election commission shall provide programming and computer time and furnish the necessary supplies, including printing. Notwithstanding subrules (3) and (4) of this rule, maintenance, repair, and preparation of election equipment used in early voting must be conducted in accordance with applicable county or municipal early voting agreements.~~

~~(6) If a county owns the voting devices and the election is an election at which only local offices and proposals are to be voted upon, the county election commission shall provide programming and computer time and furnish the necessary supplies, including printing, and the local unit shall reimburse the county for the costs of the supplies; or the local unit may agree with the county that the local unit shall perform the functions required by this rule to be performed by the county.~~

~~(7) If a city or township owns the voting devices and the election is an election at which state or county offices or proposals are to be voted upon, or an election at which state, county, and local offices and proposals are to be voted upon, the city election commission shall provide the devices, programming, and computer time, and the county election commission shall provide ballot cards, ballot envelopes, and the printing of the ballot labels. A city or township and a county may enter into a mutual agreement that the county shall provide programming or computer time, or both.~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~–(8) If a city or township owns the voting devices and the election is an election at which only local offices and proposals are to be voted upon, the city or township election commission shall provide the devices, programming, computer time, ballot cards, ballot envelopes, and the printing of ballot labels. A city or township and a county may enter into a mutual agreement that the county shall provide programming or computer time, or both.~~

~~–(9) A village or school district may contract with a city, county, or township for the use of voting devices, programming, and computer time.~~

~~(10) Notwithstanding any other **another** provision of these rules, the election commissions of local units of government may enter into a mutual agreement for the joint use of a program and computer. The agreement shall state which **the local unit units shall own** has control of the programs and computer **election management system**. An agreement may be made with the county election commission stating **and the control of the program and computer election management system shall be** is vested in the county clerk. **The county clerk or the county clerk's designee shall program the election management system and election equipment.**~~

~~(11) For the purpose of these rules, when a school election is conducted and the school district is supplying the program, the term “election commission” means the secretary and president of the school board and the superintendent of the school district.~~

6.3 R 168.773 Preparation of Program

6.3.1 Proposed MDOS Rule

Rule 3. (1) A program ~~shall~~ **must** be written so as to accurately tabulate a voter’s choices for each candidate, office, and measure for which the voter is lawfully entitled to vote; in conformity with the act and these rules.

~~–(2) A program shall include an instruction requiring that 2 identical header cards precede the deck of ballot cards for each precinct. The program shall provide that if 2 identical header cards do not appear in front of the ballot cards of a precinct, the counting of ballots for that precinct shall not take place. In programs to be used on a specialized computer, 1 header card is required, unless the function of the header card is performed by the program.~~

~~–(3) An end card shall follow the ballots of each precinct. The program may provide that if a header card contains instructions to the computer that all ballots of the preceding precinct have been counted, a separate end card is not required. In a program to be used in a specialized computer, an end card is not required.~~

~~–(4) A program may be maintained by a generally accepted method, within the computer industry, of input or output or a combination of methods.~~

~~–(5) Two edit listings shall be prepared and, not less than 3 days before the preliminary accuracy test, shall be delivered to the election commission responsible for supplying the program.~~

~~(6) The election commission responsible for supplying the program **the election** shall provide necessary information to the person or company designated **county clerk** to write or prepare the program.~~

~~(7) The program for an election and a duplicate copy shall **must** be completed and delivered **provided** to the election commission responsible for supplying the program not less than 3 days before the **election in a timely manner to allow for the** preliminary accuracy test. A duplicate is not required where a specialized computer is used.~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~-(8) If a program is written to be used on a general purpose computer, the person or company providing the program shall, at the time the program is delivered, submit to the election commission a certificate stating that the program was prepared from all relevant input data, describing the procedures which were used to determine its accuracy, and stating that the program has been written pursuant to the act and these rules.~~

~~-(9) The person preparing the program shall submit to the election commission responsible for supplying the program instructions containing the information and procedures required to operate the program. The election commission shall make the instructions available to the computer operators.~~

~~(10)~~ (4) The vote tabulation portion of the program shall **must** be written **as follows**:

(a) To reflect the rotation sequence of the candidates' names ~~and ballot position numbers~~ as they appear on the ballot ~~labels~~ in the various precincts.

(b) To count valid votes cast by a voter for candidates for an office.

(c) To count valid votes cast by a voter for or against ~~a any question proposal~~.

(d) So as not to count votes cast by a voter for an office or question if the number of votes cast by a voter exceeds the number ~~which~~ **that** the voter is entitled to vote for on that office or ~~question proposal~~.

(e) To ignore ~~punches marks in on~~ a ballot ~~card in positions where a candidate's name or questions do not appear on the official ballot~~ **outside the target area**. These ~~punches marks~~ **must** ~~shall~~ not have an effect on the ballot.

(f) So that the partisan, nonpartisan, and proposal sections of the ballot are considered separate sections of the ballot. The action of a voter in 1 section of the ballot ~~shall~~ **does** not affect the voter's action on another section of the ballot.

~~(11)~~ (5) **In addition to applicable requirements under subrule (4) of this rule**, ~~F~~for a partisan primary election, the vote tabulation section of the program shall **must** be written **as follows**:

~~-(a) To determine if a voter has cast votes for candidates of more than 1 political party.~~

~~-(b) To determine if a voter has cast votes for a candidate of 1 or more political parties and a vote in the "party qualification section" of the ballot.~~

~~(ea)~~ (a) To count the votes when they are recorded by a voter for candidates of 1 political party, ~~only where a vote is not recorded in the "party qualification section" of the ballot; or to count the vote when it is recorded by the voter for 1 selection only in the "party qualification section" of the ballot and where a vote is not recorded for 1 or more partisan candidates, as in examples 1, 2, 3, and 4 as in example 1.~~

~~(b)~~ (b) **To reject all votes cast in the partisan section of the ballot if votes are cast for candidates of more than 1 political party, as in example 2.**

Example 1: Count a vote for candidates A and ~~D~~ C.

Example 2: Count ~~a vote for candidates F and G~~ **no votes**.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Example 1:

Example 2:

Partisan Section - Vote Only 1 Party Section		Partisan Section - Vote Only 1 Party Section	
Party 1 Party Section	Party 2 Party Section	Party 1 Party Section	Party 2 Party Section
Section Header	Section Header	Section Header	Section Header
Office 1 Vote for not more than 1	Office 1 Vote for not more than 1	Office 1 Vote for not more than 1	Office 1 Vote for not more than 1
Candidate A <input checked="" type="radio"/>	Candidate E <input type="radio"/>	Candidate A <input checked="" type="radio"/>	Candidate E <input type="radio"/>
Candidate B <input type="radio"/>	Candidate F <input type="radio"/>	Candidate B <input type="radio"/>	Candidate F <input type="radio"/>
Office 2 Vote for not more than 1	Office 2 Vote for not more than 1	Office 2 Vote for not more than 1	Office 2 Vote for not more than 1
Candidate C <input checked="" type="radio"/>	Candidate G <input type="radio"/>	Candidate C <input type="radio"/>	Candidate G <input checked="" type="radio"/>
Candidate D <input type="radio"/>	Candidate H <input type="radio"/>	Candidate D <input type="radio"/>	Candidate H <input type="radio"/>

Example 3: Count a vote for party 4.

Example 4: Count a vote for candidate D.

Figure for 168.773 (1-2)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck



PRIMARY FOR PARTY 1		
OFFICE 1	CANDIDATE A	<input checked="" type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE B	<input type="checkbox"/>
OFFICE 2	CANDIDATE C	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE D	<input checked="" type="checkbox"/>

PRIMARY FOR PARTY 1		
OFFICE 1	CANDIDATE A	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE B	<input type="checkbox"/>
OFFICE 2	CANDIDATE C	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE D	<input type="checkbox"/>

PRIMARY FOR PARTY 2		
OFFICE 1	CANDIDATE E	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE F	<input type="checkbox"/>
OFFICE 2	CANDIDATE G	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE H	<input type="checkbox"/>

PRIMARY FOR PARTY 2		
OFFICE 1	CANDIDATE I	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE J	<input checked="" type="checkbox"/>
OFFICE 2	CANDIDATE K	<input checked="" type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE L	<input type="checkbox"/>

PARTY QUALIFICATION SECTION		
VOTE FOR NOT MORE THAN 1	PARTY 1	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 2	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 5	<input type="checkbox"/>

PARTY QUALIFICATION SECTION		
VOTE FOR NOT MORE THAN 1	PARTY 1	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 2	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 5	<input type="checkbox"/>

Figure for 168.773 (3-4)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(5)

PRIMARY FOR PARTY 1		
OFFICE 1	CANDIDATE A	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE B	<input type="checkbox"/>
OFFICE 2	CANDIDATE C	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE D	<input type="checkbox"/>

PRIMARY FOR PARTY 2		
OFFICE 1	CANDIDATE E	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE F	<input type="checkbox"/>
OFFICE 2	CANDIDATE G	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE H	<input type="checkbox"/>

PARTY QUALIFICATION SECTION		
VOTE FOR NOT MORE THAN 1	PARTY 3	<input type="checkbox"/>
1	PARTY 4	<input checked="" type="checkbox"/>
PARTY	PARTY 5	<input type="checkbox"/>

(6)

PRIMARY FOR PARTY 1		
OFFICE 1	CANDIDATE A	<input checked="" type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE B	<input checked="" type="checkbox"/>
OFFICE 2	CANDIDATE C	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE D	<input checked="" type="checkbox"/>

PRIMARY FOR PARTY 2		
OFFICE 1	CANDIDATE E	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE F	<input type="checkbox"/>
OFFICE 2	CANDIDATE G	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE H	<input type="checkbox"/>

PARTY QUALIFICATION SECTION		
VOTE FOR NOT MORE THAN 1	PARTY 3	<input type="checkbox"/>
1	PARTY 4	<input type="checkbox"/>
PARTY	PARTY 5	<input type="checkbox"/>

(d) To reject all votes cast in the partisan section of the ballot and the “party qualification section” of the ballot if votes are cast for candidates of more than 1 political party; or if votes are cast for candidates of 1 or more political parties and 1 or more votes are cast in the “party qualification section” of the ballot; or if more than 1 vote is cast in the “party qualification section” of the ballot, as in examples 5, 6, 7, 8, and 9.

Example 5: Count no votes.

Example 6: Count no votes.

Example 7: Count no votes.

Example 8: Count no votes.

Example 9: Count no votes.

Figure for 168.773 (5-7)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

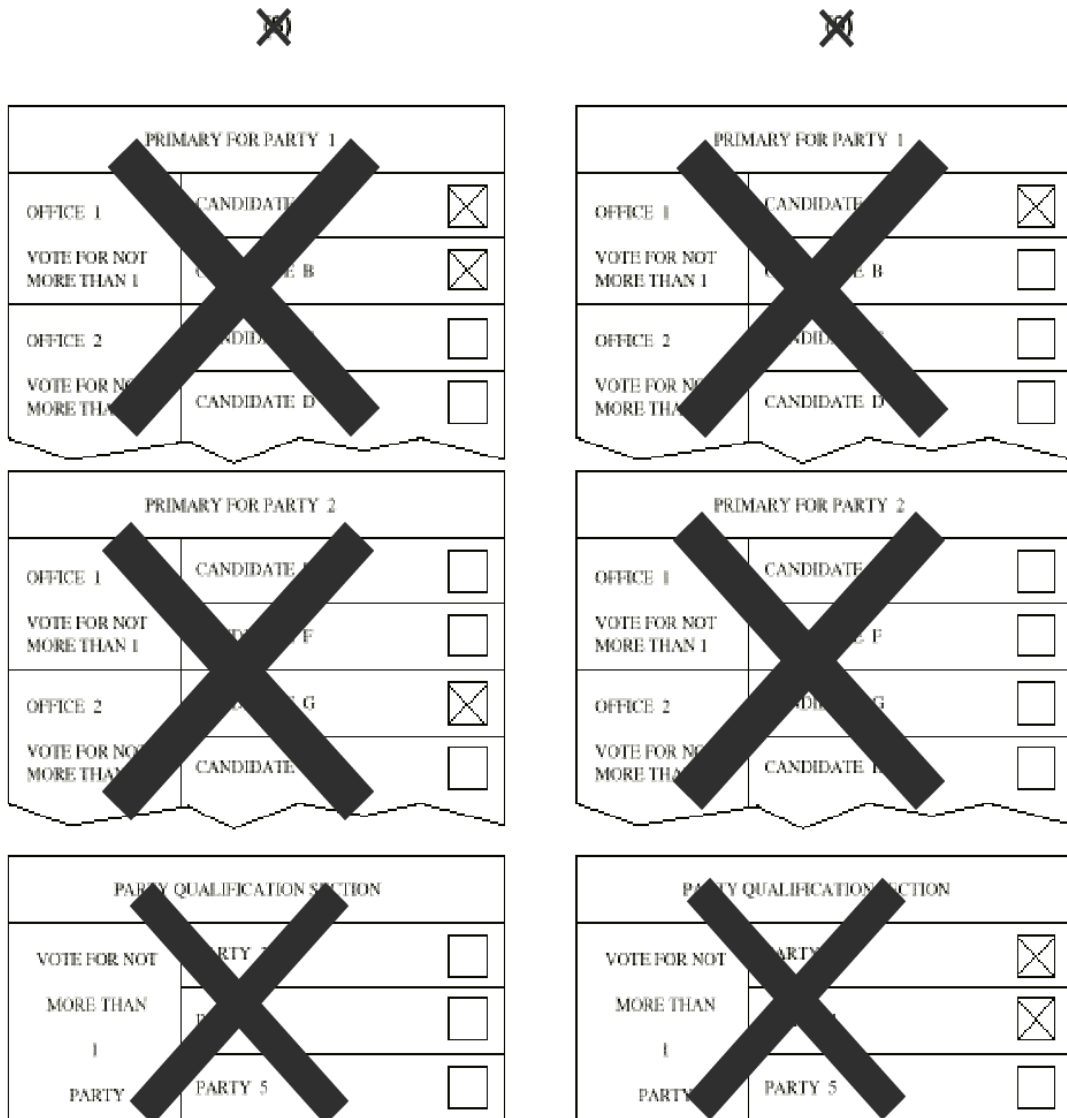
The figure displays seven ballot forms, each marked with a large 'X' to indicate they are rejected or invalid. The forms are arranged as follows:

- Top Left:** A ballot for "PRIMARY FOR PARTY 1" with two offices. Office 1 has a checked box for "CANDIDATE B" and an unchecked box for "CANDIDATE A". Office 2 has unchecked boxes for both "CANDIDATE C" and "CANDIDATE D".
- Top Right:** A ballot for "PRIMARY FOR PARTY 1" with two offices. Office 1 has checked boxes for both "CANDIDATE A" and "CANDIDATE B". Office 2 has checked boxes for both "CANDIDATE C" and "CANDIDATE D".
- Middle Left:** A ballot for "PRIMARY FOR PARTY 2" with two offices. Office 1 has unchecked boxes for "CANDIDATE E" and "CANDIDATE F". Office 2 has unchecked boxes for "CANDIDATE G" and "CANDIDATE H".
- Middle Right:** A ballot for "PRIMARY FOR PARTY 2" with two offices. Office 1 has unchecked boxes for "CANDIDATE E" and "CANDIDATE F". Office 2 has unchecked boxes for "CANDIDATE G" and "CANDIDATE H".
- Bottom Left:** A ballot for "PRIMARY FOR PARTY 1" with two offices. Office 1 has unchecked boxes for "CANDIDATE A" and "CANDIDATE B". Office 2 has unchecked boxes for "CANDIDATE C" and "CANDIDATE D".
- Bottom Right:** A ballot for "PRIMARY FOR PARTY 2" with two offices. Office 1 has unchecked boxes for "CANDIDATE E" and "CANDIDATE F". Office 2 has unchecked boxes for "CANDIDATE G" and "CANDIDATE H".
- Bottom Center:** A "PARTY QUALIFICATION SECTION" ballot with three rows. The first row has checked boxes for "PARTY 1" and "PARTY 2". The second row has checked boxes for "PARTY 3" and "PARTY 4". The third row has an unchecked box for "PARTY 5".

Figure for 168.773 (8-9)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck



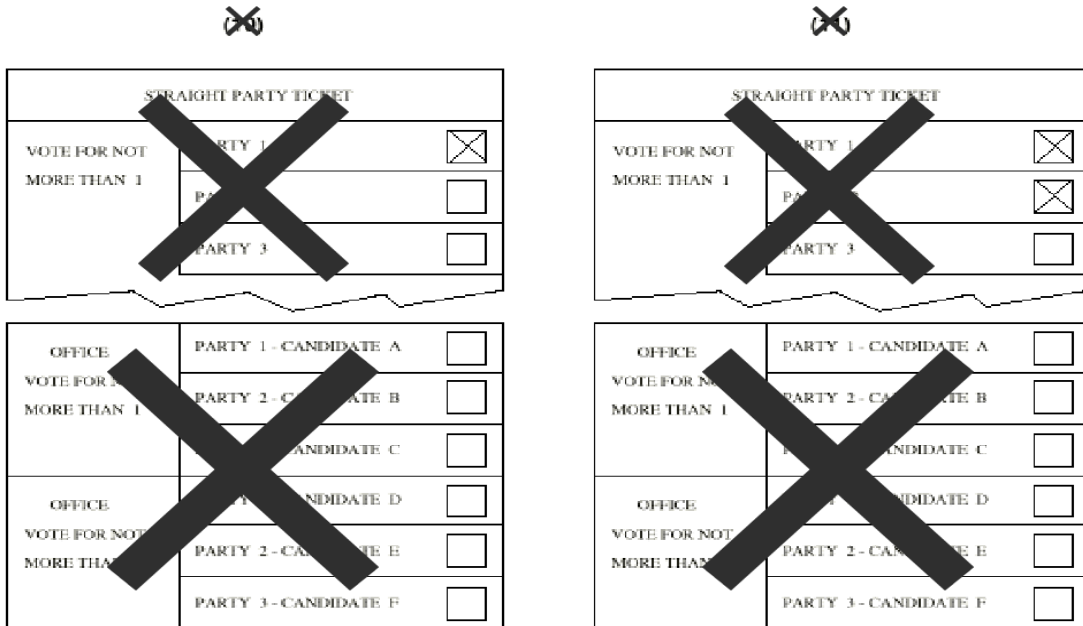
(126) In addition to applicable requirements under subrule (4) of this rule, ~~F~~for a partisan general election, the vote tabulation section of the program ~~shall~~ **must** be written as follows:

(a) A vote **must** ~~shall~~ be counted for each candidate of the political party indicated by the voter's straight ticket vote, if ~~any other~~ **another** vote does not appear on the partisan portion of the ballot, as in example 103.

Figure for 168.773 (10-11)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck



Example 10: Count a vote for candidates A and D.

(b) A vote shall not be counted if the voter has voted more than 1 straight ticket vote and another vote does not appear on the partisan section of the ballot, as in example 11. A vote must not be counted if the voter has voted more than 1 straight ticket vote and another vote does not appear on the partisan section of the ballot, as in example 4.

Example 3: Count a vote for candidates B and G.

Example 4: Do not count a vote for candidates of any party.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Example 3:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input type="radio"/>
Party 2	<input checked="" type="radio"/>
Party 3	<input type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Congressional	
United States Senator Vote for not more than 1	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 2	<input type="radio"/>
Candidate C Party 3	<input type="radio"/>
Candidate D Party 4	<input type="radio"/>
Candidate E Party 5	<input type="radio"/>
	<input type="radio"/>
Representative in Congress Xth District Vote for not more than 1	
Candidate F Party 1	<input type="radio"/>
Candidate G Party 2	<input type="radio"/>
Candidate H Party 3	<input type="radio"/>
	<input type="radio"/>

Example 4:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input type="radio"/>
Party 2	<input checked="" type="radio"/>
Party 3	<input checked="" type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Congressional	
United States Senator Vote for not more than 1	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 2	<input type="radio"/>
Candidate C Party 3	<input type="radio"/>
Candidate D Party 4	<input type="radio"/>
Candidate E Party 5	<input type="radio"/>
	<input type="radio"/>
Representative in Congress Xth District Vote for not more than 1	
Candidate F Party 1	<input type="radio"/>
Candidate G Party 2	<input type="radio"/>
Candidate H Party 3	<input type="radio"/>
	<input type="radio"/>

~~Example 11: Do not count a vote for candidates of any party.~~

(c) When only 1 candidate is to be elected to an office and the voter has voted a straight party ticket and voted for individual candidates, a vote ~~shall~~ **must** be counted for each of the individual candidates voted for, and for each candidate of the party for which the straight party vote was voted and individual votes for candidates of other parties were not voted, as in examples ~~12 5~~ and ~~13 6~~.

~~Example 125: Count a vote for candidates B and E G.~~

~~Example 136: Count a vote for candidates B and D F.~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Example 5:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input type="radio"/>
Party 2	<input checked="" type="radio"/>
Party 3	<input type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Congressional	
United States Senator Vote for not more than 1	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 2	<input checked="" type="radio"/>
Candidate C Party 3	<input type="radio"/>
Candidate D Party 4	<input type="radio"/>
Candidate E Party 5	<input type="radio"/>
	<input type="radio"/>
Representative in Congress Xth District Vote for not more than 1	
Candidate F Party 1	<input type="radio"/>
Candidate G Party 2	<input checked="" type="radio"/>
Candidate H Party 3	<input type="radio"/>
	<input type="radio"/>

Example 6:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input checked="" type="radio"/>
Party 2	<input type="radio"/>
Party 3	<input type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Congressional	
United States Senator Vote for not more than 1	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 2	<input checked="" type="radio"/>
Candidate C Party 3	<input type="radio"/>
Candidate D Party 4	<input type="radio"/>
Candidate E Party 5	<input type="radio"/>
	<input type="radio"/>
Representative in Congress Xth District Vote for not more than 1	
Candidate F Party 1	<input type="radio"/>
Candidate G Party 2	<input type="radio"/>
Candidate H Party 3	<input type="radio"/>
	<input type="radio"/>

Figure for 168.773 (12-13)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~(2)~~

STRAIGHT PARTY TICKET	
VOTE FOR NOT MORE THAN 1	PARTY 1 <input type="checkbox"/> PARTY 2 <input checked="" type="checkbox"/> PARTY 3 <input type="checkbox"/>

~~(3)~~

STRAIGHT PARTY TICKET	
VOTE FOR NOT MORE THAN 1	PARTY 1 <input checked="" type="checkbox"/> PARTY 2 <input type="checkbox"/> PARTY 3 <input type="checkbox"/>

OFFICE	PARTY 1 - CANDIDATE A <input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 2 - CANDIDATE B <input checked="" type="checkbox"/>
	PARTY 3 - CANDIDATE C <input type="checkbox"/>
OFFICE	PARTY 1 - CANDIDATE D <input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 2 - CANDIDATE E <input checked="" type="checkbox"/>
	PARTY 3 - CANDIDATE F <input type="checkbox"/>

OFFICE	PARTY 1 - CANDIDATE A <input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 2 - CANDIDATE B <input checked="" type="checkbox"/>
	PARTY 3 - CANDIDATE C <input type="checkbox"/>
OFFICE	PARTY 1 - CANDIDATE D <input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 2 - CANDIDATE E <input type="checkbox"/>
	PARTY 3 - CANDIDATE F <input type="checkbox"/>

(d) When 1 or more candidates are to be elected to an office and the voter has voted 2 or more straight party tickets and the individual votes for partisan candidates, a vote ~~shall~~ **must** be counted for each individual candidate voted for when the number of votes for that office does not exceed the number for which the voter is entitled to vote, as in examples ~~147~~, ~~158~~, and ~~169~~.

Example ~~147~~: Count a vote for candidates A and ~~D-G~~.

Example ~~158~~: Do not count a vote for candidates of any party.

Example ~~169~~: Count a vote for candidate ~~F-H~~.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Example 7:

Example 8:

Example 9:

Partisan Section	Partisan Section	Partisan Section
Straight Party Ticket Vote for not more than 1	Straight Party Ticket Vote for not more than 1	Straight Party Ticket Vote for not more than 1
Party 1 <input checked="" type="radio"/>	Party 1 <input checked="" type="radio"/>	Party 1 <input type="radio"/>
Party 2 <input type="radio"/>	Party 2 <input checked="" type="radio"/>	Party 2 <input checked="" type="radio"/>
Party 3 <input checked="" type="radio"/>	Party 3 <input type="radio"/>	Party 3 <input checked="" type="radio"/>
Party 4 <input type="radio"/>	Party 4 <input type="radio"/>	Party 4 <input type="radio"/>
Party 5 <input type="radio"/>	Party 5 <input type="radio"/>	Party 5 <input type="radio"/>
Party 6 <input type="radio"/>	Party 6 <input type="radio"/>	Party 6 <input type="radio"/>
Congressional	Congressional	Congressional
United States Senator Vote for not more than 1	United States Senator Vote for not more than 1	United States Senator Vote for not more than 1
Candidate A Party 1 <input checked="" type="radio"/>	Candidate A Party 1 <input checked="" type="radio"/>	Candidate A Party 1 <input type="radio"/>
Candidate B Party 2 <input type="radio"/>	Candidate B Party 2 <input checked="" type="radio"/>	Candidate B Party 2 <input checked="" type="radio"/>
Candidate C Party 3 <input type="radio"/>	Candidate C Party 3 <input type="radio"/>	Candidate C Party 3 <input checked="" type="radio"/>
Candidate D Party 4 <input type="radio"/>	Candidate D Party 4 <input type="radio"/>	Candidate D Party 4 <input type="radio"/>
Candidate E Party 5 <input type="radio"/>	Candidate E Party 5 <input type="radio"/>	Candidate E Party 5 <input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Representative in Congress Xth District Vote for not more than 1	Representative in Congress Xth District Vote for not more than 1	Representative in Congress Xth District Vote for not more than 1
Candidate F Party 1 <input type="radio"/>	Candidate F Party 1 <input checked="" type="radio"/>	Candidate F Party 1 <input type="radio"/>
Candidate G Party 2 <input checked="" type="radio"/>	Candidate G Party 2 <input checked="" type="radio"/>	Candidate G Party 2 <input type="radio"/>
Candidate H Party 3 <input type="radio"/>	Candidate H Party 3 <input type="radio"/>	Candidate H Party 3 <input checked="" type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure for 168.773 (14-16)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

The image displays six ballot examples, each with a large 'X' over it, indicating they are not valid under the proposed rules. Each ballot is divided into two sections: 'STRAIGHT PARTY TICKET' and a list of candidates for an 'OFFICE'.

- Example 1 (top left):** A 'STRAIGHT PARTY TICKET' section with three rows: 'PARTY 1' (checked), 'PARTY 2' (unchecked), and 'PARTY 3' (checked). Below, the 'OFFICE' section has six candidates: 'PARTY 1 - CANDIDATE A' (checked), 'PARTY 2 - CANDIDATE B' (unchecked), 'PARTY 3 - CANDIDATE C' (unchecked), 'PARTY 1 - CANDIDATE D' (checked), 'PARTY 2 - CANDIDATE E' (unchecked), and 'PARTY 3 - CANDIDATE F' (unchecked).
- Example 2 (top right):** A 'STRAIGHT PARTY TICKET' section with three rows: 'PARTY 1' (checked), 'PARTY 2' (checked), and 'PARTY 3' (unchecked). Below, the 'OFFICE' section has six candidates: 'PARTY 1 - CANDIDATE A' (checked), 'PARTY 2 - CANDIDATE B' (checked), 'PARTY 3 - CANDIDATE C' (unchecked), 'PARTY 1 - CANDIDATE D' (checked), 'PARTY 2 - CANDIDATE E' (checked), and 'PARTY 3 - CANDIDATE F' (unchecked).
- Example 3 (middle left):** A 'STRAIGHT PARTY TICKET' section with three rows: 'PARTY 1' (checked), 'PARTY 2' (unchecked), and 'PARTY 3' (checked). Below, the 'OFFICE' section has six candidates: 'PARTY 1 - CANDIDATE A' (checked), 'PARTY 2 - CANDIDATE B' (unchecked), 'PARTY 3 - CANDIDATE C' (unchecked), 'PARTY 1 - CANDIDATE D' (checked), 'PARTY 2 - CANDIDATE E' (unchecked), and 'PARTY 3 - CANDIDATE F' (unchecked).
- Example 4 (middle right):** A 'STRAIGHT PARTY TICKET' section with three rows: 'PARTY 1' (checked), 'PARTY 2' (checked), and 'PARTY 3' (unchecked). Below, the 'OFFICE' section has six candidates: 'PARTY 1 - CANDIDATE A' (checked), 'PARTY 2 - CANDIDATE B' (checked), 'PARTY 3 - CANDIDATE C' (unchecked), 'PARTY 1 - CANDIDATE D' (checked), 'PARTY 2 - CANDIDATE E' (checked), and 'PARTY 3 - CANDIDATE F' (unchecked).
- Example 5 (bottom left):** A 'STRAIGHT PARTY TICKET' section with three rows: 'PARTY 1' (unchecked), 'PARTY 2' (checked), and 'PARTY 3' (checked). Below, the 'OFFICE' section has six candidates: 'PARTY 1 - CANDIDATE A' (unchecked), 'PARTY 2 - CANDIDATE B' (checked), 'PARTY 3 - CANDIDATE C' (checked), 'PARTY 1 - CANDIDATE D' (unchecked), 'PARTY 2 - CANDIDATE E' (unchecked), and 'PARTY 3 - CANDIDATE F' (checked).
- Example 6 (bottom right):** A 'STRAIGHT PARTY TICKET' section with three rows: 'PARTY 1' (unchecked), 'PARTY 2' (checked), and 'PARTY 3' (checked). Below, the 'OFFICE' section has six candidates: 'PARTY 1 - CANDIDATE A' (unchecked), 'PARTY 2 - CANDIDATE B' (checked), 'PARTY 3 - CANDIDATE C' (checked), 'PARTY 1 - CANDIDATE D' (unchecked), 'PARTY 2 - CANDIDATE E' (unchecked), and 'PARTY 3 - CANDIDATE F' (checked).

(e) When 2 partisan candidates are to be elected to the same office and the voter has voted a straight party ticket for 1 political party and has voted individually for 2 candidates of a different political party for that office, a vote **must shall** be counted for each of the candidates for whom the individual votes were voted, but votes **must shall** not be counted for the candidates of the party indicated by the voter’s straight party selection for that office, as in examples ~~4710~~, ~~4711~~, and ~~4912~~.

Example ~~4710~~: Count a vote for candidates A, B, H, and I.

Example ~~4711~~: Count a vote for candidates D, E, F, and G.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Example 12: Count a vote for candidates C, D, I, and J.

Example 10:

Example 11:

Example 12:

Partisan Section		Partisan Section		Partisan Section	
Straight Party Ticket Vote for not more than 1		Straight Party Ticket Vote for not more than 1		Straight Party Ticket Vote for not more than 1	
Party 1	<input checked="" type="radio"/>	Party 1	<input checked="" type="radio"/>	Party 1	<input checked="" type="radio"/>
Party 2	<input type="radio"/>	Party 2	<input type="radio"/>	Party 2	<input type="radio"/>
Party 3	<input type="radio"/>	Party 3	<input type="radio"/>	Party 3	<input type="radio"/>
Party 4	<input type="radio"/>	Party 4	<input type="radio"/>	Party 4	<input type="radio"/>
Party 5	<input type="radio"/>	Party 5	<input type="radio"/>	Party 5	<input type="radio"/>
Party 6	<input type="radio"/>	Party 6	<input type="radio"/>	Party 6	<input type="radio"/>
Party 7	<input type="radio"/>	Party 7	<input type="radio"/>	Party 7	<input type="radio"/>
State Boards		State Boards		State Boards	
Member of the State Board of Education Vote for not more than 2		Member of the State Board of Education Vote for not more than 2		Member of the State Board of Education Vote for not more than 2	
Candidate A Party 1	<input type="radio"/>	Candidate A Party 1	<input type="radio"/>	Candidate A Party 1	<input type="radio"/>
Candidate B Party 1	<input type="radio"/>	Candidate B Party 1	<input type="radio"/>	Candidate B Party 1	<input type="radio"/>
Candidate C Party 2	<input type="radio"/>	Candidate C Party 2	<input type="radio"/>	Candidate C Party 2	<input checked="" type="radio"/>
Candidate D Party 2	<input type="radio"/>	Candidate D Party 2	<input checked="" type="radio"/>	Candidate D Party 2	<input checked="" type="radio"/>
Candidate E Party 3	<input type="radio"/>	Candidate E Party 3	<input checked="" type="radio"/>	Candidate E Party 3	<input type="radio"/>
	<input type="radio"/>		<input type="radio"/>		<input type="radio"/>
	<input type="radio"/>		<input type="radio"/>		<input type="radio"/>
Regent of the University of Michigan Vote for not more than 2		Regent of the University of Michigan Vote for not more than 2		Regent of the University of Michigan Vote for not more than 2	
Candidate F Party 1	<input type="radio"/>	Candidate F Party 1	<input type="radio"/>	Candidate F Party 1	<input type="radio"/>
Candidate G Party 1	<input type="radio"/>	Candidate G Party 1	<input type="radio"/>	Candidate G Party 1	<input type="radio"/>
Candidate H Party 2	<input checked="" type="radio"/>	Candidate H Party 2	<input type="radio"/>	Candidate H Party 2	<input type="radio"/>
Candidate I Party 2	<input checked="" type="radio"/>	Candidate I Party 2	<input type="radio"/>	Candidate I Party 2	<input checked="" type="radio"/>
Candidate J Party 3	<input type="radio"/>	Candidate J Party 3	<input type="radio"/>	Candidate J Party 3	<input checked="" type="radio"/>
	<input type="radio"/>		<input type="radio"/>		<input type="radio"/>
	<input type="radio"/>		<input type="radio"/>		<input type="radio"/>

Figure for 168.773 (17-18)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

The figure shows four ballot templates, each with a large 'X' mark over it, indicating they are not to be used. The templates are arranged in a 2x2 grid. The top-left template is titled 'STRAIGHT PARTY TICKET' and has three rows: 'VOTE FOR NOT PARTY 1' with a checked box, 'MORE THAN 1 PARTY 2' with an unchecked box, and 'PARTY 3' with an unchecked box. The top-right template is identical but has 'PARTY 1' and 'PARTY 2' swapped. The bottom-left template has four sections: 'OFFICE PARTY 1 - CANDIDATE A' and 'PARTY 1 - CANDIDATE B' (unchecked), 'VOTE FOR NOT PARTY 2 - CANDIDATE C' (checked), and 'MORE THAN 2 PARTY 2 - CANDIDATE D' (unchecked), followed by 'PARTY 3 - CANDIDATE E' (unchecked). The bottom-right template is identical but has 'PARTY 1' and 'PARTY 2' swapped and 'PARTY 2 - CANDIDATE D' and 'PARTY 3 - CANDIDATE E' checked.

Figure for 168.773 (19)

The figure shows a single ballot template with a large 'X' mark over it, indicating it is not to be used. The template is titled 'STRAIGHT PARTY TICKET' and has three rows: 'VOTE FOR NOT PARTY 1' with a checked box, 'MORE THAN 1 PARTY 2' with an unchecked box, and 'PARTY 3' with an unchecked box. Below this is a section with four rows: 'OFFICE PARTY 1 - CANDIDATE A' and 'PARTY 1 - CANDIDATE B' (unchecked), 'VOTE FOR NOT PARTY 2 - CANDIDATE C' (checked), and 'MORE THAN 2 PARTY 2 - CANDIDATE D' (checked), followed by 'PARTY 3 - CANDIDATE E' (unchecked). Below that is another section with four rows: 'OFFICE PARTY 1 - CANDIDATE F' and 'PARTY 1 - CANDIDATE G' (unchecked), 'VOTE FOR NOT PARTY 2 - CANDIDATE H' (unchecked), 'MORE THAN 2 PARTY 2 - CANDIDATE I' (checked), and 'PARTY 3 - CANDIDATE J' (checked).

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(f) When 2 partisan candidates are to be elected to the same office and the voter has voted a straight party ticket for 1 political party and that party has 2 candidates for that office, and the voter has voted an individual vote for 1 candidate for that office in a different political party, a vote **must shall** be counted only for the candidate for whom the individual vote was made. Under these conditions, a vote **must shall** not be counted for a candidate for that office by virtue of the voter's straight party selection, as in examples ~~2013~~, ~~2114~~, ~~2215~~, and ~~2316~~.

Example ~~2013~~: Count a vote for candidate C only.

Example ~~2114~~: Count a vote for candidates A and B.

Example ~~2215~~: Count a vote for candidates B and C.

Example ~~2316~~: Count a vote for candidate E only.

Example 13:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input checked="" type="radio"/>
Party 2	<input type="radio"/>
Party 3	<input type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Party 7	<input type="radio"/>

State Boards	
Member of the State Board of Education Vote for not more than 2	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 1	<input type="radio"/>
Candidate C Party 2	<input checked="" type="radio"/>
Candidate D Party 2	<input type="radio"/>
Candidate E Party 3	<input type="radio"/>
	<input type="radio"/>
	<input type="radio"/>

Example 14:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input checked="" type="radio"/>
Party 2	<input type="radio"/>
Party 3	<input type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Party 7	<input type="radio"/>

State Boards	
Member of the State Board of Education Vote for not more than 2	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 1	<input checked="" type="radio"/>
Candidate C Party 2	<input type="radio"/>
Candidate D Party 2	<input type="radio"/>
Candidate E Party 3	<input type="radio"/>
	<input type="radio"/>
	<input type="radio"/>

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Example 15:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input checked="" type="radio"/>
Party 2	<input type="radio"/>
Party 3	<input type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Party 7	<input type="radio"/>

State Boards	
Member of the State Board of Education Vote for not more than 2	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 1	<input checked="" type="radio"/>
Candidate C Party 2	<input checked="" type="radio"/>
Candidate D Party 2	<input type="radio"/>
Candidate E Party 3	<input type="radio"/>
	<input type="radio"/>
	<input type="radio"/>

Example 16:

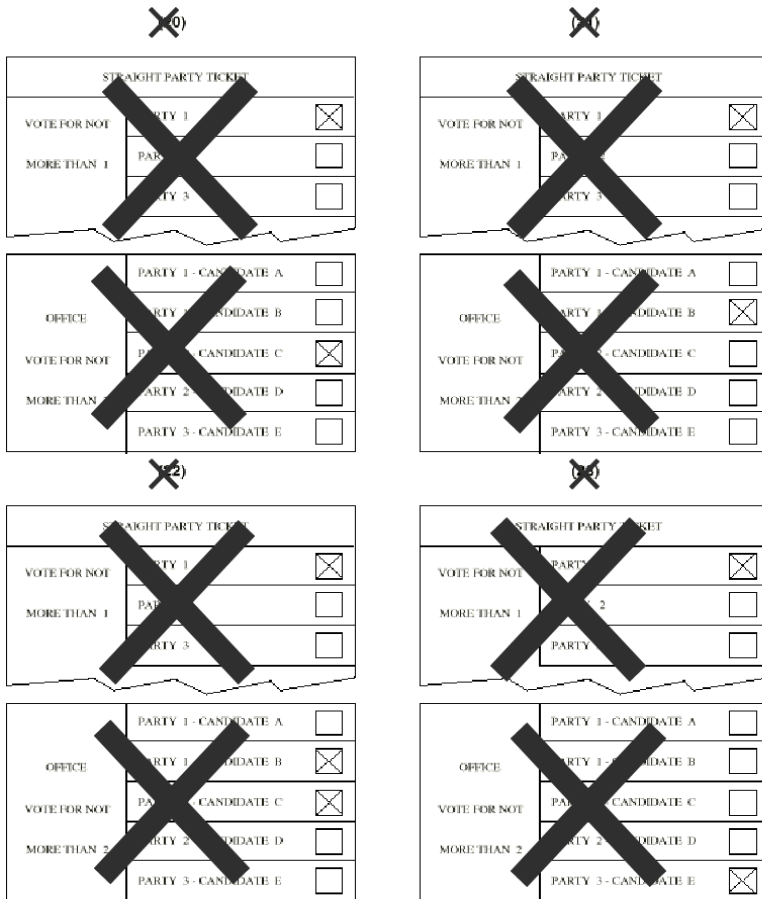
Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input checked="" type="radio"/>
Party 2	<input type="radio"/>
Party 3	<input type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Party 7	<input type="radio"/>

State Boards	
Member of the State Board of Education Vote for not more than 2	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 1	<input type="radio"/>
Candidate C Party 2	<input type="radio"/>
Candidate D Party 2	<input type="radio"/>
Candidate E Party 3	<input checked="" type="radio"/>
	<input type="radio"/>
	<input type="radio"/>

Figure for 168.773 (20-23)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck



(g) When 2 partisan candidates are to be elected to the same office and the voter has voted a straight party ticket for 1 political party and that party has only 1 candidate for that office, a vote **must shall** be counted for the party candidate for that office as in example ~~2417~~, and if the voter has voted for a candidate of a different political party for that office, that vote **must shall** be counted, as in example ~~2518~~.

Example ~~2417~~: Count a vote for candidate E.

Example ~~2518~~: Count a vote for candidates B and E.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Example 17:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input type="radio"/>
Party 2	<input type="radio"/>
Party 3	<input checked="" type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Party 7	<input type="radio"/>

State Boards	
Member of the State Board of Education Vote for not more than 2	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 1	<input type="radio"/>
Candidate C Party 2	<input type="radio"/>
Candidate D Party 2	<input type="radio"/>
Candidate E Party 3	<input type="radio"/>
	<input type="radio"/>
	<input type="radio"/>

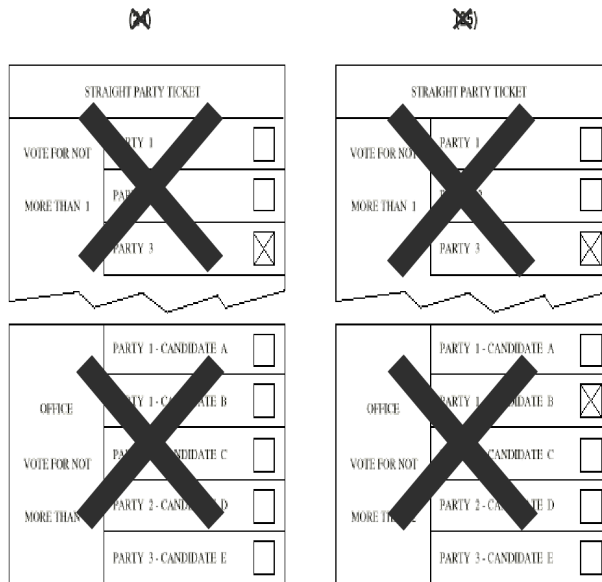
Example 18:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input type="radio"/>
Party 2	<input type="radio"/>
Party 3	<input checked="" type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Party 7	<input type="radio"/>

State Boards	
Member of the State Board of Education Vote for not more than 2	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 1	<input checked="" type="radio"/>
Candidate C Party 2	<input type="radio"/>
Candidate D Party 2	<input type="radio"/>
Candidate E Party 3	<input type="radio"/>
	<input type="radio"/>
	<input type="radio"/>

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck



—Figure for 168.773 (24-25)

(h) When a voter has voted a straight party ticket for a political party and has voted individual votes for members of that party only, a vote **must shall** be counted for each candidate of that party. These conditions do not constitute an overvote, as in example 2619.

Example 2619: Count a vote for ~~B-C~~ and ~~E-D~~.

Example 19:

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input type="radio"/>
Party 2	<input checked="" type="radio"/>
Party 3	<input type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Party 7	<input type="radio"/>

State Boards	
Member of the State Board of Education Vote for not more than 2	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 1	<input type="radio"/>
Candidate C Party 2	<input checked="" type="radio"/>
Candidate D Party 2	<input type="radio"/>
Candidate E Party 3	<input type="radio"/>
	<input type="radio"/>
	<input type="radio"/>

Figure for 168.773 (26)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(26)

STRAIGHT PARTY VOTE SET	
VOTE FOR NOT	PARTY 1 <input type="checkbox"/>
MORE THAN 1	PARTY 2 <input checked="" type="checkbox"/>
	PARTY 3 <input type="checkbox"/>

OFFICE	PARTY 1 - CANDIDATE A <input type="checkbox"/>
VOTE FOR NOT	PARTY 2 - CANDIDATE B <input checked="" type="checkbox"/>
MORE THAN 1	PARTY 2 - CANDIDATE C <input type="checkbox"/>
OFFICE	PARTY 2 - CANDIDATE D <input type="checkbox"/>
VOTE FOR NOT	PARTY 2 - CANDIDATE E <input type="checkbox"/>
MORE THAN 1	PARTY 3 - CANDIDATE F <input type="checkbox"/>

6.3.2 Issue(s)

6.3.2.1 Lack of Transparency

The public has a right to understand how their votes are counted. All of the other rights listed in Article II Section 4 of the Michigan Constitution can be verified by voters, but section (c) cannot without inspection by the public. Illusory contract provisions notwithstanding, the program used to determine how votes are counted needs to be made available for public inspection prior to each election.

6.3.3 Proposed Revision

Rule 3. (1) A program ~~shall~~ **must** be written ~~so as~~ to accurately tabulate a voter's choices for each candidate, office, and measure for which the voter is lawfully entitled to vote, in conformity with the act and these rules. The program that determines how a voter's votes are counted must be available for public inspection upon request by any elector of this state.

~~(2) A program shall include an instruction requiring that 2 identical header cards precede the deck of ballot cards for each precinct. The program shall provide that if 2 identical header cards do not appear in front of the ballot cards of a precinct, the counting of ballots for that precinct shall not~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

take place. In programs to be used on a specialized computer, 1 header card is required, unless the function of the header card is performed by the program.

~~-(3) An end card shall follow the ballots of each precinct. The program may provide that if a header card contains instructions to the computer that all ballots of the preceding precinct have been counted, a separate end card is not required. In a program to be used in a specialized computer, an end card is not required.~~

~~-(4) A program may be maintained by a generally accepted method, within the computer industry, of input or output or a combination of methods.~~

~~-(5) Two edit listings shall be prepared and, not less than 3 days before the preliminary accuracy test, shall be delivered to the election commission responsible for supplying the program.~~

(62) The election commission responsible for supplying the program **the election** shall provide necessary information to the ~~person or company designated~~ **county clerk** to write or prepare the program.

(73) The program for an election ~~and a duplicate copy shall~~ **must** be completed and ~~delivered~~ **provided** to the election commission responsible for supplying the program not less than 3 days before the **election in a timely manner to allow for the** preliminary accuracy test. A duplicate is not required where a specialized computer is used.

~~-(8) If a program is written to be used on a general purpose computer, the person or company providing the program shall, at the time the program is delivered, submit to the election commission a certificate stating that the program was prepared from all relevant input data, describing the procedures which were used to determine its accuracy, and stating that the program has been written pursuant to the act and these rules.~~

~~-(9) The person preparing the program shall submit to the election commission responsible for supplying the program instructions containing the information and procedures required to operate the program. The election commission shall make the instructions available to the computer operators.~~

(104) The vote tabulation portion of the program shall **must** be written **as follows**:

(a) To reflect the rotation sequence of the candidates' names ~~and ballot position numbers~~ as they appear on the ballot labels in the various precincts.

(b) To count valid votes cast by a voter for candidates for an office.

(c) To count valid votes cast by a voter for or against ~~a any question~~ **proposal**.

(d) So as not to count votes cast by a voter for an office or question if the number of votes cast by a voter exceeds the number ~~which~~ **that** the voter is entitled to vote for on that office or ~~question~~ **proposal**.

(e) To ignore ~~punches marks in on~~ a ballot card in positions where a candidate's name or questions do not appear on the official ballot **outside the target area**. These punches marks **must** ~~shall~~ not have an effect on the ballot.

(f) So that the partisan, nonpartisan, and proposal sections of the ballot are considered separate sections of the ballot. The action of a voter in 1 section of the ballot ~~shall~~ **does** not affect the voter's action on another section of the ballot.

(115) **In addition to applicable requirements under subrule (4) of this rule**, ~~F~~ for a partisan primary election, the vote tabulation section of the program shall **must** be written **as follows**:

~~-(a) To determine if a voter has cast votes for candidates of more than 1 political party.~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

—(b) To determine if a voter has cast votes for a candidate of 1 or more political parties and a vote in the “party qualification section” of the ballot.

(ea) To count the votes when they are recorded by a voter for candidates of 1 political party, only where a vote is not recorded in the “party qualification section” of the ballot; or to count the vote when it is recorded by the voter for 1 selection only in the “party qualification section” of the ballot and where a vote is not recorded for 1 or more partisan candidates, as in examples 1, 2, 3, and 4 as in example 1.

(b) To reject all votes cast in the partisan section of the ballot if votes are cast for candidates of more than 1 political party, as in example 2.

Example 1: Count a vote for candidates A and D C.

Example 2: Count a vote for candidates F and G no votes.

Example 3:

Example 4:

Partisan Section - Vote Only 1 Party Section		Partisan Section - Vote Only 1 Party Section	
Party 1 Party Section	Party 2 Party Section	Party 1 Party Section	Party 2 Party Section
Section Header	Section Header	Section Header	Section Header
Office 1 Vote for not more than 1	Office 1 Vote for not more than 1	Office 1 Vote for not more than 1	Office 1 Vote for not more than 1
Candidate A <input checked="" type="radio"/>	Candidate E <input type="radio"/>	Candidate A <input checked="" type="radio"/>	Candidate E <input type="radio"/>
Candidate B <input type="radio"/>	Candidate F <input type="radio"/>	Candidate B <input type="radio"/>	Candidate F <input type="radio"/>
Office 2 Vote for not more than 1	Office 2 Vote for not more than 1	Office 2 Vote for not more than 1	Office 2 Vote for not more than 1
Candidate C <input checked="" type="radio"/>	Candidate G <input type="radio"/>	Candidate C <input type="radio"/>	Candidate G <input checked="" type="radio"/>
Candidate D <input type="radio"/>	Candidate H <input type="radio"/>	Candidate D <input type="radio"/>	Candidate H <input type="radio"/>

Example 3: Count a vote for party 4.

Example 4: Count a vote for candidate D.

Figure for 168.773 (1-2)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

✗
✗

PRIMARY FOR PARTY 1		
OFFICE 1	CANDIDATE A	<input checked="" type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE B	<input type="checkbox"/>
OFFICE 2	CANDIDATE C	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE D	<input checked="" type="checkbox"/>

PRIMARY FOR PARTY 2		
OFFICE 1	CANDIDATE E	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE F	<input type="checkbox"/>
OFFICE 2	CANDIDATE G	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE H	<input type="checkbox"/>

PARTY QUALIFICATION SECTION		
VOTE FOR NOT MORE THAN 1	PARTY 1	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 2	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 5	<input type="checkbox"/>

PRIMARY FOR PARTY 1		
OFFICE 1	CANDIDATE A	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE B	<input type="checkbox"/>
OFFICE 2	CANDIDATE C	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE D	<input type="checkbox"/>

PRIMARY FOR PARTY 2		
OFFICE 1	CANDIDATE E	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE F	<input checked="" type="checkbox"/>
OFFICE 2	CANDIDATE G	<input checked="" type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE H	<input type="checkbox"/>

PARTY QUALIFICATION SECTION		
VOTE FOR NOT MORE THAN 1	PARTY 1	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 2	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 5	<input type="checkbox"/>

Figure for 168.773 (3-4)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(5)

PRIMARY FOR PARTY 1		
OFFICE 1	CANDIDATE A	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE B	<input type="checkbox"/>
OFFICE 2	CANDIDATE C	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE D	<input type="checkbox"/>

PRIMARY FOR PARTY 2		
OFFICE 1	CANDIDATE E	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE F	<input type="checkbox"/>
OFFICE 2	CANDIDATE G	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE H	<input type="checkbox"/>

PARTY QUALIFICATION SECTION		
VOTE FOR NOT MORE THAN 1	PARTY 3	<input type="checkbox"/>
1	PARTY 4	<input checked="" type="checkbox"/>
PARTY	PARTY 5	<input type="checkbox"/>

(6)

PRIMARY FOR PARTY 1		
OFFICE 1	CANDIDATE A	<input checked="" type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE B	<input checked="" type="checkbox"/>
OFFICE 2	CANDIDATE C	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE D	<input checked="" type="checkbox"/>

PRIMARY FOR PARTY 2		
OFFICE 1	CANDIDATE E	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE F	<input type="checkbox"/>
OFFICE 2	CANDIDATE G	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	CANDIDATE H	<input type="checkbox"/>

PARTY QUALIFICATION SECTION		
VOTE FOR NOT MORE THAN 1	PARTY 3	<input type="checkbox"/>
1	PARTY 4	<input type="checkbox"/>
PARTY	PARTY 5	<input type="checkbox"/>

(d) To reject all votes cast in the partisan section of the ballot and the “party qualification section” of the ballot if votes are cast for candidates of more than 1 political party; or if votes are cast for candidates of 1 or more political parties and 1 or more votes are cast in the “party qualification section” of the ballot; or if more than 1 vote is cast in the “party qualification section” of the ballot, as in examples 5, 6, 7, 8, and 9.

Example 5: Count no votes.

Example 6: Count no votes.

Example 7: Count no votes.

Example 8: Count no votes.

Example 9: Count no votes.

Figure for 168.773 (5-7)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

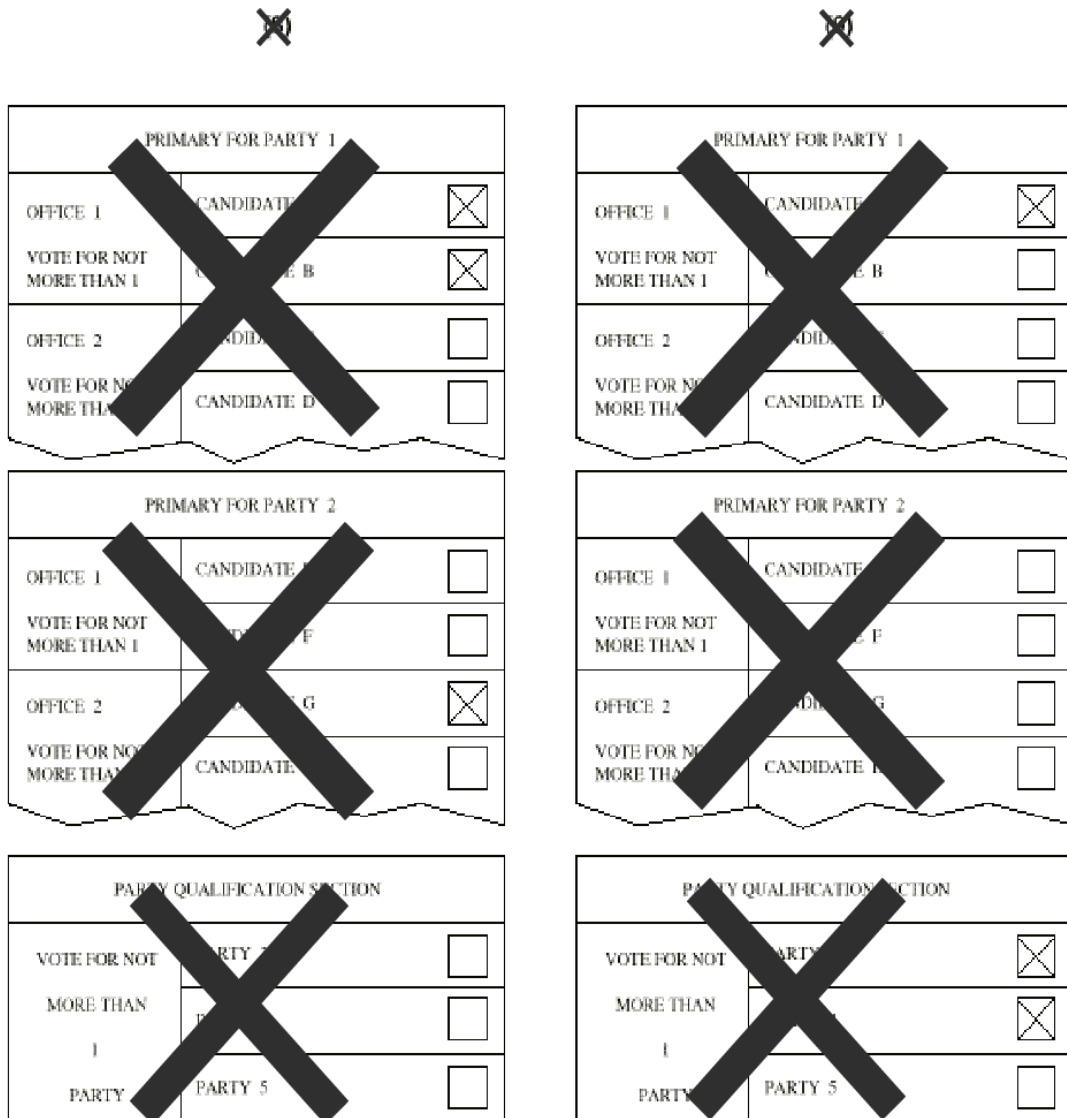
The figure displays seven ballot forms, each marked with a large 'X' to indicate they are rejected or invalid. The forms are arranged as follows:

- Top Left:** A ballot for "PRIMARY FOR PARTY 1" with two offices. Office 1 has a checked box for "CANDIDATE B" and an unchecked box for "CANDIDATE A". Office 2 has unchecked boxes for "CANDIDATE C" and "CANDIDATE D".
- Top Right:** A ballot for "PRIMARY FOR PARTY 1" with two offices. Office 1 has checked boxes for "CANDIDATE A" and "CANDIDATE B". Office 2 has checked boxes for "CANDIDATE C" and "CANDIDATE D".
- Middle Left:** A ballot for "PRIMARY FOR PARTY 2" with two offices. Office 1 has unchecked boxes for "CANDIDATE E" and "CANDIDATE F". Office 2 has unchecked boxes for "CANDIDATE G" and "CANDIDATE H".
- Middle Right:** A ballot for "PRIMARY FOR PARTY 2" with two offices. Office 1 has unchecked boxes for "CANDIDATE E" and "CANDIDATE F". Office 2 has unchecked boxes for "CANDIDATE G" and "CANDIDATE H".
- Bottom Left:** A ballot for "PRIMARY FOR PARTY 1" with two offices. Office 1 has unchecked boxes for "CANDIDATE A" and "CANDIDATE B". Office 2 has unchecked boxes for "CANDIDATE C" and "CANDIDATE D".
- Bottom Right:** A ballot for "PRIMARY FOR PARTY 2" with two offices. Office 1 has unchecked boxes for "CANDIDATE E" and "CANDIDATE F". Office 2 has unchecked boxes for "CANDIDATE G" and "CANDIDATE H".
- Bottom Center:** A "PARTY QUALIFICATION SECTION" ballot with three rows. The first row has a checked box for "PARTY 1". The second row has a checked box for "PARTY 2". The third row has an unchecked box for "PARTY 5".

Figure for 168.773 (8-9)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck



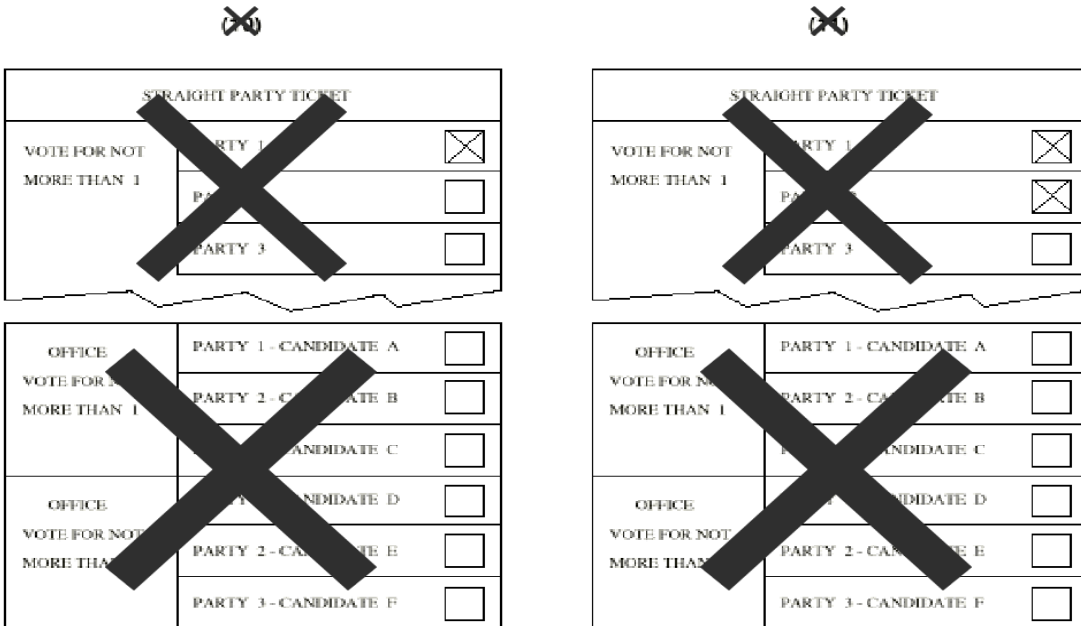
(126) In addition to applicable requirements under subrule (4) of this rule, ~~F~~ for a partisan general election, the vote tabulation section of the program ~~shall~~ **must** be written as follows:

(a) A vote **must** ~~shall~~ be counted for each candidate of the political party indicated by the voter's straight ticket vote, if ~~any other~~ **another** vote does not appear on the partisan portion of the ballot, as in example ~~103~~.

Figure for 168.773 (10-11)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck



~~Example 10: Count a vote for candidates A and D.~~

~~(b) A vote shall not be counted if the voter has voted more than 1 straight ticket vote and another vote does not appear on the partisan section of the ballot, as in example 11. A vote must not be counted if the voter has voted more than 1 straight ticket vote and another vote does not appear on the partisan section of the ballot, as in example 4.~~

Example 3: Count a vote for candidates B and G.

Example 4: Do not count a vote for candidates of any party.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Example 3:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input type="radio"/>
Party 2	<input checked="" type="radio"/>
Party 3	<input type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Congressional	
United States Senator Vote for not more than 1	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 2	<input type="radio"/>
Candidate C Party 3	<input type="radio"/>
Candidate D Party 4	<input type="radio"/>
Candidate E Party 5	<input type="radio"/>
	<input type="radio"/>
Representative in Congress Xth District Vote for not more than 1	
Candidate F Party 1	<input type="radio"/>
Candidate G Party 2	<input type="radio"/>
Candidate H Party 3	<input type="radio"/>
	<input type="radio"/>

Example 4:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input type="radio"/>
Party 2	<input checked="" type="radio"/>
Party 3	<input checked="" type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Congressional	
United States Senator Vote for not more than 1	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 2	<input type="radio"/>
Candidate C Party 3	<input type="radio"/>
Candidate D Party 4	<input type="radio"/>
Candidate E Party 5	<input type="radio"/>
	<input type="radio"/>
Representative in Congress Xth District Vote for not more than 1	
Candidate F Party 1	<input type="radio"/>
Candidate G Party 2	<input type="radio"/>
Candidate H Party 3	<input type="radio"/>
	<input type="radio"/>

~~Example 11: Do not count a vote for candidates of any party.~~

(c) When only 1 candidate is to be elected to an office and the voter has voted a straight party ticket and voted for individual candidates, a vote ~~shall~~ **must** be counted for each of the individual candidates voted for, and for each candidate of the party for which the straight party vote was voted and individual votes for candidates of other parties were not voted, as in examples ~~12 5~~ and ~~13 6~~.

~~Example 125: Count a vote for candidates B and E G.~~

~~Example 136: Count a vote for candidates B and D F.~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Example 5:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input type="radio"/>
Party 2	<input checked="" type="radio"/>
Party 3	<input type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Congressional	
United States Senator Vote for not more than 1	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 2	<input checked="" type="radio"/>
Candidate C Party 3	<input type="radio"/>
Candidate D Party 4	<input type="radio"/>
Candidate E Party 5	<input type="radio"/>
	<input type="radio"/>
Representative in Congress Xth District Vote for not more than 1	
Candidate F Party 1	<input type="radio"/>
Candidate G Party 2	<input checked="" type="radio"/>
Candidate H Party 3	<input type="radio"/>
	<input type="radio"/>

Example 6:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input checked="" type="radio"/>
Party 2	<input type="radio"/>
Party 3	<input type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Congressional	
United States Senator Vote for not more than 1	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 2	<input checked="" type="radio"/>
Candidate C Party 3	<input type="radio"/>
Candidate D Party 4	<input type="radio"/>
Candidate E Party 5	<input type="radio"/>
	<input type="radio"/>
Representative in Congress Xth District Vote for not more than 1	
Candidate F Party 1	<input type="radio"/>
Candidate G Party 2	<input type="radio"/>
Candidate H Party 3	<input type="radio"/>
	<input type="radio"/>

Figure for 168.773 (12-13)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~(2)~~

STRAIGHT PARTY TICKET							
VOTE FOR NOT MORE THAN 1	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">PARTY 1</td> <td style="width: 20%; text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>PARTY 2</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>PARTY 3</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	PARTY 1	<input type="checkbox"/>	PARTY 2	<input checked="" type="checkbox"/>	PARTY 3	<input type="checkbox"/>
PARTY 1	<input type="checkbox"/>						
PARTY 2	<input checked="" type="checkbox"/>						
PARTY 3	<input type="checkbox"/>						

~~(3)~~

STRAIGHT PARTY TICKET							
VOTE FOR NOT MORE THAN 1	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">PARTY 1</td> <td style="width: 20%; text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>PARTY 2</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>PARTY 3</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	PARTY 1	<input checked="" type="checkbox"/>	PARTY 2	<input type="checkbox"/>	PARTY 3	<input type="checkbox"/>
PARTY 1	<input checked="" type="checkbox"/>						
PARTY 2	<input type="checkbox"/>						
PARTY 3	<input type="checkbox"/>						

OFFICE	PARTY 1 - CANDIDATE A	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 2 - CANDIDATE B	<input checked="" type="checkbox"/>
	PARTY 3 - CANDIDATE C	<input type="checkbox"/>
OFFICE	PARTY 1 - CANDIDATE D	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 2 - CANDIDATE E	<input checked="" type="checkbox"/>
	PARTY 3 - CANDIDATE F	<input type="checkbox"/>

OFFICE	PARTY 1 - CANDIDATE A	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 2 - CANDIDATE B	<input checked="" type="checkbox"/>
	PARTY 3 - CANDIDATE C	<input type="checkbox"/>
OFFICE	PARTY 1 - CANDIDATE D	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 2 - CANDIDATE E	<input type="checkbox"/>
	PARTY 3 - CANDIDATE F	<input type="checkbox"/>

(d) When 1 or more candidates are to be elected to an office and the voter has voted 2 or more straight party tickets and the individual votes for partisan candidates, a vote ~~shall~~ **must** be counted for each individual candidate voted for when the number of votes for that office does not exceed the number for which the voter is entitled to vote, as in examples ~~147~~, ~~158~~, and ~~169~~.

Example ~~147~~: Count a vote for candidates A and ~~D-G~~.

Example ~~158~~: Do not count a vote for candidates of any party.

Example ~~169~~: Count a vote for candidate ~~F-H~~.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Example 7:

Example 8:

Example 9:

Partisan Section	Partisan Section	Partisan Section
Straight Party Ticket Vote for not more than 1	Straight Party Ticket Vote for not more than 1	Straight Party Ticket Vote for not more than 1
Party 1 <input checked="" type="radio"/>	Party 1 <input checked="" type="radio"/>	Party 1 <input type="radio"/>
Party 2 <input type="radio"/>	Party 2 <input checked="" type="radio"/>	Party 2 <input checked="" type="radio"/>
Party 3 <input checked="" type="radio"/>	Party 3 <input type="radio"/>	Party 3 <input checked="" type="radio"/>
Party 4 <input type="radio"/>	Party 4 <input type="radio"/>	Party 4 <input type="radio"/>
Party 5 <input type="radio"/>	Party 5 <input type="radio"/>	Party 5 <input type="radio"/>
Party 6 <input type="radio"/>	Party 6 <input type="radio"/>	Party 6 <input type="radio"/>
Congressional	Congressional	Congressional
United States Senator Vote for not more than 1	United States Senator Vote for not more than 1	United States Senator Vote for not more than 1
Candidate A Party 1 <input checked="" type="radio"/>	Candidate A Party 1 <input checked="" type="radio"/>	Candidate A Party 1 <input type="radio"/>
Candidate B Party 2 <input type="radio"/>	Candidate B Party 2 <input checked="" type="radio"/>	Candidate B Party 2 <input checked="" type="radio"/>
Candidate C Party 3 <input type="radio"/>	Candidate C Party 3 <input type="radio"/>	Candidate C Party 3 <input checked="" type="radio"/>
Candidate D Party 4 <input type="radio"/>	Candidate D Party 4 <input type="radio"/>	Candidate D Party 4 <input type="radio"/>
Candidate E Party 5 <input type="radio"/>	Candidate E Party 5 <input type="radio"/>	Candidate E Party 5 <input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Representative in Congress Xth District Vote for not more than 1	Representative in Congress Xth District Vote for not more than 1	Representative in Congress Xth District Vote for not more than 1
Candidate F Party 1 <input type="radio"/>	Candidate F Party 1 <input checked="" type="radio"/>	Candidate F Party 1 <input type="radio"/>
Candidate G Party 2 <input checked="" type="radio"/>	Candidate G Party 2 <input checked="" type="radio"/>	Candidate G Party 2 <input type="radio"/>
Candidate H Party 3 <input type="radio"/>	Candidate H Party 3 <input type="radio"/>	Candidate H Party 3 <input checked="" type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure for 168.773 (14-16)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

The image displays four ballot examples, each with a large 'X' mark indicating an invalid configuration. Each ballot is divided into two sections: 'STRAIGHT PARTY TICKET' and a list of candidates for two different offices.

- Example 1 (Top Left):** A straight party ticket for Party 1 is checked. For the first office, Party 1-Candidate A is checked, Party 2-Candidate B is unchecked, and Party 3-Candidate C is checked. For the second office, Party 1-Candidate A is checked, Party 2-Candidate B is checked, and Party 3-Candidate C is unchecked.
- Example 2 (Top Right):** A straight party ticket for Party 1 is checked. For the first office, Party 1-Candidate A is checked, Party 2-Candidate B is checked, and Party 3-Candidate C is unchecked. For the second office, Party 1-Candidate A is checked, Party 2-Candidate B is checked, and Party 3-Candidate C is checked.
- Example 3 (Bottom Left):** A straight party ticket for Party 1 is checked. For the first office, Party 1-Candidate A is unchecked, Party 2-Candidate B is checked, and Party 3-Candidate C is checked. For the second office, Party 1-Candidate A is checked, Party 2-Candidate B is checked, and Party 3-Candidate C is checked.
- Example 4 (Bottom Right):** A straight party ticket for Party 1 is checked. For the first office, Party 1-Candidate A is unchecked, Party 2-Candidate B is checked, and Party 3-Candidate C is checked. For the second office, Party 1-Candidate A is unchecked, Party 2-Candidate B is checked, and Party 3-Candidate C is checked.

(e) When 2 partisan candidates are to be elected to the same office and the voter has voted a straight party ticket for 1 political party and has voted individually for 2 candidates of a different political party for that office, a vote **must shall** be counted for each of the candidates for whom the individual votes were voted, but votes **must shall** not be counted for the candidates of the party indicated by the voter’s straight party selection for that office, as in examples ~~4710~~, ~~4711~~, and ~~4912~~.

Example ~~4710~~: Count a vote for candidates A, B, H, and I.

Example ~~4711~~: Count a vote for candidates D, E, F, and G.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Example 12: Count a vote for candidates C, D, I, and J.

Example 10:

Example 11:

Example 12:

Partisan Section		Partisan Section		Partisan Section	
Straight Party Ticket Vote for not more than 1		Straight Party Ticket Vote for not more than 1		Straight Party Ticket Vote for not more than 1	
Party 1	<input checked="" type="radio"/>	Party 1	<input checked="" type="radio"/>	Party 1	<input checked="" type="radio"/>
Party 2	<input type="radio"/>	Party 2	<input type="radio"/>	Party 2	<input type="radio"/>
Party 3	<input type="radio"/>	Party 3	<input type="radio"/>	Party 3	<input type="radio"/>
Party 4	<input type="radio"/>	Party 4	<input type="radio"/>	Party 4	<input type="radio"/>
Party 5	<input type="radio"/>	Party 5	<input type="radio"/>	Party 5	<input type="radio"/>
Party 6	<input type="radio"/>	Party 6	<input type="radio"/>	Party 6	<input type="radio"/>
Party 7	<input type="radio"/>	Party 7	<input type="radio"/>	Party 7	<input type="radio"/>
State Boards		State Boards		State Boards	
Member of the State Board of Education Vote for not more than 2		Member of the State Board of Education Vote for not more than 2		Member of the State Board of Education Vote for not more than 2	
Candidate A Party 1	<input type="radio"/>	Candidate A Party 1	<input type="radio"/>	Candidate A Party 1	<input type="radio"/>
Candidate B Party 1	<input type="radio"/>	Candidate B Party 1	<input type="radio"/>	Candidate B Party 1	<input type="radio"/>
Candidate C Party 2	<input type="radio"/>	Candidate C Party 2	<input type="radio"/>	Candidate C Party 2	<input checked="" type="radio"/>
Candidate D Party 2	<input type="radio"/>	Candidate D Party 2	<input checked="" type="radio"/>	Candidate D Party 2	<input checked="" type="radio"/>
Candidate E Party 3	<input type="radio"/>	Candidate E Party 3	<input checked="" type="radio"/>	Candidate E Party 3	<input type="radio"/>
	<input type="radio"/>		<input type="radio"/>		<input type="radio"/>
	<input type="radio"/>		<input type="radio"/>		<input type="radio"/>
Regent of the University of Michigan Vote for not more than 2		Regent of the University of Michigan Vote for not more than 2		Regent of the University of Michigan Vote for not more than 2	
Candidate F Party 1	<input type="radio"/>	Candidate F Party 1	<input type="radio"/>	Candidate F Party 1	<input type="radio"/>
Candidate G Party 1	<input type="radio"/>	Candidate G Party 1	<input type="radio"/>	Candidate G Party 1	<input type="radio"/>
Candidate H Party 2	<input checked="" type="radio"/>	Candidate H Party 2	<input type="radio"/>	Candidate H Party 2	<input type="radio"/>
Candidate I Party 2	<input checked="" type="radio"/>	Candidate I Party 2	<input type="radio"/>	Candidate I Party 2	<input checked="" type="radio"/>
Candidate J Party 3	<input type="radio"/>	Candidate J Party 3	<input type="radio"/>	Candidate J Party 3	<input checked="" type="radio"/>
	<input type="radio"/>		<input type="radio"/>		<input type="radio"/>
	<input type="radio"/>		<input type="radio"/>		<input type="radio"/>

Figure for 168.773 (17-18)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

The figure shows four ballot templates, each with a large 'X' over it. The top two templates are for 'STRAIGHT PARTY TICKET' and have checkboxes for 'PARTY 1', 'PARTY 2', and 'PARTY 3'. The bottom two templates are for 'OFFICE' and have checkboxes for 'PARTY 1 - CANDIDATE A' through 'PARTY 3 - CANDIDATE J'. In the bottom-right template, the checkboxes for 'PARTY 2 - CANDIDATE D', 'PARTY 2 - CANDIDATE E', 'PARTY 2 - CANDIDATE I', and 'PARTY 3 - CANDIDATE J' are checked.

Figure for 168.773 (19)

The figure shows a single ballot template with a large 'X' over it. The template is for 'STRAIGHT PARTY TICKET' and has checkboxes for 'PARTY 1', 'PARTY 2', and 'PARTY 3'. Below that, it has checkboxes for 'PARTY 1 - CANDIDATE A' through 'PARTY 3 - CANDIDATE J'. The checkboxes for 'PARTY 1', 'PARTY 2 - CANDIDATE C', 'PARTY 2 - CANDIDATE D', 'PARTY 2 - CANDIDATE I', and 'PARTY 3 - CANDIDATE J' are checked.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(f) When 2 partisan candidates are to be elected to the same office and the voter has voted a straight party ticket for 1 political party and that party has 2 candidates for that office, and the voter has voted an individual vote for 1 candidate for that office in a different political party, a vote **must shall** be counted only for the candidate for whom the individual vote was made. Under these conditions, a vote **must shall** not be counted for a candidate for that office by virtue of the voter's straight party selection, as in examples ~~2013~~, ~~2114~~, ~~2215~~, and ~~2316~~.

Example ~~2013~~: Count a vote for candidate C only.

Example ~~2114~~: Count a vote for candidates A and B.

Example ~~2215~~: Count a vote for candidates B and C.

Example ~~2316~~: Count a vote for candidate E only.

Example 13:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input checked="" type="radio"/>
Party 2	<input type="radio"/>
Party 3	<input type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Party 7	<input type="radio"/>

State Boards	
Member of the State Board of Education Vote for not more than 2	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 1	<input type="radio"/>
Candidate C Party 2	<input checked="" type="radio"/>
Candidate D Party 2	<input type="radio"/>
Candidate E Party 3	<input type="radio"/>
	<input type="radio"/>
	<input type="radio"/>

Example 14:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input checked="" type="radio"/>
Party 2	<input type="radio"/>
Party 3	<input type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Party 7	<input type="radio"/>

State Boards	
Member of the State Board of Education Vote for not more than 2	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 1	<input checked="" type="radio"/>
Candidate C Party 2	<input type="radio"/>
Candidate D Party 2	<input type="radio"/>
Candidate E Party 3	<input type="radio"/>
	<input type="radio"/>
	<input type="radio"/>

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Example 15:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input checked="" type="radio"/>
Party 2	<input type="radio"/>
Party 3	<input type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Party 7	<input type="radio"/>

State Boards	
Member of the State Board of Education Vote for not more than 2	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 1	<input checked="" type="radio"/>
Candidate C Party 2	<input checked="" type="radio"/>
Candidate D Party 2	<input type="radio"/>
Candidate E Party 3	<input type="radio"/>
	<input type="radio"/>
	<input type="radio"/>

Example 16:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input checked="" type="radio"/>
Party 2	<input type="radio"/>
Party 3	<input type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Party 7	<input type="radio"/>

State Boards	
Member of the State Board of Education Vote for not more than 2	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 1	<input type="radio"/>
Candidate C Party 2	<input type="radio"/>
Candidate D Party 2	<input type="radio"/>
Candidate E Party 3	<input checked="" type="radio"/>
	<input type="radio"/>
	<input type="radio"/>

Figure for 168.773 (20-23)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

The image displays eight voting ballots, each with a large 'X' over it, indicating they are examples of invalid or problematic votes. The ballots are arranged in a 4x2 grid and are labeled with circled numbers 1, 2, and 3.

- Row 1:** Two ballots labeled (1) and (2). Both have a 'STRAIGHT PARTY TICKET' section with three rows: 'VOTE FOR NOT PARTY 1' (checked), 'MORE THAN 1 PARTY 2' (unchecked), and 'PARTY 3' (unchecked).
- Row 2:** Two ballots labeled (1) and (2). Both have an 'OFFICE' section with five rows: 'PARTY 1 - CANDIDATE A' (unchecked), 'PARTY 1 - CANDIDATE B' (checked), 'VOTE FOR NOT PARTY 1 - CANDIDATE C' (checked), 'MORE THAN 1 PARTY 2 - CANDIDATE D' (unchecked), and 'PARTY 3 - CANDIDATE E' (unchecked).
- Row 3:** Two ballots labeled (2) and (2). Both have a 'STRAIGHT PARTY TICKET' section with three rows: 'VOTE FOR NOT PARTY 1' (checked), 'MORE THAN 1 PARTY 2' (unchecked), and 'PARTY 3' (unchecked).
- Row 4:** Two ballots labeled (2) and (2). Both have an 'OFFICE' section with five rows: 'PARTY 1 - CANDIDATE A' (unchecked), 'PARTY 1 - CANDIDATE B' (checked), 'VOTE FOR NOT PARTY 1 - CANDIDATE C' (checked), 'MORE THAN 2 PARTY 2 - CANDIDATE D' (unchecked), and 'PARTY 3 - CANDIDATE E' (checked).

(g) When 2 partisan candidates are to be elected to the same office and the voter has voted a straight party ticket for 1 political party and that party has only 1 candidate for that office, a vote **must shall** be counted for the party candidate for that office as in example ~~2417~~, and if the voter has voted for a candidate of a different political party for that office, that vote **must shall** be counted, as in example ~~2518~~.

Example ~~2417~~: Count a vote for candidate E.

Example ~~2518~~: Count a vote for candidates B and E.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Example 17:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input type="radio"/>
Party 2	<input type="radio"/>
Party 3	<input checked="" type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Party 7	<input type="radio"/>

State Boards	
Member of the State Board of Education Vote for not more than 2	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 1	<input type="radio"/>
Candidate C Party 2	<input type="radio"/>
Candidate D Party 2	<input type="radio"/>
Candidate E Party 3	<input type="radio"/>
	<input type="radio"/>
	<input type="radio"/>

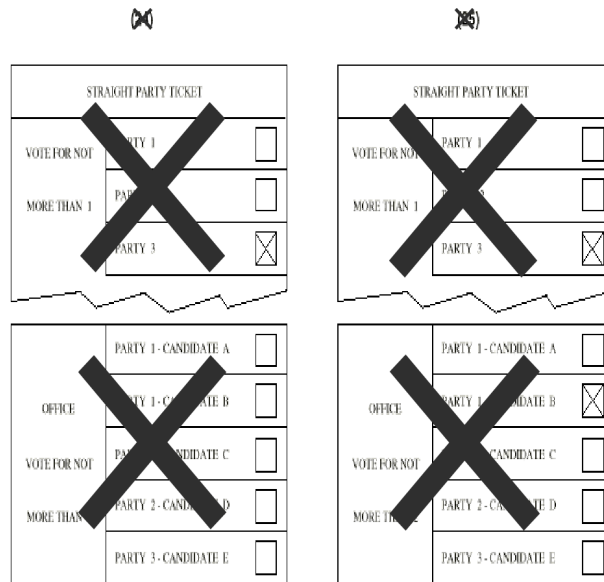
Example 18:

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input type="radio"/>
Party 2	<input type="radio"/>
Party 3	<input checked="" type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Party 7	<input type="radio"/>

State Boards	
Member of the State Board of Education Vote for not more than 2	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 1	<input checked="" type="radio"/>
Candidate C Party 2	<input type="radio"/>
Candidate D Party 2	<input type="radio"/>
Candidate E Party 3	<input type="radio"/>
	<input type="radio"/>
	<input type="radio"/>

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck



—Figure for 168.773 (24-25)

(h) When a voter has voted a straight party ticket for a political party and has voted individual votes for members of that party only, a vote **must shall** be counted for each candidate of that party. These conditions do not constitute an overvote, as in example 2619.

Example 2619: Count a vote for ~~B-C~~ and ~~E-D~~.

Example 19:

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Partisan Section	
Straight Party Ticket Vote for not more than 1	
Party 1	<input type="radio"/>
Party 2	<input checked="" type="radio"/>
Party 3	<input type="radio"/>
Party 4	<input type="radio"/>
Party 5	<input type="radio"/>
Party 6	<input type="radio"/>
Party 7	<input type="radio"/>

State Boards	
Member of the State Board of Education Vote for not more than 2	
Candidate A Party 1	<input type="radio"/>
Candidate B Party 1	<input type="radio"/>
Candidate C Party 2	<input checked="" type="radio"/>
Candidate D Party 2	<input type="radio"/>
Candidate E Party 3	<input type="radio"/>
	<input type="radio"/>
	<input type="radio"/>

Figure for 168.773 (26)

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(26)

STRAIGHT PARTY VOTE	
VOTE FOR NOT MORE THAN 1	PARTY 1 <input type="checkbox"/>
	PARTY 2 <input checked="" type="checkbox"/>
	PARTY 3 <input type="checkbox"/>

OFFICE	PARTY 1 - CANDIDATE A	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 2 - CANDIDATE B	<input checked="" type="checkbox"/>
	PARTY 3 - CANDIDATE C	<input type="checkbox"/>
OFFICE	PARTY 4 - CANDIDATE D	<input type="checkbox"/>
VOTE FOR NOT MORE THAN 1	PARTY 2 - CANDIDATE E	<input type="checkbox"/>
	PARTY 3 - CANDIDATE F	<input type="checkbox"/>

6.4 R 168.774 Preparation of Ballots

6.4.1 Proposed MDOS Rule

Rule 4. (1) On a ballot card used after the effective date of these rules, the words “OFFICIAL BALLOT CARD” ~~must~~ shall be printed on the face of the detachable stub ballot. The ballot card shall have a corner cut on 1 corner.

(2) ~~If the ballot is printed on both sides, the following statement, or a substantially similar statement, must~~ shall be printed or stamped on the back of the stub on official ballot cards ~~both sides of the ballot~~ in boldface capital letters: “VOTE BOTH FRONT AND BACK OF THE BALLOT.”

- ~~–STOP~~
- ~~–WRONG SIDE~~
- ~~–TURN CARD OVER~~

(3) The precinct or absent voter counting board number ~~must~~ shall be printed ~~or, stamped,~~ written, ~~or punched~~ on each ballot card used in an election to designate the precinct or county board from which it originated.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~(4) A combination ballot card and write-in ballot to be used in an election shall be approved by the board of state canvassers.~~

~~(54) A ballot envelope secrecy sleeve to be used in an election shall be approved by the board of state canvassers and shall~~ **must** satisfy all of the following requirements:

(a) Be made of paper of a sufficient size, weight, and design to preserve the secrecy of the ballot card.

(b) Have an inner pocket into which the ballot card may be inserted.

~~(c) Display printed instructions as to the method of inserting the ballot card after voting, and if the ballot envelope is to be used for write-ins, shall display instructions and space for casting a write-in vote.~~

(65) Except when ballots will be produced by an on-demand ballot printing system, the number of ballots cards and envelopes required to be printed and distributed to each precinct must satisfy the following shall:

(a) For the general election, be **not less than a number equal to the number of registered voters as of the close of registration plus 25%.**

(b) For a primary election, be not less than a number equal to the total number of votes cast in the most recent corresponding primary election plus 25%.

(c) For a special or local election, be a number determined by the local clerk.

(6) When ballots will be produced by an on-demand ballot printing system during early voting, the total number of ballots printed from an on-demand ballot printing system in the previous corresponding election where early voting was used may count towards the total number of ballots to be printed. The number of ballots required to be printed and distributed to each election day precinct must satisfy the following:

(a) For the general election, be not less than 100% of the number of registered voters.

(b) For a primary election, be not less than the number of votes cast in the most recent primary election plus 25%.

(c) For a special or local election, be a number determined by the local clerk.

~~(7) A question, proposal, or proposition shall be placed last on the ballot label following the names of candidates and shall be placed in the following order: state, county, local. An exemption from this requirement may be obtained prior to the election from the secretary of state in writing.~~

~~(87) For a general election, the name of the party that which a candidate represents must shall be printed along with the name of the candidate.~~

~~(98) The names of candidates on the ballot labels shall must be rotated as follows:~~

(a) For a primary election, the names under each office shall must be rotated when there are more names than there are candidates to be nominated for office.

(b) For a general election, the names of partisan candidates under the title of each office shall must not be rotated.

(c) In any an election, the names of nonpartisan candidates must shall be rotated when there are more names than there are candidates to be elected for the office.

(d) Rotation must shall be by precinct in the manner provided by law for voting machines.

~~(e) Rotation shall be throughout the local unit of government preparing the labels.~~

~~(fe) When absent voter ballots are to be processed in the precinct, the rotation must shall be the same as in that precinct.~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~(g) When absent voter ballot cards are to be processed by an absent voter counting board, the rotation may be either by precinct using each absent voter counting board as a separate precinct, or by individual ballot in the same manner as paper ballots. In the latter instance, the punch number assigned to a candidate which corresponds to the respective position number on the ballot card shall be rotated with the candidate's name.~~

~~(109) Voting instructions shall be printed on the first page of the ballot label. The ballot label shall contain instructions as to where the voter is to continue voting. Additional instructions which conform with the act may be printed on the ballot label. The procedures for ballots produced by an on-demand ballot printing system must comply with section 720c of the act, MCL 168.720c.~~

~~(11) Absent voter instruction ballots which are used in conjunction with a ballot card shall be printed in plain, clear type and contain instructions for voting. There shall be printed in boldface type alongside each candidate's name and the choice for each measure, a number which corresponds to the respective position number on the ballot card. The words "ABSENT VOTER INSTRUCTION BALLOT" shall appear at the head of the absent voter instruction ballot. An absent voter instruction ballot may be a facsimile of the ballot label used in the absent voter's precinct. Arrows placed on the ballot labels may be omitted from the absent voter instruction ballot.~~

~~(12) When a state office or question appears on the ballot, the county election commission shall forward to the secretary of state for approval 2 copies of an instruction ballot or ballot label, 2 copies of an absent voter instruction ballot including all instructions forwarded to absent voters, 2 copies of a ballot card, and 2 copies of a ballot envelope.~~

6.4.2 Issue(s)

6.4.2.1 Absent Voter Counting Board Ballot Label

Ballots must be printed with precinct or absent voter counting board number on each ballot. It is unclear as to why any ballot would be printed with an absent voter counting board number rather than a precinct. A single absent voter counting board can have anywhere from 2-5 precincts associated with it. Due to the numerous statutory requirements (e.g. MCL 168.812) which are based upon the need to report votes, ballot counts, and voter counts by precinct not by absentee counting board, it is unclear why this option exists.

6.4.2.2 Insufficient Security Provisions

The statutory requirement under MCL 168.720c specifies that the Secretary of State must provide guidance to election officials regarding the process for securing equipment and ballots. This requirement is NOT satisfied by a rule that simply references back to MCL 168.720c. Furthermore, the use of an on-demand ballot printing system introduces significant security and inventory control risks to the management of ballot inventory.

6.4.2.3 On-Demand Ballot Printing Transparency

On-demand ballot printing is now a standard feature of most early voting centers but nothing precludes the use of this capability in support of election day voting at polling locations or even absentee voting. In support of a professional audit evaluating the accuracy and integrity of a given

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

election, the number of ballots printed in this manner must be tracked and reflected in official election records.

6.4.3 Proposed Revision

Rule 4. (1) On a ballot ~~card~~ used after the effective date of these rules, the words “OFFICIAL BALLOT-CARD” ~~must shall~~ be printed on the face of the ~~detachable stub~~ ballot. ~~The ballot card shall have a corner cut on 1 corner.~~

(2) ~~If the ballot is printed on both sides,~~ ~~the following statement, or a substantially similar statement, must shall~~ be printed or stamped on ~~the back of the stub on official ballot cards both sides of the ballot~~ in boldface capital letters: “VOTE BOTH FRONT AND BACK OF THE BALLOT.”

~~—STOP~~
~~—WRONG SIDE~~
~~—TURN CARD OVER~~

(3) The precinct ~~must shall~~ be printed ~~or, stamped, written, or punched~~ on each ballot ~~card~~ used in an election to designate the precinct or county board from which it originated.

(4) ~~A combination ballot card and write-in ballot to be used in an election shall be approved by the board of state canvassers.~~

(5) ~~A ballot envelope secrecy sleeve to be used in an election shall be approved by the board of state canvassers and shall~~ **must** satisfy all of the following requirements:

(a) Be made of paper of a sufficient size, weight, and design to preserve the secrecy of the ballot ~~card~~.

(b) Have an inner pocket into which the ballot ~~card~~ may be inserted.

(c) Display printed instructions as to the method of inserting the ballot ~~card~~ after voting, ~~and if the ballot envelope is to be used for write-ins, shall display instructions and space for casting a write-in vote.~~

(6) ~~Except when ballots will be produced by an on-demand ballot printing system,~~ ~~the number of ballots cards and envelopes required to be printed and distributed to each precinct~~ **must satisfy the following shall:**

(a) For the general election, be **not less than a number equal to** the number of registered voters ~~as of the close of registration~~ **plus 25%.**

(b) For a primary election, be not less than ~~a number equal to~~ the total number of votes cast in the most recent corresponding primary election plus 25%.

(c) For a special or local election, be a number determined by the local clerk.

(7) **When ballots will be produced by an on-demand ballot printing system during early voting, the total number of ballots printed from an on-demand ballot printing system in the previous corresponding election where early voting was used may count towards the total number of ballots to be printed. The number of ballots required to be printed and distributed to each election day precinct must satisfy the following:**

(a) For the general election, be not less than **100%** of the number of registered voters.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(b) For a primary election, be not less than the number of votes cast in the most recent primary election plus 25%.

(c) For a special or local election, be a number determined by the local clerk.

~~(7) A question, proposal, or proposition shall be placed last on the ballot label following the names of candidates and shall be placed in the following order: state, county, local. An exemption from this requirement may be obtained prior to the election from the secretary of state in writing.~~

~~(87) For a general election, the name of the party that which a candidate represents **must** shall be printed along with the name of the candidate.~~

~~(98) The names of candidates on the ballot labels shall **must** be rotated as follows:~~

~~(a) For a primary election, the names under each office shall **must** be rotated when there are more names than there are candidates to be nominated for office.~~

~~(b) For a general election, the names of partisan candidates under the title of each office shall **must** not be rotated.~~

~~(c) In any an election, the names of nonpartisan candidates **must** shall be rotated when there are more names than there are candidates to be elected for the office.~~

~~(d) Rotation **must** shall be by precinct in the manner provided by law for voting machines.~~

~~(e) Rotation shall be throughout the local unit of government preparing the labels.~~

~~(fe) When absent voter ballots are to be processed in the precinct, the rotation **must** shall be the same as in that precinct.~~

~~(g) When absent voter ballot cards are to be processed by an absent voter counting board, the rotation may be either by precinct using each absent voter counting board as a separate precinct, or by individual ballot in the same manner as paper ballots. In the latter instance, the punch number assigned to a candidate which corresponds to the respective position number on the ballot card shall be rotated with the candidate's name.~~

~~(109) Voting instructions shall be printed on the first page of the ballot label. The ballot label shall contain instructions as to where the voter is to continue voting. Additional instructions which conform with the act may be printed on the ballot label. **The number of ballots printed on-demand must be accurately captured in the ballot summary page prepared at the close of polls each day at early voting sites and overall at the close of election day poll for each election.**~~

~~(11) Absent voter instruction ballots which are used in conjunction with a ballot card shall be printed in plain, clear type and contain instructions for voting. There shall be printed in boldface type alongside each candidate's name and the choice for each measure, a number which corresponds to the respective position number on the ballot card. The words "ABSENT VOTER INSTRUCTION BALLOT" shall appear at the head of the absent voter instruction ballot. An absent voter instruction ballot may be a facsimile of the ballot label used in the absent voter's precinct. Arrows placed on the ballot labels may be omitted from the absent voter instruction ballot.~~

~~(12) When a state office or question appears on the ballot, the county election commission shall forward to the secretary of state for approval 2 copies of an instruction ballot or ballot label, 2 copies of an absent voter instruction ballot including all instructions forwarded to absent voters, 2 copies of a ballot card, and 2 copies of a ballot envelope.~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.5 R 168.775 Preparation of Tabulators

6.5.1 Proposed MDOS Rule

Rule 5. (1) The clerk or an authorized assistant shall prepare each ~~voting device~~ **tabulator** pursuant to the provisions of the act and these rules.

(2) A ~~voting device~~ **tabulator must shall be identified labeled** with the precinct number in which it ~~shall is to~~ be used **if more than 1 tabulator is in the polling place, early voting site, or absent voter ballot counting facility.**

(3) A ~~ballot label page used in the voting device shall be firmly attached for insertion and positioning in the ballot frame. A person shall not attach a ballot label by tape to a rod, or place a ballot label into a clear plastic envelope through which a rod is inserted~~ **A tabulator must be programmed to notify the voter if the voter submits a blank ballot, a ballot containing overvotes, or a partisan primary ballot that is invalid due to crossover voting, as tested by the preliminary test and public logic and accuracy test. The tabulator must provide the voter with the following options:**

(a) **The voter may acknowledge that no vote will be awarded if a ballot is blank or in a contest that contains an overvote or crossover vote and submit the ballot to the tabulator.**

(b) **The voter may remove the ballot from the tabulator, spoil the ballot, and receive a replacement ballot from the election inspectors. If the ballot is blank, the voter may remove the ballot from the tabulator, vote the ballot, and resubmit the ballot to the tabulator.**

~~(4) The ballot label assembly shall be inserted and sealed into each voting device so that the ballot label assembly cannot be removed without breaking the seal. Seals approved by the board of state canvassers shall be used for this purpose.~~

~~(5) The ballot label of each voting device of a precinct shall be compared against the edit listing and instruction ballot for the precinct to ascertain that the offices, candidates' names, and ballot position numbers are the same and appear in the same position.~~

~~(6) The ballot labels of each device shall be examined to ascertain that holes in the mask appear directly opposite each arrow, that other holes do not appear in the mask, and that the ballot labels are in proper sequence.~~

~~(74) An assembled voting device tabulator must shall be tested to determine if it is operating properly, as described in these rules.~~

(5) A tabulator must be sealed at all times the tabulator is being used for voting or is being stored.

~~(86) The identifying number of the voting device tabulator and the seal number used to seal the ballot label assembly to the device tabulator must shall be recorded on the certificate in the poll book~~ **physical pollbook** for the precinct in which the ~~device~~ **tabulator** is to be used. The clerk or an authorized assistant who sealed the ~~device~~ **tabulator** shall sign the certificate.

~~(97) When a voting device tabulator has been prepared for the election, the election commission, the clerk, or an authorized assistant shall execute a certificate in writing, which shall must be filed with the election commission of the jurisdiction in which they are authorized to act. The certificate must shall contain the precinct number, the identifying number of the device tabulator, and the number of the seal or seals used to seal the device, and state that the ballot labels have been~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~compared against the edit list for that precinct and that the candidates' names and ballot numbers agree and appear in the same position~~ and **state** that the ~~device~~ **tabulator** has been properly prepared and tested. If the certificate is signed by **an individual** other than the election commission, the election commission or its authorized assistant shall be offered an opportunity to inspect the ~~voting device~~ **tabulators** to determine whether they are properly prepared. In an election when state and county officers or measures are to be voted for, a duplicate certificate **must** ~~shall~~ be filed with the county clerk.

6.5.2 Issue(s)

6.5.2.1 *Ignores Batch-Fed Tabulator Preparation*

R 168.775 appears to be specific to in-person voting on election day. It fails to address the process of tallying votes in absent voter counting boards in communities such as Detroit. Either the proposed rule should be expanded to address the unique tabulation environments in absent voter counting boards or new rules should be adopted specific to the absent voter counting board environment as has been done for early voting centers.

6.5.2.2 *Ignores Adjudication Equipment Preparation*

R 168.775 does not address adjudication equipment at all yet this process is just as important as the programming and tabulator section as it encompasses derivatives of both of those processes. Rule guidance needs to be issued that covers what data is transferred from tabulators and how. There is significant variation in methods used. Some clerks use adjudication equipment in a pair relationship with their absent voter counting board tabulator. Some clerks route data from multiple absent voter counting boards to a different number of adjudicator workstations. For example, during the 2020 election, the ballot images and tallies from 25 Dominion ImageCast Central batch-fed tabulators was routed in an apparently random fashion to just 14 Adjudication workstations. The chain of custody regarding such transfers is virtually impossible for poll challengers or watchers to follow.

6.5.2.3 *Ignores Vote Tally Equipment Preparation*

R 168.775 ignores the need to prepare vote tally equipment to aggregate vote tallies from one or more tabulators in an accurate manner that maintains the integrity of the digital election records transferred. In Antrim County, a mismatch between the configuration of the local tabulators and county tabulators resulted in a 7,060 vote flip during the 2020 presidential election. Such incidents can be avoided if preparation activities are extended to also include vote tally equipment that is often responsible for conveying the official election results.

6.5.2.4 *Ignores Networking Equipment Preparation*

R 168.775 ignores the importance of networking equipment preparation. The primary means of transferring election records from one piece of election equipment to another are modems and flash drives. In order to ensure the secure transfer of digital election records, rules should be adopted to ensure that the networking equipment is configured properly.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.5.2.5 Log Data

The size limit on all transaction logs for components of electronic voting system must be sufficient to ensure the capture of all transactions between the start of preliminary accuracy testing to 22 months after the conduct of the election. There should be zero transactions AFTER election has been certified. The clerk is responsible for making a backup of all logs before they are overwritten.

6.5.3 Proposed Revision

6.5.3.1 Revision

Rule 5. (1) The clerk or an authorized assistant shall prepare each ~~voting device~~ **tabulator** pursuant to the provisions of the act and these rules.

(2) ~~A voting device tabulator shall be identified~~ **labeled** with the precinct number in which it ~~shall is to be used~~ **if more than 1 tabulator is in the polling place, early voting site, or absent voter ballot counting facility**. If a tabulator processes ballots from more than one precinct, the tabulator must be labelled with all precinct numbers it is able to process.

(2A) If adjudication equipment is to be used to adjudicate absent voter ballots, the tabulator must be labeled with the number of the adjudication workstation that will receive any ballot records in need of adjudication.

(3) ~~A ballot label page used in the voting device shall be firmly attached for insertion and positioning in the ballot frame. A person shall not attach a ballot label by tape to a rod, or place a ballot label into a clear plastic envelope through which a rod is inserted~~ **A polling location or early voting site tabulator must be programmed to notify the voter if the voter submits a blank ballot, a ballot containing overvotes, or a partisan primary ballot that is invalid due to crossover voting, as tested by the preliminary test and public logic and accuracy test. The tabulator must provide the voter with the following options:**

(a) **The voter may acknowledge that no vote will be awarded if a ballot is blank or in a contest that contains an overvote or crossover vote and submit the ballot to the tabulator.**

(b) **The voter may remove the ballot from the tabulator, spoil the ballot, and receive a replacement ballot from the election inspectors. If the ballot is blank, the voter may remove the ballot from the tabulator, vote the ballot, and resubmit the ballot to the tabulator.**

~~(4) The ballot label assembly shall be inserted and sealed into each voting device so that the ballot label assembly cannot be removed without breaking the seal. Seals approved by the board of state canvassers shall be used for this purpose.~~

~~(5) The ballot label of each voting device of a precinct shall be compared against the edit listing and instruction ballot for the precinct to ascertain that the offices, candidates' names, and ballot position numbers are the same and appear in the same position.~~

~~(6) The ballot labels of each device shall be examined to ascertain that holes in the mask appear directly opposite each arrow, that other holes do not appear in the mask, and that the ballot labels are in proper sequence.~~

(3A) An absent voter tabulator must either be supported by a manual spoil and duplicate process for adjudicating voter intent or must be programmed to transfer ballot records to a pre-designated adjudication equipment for processing. If programmed to transfer ballot records to adjudication equipment, the following rules apply:

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

- (a) Poll inspectors at adjudicator workstations must be notified of the arrival of a ballot in need of adjudication.
- (b) All poll inspector actions pertaining to the ballot must be logged and both the before and after adjudication ballot images must be retained.
- (c) Tabulation of batch-specific and precinct-specific vote must be adjusted according to state of adjudicated ballot image

~~(74) An assembled voting device tabulator must shall~~ be tested to determine if it is operating properly, **as described in these rules.**

(5) A tabulator must be sealed at all times between the completion of its public accuracy test and the closure of polls on election day. The tabulator must be stored in a secure location when not in use.

~~(86) The identifying number of the voting device tabulator and the seal number used to seal the ballot label assembly to the device tabulator must shall~~ be recorded on the certificate in the ~~poll book~~ **physical pollbook** for the precinct in which the ~~device~~ **tabulator** is to be used. The clerk or an authorized assistant who sealed the ~~device~~ **tabulator** shall sign the certificate.

~~(97) When a voting device tabulator has been prepared for the election, the election commission, the clerk, or an authorized assistant shall execute a certificate in writing, which shall must~~ be filed with the election commission of the jurisdiction in which they are authorized to act. The certificate ~~must shall~~ contain the precinct number, the identifying number of the ~~device~~ **tabulator**, ~~and the number of the seal or seals used to seal the device, and state that the ballot labels have been compared against the edit list for that precinct and that the candidates' names and ballot numbers agree and appear in the same position~~ and **state** that the ~~device~~ **tabulator** has been properly prepared and tested. If the certificate is signed by **an individual** other than the election commission, the election commission or its authorized assistant shall be offered an opportunity to inspect the ~~voting device~~ **tabulators** to determine whether they are properly prepared. In an election when state and county officers or measures are to be voted for, a duplicate certificate **must shall** be filed with the county clerk.

6.5.3.2 [New Rule] Preparation of Adjudication Equipment

(1) The clerk or an authorized assistant shall prepare each adjudication workstation pursuant to the following provisions.

(2) Each adjudication workstation must be labelled with a unique ID and the text "Adjudication Equipment"

(3) An adjudication workstation must be labelled with the precinct number(s) from which it can receive ballot records.

(4) An adjudication workstation must be labelled with the ID of election equipment to which the adjudicated results are transferred.

(5) Vote tally equipment must be notified when the vote tally for a given batch within a given precinct has been updated as a result of adjudication and this activity must be logged.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

- (6) All adjudication equipment shall be configured to ensure the capture a log of all transaction activity between the start of preliminary accuracy testing to 22 months after the conduct of the election. There should be zero activity AFTER election has been certified. The clerk is responsible for making a backup of all transaction logs before they are overwritten.

6.5.3.3 [New Rule] Preparation of Vote Tally Equipment

- (1) The clerk or an authorized assistant shall prepare all vote tally equipment pursuant to the following provisions.
- (2) Each unit of vote tally equipment must be labelled with a unique ID and the text “Vote Tally Equipment”.
- (3) All transfers of vote tally data from the vote tally equipment must be accompanied by onscreen notification and log entry to that effect.
- (4) All vote tally equipment shall be capable of printing ballot-specific, batch-specific, precinct-specific and tabulator-specific vote tally reports.
- (5) All vote tally equipment shall be configured to ensure the capture a log of all transactions between the start of preliminary accuracy testing to 22 months after the conduct of the election. There should be zero transactions AFTER election has been certified. The clerk is responsible for making a backup of all logs before they are overwritten.

6.5.3.4 [New Rule] Preparation of Networking Equipment

- (a) The clerk or an authorized assistant shall prepare all networking equipment pursuant to the following provisions.
- (b) Each unit of networking equipment must be labelled with a unique ID, the text “Networking Equipment” and an indicator of network protocol used (e.g. manual transfer of flash drive, Bluetooth, WiFi, Cell-based, Ethernet).
- (c) All networking equipment shall be configured to ensure the capture a log of all transactions between the start of preliminary accuracy testing to 22 months after the conduct of the election. There should be zero transactions AFTER election has been certified. The clerk is responsible for making a backup of all logs before they are overwritten.

6.6 R 168.776 Preparation of Official Test Deck

6.6.1 Proposed MDOS Rule

Rule 6. (1) The election commission ~~providing the program~~ **responsible for the election** or its authorized assistant shall prepare a test deck **for each precinct and ballot style** with predetermined results.

(2) The test deck ~~must shall~~ consist of ballots ~~cards~~ of the same type to be used in the election with the word “TEST” stamped, printed, or written on each ~~card~~ **ballot**.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(3) A document, record, chart, or listing ~~must shall~~ be prepared indicating the ~~punches selections~~ recorded in the test ballot ~~card~~. This documentation ~~must shall~~ indicate each valid or invalid vote.

(4) In addition to other requirements of the act, a ballot ~~card~~ for use in the test deck for a partisan general election ~~must shall~~ be prepared **as follows**:

(a) So that each political party receives not less than 2 straight ticket votes and so that ~~any~~ 2 parties do not receive the same number of straight ticket votes.

(b) So that 2 or more parties receive straight ticket votes on 1 ballot.

(c) So that at least 1 of the ballots with a straight ticket vote for a party ~~must shall~~ be individual ~~punches selections~~ for candidates of the same party, candidates of a different party, candidates for the same office of different parties, and nonpartisan candidates and proposals.

(d) In which ~~punches selections~~ appear in positions other than those used for candidates, proposals, or to indicate straight party voting.

(e) In which a ~~punch selection~~ does not appear.

(f) In which a ~~punch selection~~ appears in each position where a candidate or proposal appears on the ballot label.

(5) In addition to other requirements of the act, a ballot ~~card~~ for use in the test deck for a partisan primary ~~must shall~~ be prepared **as follows**:

(a) So that ~~punches selections~~ appear on the same ballot ~~card~~ for candidates of different political parties, along with candidates for nonpartisan offices and votes for proposals.

(b) So that ~~punches selections~~ appear on the same ballot ~~card~~ for candidates of 1 or more political party and a punch made in the “party qualification section” of the ballot, and ~~must shall~~ include ~~punches selections~~ for nonpartisan offices and for proposals.

~~(c) So that more than 1 punch appears in the “party qualification section” of the ballot.~~

~~(6) When 2 or more valid punch positions exist in the combination of numbers listed below, each of the valid punch positions shall be punched into 1 or more ballot cards:~~

~~–228 Position Ballot Card~~

~~1-77-153-20-96-172-39-115-191-58-134-210~~

~~2-78-154-21-97-173-40-116-192-59-135-211~~

~~3-79-155-22-98-174-41-117-193-60-136-212~~

~~4-80-156-23-99-175-42-118-194-61-137-213~~

~~5-81-157-24-100-176-43-119-195-62-138-214~~

~~6-82-158-25-101-177-44-120-196-63-139-215~~

~~7-83-159-26-102-178-45-121-197-64-140-216~~

~~8-84-160-27-103-179-46-122-198-65-141-217~~

~~9-85-161-28-104-180-47-123-199-66-142-218~~

~~10-86-162-29-105-181-48-124-200-67-143-219~~

~~11-87-163-30-106-182-49-125-201-68-144-220~~

~~12-88-164-31-107-183-50-126-202-69-145-221~~

~~13-89-165-32-108-184-51-127-203-70-146-222~~

~~14-90-166-33-109-185-52-128-204-71-147-223~~

~~15-91-167-34-110-186-53-129-205-72-148-224~~

~~16-92-168-35-111-187-54-130-206-73-149-225~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~17-93-169-36-112-188-55-131-207-74-150-226~~
~~18-94-170-37-113-189-56-132-208-75-151-227~~
~~19-95-171-38-114-190-57-133-209-76-152-228~~

~~-235 Position Ballot Card~~

~~21-78-40-117-1-97-136-156-176-196-216-22-79~~
~~41-118-2-98-137-157-177-197-217-23-80-42-119~~
~~3-99-138-158-178-198-218-24-81-43-120~~
~~4-100-139-159-179-199-219-25-82-44-121~~
~~5-101-140-160-180-200-220-26-83-45-122~~
~~6-102-141-161-181-201-221-27-84-46-123~~
~~7-103-142-162-182-202-222-28-85-47-124~~
~~8-104-143-163-183-203-223-29-86-48-125~~
~~9-105-144-164-184-204-224-30-87-49-126~~
~~10-106-145-165-185-205-225-31-88-50-127~~
~~11-107-146-166-186-206-226-32-89-51-128~~
~~12-108-147-167-187-207-227-33-90-52-129~~
~~13-109-148-168-188-208-228-34-91-53-130~~
~~14-110-149-169-189-209-229-35-92-54-131~~
~~15-111-150-170-190-210-230-36-93-55-132~~
~~16-112-151-171-191-211-231-37-94-56-133~~
~~17-113-152-172-192-212-232-38-95-57-134~~
~~18-114-153-173-193-213-233-39-96-58-135~~
~~19-115-154-174-194-214-234~~
~~20-116-155-175-195-215-235~~

~~(7) A duplicate of the test deck shall be prepared. The duplicate of the test deck may consist of standard data processing cards.~~

6.6.2 Issue(s)

6.6.2.1 *Does Not Address Tabulators Serving Multiple Precincts*

The test deck for tabulators serving multiple precincts must be a superset of the test deck for all applicable precincts yet this requirement is not specified in the proposed rule.

6.6.2.2 *Does Not Address Unique Requirements of Batch-Fed Tabulators*

Batch-fed tabulators introduce the need to track batch numbers not simply the number of ballots. As such, the test deck must be of a sufficient size to test the ability of batch-fed tabulators to manage the tabulation and tracking of multiple batches of ballots.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.6.3 Proposed Revision

Rule 6. (1) The election commission ~~providing the program~~ **responsible for the election** or its authorized assistant shall prepare a test deck **for each precinct and ballot style** with predetermined results.

(2) The test deck ~~shall~~ **must** consist of ballots ~~cards~~ of the same type to be used in the election with the word “TEST” stamped, printed, or written on each ~~card~~ **ballot**.

(3) A document, record, chart, or listing ~~shall~~ **must** be prepared indicating the ~~punches~~ **selections** recorded in the test ballot ~~card~~. This documentation ~~shall~~ **must** indicate each valid or invalid vote.

(4) In addition to other requirements of the act, a ballot ~~card~~ for use in the test deck for a partisan general election ~~shall~~ **must** be prepared **as follows**:

(a) So that each political party receives not less than 2 straight ticket votes and so that ~~any~~ 2 parties do not receive the same number of straight ticket votes.

(b) So that 2 or more parties receive straight ticket votes on 1 ballot.

(c) So that at least 1 of the ballots with a straight ticket vote for a party ~~shall~~ **must** be individual ~~punches~~ **selections** for candidates of the same party, candidates of a different party, candidates for the same office of different parties, and nonpartisan candidates and proposals.

(d) In which ~~punches~~ **selections** appear in positions other than those used for candidates, proposals, or to indicate straight party voting.

(e) In which a ~~punch~~ **selection** does not appear.

(f) In which a ~~punch~~ **selection** appears in each position where a candidate or proposal appears on the ballot label.

(5) In addition to other requirements of the act, a ballot ~~card~~ for use in the test deck for a partisan primary ~~shall~~ **must** be prepared **as follows**:

(a) So that ~~punches~~ **selections** appear on the same ballot ~~card~~ for candidates of different political parties, along with candidates for nonpartisan offices and votes for proposals.

(b) So that ~~punches~~ **selections** appear on the same ballot ~~card~~ for candidates of 1 or more political party ~~and a punch made in the “party qualification section” of the ballot~~, and ~~shall~~ **must** include ~~punches~~ **selections** for nonpartisan offices and for proposals.

~~(c) So that more than 1 punch appears in the “party qualification section” of the ballot.~~

~~(6) When 2 or more valid punch positions exist in the combination of numbers listed below, each of the valid punch positions shall be punched into 1 or more ballot cards:~~

~~–228 Position Ballot Card~~

~~1-77-153-20-96-172-39-115-191-58-134-210~~

~~2-78-154-21-97-173-40-116-192-59-135-211~~

~~3-79-155-22-98-174-41-117-193-60-136-212~~

~~4-80-156-23-99-175-42-118-194-61-137-213~~

~~5-81-157-24-100-176-43-119-195-62-138-214~~

~~6-82-158-25-101-177-44-120-196-63-139-215~~

~~7-83-159-26-102-178-45-121-197-64-140-216~~

~~8-84-160-27-103-179-46-122-198-65-141-217~~

~~9-85-161-28-104-180-47-123-199-66-142-218~~

~~10-86-162-29-105-181-48-124-200-67-143-219~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~11-87-163-30-106-182-49-125-201-68-144-220
12-88-164-31-107-183-50-126-202-69-145-221
13-89-165-32-108-184-51-127-203-70-146-222
14-90-166-33-109-185-52-128-204-71-147-223
15-91-167-34-110-186-53-129-205-72-148-224
16-92-168-35-111-187-54-130-206-73-149-225
17-93-169-36-112-188-55-131-207-74-150-226
18-94-170-37-113-189-56-132-208-75-151-227
19-95-171-38-114-190-57-133-209-76-152-228~~

~~235 Position Ballot Card~~

~~21-78-40-117-1-97-136-156-176-196-216-22-79
41-118-2-98-137-157-177-197-217-23-80-42-119
3-99-138-158-178-198-218-24-81-43-120
4-100-139-159-179-199-219-25-82-44-121
5-101-140-160-180-200-220-26-83-45-122
6-102-141-161-181-201-221-27-84-46-123
7-103-142-162-182-202-222-28-85-47-124
8-104-143-163-183-203-223-29-86-48-125
9-105-144-164-184-204-224-30-87-49-126
10-106-145-165-185-205-225-31-88-50-127
11-107-146-166-186-206-226-32-89-51-128
12-108-147-167-187-207-227-33-90-52-129
13-109-148-168-188-208-228-34-91-53-130
14-110-149-169-189-209-229-35-92-54-131
15-111-150-170-190-210-230-36-93-55-132
16-112-151-171-191-211-231-37-94-56-133
17-113-152-172-192-212-232-38-95-57-134
18-114-153-173-193-213-233-39-96-58-135
19-115-154-174-194-214-234
20-116-155-175-195-215-235~~

~~(7) A duplicate of the test deck shall be prepared. The duplicate of the test deck may consist of standard data processing cards.~~

(6) The test deck for tabulators servicing multiple precincts must feature a superset of all applicable precinct-specific test decks.

(7) The test deck for batch-fed tabulators must have a sufficient number of ballots to test a minimum of 3 batches for each precinct.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.7 R 168.777 Preliminary Accuracy Test

6.7.1 Proposed MDOS Rule

Rule 7. (1) The election commission ~~providing the program~~ **responsible for the election** or its **the commission's** authorized assistant shall conduct a preliminary accuracy test of the ~~computers and programs~~ **tabulators and accessible voting devices** for all precincts **as early as practicable, but before prior to the public** accuracy test.

(2) The preliminary accuracy test ~~must shall~~ be conducted using the test decks prepared under the direction of the commission. ~~For the purpose of this test, the test deck may be reproduced onto standard data processing cards.~~

(3) When an errorless count has been made for all precincts, the commission **responsible for the election** or its authorized assistant ~~providing the program~~ shall do all of the following:

(a) If practicable, perform end-to-end testing to ensure the program accurately transmits the totals to the electronic management system.

~~(ab)~~ Secure the programs, test decks, and predetermined results in an **approved ballot metal** container, which ~~must shall~~ be sealed with an ~~metal~~ **approved seal**.

~~(bc)~~ Certify that all precincts have been tested using the test deck prepared under the direction of the commission and that the results agree with the predetermined results of the test deck. The certificate ~~must shall~~ contain the number of the seal ~~that which~~ was used to secure the program.

~~(ed)~~ Deliver programs, test decks, predetermined results, and the certificate to the clerk of the unit of government ~~providing the program~~ **responsible for the election**.

6.7.2 Issue(s)

6.7.2.1 End-to-End System Testing Not Required

Electronic voting system manufacturers encourage end-to-end system testing prior to an election. Such testing would have prevented the 7,060 vote flip that occurred in Antrim County due to mismatch between programming of local tabulators and the county EMS server.

6.7.3 Proposed Revision

Rule 7. (1) The election commission ~~providing the program~~ **responsible for the election** or its **the commission's** authorized assistant shall conduct a preliminary accuracy test of the ~~computers and programs~~ **tabulators and accessible voting devices** for all precincts **as early as practicable, but before prior to the public** accuracy test.

(2) The preliminary accuracy test ~~must shall~~ be conducted using the test decks prepared under the direction of the commission. ~~For the purpose of this test, the test deck may be reproduced onto standard data processing cards.~~

(3) When an errorless count has been made for all precincts, the commission **responsible for the election** or its authorized assistant ~~providing the program~~ shall do all of the following:

(a) Perform end-to-end testing featuring all tabulators, accessible voting devices, adjudicator equipment, vote tally equipment and networking equipment to ensure the program accurately transmits the totals to the electronic management system.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(ab) Secure the tabulators, accessible voting devices, adjudicator equipment, vote tally equipment, networking equipment, programs, test decks, and predetermined results in an **approved ballot** ~~metal~~ container, which **must shall** be sealed with an ~~metal~~ **approved** seal.

(bc) Certify that all precincts have been tested using the test deck prepared under the direction of the commission and that the results agree with the predetermined results of the test deck. The certificate **must shall** contain the number of the seal ~~that which~~ was used to secure the program.

(ed) Deliver programs, test decks, predetermined results, and the certificate to the clerk of the unit of government ~~providing the program~~ **responsible for the election**.

6.8 R 168.778 Public Accuracy Test

6.8.1 Proposed MDOS Rule

Rule 8. (1) ~~If early voting is being offered for the jurisdiction, the election commission providing the program~~ **responsible for early voting** shall designate a time and place for an **public** accuracy test, which **must shall** be held not less than 5 days before the ~~election~~ **start of early voting in accordance with the requirements of section 798 of the act, MCL 168.798**.

(2) ~~If no early voting is being offered for the jurisdiction, the election commission~~ **responsible for the election shall designate a time and place for a public accuracy test, which must be held not less than 5 days before the election**.

(23) ~~The public accuracy test must shall be conducted by an accuracy board, which shall be the election commission supplying the program~~ **responsible for the election**. A member of the commission may designate an ~~person~~ **individual** to serve in ~~his or her~~ **the member's** place ~~on the accuracy board~~. A member of the commission who designates an ~~person~~ **individual** to serve at the **public** accuracy test shall notify the clerk before the test. The clerk of the commission or the designated representative of the clerk ~~shall be~~ **is the** chairperson.

~~(3) Members of the accuracy board shall be present at the accuracy test.~~

(4) ~~The clerk in charge of the program~~ **responsible for the election** may limit the number of ~~persons~~ **individuals** who may be ~~in the computer room and the duration of their stay in the computer room~~ **present for the public accuracy test based on room capacity**.

(5) The initial testing of the ~~computers~~ **tabulators** and programs **must shall** be with the **official** test deck prepared under the direction of the commission. The number of precincts to be tested **must shall** be determined by the ~~accuracy board~~ **commission**. The ~~members of the accuracy board~~ **commission** may prepare or cause to have prepared additional ballots ~~cards~~ to be included in the **official** test deck.

(6) Each program and test deck ~~shall~~ **must** be tested on the ~~computer~~ **tabulator** on which it is to be used for the election.

(7) ~~After demonstrating the accuracy of the programs and computers, the following persons may prepare test ballot cards for testing:~~

~~(a) A member of a board of canvassers which shall certify all or part of the election or a designated representative.~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~—(b) The county chairperson of each political party appearing on the ballot or a designated representative.~~

~~—(c) A candidate whose name appears on the ballot or a designated representative.~~

~~—(d) A representative from each group interested in a proposal or measure who has informed the commission in writing of that person's intent to participate in the testing procedure. The number of cards each eligible person is allowed to prepare shall be determined by the accuracy board, except that an eligible person shall not be limited to less than 10 cards. The election commission shall test the accessible voting devices as prescribed by the secretary of state as part of the public accuracy test.~~

(8) The election commission shall test the on-demand ballot printing system as prescribed by the secretary of state as part of the public accuracy test.

(89) The commission supplying the program shall provide the following items at the accuracy test:

~~(a) An edit listing.~~

~~(ba) Test ballots-cards.~~

~~(eb) At least 1 set of ballot labels or sample ballots for each precinct.~~

(c) The chart of predetermined results.

~~(910) If an error is detected in the testing, the cause **must shall** be ascertained, the error **must shall** be corrected, and an errorless count **must shall** be made for all precincts. If determined by the accuracy board **commission**, the meeting may be adjourned to a time and date certain.~~

~~(101) The secretary of state or a designated representative may provide a test deck for a program. If so, it **must shall** be delivered at the **public** accuracy test. At the discretion of the secretary of state, it may be used in place of, or in addition to, the test deck prepared by the commission.~~

~~(112) The accuracy board **commission** shall certify the accuracy of the test. The certification may be attached to, or written on, the **computer printed** results of the **public** accuracy test.~~

~~(123) The accuracy board **commission** shall secure all programs, test decks, certified **computer** results of the test, and the predetermined results in an **approved metal** container, which **must shall** be sealed with an **approved metal** seal in a manner so that the container cannot be opened without breaking the seal. **There must** Attached to or inside the container shall be a certificate describing its contents and on which with the number of the seal has been recorded attached to or inside the **container**. The certificate **must shall** be signed by the members of the accuracy board **commission**, and, if attached to the container in a plastic envelope, it **must shall** be attached in such a manner that it cannot be removed without breaking the seal.~~

~~(134) The accuracy board **commission** shall immediately deliver to the clerk in charge of the election the **metal case approved ballot container** containing the programs and test decks. The clerk shall retain and secure the programs.~~

6.8.2 Issue(s)

6.8.2.1 Practice of Tabulator Sampling

ALL equipment used in support of election including backup equipment must be subject to public accuracy testing. In large municipalities such as Detroit, however, only a small sample of tabulators (14 out of 503 precincts) are subject to public accuracy test while in most other

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

communities all tabulators are subject to public accuracy tests. That means that the communities with the greatest potential to impact election results have the least oversight regarding the accuracy of their tabulators. That is an unacceptable state of affairs if we are to achieve the objective of accurate election results. The MDOS rules must make it clear that ALL equipment must be subject to public accuracy test.

6.8.2.2 *Treatment of Election System as Critical Infrastructure*

Our election system has been designated as a critical component of our national infrastructure. Critical infrastructure components require a level of testing rigor that goes beyond accuracy testing for tabulators. As indicated by the aforementioned CISA Resiliency Note, the integrity of an election depends upon much more than the accurate tabulation of ballots. Election integrity depends upon secure voter registration systems, secure pollbooks, secure voting machines, secure tabulators, secure vote aggregation systems and secure websites. In order to secure public trust in the conduct of our elections, public accuracy testing must encompass an end-to-end test of all of the components of an electronic voting system.

6.8.2.3 *Minimum Oversight Capacity*

The proposed rule enables a clerk to constrain the number of individuals allowed to oversee the public accuracy test but no minimum capacity threshold is specified. Without such a threshold it is conceivable that the clerk could prevent any members of the general public from observing the “public” accuracy test. This is not acceptable.

6.8.2.4 *Supplemental Test Decks Prohibited*

The proposed rule constrains the test decks that can be used to those approved by the Secretary of State. Centralized control of test decks in this manner breeds public distrust. The general public should be able to provide supplemental test decks including ballots printed via mobile ballot printing modules used at early voting centers.

6.8.3 Proposed Revision

6.8.3.1 *Revised Rule Proposal*

Rule 8. (1) **If early voting is being offered for the jurisdiction, the election commission providing the program responsible for early voting shall designate a time and place for a public accuracy test, which must shall be held not less than 5 days before the election-start of early voting in accordance with the requirements of section 798 of the act, MCL 168.798.**

(2) **If no early voting is being offered for the jurisdiction, the election commission responsible for the election shall designate a time and place for a public accuracy test, which must be held not less than 5 days before the election.**

(23) ~~The public accuracy test must shall be conducted by an accuracy board, which shall be the election commission supplying the program responsible for the election.~~ A member of the commission may designate ~~an person~~ **individual** to serve in ~~his or her~~ **the member's** place ~~on the accuracy board.~~ A member of the commission who designates ~~an person~~ **individual** to serve at the **public** accuracy test shall notify the clerk before the test. The clerk of the commission or the designated representative of the clerk ~~shall be~~ **is** the chairperson.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~(3) Members of the accuracy board shall be present at the accuracy test.~~

(4) The clerk ~~in charge of the program~~ **responsible for the election** may limit the number of persons ~~individuals~~ who may be ~~in the computer room and the duration of their stay in the computer room~~ **present for the public accuracy test based on room capacity**, however, the capacity of the room must be sufficient to support a minimum of four observers two of which must be reserved for designees of both major political parties and two reserved for independent observers.

(4A) All tabulators (deployed and backup) must be subject to public accuracy tests not simply a sample of tabulators.

(5) The initial testing of the ~~computers~~ **tabulators** and programs ~~shall~~ **must** be with the **official** test deck prepared under the direction of the commission. The number of precincts to be tested ~~shall~~ **must** be determined by the ~~accuracy board~~ **commission**. The ~~members of the accuracy board~~ **commission or members of the general public** may prepare or cause to have prepared additional ballots ~~cards~~ to be included in the **official** test deck.

(6) Each program and test deck ~~shall~~ **must** be tested on the ~~computer~~ **tabulator** on which it is to be used for the election.

(7) ~~After demonstrating the accuracy of the programs and computers, the following persons may prepare test ballot cards for testing:~~

~~—(a) A member of a board of canvassers which shall certify all or part of the election or a designated representative.~~

~~—(b) The county chairperson of each political party appearing on the ballot or a designated representative.~~

~~—(c) A candidate whose name appears on the ballot or a designated representative.~~

~~—(d) A representative from each group interested in a proposal or measure who has informed the commission in writing of that person's intent to participate in the testing procedure. The number of cards each eligible person is allowed to prepare shall be determined by the accuracy board, except that an eligible person shall not be limited to less than 10 cards.~~ **The election commission shall test the accessible voting devices as prescribed by the secretary of state as part of the public accuracy test.**

(8) The election commission shall test the on-demand ballot printing system as prescribed by the secretary of state as part of the public accuracy test.

(89) The commission supplying the program shall provide the following items at the accuracy test:

~~(a) An edit listing.~~

~~(ba) Test ballots-cards.~~

~~(eb) At least 1 set of ballot labels or sample ballots for each precinct.~~

(c) The chart of predetermined results.

~~(910) If an error is detected in the testing, the cause shall be ascertained, the error shall be corrected, and an errorless count shall be made for all precincts. If determined by the accuracy board commission, the meeting may be adjourned to a time and date certain.~~

~~(101) The secretary of state or a designated representative may provide a test deck for a program. If so, it shall be delivered at the public accuracy test. At the discretion of the secretary of state, it may be used in place of, or in addition to, the test deck prepared by the commission or general public.~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(112) The ~~accuracy board~~ **commission** shall certify the accuracy of the test. The certification may be attached to, or written on, the ~~computer~~ **printed** results of the **public** accuracy test.

(13) If the site of the public accuracy test is not the site of election day or early voting election operations, the tabulators must be secured with an approved seal in a manner so that the container cannot be opened without breaking the seal. There must be a certificate describing its contents with the number of the seal attached to or inside the container. The certificate must be signed by the members of the commission, and, if attached to the container in a plastic envelope, it must be attached in a manner that it cannot be removed without breaking the seal.

(134) The ~~accuracy board~~ **commission** shall immediately deliver to the clerk in charge of the election the ~~metal case~~ **approved ballot container** containing the programs and test decks. The clerk shall retain and secure the programs.

(14A) Upon completion of accuracy testing for tabulators, perform end-to-end testing featuring all tabulators, accessible voting devices, adjudicator equipment, vote tally equipment and networking equipment to ensure the program accurately transmits the totals to the electronic management system. .

(125) Upon completion of end-to-end testing, secure the tabulators, accessible voting devices, adjudicator equipment, vote tally equipment, networking equipment, programs, test decks, and predetermined results in an **approved ballot** ~~metal~~ container, which ~~must shall~~ be sealed with ~~metal~~ **approved** seals in a manner so that the container cannot be opened without breaking the seal. ~~There must Attached to or inside the container shall~~ be a certificate describing its contents ~~and on which with~~ the number of the seal ~~has been recorded~~ **attached to or inside the container**. The certificate ~~must shall~~ be signed by the members of the ~~accuracy board~~ **commission**, and, if attached to the container in a plastic envelope, it ~~must shall~~ be attached in ~~such~~ a manner that it cannot be removed without breaking the seal.

6.9 R 168.779 Preparation and Delivery of Election Materials

6.9.1 Proposed MDOS Rule

Rule 9. (1) The clerk of the unit of government providing the ~~voting devices~~ **tabulators** or an authorized assistant shall place into an ~~transfer case~~ **approved ballot container** the ballots ~~cards~~ for each precinct **or early voting site**. The ~~transfer case~~ **approved ballot container** ~~shall must~~ be secured with an ~~metal~~ **approved** seal and contain a certificate signed by the clerk or an authorized assistant setting forth the number of ballots in the ~~case~~ **container** and that the ballots were counted and sealed **in the approved ballot container** by the clerk or by an authorized assistant. Ballots ~~cards~~ not issued to a precinct **or early voting site** or assigned for absentee voting ~~must shall~~ be secured and accounted for by the clerk. The clerk shall maintain a record of the number of ballots ~~cards and serial numbers~~ issued to each precinct **or early voting site**. The ballots ~~cards shall~~ **must** be delivered to the chairperson or a member of the board of **election** inspectors of the proper precinct **or early voting site**.

(2) Precinct supplies **and early voting site supplies must shall** include the following items:

(a) An edit listing for the precinct.

(ba) A pencil for each ~~voting device~~ **A sufficient number of black or blue ink marking devices for voters to mark ballots.**

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(eb) A set of instructions for operating the precinct on election day **or operating the early voting site during the early voting period.**

(dc) An envelope labeled “SPOILED BALLOT CARDS”.

(ed) An envelope labeled “ORIGINAL BALLOT CARDS FOR WHICH DUPLICATES HAVE BEEN MADE FOR ANY REASON” if the duplication is to be done at the precinct.

~~(3) If the precinct header card is sent to the precinct, it shall be contained in an envelope for that purpose and included in the transfer case for the precinct.~~

(43) ~~The voting devices, demonstration voting devices~~ **tabulators, accessible voting devices, on-demand ballot printing systems,** voting booths, ballots ~~cards, ballot envelopes~~ **secrecy sleeves, transfer case approved ballot containers,** and all other necessary supplies **must shall** be delivered to the precinct not later than 6:30 a.m. on election day **or no later than 30 minutes before the start of early voting at an early voting site.**

(54) ~~A ballot box~~ **Approved ballot containers must shall** be provided to each precinct **or early voting site** for the ~~deposit-storage~~ of voted ballots ~~cards~~. ~~The ballot box shall be capable of being locked or sealed during election day.~~

6.9.2 Issue(s)

6.9.2.1 Physical Pollbook Preparation

Nowhere in the rules is there any reference to when and how the physical pollbooks are prepared.

6.9.3 Proposed Revision

Rule 9. (1) The clerk of the unit of government providing the ~~voting devices~~ **tabulators** or an authorized assistant shall place into an ~~transfer case~~ **approved ballot container** the ballots ~~cards~~ for each precinct **or early voting site**. The ~~transfer case~~ **approved ballot container shall must** be secured with an ~~metal~~ **approved** seal and contain a certificate signed by the clerk or an authorized assistant setting forth the number of ballots in the ~~ease~~ **container** and that the ballots were counted and sealed **in the approved ballot container** by the clerk or by an authorized assistant. Ballots ~~cards~~ not issued to a precinct **or early voting site** or assigned for absentee voting **must shall** be secured and accounted for by the clerk. The clerk shall maintain a record of the number of ballots ~~cards and serial numbers~~ issued to each precinct **or early voting site**. The ballots ~~cards~~ **shall must** be delivered to the chairperson or a member of the board of **election** inspectors of the proper precinct **or early voting site**.

(2) Precinct supplies **and early voting site supplies must shall** include the following items:

~~(a) An edit listing for the precinct.~~

~~(ba) A pencil for each voting device~~ **A sufficient number of black or blue ink marking devices for voters to mark ballots.**

(eb) A set of instructions for operating the precinct on election day **or operating the early voting site during the early voting period.**

(dc) An envelope labeled “SPOILED BALLOT CARDS”.

(ed) An envelope labeled “ORIGINAL BALLOT CARDS FOR WHICH DUPLICATES HAVE BEEN MADE FOR ANY REASON” if the duplication is to be done at the precinct.

~~(3) If the precinct header card is sent to the precinct, it shall be contained in an envelope for that purpose and included in the transfer case for the precinct.~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(43) ~~The voting devices, demonstration voting devices, tabulators, accessible voting devices, on-demand ballot printing systems, voting booths, ballots, cards, ballot envelopes, secrecy sleeves, transfer case~~ **approved ballot containers**, and all other necessary supplies ~~must shall~~ be delivered to the precinct not later than 6:30 a.m. on election day **or no later than 30 minutes before the start of early voting at an early voting site.**

(54) ~~A ballot box~~ **Approved ballot containers must** shall be provided to each precinct **or early voting site** for the ~~deposit-storage~~ of voted ballots ~~cards~~. ~~The ballot box shall be capable of being locked or sealed during election day.~~

(5) After the electronic pollbook for a given precinct has been updated to reflect the latest voter registration data for the precinct from the Qualified Voter File, the physical pollbook for each precinct shall be printed from the electronic pollbook.

6.10 R 168.780 Clerks and Election Inspectors; Duties Before Opening of Polls

6.10.1 Proposed MDOS Rule

Rule 10. (1) ~~Voting devices be used~~ **must occur** in voting booths ~~or in self-contained voting stations.~~

(2) ~~If voting devices are used in self-contained voting stations, t~~ **The stations-voting booths must** shall be arranged so that the secrecy of the ballot is not violated.

(3) Before the opening of polls, the clerk shall do all of the following:

(a) Ensure that election inspectors who need access to the electronic pollbook are able to access it.

(b) Ensure that tabulators and accessible voting devices are provided to each early voting site and election day polling place.

(c) Ensure that the serial numbers and seal numbers for tabulators, accessible voting devices, and on-demand ballot printing systems agree with the numbers in the physical pollbook.

(d) Ensure that all necessary election equipment and election materials are available at the early voting site and polling place.

(e) Ensure that all signage is correctly displayed.

(f) Establish an area for poll watchers.

(34) Before the opening of polls, T the election inspectors shall do all of the following:

(a) Compare the seal number and identifying numbers on the devices with the numbers recorded in the poll book. Verify that the electronic pollbook and prescribed backup materials are available at the polling location.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~(b) Compare the names, proposals, and ballot position numbers printed on the ballot labels, edit listing, and precinct instruction ballot to ascertain that the offices, proposals, and candidate names are the same and appear in the same order on each~~ **Verify that all election inspectors who need to access the electronic pollbook are able to access it.**

~~(c) Verify that the ballot label pages are in the proper order~~ **Verify that the tabulator and accessible voting device are plugged in, powered on, and secured as required by these rules.**

~~(d) Check the mask to see that holes only appear directly opposite each arrow and that the arrow points directly to the hole opposite it.~~

~~(e) Place a demonstration card into each device and make a punch for each candidate and proposal on the ballot. The inspector shall examine the card to see that each candidate and proposition received a proper punch.~~

~~(f)~~ **Verify that there is a pencil black or blue ink marking device provided for in each device voting booth.**

~~(g) Check each stylus to see that it is not broken.~~

~~(h)~~ Determine that there is adequate lighting.

~~(45) In the event of a discrepancy~~ **that election equipment is unavailable or potentially unusable**, the election inspectors shall notify the clerk immediately ~~and the voting device shall not be used until the discrepancy is resolved.~~

6.10.2 ~~(5) The demonstration voting device shall be placed so as to afford each voter an opportunity to use it prior to voting.~~ ISSUE(S)

6.10.2.1 User Account Security

All electronic pollbook user accounts must be specific to an individual user. No generic user accounts should be allowed.

6.10.2.2 Electronic Voting System Security

Configuration control protocols featuring labels and seals only refer to tabulators, accessible voting devices, and on-demand ballot printing systems. All components of the electronic voting system must be included in such protocols.

6.10.2.3 Electronic Pollbook Data Integrity

The electronic pollbooks are the primary tool used by election workers to conduct election operations. These pollbooks are used to determine who does or does not receive a ballot. As such, they represent an important security gateway governing the conduct of our elections. The proposed MDOS rules, however, make zero reference to the preparation of electronic pollbooks to conduct elections in a responsible manner.

6.10.3 Proposed Revision

Rule 10. (1) Voting ~~devices be used~~ **must occur** in voting booths ~~or in self-contained voting stations.~~

~~(2) If voting devices are used in self-contained voting stations,~~ **The stations voting booths must** shall be arranged so that the secrecy of the ballot is not violated.

(3) Before the opening of polls, the clerk shall do all of the following:

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(a) Ensure that election inspectors who need access to the electronic pollbook are able to access it in accordance with User Account Security rules.

(b) Ensure that tabulators and accessible voting devices are provided to each early voting site and election day polling place.

(c) Ensure that the serial numbers and seal numbers for all components of the electronic voting system at site agree with the numbers in the physical pollbook.

(d) Ensure that all necessary election equipment and election materials are available at the early voting site and polling place.

(e) Ensure that all signage is correctly displayed.

(f) Establish an area for poll watchers.

(g) Download precinct-specific data for each electronic pollbook from the state QVF

(h) Review the list of voters provided by the state to ensure that no voters previously removed by Clerk have been reinserted into the QVF and flag all such voters as ineligible in the electronic pollbook.

(34) Before the opening of polls, the election inspectors shall do all of the following:

~~(a) Compare the seal number and identifying numbers on the devices with the numbers recorded in the poll book~~ **Verify that the electronic pollbook and prescribed backup materials are available at the polling location.**

~~(b) Compare the names, proposals, and ballot position numbers printed on the ballot labels, edit listing, and precinct instruction ballot to ascertain that the offices, proposals, and candidate names are the same and appear in the same order on each~~ **Verify that all election inspectors who need to access the electronic pollbook are able to access it in accordance with User Account Security rules.**

~~(c) Verify that the ballot label pages are in the proper order~~ **Verify that the tabulator and accessible voting device are plugged in, powered on, and secured as required by these rules.**

~~(d) Check the mask to see that holes only appear directly opposite each arrow and that the arrow points directly to the hole opposite it.~~

~~(e) Place a demonstration card into each device and make a punch for each candidate and proposal on the ballot. The inspector shall examine the card to see that each candidate and proposition received a proper punch.~~

~~(f) Verify that there is a pencil~~ **black or blue ink marking device provided for in each device voting booth.**

~~(g) Check each stylus to see that it is not broken.~~

~~(h) Determine that there is adequate lighting.~~

(45) In the event of a discrepancy **that election equipment is unavailable or potentially unusable**, the election inspectors shall notify the clerk immediately ~~and the voting device shall not be used until the discrepancy is resolved.~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~(5) The demonstration voting device shall be placed so as to afford each voter an opportunity to use it prior to voting.~~

(6) Ensure that electronic pollbooks are prepared for operation by poll workers

(a) Ensure that each poll worker has a unique user account for the electronic pollbook

(b) Ensure that each poll worker has credentials to log into encrypted flash drive

(c) Ensure that all network connections are properly secured in accordance with Network Security Rules

6.11 R 168.781 Conduct of elections and manner of voting

6.11.1 Proposed MDOS Rule

Rule 11. (1) The election inspector having charge of the ballots shall deliver to the voter an official ballot card and envelope secrecy sleeve. ~~The ballot card stub~~ **number associated with the ballot, if there is a numbered stub, must** shall be entered onto the application to vote at the time the card ballot is issued. ~~The name of the voter and ballot card number issued shall then be entered into the poll book and the voter number must be entered on upon~~ the application to vote.

(2) Upon being issued a ballot card and envelope secrecy sleeve, the voter shall enter a voting station booth and record ~~his or her~~ **the voter's** selections on the ballot card. Before leaving the booth, the voter shall insert the ballot card in the ballot envelope secrecy sleeve with the detachable **numbered stub, if there is a numbered stub**, on the outside and so that any part of the face of the voting portion of the ballot card is not exposed.

(3) The election inspector designated to receive the ballot from the voter shall ascertain by comparing the number on the ballot card **stub, if applicable**, with the number recorded on the poll list **application to vote** whether the ballot given to the inspector is the same ballot furnished to the voter. If it is the same ballot, the inspector shall remove the detachable stub, **if there is a numbered stub**, and ~~in the presence of the voter shall~~ deposit the ballot into the ~~ballot box tabulator~~. If the ballot received is not the same ballot furnished to the voter, ~~the ballot shall not be counted and the voter shall not be permitted to vote at the election~~ **the voter may be given a new ballot to vote, or the voter may decline to vote a new ballot, but in neither event may the non-matching ballot be counted.** The **non-matching** ballot ~~must~~ shall be marked void with the reason therefor and inserted in an envelope and placed in the ~~transfer case ballot container~~. ~~In any event, the~~ **non-matching** ballot shall not be deposited with the valid voted ballots.

(4) If a voter is challenged, the election inspector shall do all of the following:

(a) Record the ballot number appearing on the stub, **if there is a numbered stub**, onto the back of the ballot envelope. **If there is no numbered stub, record the voter number on the ballot.**

(b) Cover the number with a slip of paper so as to conceal the number.

(c) Issue ~~a~~ **the** ballot to the challenged voter who will vote and cast the ballot in the usual manner. ~~If a combination ballot card and write-in ballot is used, the ballot number shall be recorded on the back of the write-in portion of the ballot and covered in the same manner as described in this rule.~~

~~(5) It shall not be necessary to identify the ballot of an assisted voter in the same manner as that of a challenged voter.~~

~~(6) The election inspectors shall frequently check the seals and ballot label pages of the voting devices to ensure that none have been altered or defaced. If the board finds that the ballot pages of~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~a device have been altered, mutilated, or damaged in such a manner that the board cannot correct them without doing damage to the offices, names, and proposals appearing on the pages, the device shall not be used until the condition is corrected. A note of the occurrence shall be made in the remarks section of the poll book.~~

(75) A ballot card found in a booth or device ~~must shall~~ be marked with the words “FOUND IN BOOTH.” The card shall be **spoiled and** placed in an envelope ~~which that must shall~~ be placed in the ~~transfer case~~ **approved ballot container**. A note of the occurrence ~~must shall~~ be made in the remarks section of the ~~poll book~~ **physical pollbook**.

6.11.2 Issue(s)

6.11.2.1 No Rules for Electronic Pollbook Operations

Electronic pollbooks are arguably the workhorse of election operations be those operations at early voting sites, election day polling locations or absent voter counting boards yet there is zero mention of any rules pertaining to their use in elections. Electronic pollbooks receive, track and share significant information pertaining to the conduct of elections that is critical to any professional audit of an election. This information includes but is not limited to voter information downloaded from QVF, ballot processing data for each voter, challenges, and remarks pertaining to the allocation of ballots to voters. MCL 168.727 stipulates that this information be captured in election records.

6.11.3 Proposed Revision

Rule 11. (1) The election inspector having charge of the ballots shall deliver to the voter an official ballot card and envelope **secrecy sleeve**. The ~~ballot card stub~~ **number associated with the ballot, if there is a numbered stub, must shall** be entered onto the application to vote at the time the card **ballot** is issued. ~~The name of the voter and ballot card number issued shall then be entered into the poll book and the voter number must be entered on upon~~ the application to vote.

(2) Upon being issued a ballot card and envelope **secrecy sleeve**, the voter shall enter a voting station **booth** and record ~~his or her~~ **the voter's** selections on the ballot card. Before leaving the booth, the voter shall insert the ballot card in the ~~ballot envelope~~ **secrecy sleeve** with the ~~detachable~~ **numbered stub, if there is a numbered stub**, on the outside and so that any part of the face of the voting portion of the ballot card is not exposed.

(3) The election inspector designated to receive the ballot from the voter shall ascertain by comparing the number on the ballot card **stub, if applicable**, with the number recorded on the ~~poll list~~ **application to vote** whether the ballot given to the inspector is the same ballot furnished to the voter. If it is the same ballot, the inspector shall remove the detachable stub, **if there is a numbered stub**, and ~~in the presence of the voter shall~~, deposit the ballot into the ~~ballot box~~ **tabulator**. If the ballot received is not the same ballot furnished to the voter, ~~the ballot shall not be counted and the voter shall not be permitted to vote at the election~~ **the voter may be given a new ballot to vote, or the voter may decline to vote a new ballot, but in neither event may the non-matching ballot be counted**. The **non-matching** ballot ~~must shall~~ be marked void with the reason therefor and inserted in an envelope and placed in the ~~transfer case~~ **ballot container**. ~~In any event, t~~ The **non-matching** ballot shall not be deposited with the valid voted ballots.

(4) If a voter is challenged, the election inspector shall do all of the following:

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(a) Record the ballot number appearing on the stub, **if there is a numbered stub**, onto the back of the ballot envelope. **If there is no numbered stub, record the voter number on the ballot.**

(b) Cover the number with a slip of paper so as to conceal the number.

(c) Issue ~~a~~ **the** ballot to the challenged voter who will vote and cast the ballot in the usual manner. ~~If a combination ballot card and write-in ballot is used, the ballot number shall be recorded on the back of the write-in portion of the ballot and covered in the same manner as described in this rule.~~

~~(5) It shall not be necessary to identify the ballot of an assisted voter in the same manner as that of a challenged voter.~~

~~(6) The election inspectors shall frequently check the seals and ballot label pages of the voting devices to ensure that none have been altered or defaced. If the board finds that the ballot pages of a device have been altered, mutilated, or damaged in such a manner that the board cannot correct them without doing damage to the offices, names, and proposals appearing on the pages, the device shall not be used until the condition is corrected. A note of the occurrence shall be made in the remarks section of the poll book.~~

~~(7) A ballot card found in a booth or device **must** shall be marked with the words "FOUND IN BOOTH." The card shall be **spoiled and** placed in an envelope which **that must** shall be placed in the ~~transfer case~~ **approved ballot container**. A note of the occurrence **must** shall be made in the remarks section of the ~~poll book~~ **physical pollbook**.~~

(6) Election inspectors shall enter the following information into the electronic pollbook during the conduct of election operations:

(a) Ballot assignments

(b) Remarks pertaining to the following scenarios as a minimum:

(i) Voter not in possession of ID

(ii) Challenger remarks

(iii) Ballot status

(iv) Spoiled ballots

(7) If a voter is not found in the electronic pollbook, the voter was not registered to vote in the QVF at the time of QVF download. Before adding any unlisted voter or allocating a ballot to such a voter, election inspectors must verify the following information:

(a) The voter information was verified by the clerk

(b) The voter age is provided and compliant with minimum voting age requirements at time of casting ballot

(c) The voter citizenship status has been confirmed by the clerk

6.12 R 168.782 Election Inspectors; Duties After Polls Are Closed

No issues identified

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.13 R 168.784 Processing Write-In Ballots

No issues identified

6.14 R 168.785 Duplication of Ballots

No issues identified

6.15 R 168.786 Absentee Ballots; Issuance, Processing and Tabulation

No issues identified

6.16 R 168.788 Receiving Station; Receiving Board

No issues identified

6.17 R 168.789 Absent Voter Counting Board

6.17.1 Proposed MDOS Rule

~~Rule 19. (1) If a counting center is used, the election commission of a local unit of government using that counting center shall appoint not less than 1 receiving board and 1 certifying board. The board of election commissioners shall appoint the election inspectors to absent voter counting boards not less than 21 days before the election at which absent voter counting boards are to be used, as provided in sections 673a and 674 of the act, MCL 168.673a and 168.674.~~

~~(2) If the county owns the devices and supplies the program, and when more than 1 local unit of government shares a computer center and a mutual agreement exists with the county as provided in R 168.772(10), the county election commission shall appoint not less than 1 receiving board and 1 certifying board. In this case, the county clerk shall be in charge of the counting center. The board of election inspectors at the absent voter counting board shall determine that the seal number on each ballot container agrees with the seal number indicated in the absent voter counting board physical pollbook.~~

~~(3) An election commission may appoint a separate board for the purpose of examining, processing, and duplicating ballot cards. The board shall consist of not less than 2 members of differing political party preference. Before the tabulation of ballots at an absent voter counting board, the election inspectors shall run a zero tape or zero report to ensure that the tabulator has not recorded results.~~

~~-(4) An election commission in charge of the computer counting center may appoint the same persons to the receiving, certifying, and other boards.~~

~~-(5) The election commission supplying the program shall appoint a person knowledgeable and capable of operating the computer on which the ballots shall be tabulated. They may, in addition, appoint another person to observe the operation of the computer. These persons shall be considered election officials. When more than 1 local unit of government shares a computer and an agreement has been made with the county as provided in R 168.772(10), the election commission of the county shall make the appointments.~~

~~-(6) The person who operates the computer used for tabulation of ballots shall not be the same person who prepared the computer program. This shall not preclude the clerk or the clerk's~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~authorized assistant who prepares precinct control cards for use with a specialized computer from operating the computer.~~

~~-(7) A member of a board of canvassers which certifies all or part of the election shall not serve on any board established under this rule.~~

6.17.2 Issue(s)

6.17.2.1 AVCB Reporting Exemption

In order to effect compliance with MI Constitution Article II Section 4(1)(l), public display of map of Absent Voter Count Board tabulators to precincts must be provided by election officials.

6.17.3 Proposed Revision

Rule 19. (1) ~~If a counting center is used, the election commission of a local unit of government using that counting center shall appoint not less than 1 receiving board and 1 certifying board. The board of election commissioners shall appoint the election inspectors to absent voter counting boards not less than 21 days before the election at which absent voter counting boards are to be used, as provided in sections 673a and 674 of the act, MCL 168.673a and 168.674.~~

~~(2) If the county owns the devices and supplies the program, and when more than 1 local unit of government shares a computer center and a mutual agreement exists with the county as provided in R 168.772(10), the county election commission shall appoint not less than 1 receiving board and 1 certifying board. In this case, the county clerk shall be in charge of the counting center. The board of election inspectors at the absent voter counting board shall determine that the seal number on each ballot container agrees with the seal number indicated in the absent voter counting board physical pollbook.~~

~~(3) An election commission may appoint a separate board for the purpose of examining, processing, and duplicating ballot cards. The board shall consist of not less than 2 members of differing political party preference. Before the tabulation of ballots at an absent voter counting board, the election inspectors shall display a list of the precincts supported by each tabulator and run a zero tape or zero report to ensure that the tabulator has not recorded results.~~

~~-(4) An election commission in charge of the computer counting center may appoint the same persons to the receiving, certifying, and other boards.~~

~~-(5) The election commission supplying the program shall appoint a person knowledgeable and capable of operating the computer on which the ballots shall be tabulated. They may, in addition, appoint another person to observe the operation of the computer. These persons shall be considered election officials. When more than 1 local unit of government shares a computer and an agreement has been made with the county as provided in R 168.772(10), the election commission of the county shall make the appointments.~~

~~-(6) The person who operates the computer used for tabulation of ballots shall not be the same person who prepared the computer program. This shall not preclude the clerk or the clerk's authorized assistant who prepares precinct control cards for use with a specialized computer from operating the computer.~~

~~-(7) A member of a board of canvassers which certifies all or part of the election shall not serve on any board established under this rule.~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.18 R 168.790 Closing Procedures; Ballot Retention

6.18.1 Proposed MDOS Rule

~~Rule 20. (1) The certifying board shall determine that the seal number on the container containing the programs, official test deck, and predetermined results agree with those recorded in the certificate of the accuracy board.~~

~~(2) The certifying board shall test the program and computer as to accuracy prior to the tabulation of ballots and again after the last precinct has been counted, and shall certify the results. The accuracy test shall be conducted using the official test deck prepared under the direction of the election commission and certified by the accuracy board. The certifying board shall use the same test as was conducted by the accuracy board. The certifying board shall ascertain that their results agree with the results as certified by the accuracy board. The computer results of the certifying board accuracy test shall be identified as to date and time they were conducted. The certifying board shall certify that the required tests have been performed. This certificate shall be placed under seal with the program, test deck results, and other required materials and shall be delivered to the clerk in charge of the election.~~

~~(3) The certifying board may periodically during the tabulation of ballots test the program and computer, using the official test deck.~~

~~(4) A console log of the ballot tabulation shall be maintained and, at the completion of the count and accuracy test, certified by the computer operator and any observer appointed by the election commission. The console log shall be delivered to the clerk in charge of the election. If the computer used to tabulate the ballots is not capable of generating a console log, then a manual log of any abnormal events shall be maintained.~~

~~(5) Upon receipt of the transfer case from the inspectors, the receiving board shall verify that the seal number on the transfer case is the same as that recorded by the election inspectors. The case shall then be opened and the computer center receiving board shall determine whether it contains ballot cards and other required items. A discrepancy in the seal number or contents shall be noted and explained in the remarks section of the poll book by the election inspectors delivering the transfer case.~~

~~(6) The computer center receiving board shall issue a receipt for the transfer case to the election inspectors delivering the case. The receipt shall indicate in general terms the contents of the transfer case and shall be made in duplicate. The original copy shall be given to the inspectors delivering the transfer case and the duplicate retained for delivery to the clerk in charge of the election.~~

~~(7) The computer center receiving board shall place the metal seal with which the case was sealed inside the transfer case. The receiving board shall complete the certificate in the poll book, which shall read substantially as follows:~~

RECEIVING BOARD CERTIFICATE

~~We hereby certify that the transfer case, properly sealed, containing the ballot cards for this precinct was received by the counting center receiving board. The seal number agreed with the number recorded on the transfer case identification tag and in the poll book.~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~(8) The clerk in charge of the election, the designated representatives of the clerk, the observer appointed by the election commission, computer personnel, data processing installation employees, authorized challengers, and the certifying board shall be allowed in the immediate area of the computer. The immediate area of the computer shall be defined by the clerk, but the clerk shall provide the public with a means of observing the computer.~~

~~(9) The clerk in charge of the election or the designated representative of the clerk shall be present in the computer room until the count is completed and all items required to be sealed have been sealed.~~

~~(10) The certifying board shall determine if the number of ballot cards tabulated by the computer agrees with the number of ballot cards submitted by the inspectors as indicated by the poll book. If a discrepancy exists, the board shall endeavor to correct it. If the discrepancy cannot be resolved, a notation of the pertinent facts shall be made in the remarks section of the poll book.~~

~~(11) The certifying board shall complete and certify a statement of returns in duplicate. The certificate of the statement of returns shall read substantially as follows:~~

~~STATEMENT OF RETURNS CERTIFICATE~~

~~We hereby certify that this is a statement of votes cast in this precinct as indicated by the tabulating equipment and that upon completion of the count, all ballots were placed in the transfer case, and that the case was sealed with seal number _____, and that the seal number was recorded in the poll book.~~

~~(12) Precinct inspectors may serve as members of the certifying board at the discretion of the clerk in charge of the election.~~

~~(13) Upon the completion of the count of a precinct, the ballot cards shall be returned to the transfer case. The transfer case shall be sealed with a metal seal in a manner as to render it impossible to open the case or insert or remove ballots without breaking the seal. If the transfer case is identified as to political unit and precinct, the transfer case identification tag shall be placed in the transfer case. If not, the transfer case identification tag shall be attached to the transfer case by means of a seal.~~

~~(14) The seal number used to seal the transfer case shall be recorded on the certificate in the poll book and on the statement of returns.~~

~~(15) The precinct statement of returns and poll books shall be delivered to the persons authorized by statute to receive them. If permitted by the clerk of the board of canvassers, precinct statements of returns from 1 or more precincts and poll books may be included in a single envelope or package.~~

~~(16) The secretary of state or the clerk in charge of the counting center may require that a manual count of 1 or more offices or proposals in a precinct be conducted by the certifying board prior to certification of the computer tabulated results for that precinct. If the manual count and the computer tabulated results do not agree, the certifying board shall not certify the results until the discrepancy has been reconciled.~~

~~(17) After the last precinct **and early voting site** has been counted and the final accuracy test has been conducted, the certifying board **of election inspectors** shall secure all programs, test decks,~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

certified results of accuracy tests, and other related material in a ~~metal~~ **ballot** container, which ~~must shall~~ be sealed with an ~~flat metal~~ **approved** seal in a manner so that the container cannot be opened without breaking the seal. ~~Attached~~ **The certificate must be attached** to the container ~~shall be a certificate describing and describe~~ the contents and ~~on which~~ **record** the number of the seal. ~~has been recorded~~. The certificate ~~must shall~~ be signed by the members of the ~~certifying~~ **board of election inspectors**.

~~(182)~~ The clerk in charge of the election shall secure the container containing the programs, test deck, accuracy test results, and other related materials, ~~and the original edit listing~~ until 30 days following the certification of the election if a recount has not been requested or until a date prescribed by the secretary of state.

~~(193)~~ Ballots used at an election **that is not a state or federal election** may be destroyed after 30 days following the final determination of the board of canvassers with respect to the election, unless ~~their~~ **the** destruction has been stayed by an order of a court or the secretary of state. Ballots ~~must shall~~ not be released for examination, review, or research unless prior approval is obtained by the board of state canvassers.

(4) Ballots used at an election that is a state or federal election may be destroyed after 22 months following the final determination of the board of canvassers with respect to the election, unless the destruction has been stayed by an order of a court or the secretary of state. Ballots must not be released for examination, review, or research unless prior approval is obtained by the board of state canvassers.

6.18.2 Issue(s)

6.18.2.1 *Securing All Election Equipment*

The only election records secured during closing are programs, test decks, certified results of accuracy tests, and other related materials. In order to ensure the integrity of election record chain of custody in support of a professional audit of an election, the following election equipment should be explicitly secured: all tabulators, all adjudication equipment, all vote tally equipment and all networking equipment.

6.18.2.2 *Printing of Electronic Pollbook Reports*

There is no reference to the printing of reports from electronic pollbooks that would be critical in the conduct of any professional audit of an election. These reports are as follows: Activity Log, Ballot Summary, Remarks, and Voter List. Election workers are typically trained to print such records. It needs to be made clear that these records must be printed in support of the need for an audit trail.

6.18.2.3 *Failure to Report Electronic Pollbook Voting History Data*

The electronic voting system rules make no mention of the need to upload voter history data from electronic pollbooks or associated storage devices at the closure of polls. Per MCL 168.813, voter history data must be uploaded to the QVF within 7 days after an election. Failure to incorporate such rules enables modifications to voter history data after the election has been conducted which opens the door to election fraud. In order to secure elections from such malfeasance, rules for

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

uploading voter history data electronically to the QVF must be incorporated into the rules for electronic voting systems.

6.18.2.4 Failure to Validate All Precinct-Level Vote Tallies

Per MCL 168.812, election results must be reported at precinct-level. In order to facilitate the chain of custody for vote tally records, election inspectors should be required to verify precinct-level vote tallies at each vote tally transfer point. If the vote tally location is an in-person voting location with only precinct-specific, hand-fed tabulators, there is no internal network featuring vote tally handoffs to other components of the electronic voting system. If, however, the vote tally location is an early voting site or absent voter counting board in which vote tally data is transferred electronically to adjudication or vote tally equipment, the vote tally for each precinct must be verified at each transfer point.

6.18.3 Proposed Revision

Rule 20. ~~(1) The certifying board shall determine that the seal number on the container containing the programs, official test deck, and predetermined results agree with those recorded in the certificate of the accuracy board.~~

~~(2) The certifying board shall test the program and computer as to accuracy prior to the tabulation of ballots and again after the last precinct has been counted, and shall certify the results. The accuracy test shall be conducted using the official test deck prepared under the direction of the election commission and certified by the accuracy board. The certifying board shall use the same test as was conducted by the accuracy board. The certifying board shall ascertain that their results agree with the results as certified by the accuracy board. The computer results of the certifying board accuracy test shall be identified as to date and time they were conducted. The certifying board shall certify that the required tests have been performed. This certificate shall be placed under seal with the program, test deck results, and other required materials and shall be delivered to the clerk in charge of the election.~~

~~(3) The certifying board may periodically during the tabulation of ballots test the program and computer, using the official test deck.~~

~~(4) A console log of the ballot tabulation shall be maintained and, at the completion of the count and accuracy test, certified by the computer operator and any observer appointed by the election commission. The console log shall be delivered to the clerk in charge of the election. If the computer used to tabulate the ballots is not capable of generating a console log, then a manual log of any abnormal events shall be maintained.~~

~~(5) Upon receipt of the transfer case from the inspectors, the receiving board shall verify that the seal number on the transfer case is the same as that recorded by the election inspectors. The case shall then be opened and the computer center receiving board shall determine whether it contains ballot cards and other required items. A discrepancy in the seal number or contents shall be noted and explained in the remarks section of the poll book by the election inspectors delivering the transfer case.~~

~~(6) The computer center receiving board shall issue a receipt for the transfer case to the election inspectors delivering the case. The receipt shall indicate in general terms the contents of the transfer case and shall be made in duplicate. The original copy shall be given to the inspectors~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~delivering the transfer case and the duplicate retained for delivery to the clerk in charge of the election.~~

~~(7) The computer center receiving board shall place the metal seal with which the case was sealed inside the transfer case. The receiving board shall complete the certificate in the poll book, which shall read substantially as follows:~~

RECEIVING BOARD CERTIFICATE

~~We hereby certify that the transfer case, properly sealed, containing the ballot cards for this precinct was received by the counting center receiving board. The seal number agreed with the number recorded on the transfer case identification tag and in the poll book.~~

~~(8) The clerk in charge of the election, the designated representatives of the clerk, the observer appointed by the election commission, computer personnel, data processing installation employees, authorized challengers, and the certifying board shall be allowed in the immediate area of the computer. The immediate area of the computer shall be defined by the clerk, but the clerk shall provide the public with a means of observing the computer.~~

~~(9) The clerk in charge of the election or the designated representative of the clerk shall be present in the computer room until the count is completed and all items required to be sealed have been sealed.~~

~~(10) The certifying board shall determine if the number of ballot cards tabulated by the computer agrees with the number of ballot cards submitted by the inspectors as indicated by the poll book. If a discrepancy exists, the board shall endeavor to correct it. If the discrepancy cannot be resolved, a notation of the pertinent facts shall be made in the remarks section of the poll book.~~

~~(11) The certifying board shall complete and certify a statement of returns in duplicate. The certificate of the statement of returns shall read substantially as follows:~~

STATEMENT OF RETURNS CERTIFICATE

~~We hereby certify that this is a statement of votes cast in this precinct as indicated by the tabulating equipment and that upon completion of the count, all ballots were placed in the transfer case, and that the case was sealed with seal number _____, and that the seal number was recorded in the poll book.~~

~~(12) Precinct inspectors may serve as members of the certifying board at the discretion of the clerk in charge of the election.~~

~~(13) Upon the completion of the count of a precinct, the ballot cards shall be returned to the transfer case. The transfer case shall be sealed with a metal seal in a manner as to render it impossible to open the case or insert or remove ballots without breaking the seal. If the transfer case is identified as to political unit and precinct, the transfer case identification tag shall be placed in the transfer case. If not, the transfer case identification tag shall be attached to the transfer case by means of a seal.~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~(14) The seal number used to seal the transfer case shall be recorded on the certificate in the poll book and on the statement of returns.~~

~~(15) The precinct statement of returns and poll books shall be delivered to the persons authorized by statute to receive them. If permitted by the clerk of the board of canvassers, precinct statements of returns from 1 or more precincts and poll books may be included in a single envelope or package.~~

~~(16) The secretary of state or the clerk in charge of the counting center may require that a manual count of 1 or more offices or proposals in a precinct be conducted by the certifying board prior to certification of the computer tabulated results for that precinct. If the manual count and the computer tabulated results do not agree, the certifying board shall not certify the results until the discrepancy has been reconciled.~~

(0) Prior to securing all election equipment, the poll inspectors must do the following:

(a) Verify the precinct-level vote tallies stored on all tabulators, adjudication equipment and vote tally equipment. If there are any inconsistencies, the inspectors must investigate the discrepancies and document their findings in the physical pollbook for the precinct. In support of their investigations, poll inspectors are authorized to examine digital records on all pertinent election equipment including but not limited to transaction logs.

(b) Print paper copies of the following electronic pollbook reports:

(i) Activity Log

(ii) Ballot Summary

(iii) Remarks

(iv) Voter List

(c) Save digital copies of the following electronic pollbook reports to the encrypted flash drive associated with each electronic pollbook:

(i) Activity Log

(ii) Ballot Summary

(iii) Remarks

(iv) Voter List

~~(17) After the last precinct **and early voting site** has been counted and the final accuracy test has been conducted, the certifying board of election inspectors shall secure all election equipment with approved seals, programs, test decks, certified results of accuracy tests, and other related material in a ~~metal~~ **ballot** container, which ~~must~~ **shall** be sealed with an ~~flat metal~~ **approved** seal in a manner so that the container cannot be opened without breaking the seal. ~~Attached~~ **The certificate must be attached** to the container ~~shall be a certificate describing and describe~~ the contents and ~~on which~~ **record** the number of the seal. ~~has been recorded.~~ The certificate **must** ~~shall~~ be signed by the members of the certifying board of election inspectors.~~

~~(182) The clerk in charge of the election shall secure all digital and physical election materials; and the original edit listing until 22 months following the certification of the election.~~

~~(193) Ballots used at an election **that is not a state or federal election** may be destroyed after 30 days following the final determination of the board of canvassers with respect to the election, unless ~~their~~ **the** destruction has been stayed by an order of a court or the secretary of state. Ballots~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~must shall~~ not be released for examination, review, or research unless prior approval is obtained by the board of state canvassers.

(4) Ballots used at an election that is a state or federal election may be destroyed after 22 months following the final determination of the board of canvassers with respect to the election, unless the destruction has been stayed by an order of a court or the secretary of state. Ballots must not be released for examination, review, or research unless prior approval is obtained by the board of state canvassers.

(5) The clerk must upload voting history data to the QVF from each electronic pollbook's encrypted flashdrive as soon as possible but not later than 7 days after the election.

6.19 R 168.791 Challengers

6.19.1 Proposed MDOS Rule

Rule 21. **(1)** Challengers designated pursuant to section 730 of the act, **MCL 168.730**, may be at ~~the counting center and a receiving station, including 1 challenger for each separate receiving, ballot inspection, duplicating, and certifying board and for each computer being used to tabulate the ballots~~ **clerk's office, early voting site, election day polling place, election day vote center, and absent voter counting board.**

(2) Challengers shall act at all times in accordance with sections 727 to 734 of the act, MCL 168.727 to 168.734, as well as other relevant provisions in the act.

6.19.2 Issue(s)

6.19.2.1 Challenger Oversight Limitations

Under MCL 168.733, Challengers have the authority to observe election procedures and cite violations of regulations or election law. There is no prohibition in law governing the exercise of these duties at locations other than the polling place or counting board. In fact, the proposed rule clarifies that challengers would have access to clerk's offices. The state equivalent to a clerk's office is the Michigan Bureau of Elections. Challengers should therefore have access to state board of elections facilities responsible for the processing of key election records such as vote tallies and voter registration records.

6.19.3 Proposed Revision

Rule 21. **(1)** Challengers designated pursuant to section 730 of the act, **MCL 168.730**, may be at ~~the counting center and a receiving station, including 1 challenger for each separate receiving, ballot inspection, duplicating, and certifying board and for each computer being used to tabulate the ballots~~ **clerk's office, state bureau of elections facilities, early voting site, election day polling place, election day vote center, and absent voter counting board.**

(2) Challengers shall act at all times in accordance with sections 727 to 734 of the act, MCL 168.727 to 168.734, as well as other relevant provisions in the act.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

6.20 R 168.792 Canvass

6.20.1 Proposed MDOS Rule

Rule 22. (1) A board of canvassers may, for reasonable cause, require the ~~person~~ **individual** who prepared the program **programmed the tabulators** to appear before the board, to bring documents pertinent to the programming, and to answer questions relevant to the programming.

(2) A board of canvassers may, for reasonable cause, require the ~~person~~ **individual** having the custody of the ~~program~~ **tabulator** to appear ~~with the program~~ before the board. A board of canvassers may conduct a test to determine the accuracy of the ~~program~~ **programmed tabulator**.

(3) After testing, if it is found that the ~~program~~ **tabulator that which** was used to tabulate the ballots produced incorrect returns, a board of canvassers may require the ~~person~~ **individual** who prepared and supplied the program **programmed the tabulator** to correct the portions of the program found to be in error and submit to it a corrected program to be used to retabulate the ballots. In that event, an accuracy test ~~must shall~~ be held under the direction of the board of canvassers at which time the corrected program ~~must shall~~ be tested and certified as provided in these rules. The ballots of the precincts ~~must shall~~ be retabulated using the corrected program in the same manner as prescribed in R 168.790. A board of canvassers may summon the ~~certifying~~ board of **election inspectors that which** originally certified the returns to retabulate the ballots and make correct returns. The board of canvassers shall canvass the votes from the corrected returns.

(4) When an examination of documents or programs is completed or the ballots have been counted or retabulated, they ~~must shall~~ be returned to the ~~transfer case~~ **ballot container** or containers and ~~shall be~~ sealed and delivered to their legal custodian. The number of the seal ~~must shall~~ be recorded on a certificate to be filed with the clerk of the board of canvassers.

(5) When an election of a local unit of government is held at the same time as a county or state election and is to be certified by a local board of canvassers, that board shall not proceed under this rule until obtaining approval from the board of county canvassers.

6.20.2 Issue(s)

6.20.2.1 *Not All Election Equipment Is Secured*

The only election records which are secured under proposed rule are programs, test decks, certified results of accuracy tests, and other related material. In order to support a professional audit of election records, all elect

6.20.2.2 *Precinct-Level Vote Tally Reconciliation*

Per MCL 168.812, election results must be presented by precinct. Precinct-level election results are distributed across in-person polling locations, early voting centers, and absent voter counting boards. Even before the implementation of early voting in Michigan, there have been significant discrepancies between election results rolled up by precinct versus by county. As the most fundamental building block of the vote tally chain of custody, the integrity of precinct-level results needs to be beyond reproach. In order to preserve the integrity of precinct-level results, we need to

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

ensure that vote tallies across all tabulators, adjudication equipment and vote tally equipment are reconciled at the precinct-level whenever possible.

6.20.3 Proposed Revisions

Rule 22. (0) Canvassers must verify the consistency of precinct-level vote tallies with precinct-specific vote tallies from tabulators, adjudication equipment, and vote tally equipment.

(1) A board of canvassers may, for reasonable cause, require the ~~person~~ **individual** who ~~prepared the program~~ **programmed the tabulators or configured other equipment such as adjudication equipment and vote tally equipment** to appear before the board, to bring documents pertinent to the **programming or configuration of the equipment**, and to answer questions relevant to the **programming or configuration of the equipment**.

(2) A board of canvassers may, for reasonable cause, require the ~~person~~ **individual** having the custody of the ~~program~~ **tabulator** to appear ~~with the program~~ before the board. A board of canvassers may conduct a test to determine the accuracy of the ~~program~~ **programmed tabulator**.

(3) After testing, if it is found that the ~~program~~ **tabulator that which** was used to tabulate the ballots produced incorrect returns, a board of canvassers may require the ~~person~~ **individual** who prepared and ~~supplied the program~~ **programmed the tabulator** to correct the portions of the program found to be in error and submit to it a corrected program to be used to retabulate the ballots. In that event, an accuracy test ~~must shall~~ be held under the direction of the board of canvassers at which time the corrected program ~~must shall~~ be tested and certified as provided in these rules. The ballots of the precincts ~~must shall~~ be retabulated using the corrected program in the same manner as prescribed in R 168.790. A board of canvassers may summon the ~~certifying~~ **board of election inspectors that which** originally certified the returns to retabulate the ballots and make correct returns. The board of canvassers shall canvass the votes from the corrected returns.

(3A)

(4) When an examination of documents or programs is completed or the ballots have been counted or retabulated, they ~~must shall~~ be returned to the ~~transfer case~~ **ballot container** or containers and ~~shall be~~ sealed and delivered to their legal custodian. The number of the seal ~~must shall~~ be recorded on a certificate to be filed with the clerk of the board of canvassers.

(5) When an election of a local unit of government is held at the same time as a county or state election and is to be certified by a local board of canvassers, that board shall not proceed under this rule until obtaining approval from the board of county canvassers.

6.21 R 168.793 Recount

6.21.1 Proposed MDOS Rule

Rule 23. (1) In a recount of a precinct using an electronic voting system, rules promulgated by the board of state canvassers for use in recounts ~~must shall~~ apply except where superseded by these rules.

(2) ~~The ballots of a precinct shall be recountable unless any of the following conditions occur:~~

(a) ~~The seal on the transfer case is broken or bears a different number than that recorded on the poll book, the breaking or discrepancy is unexplained, and security has not been preserved.~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~—(b) The number of ballot cards and the number of voters shown on the poll list do not conform, and the difference cannot be explained to the satisfaction of the board of canvassers conducting the recount.~~

~~—(c) The seal used to seal the ballot label assembly to a voting device in the precinct is broken or bears a different number than recorded, and the ballot labels or rotation of candidate names is different than that shown by the other devices in the precinct and records of the election commission.~~

~~—(3) If a board of canvassers determines that the ballots of a precinct are not recountable, the original return of the votes for that precinct shall be taken as correct.~~

~~—(4) A board of canvassers may conduct a recount by:~~

~~—(a) A manual tally of ballot cards.~~

~~—(b) A tabulation of the ballot cards on a computer using a program designated specifically to count only the offices or proposals being recounted.~~

~~—(c) A tabulation of the ballot cards on a computer using the same program used on election day.~~

~~—(d) A combination of subrule (4)(a), (b), and (c).~~

~~—(5) If a computer is used in a recount, a board of canvassers shall test the program by use of a test deck to determine that the program accurately counts the votes for the offices or proposals being recounted.~~

(2) A precinct must be recounted if all of the following are satisfied:

(a) The ballots are properly sealed in an approved ballot container in a manner that does not allow a ballot to be added to or removed from the ballot container.

(b) The seal number on the seal is accurately recorded in the pollbook, on the ballot container certificate, or on the statement of results.

(c) The precinct is in balance, which means the number of ballots to be recounted is the same as the number of ballots issued in the precinct as shown in the pollbook, the number of ballots tabulated as shown on the tabulator tape, or the number of ballots cast as shown by the county canvass; or the precinct was certified as out of balance during the county canvass and remains out of balance by an identical or fewer number of ballots.

(3) A recount may still be conducted even if the precinct does not satisfy the conditions under subrule (1) of this rule if there is a satisfactory explanation in a sworn affidavit provided by an election inspector, a clerk, or a member of the clerk's staff to the board of canvassers demonstrating that the security of the ballots has been preserved.

(4) An explanation is satisfactory if it documents that the security of the ballots is otherwise preserved and the board of canvassers determines that it meets the requirements set forth in instructions issued by the secretary of state in determining whether an explanation is satisfactory.

(5) The only documents that a board of canvassers may use to determine whether a precinct may be recounted are the pollbook, the poll lists, the statement of results, the ballot container certificate, the total ballots counted by a tabulator, the county canvass notations on the number of ballots and electors in the pollbook, affidavits, and tabulator tapes.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(6) If a precinct is not eligible for a recount, the original return of the votes for that precinct must be taken as correct.

6.21.2 Issue(s)

6.21.2.1 *Unbalanced Precincts*

Under the proposed MDOS rule, it would be acceptable for inspectors to specify that a discrepancy is “unexplained” and that explanation is deemed a “conclusive and sufficient explanation for purposes of a recount”. This approach does not provide sufficient rigor for a Critical Component of our National Infrastructure.

6.21.2.2 *Canvasser Recount Authority Restriction*

Under the proposed rule, canvassers would no longer be authorized to conduct a hand recount. Previously, canvassers were provided the following recount options: manual tally of ballot cards, tabulation of the ballot cards on a computer using a program designated specifically to count only the offices or proposals being recounted, tabulation of ballot cards on a computer using the same program used on election day, or a combination thereof,

6.21.2.3 *Canvasser Testing Authority Restriction*

Another notable reduction in canvasser authority is the removal of the requirement for canvassers to test the election program using a test deck to determine if the program accurately counts the votes. It is difficult to conceive of a noble reason for the deletion of this authority.

6.21.2.4 *Canvassers Prohibited From Review of Digital Records*

Board of canvassers are limited to examination of physical records in their determination of whether or not a precinct may be recounted. These records include pollbooks, the poll lists, the statement of results, the ballot container certificate, the total ballots counted by a tabulator, the county canvass notations on the number of ballots and electors in the pollbook, affidavits, and tabulator tapes. There is no ability for canvassers to review digital transaction logs in the poll book or tabulators.

6.21.3 Proposed Revision

Rule 23. (1) In a recount of a precinct using an electronic voting system, rules promulgated by the board of state canvassers for use in recounts **must shall** apply except where superseded by these rules.

~~(2) The ballots of a precinct shall be recountable unless any of the following conditions occur:~~

~~(a) The seal on the transfer case is broken or bears a different number than that recorded on the poll book, the breaking or discrepancy is unexplained, and security has not been preserved.~~

~~—(b) The number of ballot cards and the number of voters shown on the poll list do not conform, and the difference cannot be explained to the satisfaction of the board of canvassers conducting the recount.~~

~~—(c) The seal used to seal the ballot label assembly to a voting device in the precinct is broken or bears a different number than recorded, and the ballot labels or rotation of candidate names is~~

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

~~different than that shown by the other devices in the precinct and records of the election commission.~~

~~–(3) If a board of canvassers determines that the ballots of a precinct are not recountable, the original return of the votes for that precinct shall be taken as correct.~~

~~–(4) A board of canvassers may conduct a recount by:~~

~~–(a) A manual tally of ballot cards.~~

~~–(b) A tabulation of the ballot cards on a computer using a program designated specifically to count only the offices or proposals being recounted.~~

~~–(c) A tabulation of the ballot cards on a computer using the same program used on election day.~~

~~–(d) A combination of subrule (4)(a), (b), and (c).~~

~~–(5) If a computer is used in a recount, a board of canvassers shall test the program by use of a test deck to determine that the program accurately counts the votes for the offices or proposals being recounted.~~

(2) A precinct must be recounted if all of the following are satisfied:

(aa) There is a discrepancy between the precinct-level election results during canvassing of all tabulators, adjudication equipment and vote tally equipment across all polling locations, early voting centers and absent voter counting boards.

(a) The ballots are properly sealed in an approved ballot container in a manner that does not allow a ballot to be added to or removed from the ballot container.

(b) The seal number on the seal is accurately recorded in the pollbook, on the ballot container certificate, or on the statement of results.

(c) The precinct is in balance, which means the number of ballots to be recounted is the same as the number of ballots issued in the precinct as shown in the pollbook, the number of ballots tabulated as shown on the tabulator tape, or the number of ballots cast as shown by the county canvass; or the precinct was certified as out of balance during the county canvass and remains out of balance by an identical or fewer number of ballots.

(3) A recount may still be conducted even if the precinct does not satisfy the conditions under subrule (1) of this rule if there is a satisfactory explanation in a sworn affidavit provided by an election inspector, a clerk, or a member of the clerk's staff to the board of canvassers demonstrating that the security of the ballots has been preserved.

(4) An explanation is satisfactory if it documents that the security of the ballots is otherwise preserved and the board of canvassers determines that it meets the requirements set forth in instructions issued by the secretary of state in determining whether an explanation is satisfactory.

(5) The board of canvassers may use digital and physical election records to determine whether a precinct may be recounted. Physical records canvassers may examine are the pollbook, the poll lists, the statement of results, the ballot container certificate, the total ballots counted by a tabulator, the county canvass notations on the number of ballots and electors in the pollbook, affidavits, and tabulator tapes. Digital records canvassers may examine are transaction logs and Cast Vote Records.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(6) If a precinct is not eligible for a recount, the original return of the votes for that precinct must be taken as correct.

7 Proposed New Rules

7.1 R 168.775a Preparation of Accessible Voting Device

No issues identified

7.2 R 168.780a Early Voting

7.2.1 Proposed MDOS Rule

Rule 10a. (1) In addition to the duties before the opening of polls, as part of early voting responsibilities, the clerk or site supervisor shall do all of the following:

(a) On the first day of early voting before voting begins, all of the following:

(i) Ensure that the method of administering early voting in that municipality, whether as part of a county agreement, municipal agreement, or as a single municipality, is reflected in the programming of election equipment.

(ii) Print a summary zero report for each tabulator. Ensure the time and date are correct on the summary zero report.

(iii) Ensure that all election inspectors sign the bottom of the summary zero report and complete and sign the election inspectors' certificate.

(iv) Attach the signed summary zero report and status report to the physical pollbook.

(b) On each subsequent day of early voting before voting begins, all of the following:

(i) Print a status report for each tabulator and accessible voting device.

(ii) Ensure that the number of ballots tabulated shown on the tabulator agrees with the number of votes tabulated on the previous day's physical pollbook entry.

(iii) Print a blank test ballot on the accessible voting device. Label the blank test ballot "EARLY VOTING TEST BALLOT DAY [1, 2, 3, etc.]" and insert the ballot into the envelope for the local clerk.

(iv) If applicable, print a status report from the on-demand ballot printing system.

(c) At the end of each day's early voting, secure all equipment as prescribed in section 720j of the act, MCL 168.720j.

(d) On election day following the close of polls, all of the following:

(i) Complete the final reconciliation and ballot summary page in the physical pollbook.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

- (ii) Tally the write-in votes as prescribed by the secretary of state.**
 - (iii) Enter the tallies on the write-in statement of votes located in the physical pollbook.**
 - (iv) Ensure all write-in ballots are returned to the approved ballot container.**
 - (v) For each ballot container, complete a container certificate and seal with an approved seal. Enter the seal numbers on the final reconciliation and ballot summary page.**
 - (vi) Close the polls for each tabulator according to vendor instruction, print 3 copies of the totals tape, ensure election inspectors sign the bottom of the tapes, and place 1 copy of totals tape in an envelope for the county clerk, 1 in an envelope for the county canvassers, and 1 in an envelope for the local clerk.**
- (2) In addition to the duties for election inspectors before opening of polls, as part of early voting responsibilities, the election inspectors shall do all of the following:**
- (a) On the first day of early voting before voting begins, all of the following:**
 - (i) Have 2 election inspectors compare the summary zero report to a sample ballot to ensure that all races are included on the tape, the correct ballots were delivered to the precinct, and all totals equal zero on the summary zero report.**
 - (ii) Have all inspectors sign the bottom of the summary zero report and complete and sign the election inspectors' preparation certificate.**
 - (iii) Attach the signed summary zero report and status report to the physical pollbook.**
 - (iv) Before the opening of polls, record the number on the tabulator's public counter in the physical pollbook.**
 - (b) On each subsequent day of early voting before voting begins, all of the following:**
 - (i) Enter the number on the tabulator public counter and the number of voters on the list of voters printed from the early voting electronic pollbook the previous day in the place specified on the election inspectors' preparation certificate.**
 - (ii) Verify that the number on the tabulator public counter is equal to the previous day's daily reconciliation and ballot summary. If the numbers do not match, review the remarks page of the physical pollbook for notes and verify counts against the count of applications to vote.**
 - (iii) Have all inspectors complete and sign the election inspectors' preparation certificate.**
 - (c) After the close of early voting each day, all of the following:**
 - (i) Verify that the number of ballots tabulated that day equals the number of voters identified in the early voting pollbook as having been issued ballots at the early voting site that day and those tabulating absent voter ballots. If the numbers do not match, note the reason for the difference on the remarks page in the physical pollbook.**

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(ii) Print a poll list from the early voting pollbook of the electors who voted at the early voting site that day and add it to the physical pollbook.

(iii) Remove the voted ballots from the tabulator bin and seal the ballots, along with spoiled ballots and the early voting electronic pollbook, in a ballot container in the same manner as ballots are sealed on election day.

(iv) Record on the ballot container certificate the seal number used to seal the ballot container.

(v) Record in the physical pollbook the seal number used to seal the ballot container.

(vi) Record in the physical pollbook the number on the tabulator's public counter at the end of the day.

(vii) Ensure the election materials are secured as instructed by the clerk or site supervisor.

(viii) Ensure the room in which the early voting site is located is locked.

(d) On election day following the close of polls, all of the following:

(i) Generate the summary totals tape from the early voting tabulators and make results available to those present.

(ii) Complete the statement of results, the ballot summary, and the certificate of election inspectors.

7.2.2 Issue(s)

7.2.2.1 Status Reports

Under proposed rules, ballot summary pages are only required to be prepared at the closing of polls on election day. There are no such records for the close of each day of early voting. Early voting sites may experience significant personnel turnover from day to day, yet election inspectors on election day will be required to sign off on precinct-specific records that reflect early voting as well as election day activities. In order to improve the audit trail and encourage election record accountability, early voting sites must prepare a ballot summary page pertaining to the day's activities.

7.2.3 Proposed Revision

Rule 10a. (1) In addition to the duties before the opening of polls, as part of early voting responsibilities, the clerk or site supervisor shall do all of the following:

(a) On the first day of early voting before voting begins, all of the following:

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(i) Ensure that the method of administering early voting in that municipality, whether as part of a county agreement, municipal agreement, or as a single municipality, is reflected in the programming of election equipment.

(ii) Print a summary zero report for each tabulator. Ensure the time and date are correct on the summary zero report.

(iii) Ensure that all election inspectors sign the bottom of the summary zero report and complete and sign the election inspectors' certificate.

(iv) Attach the signed summary zero report and status report to the physical pollbook.

(b) On each subsequent day of early voting before voting begins, all of the following:

(i) Print a status report for each tabulator and accessible voting device.

(ii) Ensure that the number of ballots tabulated shown on the tabulator agrees with the number of votes tabulated on the previous day's physical pollbook entry.

(iii) Print a blank test ballot on the accessible voting device. Label the blank test ballot "EARLY VOTING TEST BALLOT DAY [1, 2, 3, etc.]" and insert the ballot into the envelope for the local clerk.

(iv) If applicable, print a status report from the on-demand ballot printing system.

(c) At the end of each day's early voting, secure all equipment as prescribed in section 720j of the act, MCL 168.720j. (d) On election day following the close of polls, all of the following:

(i) Complete the final reconciliation and ballot summary page in the physical pollbook.

(ii) Tally the write-in votes as prescribed by the secretary of state.

(iii) Enter the tallies on the write-in statement of votes located in the physical pollbook.

(iv) Ensure all write-in ballots are returned to the approved ballot container.

(v) For each ballot container, complete a container certificate and seal with an approved seal. Enter the seal numbers on the final reconciliation and ballot summary page.

(vi) Close the polls for each tabulator according to vendor instruction, print 3 copies of the totals tape, ensure election inspectors sign the bottom of the tapes, and place 1 copy of totals tape in an envelope for the county clerk, 1 in an envelope for the county canvassers, and 1 in an envelope for the local clerk.

(2) In addition to the duties for election inspectors before opening of polls, as part of early voting responsibilities, the election inspectors shall do all of the following:

(a) On the first day of early voting before voting begins, all of the following:

(i) Have 2 election inspectors compare the summary zero report to a sample ballot to ensure that all races are included on the tape, the correct ballots were delivered to the precinct, and all totals equal zero on the summary zero report.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(ii) Have all inspectors sign the bottom of the summary zero report and complete and sign the election inspectors' preparation certificate.

(iii) Attach the signed summary zero report and status report to the physical pollbook.

(iv) Before the opening of polls, record the number on the tabulator's public counter in the physical pollbook.

(b) On each subsequent day of early voting before voting begins, all of the following:

(i) Enter the number on the tabulator public counter and the number of voters on the list of voters printed from the early voting electronic pollbook the previous day in the place specified on the election inspectors' preparation certificate.

(ii) Verify that the number on the tabulator public counter is equal to the previous day's daily reconciliation and ballot summary. If the numbers do not match, review the remarks page of the physical pollbook for notes and verify counts against the count of applications to vote.

(iii) Have all inspectors complete and sign the election inspectors' preparation certificate.

(c) After the close of early voting each day, all of the following:

(i) Verify that the number of ballots tabulated that day equals the number of voters identified in the early voting pollbook as having been issued ballots at the early voting site that day and those tabulating absent voter ballots. If the numbers do not match, note the reason for the difference on the remarks page in the physical pollbook.

(ii) Print a poll list from the early voting pollbook of the electors who voted at the early voting site that day and add it to the physical pollbook.

(iii) Remove the voted ballots from the tabulator bin and seal the ballots, along with spoiled ballots and the early voting electronic pollbook, in a ballot container in the same manner as ballots are sealed on election day.

(iv) Record on the ballot container certificate the seal number used to seal the ballot container.

(v) Record in the physical pollbook the seal number used to seal the ballot container.

(vi) Record in the physical pollbook the number on the tabulator's public counter at the end of the day.

(vii) Ensure the election materials are secured as instructed by the clerk or site supervisor.

(viii) Ensure the room in which the early voting site is located is locked.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

(ix) Complete a ballot summary page report certified as accurate by election inspectors presiding over the early voting site.

(d) On election day following the close of polls, all of the following:

(i) Generate the summary totals tape from the early voting tabulators and make results available to those present.

(ii) Complete the statement of results, the ballot summary, and the certificate of election inspectors.

7.3 [New] User Account Security

7.3.1 Issue(s)

7.3.1.1 Accountability Lacking

The use of generic user accounts by multiple personnel is common practice. In order to support a professional audit of an election, all digital transactions need to be tied to a specific user not a generic user account.

7.3.1.2 Lax Security Protocols

The user account security policies in effect are not fitting for a system designated as a critical infrastructure component by the United States. User account best practices need to be adopted as a general rule.

7.3.2 Proposed New Rule

[New Rule] User Account Security

- (1) All user accounts associated with the operation of any component of the Voting System must be specific to an individual user.
- (2) The use of generic accounts shared between multiple users is prohibited.
- (3) All user accounts must be granted the minimum level of access necessary to perform their duties.
- (4) All user accounts must use multi-factor authentication.
- (5) All passwords must feature a minimum of 15 characters that includes a mix of upper and lower case letters, numbers and special characters.
- (6) All passwords and decryption keys must be stored using cryptographic strong hash functions like Argon2id or Scrypt.
- (7) All user accounts must update their passwords a minimum of once per six month period.
- (8) Election officials must conduct an annual audit of user account security rule compliance and report their status to the MI Department of Elections.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

7.4 [New] Network Connections

7.4.1 Issue(s)

7.4.1.1 Digital and Physical Security Consistency

Physical security of equipment and the security of physical election record transfers involves the use of serialized deals and security logs. There are no such security measures currently in use or proposed in new rule set to treat the security of digital records in a similar manner. Numerous court exhibits have documented lax user security protocols

7.4.1.2 Misinformation

The general public has been told by election officials and electronic voting system vendors that electronic voting systems are not connected to the internet or that they are “air gapped”. The contracts between the State of Michigan and these vendors clearly show that this is not the case as demonstrated by the following diagrams found in Dominion’s contract with the State of Michigan. Such misinformation provides the general public with a false sense of security regarding the transfer of digital election records during an election. In order to ensure that the chain of custody for election records is preserved during an election, it is important to acknowledge that electronic voting systems involve a significant amount of networked data transfers. Election officials can attempt to make the case that these data transfers are secured via tools such as encryption, secure file transfer protocols, firewalls, Virtual Private Networks, and best practices regarding user account security, it is incumbent upon them to demonstrate that these digital security protocols are in place and effective in much the same way as physical security measures can be demonstrated.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

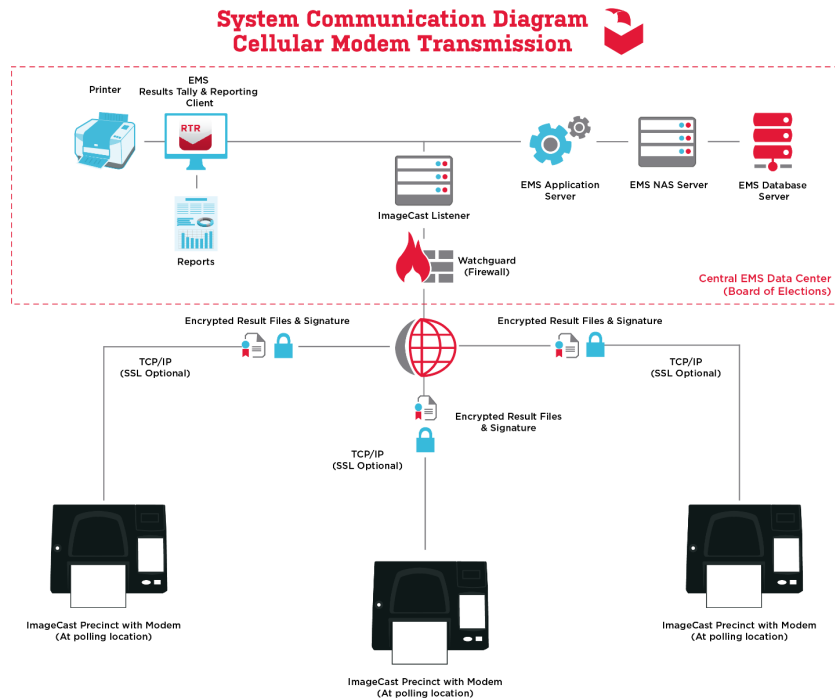


Figure 9 System Communication Diagram Dominion Contract with State of Michigan



Figure 10 Election Night Reporting Diagram Dominion Contract wi

7.4.1.3 Bipartisan Oversight Lacking

Inspection of physical election records typically require bipartisan signoff attesting to their accuracy. There is no such requirement for bipartisan oversight of digital election records. When one considers that the physical records signed off on by election inspectors are often simply

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

printouts of digital records, it is clear that there is a lack of bipartisan approval workflows for digital record transfers.

7.4.2 Proposed New Rule

- (1) The clerk or site supervisor is responsible for ensuring the security of all digital record transfers.
- (2) All digital record data transfers conducted via a digital Storage Device must be accompanied by a security log maintained by the clerk or site supervisor. This log must include the following information as a minimum: Time data was transferred to new storage media, source of digital data, serial number of digital data storage device, description of digital data, reason for data transfer, and signatures of bipartisan election inspectors who witnessed transfer.
- (3) All digital record data transfers conducted via cellular connections must satisfy the following security requirements:
 - a. End-to-end encryption
 - b. Uses VPN
 - c. Each device on the network must be protected by a firewall
 - d. Compliance with user account security rule for both endpoints of communication
- (4) All digital record data transfers conducted via Bluetooth connections must satisfy the following security requirements:
 - a. Turn off Bluetooth when not in use
 - b. Set all devices paired to “Hidden” or “Non-Discoverable”
 - c. Keep firmware and software updated
 - d. Require re-authentication whenever connecting
 - e. Each device on the network must be protected by a firewall
 - f. Compliance with user account security rule for all devices on network
- (5) All digital record data transfers conducted via WiFi connections must satisfy the following security requirements:
 - a. WPA3 or WPA2 encryption protocol
 - b. Routers must disable SSID broadcast
 - c. Router firewall must be enabled
 - d. Each device on the network must be protected by a firewall
 - e. Compliance with user account security rule for all devices paired together
- (6) All digital record data transfers conducted via ethernet connections must satisfy the following security requirements:
 - a. Use VPN for all devices on network
 - b. Each device on the network must be protected by a firewall
 - c. Use Access Control Lists (ACLs) to restrict access to network based upon IP addresses, protocols or ports
 - d. Compliance with user account security rule for all devices on network

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

7.5 [New] Election Night Reporting

7.5.1 Issue(s)

7.5.1.1 *Transparency*

Non-Government Organizations (NGO's) such as SCYTL and the Associated Press have access to vote tally data from election officials and vote tally equipment. The general public does not have access to this data until it has been shared by these NGO's. Because NGO's are not subject to FOIA requests, the general public is therefore not privy to a key link in the election record chain of custody.

7.5.1.2 *Cybersecurity*

Protecting the ENR system from cyber threats is critical. This includes measures like running antivirus software, enabling multi-factor authentication, and having backup plans in case of system failures.

7.5.1.3 *Fractional Vote Tallies*

All vote tallies should be reported as integers not decimals. No voters should be associated with a fractional vote, yet there is evidence to suggest that the State of Michigan reports election night results using a decimal-based data format. MDOS refused to provide the specifications for the Michigan Standard Results File Format in response to my FOIA request. In their contract with the State of Michigan, however, Dominion Voting Systems is quite clear about the fact that they report election results using the Election Markup Language (EML). The federal government established EML via the National Institute for Standards and Technology (NIST). Of notable concern is the fact that the EML reports vote tallies in Double Precision (aka Decimal or fractional) format NOT integers. I do not have access to such data transfers within Michigan's election system network, but election results provided by Edison Research report to media outlets reports election results that ensure accuracy of fractional votes only out three decimal places for elections featuring millions of votes. Rounding error alone can result in significant discrepancies in election results.

7.5.1.4 *Data Accuracy*

Ensuring the accuracy of the reported data involves rigorous verification and validation processes, including post-election audits and canvassing to review and correct any discrepancies.

7.5.1.5 *Public Perception*

Managing public expectations is important, as unofficial results reported on election night are often perceived as final, even though they are subject to change as additional ballots are counted and certified.

7.5.2 Proposed New Rule

- (1) Election officials must provide the public with access to any Election Night Reporting data accessible by NGO's in the same format as that provided to the NGO's.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

- (2) All vote tally records must be formatted as integers reflecting the number of votes cast. Under no circumstances is it acceptable to store or transfer vote or vote tally data as a decimal or otherwise fraction-based number.

7.6 [New] Software Configuration

7.6.1 Issue(s)

7.6.1.1 *Non-Certified Software*

Non-certified software such as SQL Server Management Studio (SSMS) has been found installed on Election Management System (EMS) servers in the State of Michigan. SSMS is a powerful tool that enables those with ill intent to modify election results without leaving a trace.

7.6.2 Proposed New Rule

- (1) If any election equipment is found with non-certified software installed, all election results for the jurisdiction where the non-certified software installation is found are de-certified pending a hand recount of all ballots within that jurisdiction conducted by county election officials with bipartisan oversight.

7.7 [New] Preservation of Digital and Physical Records

7.7.1 Issue(s)

7.7.1.1 *Failure to Comply with USC 52 Section 20701*

MDOS has issued unlawful directives to election officials releasing them of record preservation for critical records needed for audits under the auspices of R 168.790(18). Reference the following excerpt from their August 22, 2022 memorandum to clerks.

RELEASE OF SECURITY: The security of ballots and election equipment is released as follows:

Ballots, programs, and related materials; The security of all optical scan ballots, programs, test decks, accuracy test results, edit listings and any other related materials is released under the Rules for Electronic Voting Systems, R 168.790(18), as of September 18, 2022 except in those areas where local recounts extend beyond September 18, 2022. Optical scan ballots and materials involved in local recounts which extend beyond September 18 can be released by the Board of County Canvassers upon the successful completion of the recount.

E_Pollbook.laptops.and.flash.drives; The EPB software and associated files must be deleted from all devices by the seventh calendar day following the final canvass and certification of the election (August 26, 2022) unless a petition for recount has been filed and the recount has not been completed or the deletion of the data has been stayed by an order of the court or the Secretary of State. The EPB paper printout has already been produced and secured on election night. Jurisdictions should consult with city, township, or

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

county counsel regarding any pending court orders, subpoenas, or records requests regarding these materials.

These directives have even gone beyond the scope of this rule to order election officials to delete EPB software and associated files which would otherwise provide important activity logs and voter registration information for post-election audits. These directives violate USC 52 Section 20701 and must be corrected.

7.7.2 Proposed New Rule

- (1) Every officer of election shall retain and preserve, for a period of twenty-two months from the date of any general, special, or primary election, all digital and physical records created in support of the conduct of the election except, when required by law, such records and papers may be delivered to another officer of election.

8 Proposed Rule Deletions

8.1 R 168.783 Hanging Chads

No issues identified

8.2 R 168.787 Delegate to County Convention

No issues identified

9 Findings

My evaluation of the proposed MDOS ruleset for electronic voting systems can be summarized into three basic findings:

Finding #1:

- The proposed rules for electronic voting systems have insufficient scope and rigor to ensure the accuracy and integrity of our elections as required by our Michigan Constitution.

Finding #2:

- The proposed rules appear to be biased towards diminishing the rights of voters and local election officials in favor of increased control of elections and election records by the Michigan Department of State. Once again, our Michigan Constitution requires that all voting rights be liberally construed in favor of voters' rights in order to effectuate its purpose.

Finding #3:

- The Michigan Department of State appears to be engaged in deliberate and repeated abuse of the rule-making process to subvert the integrity of our elections

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

Further elaboration on each of these findings follows.

9.1 Insufficient Rigor to Ensure Accuracy and Integrity of Elections

In support of Finding #1 regarding insufficient rigor to ensure the accuracy and integrity of our elections, I submit the following observations:

In a ruleset specific to electronic voting systems, there is notably zero mention of best practices regarding security protocols for electronic systems. There are quite a few references to the use of seals to preserve the integrity of physical records such as ballot containers, but zero references to their digital record equivalents such as user account, device access or network security protocols.

In a ruleset specific to electronic voting systems, there is notably zero reference to secure digital record transfers for systems designed to connect to the internet as evidenced by election official communications, election procedure manuals, contracts between electronic voting system vendors, my own personal observations as a Certified Microsoft Small Business Specialist, and even the Department of State's own website where it encourages clerks experiencing difficulties with internet connections to contact their friends at Connected Nation.

In a ruleset specific to electronic voting *systems*, there are rules pertaining only to the use of two components of that system – hand-fed polling location tabulators and voter accessible devices. The ruleset ignores any usage guidance for batch-fed tabulators, electronic pollbooks, adjudication equipment, vote tally equipment, networking equipment and election night reporting.

In a ruleset specific to electronic voting systems, the requirement for end-to-end system testing replicating how this critical infrastructure performs on election night is prefaced with the words “if practicable”. So, we only need to test the full system if it is convenient. It should be noted that the 7,060 vote flipped experienced in Antrim County would have been detected if end-to-end testing of the election day configuration had been performed.

in a ruleset specific to electronic voting systems, there seems to be an inexplicable focus upon the security of physical records NOT digital records.

9.2 Bias Towards Diminishing Rights of Voters

In support of Finding #2 regarding a bias against voters' rights, I submit the following observations:

Many voters have expressed concerns with the integrity of mail-in voting, yet the ruleset fails to provide any substantive guidance on the components integral to the mail-in voting process such as batch-fed tabulators, electronic pollbooks, and adjudication equipment.

Many voters have expressed concerns with the integrity of our voter rolls. Investigators have shared evidence of dead voters, people who have moved out of a given jurisdiction, people registered illegal addresses such as businesses or apartments without an apartment number, or people who are not American citizens – all being listed on our active voter rolls. The July 2024 QVF, which is statutorily required to maintain voter history records for a period of not less than 5 years, shows that there were 302,380 more ballots cast in 2020 election than there were voters. Against this

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

backdrop, the proposed ruleset governing electronic voting systems provides zero substantive guidance on the use of electronic pollbooks and the state Qualified Voter File.

Many voters have expressed concerns with vote tally anomalies, yet the ruleset fails to provide any substantive guidance on the components of the vote tally chain of custody including vote tally equipment and election night reporting.

Many voters have expressed concerns with internet connections, yet the ruleset makes zero references to network security protocols regarding either official or unofficial record transfers.

Many voters have expressed concerns with fractional voting, yet the ruleset makes no reference to the need for electronic voting systems to store and report vote tally data as integers not fractions.

Voters are guaranteed the right to an audit of statewide elections to ensure their accuracy and integrity. In order to accomplish any such audit, any auditor must be provided with an audit trail sufficient to verify the accuracy and integrity of our elections. The startling gaps in the audit trail enabled by the proposed ruleset for electronic voting system are either the result of gross negligence on the matter of securing a critical system of our nation's infrastructure or indicate a deliberate attempt to enable election fraud.

9.3 Continued Abuse of Rule-Making Process

The failure of the Michigan Senate to grant immediate effect on SB 603 means that the provisions of this bill will not be effective until 91 days after the legislature adjourns sine die for the 2024 regular session. The timing of the proposed rule changes seems to indicate an intention to use JCARS to expedite to enactment of some of the provisions of SB 603 through an expedited rulemaking process rather than provide sufficient time for a thorough review of rules governing a critical infrastructure component of the United States. If this is indeed the intent that drove the timing of the release of these proposed rules, it is clearly unacceptable.

Michigan Secretary of State Jocelyn Benson has been found by seven different courts to have issued unlawful guidance regarding elections. Seven. During oral testimony on October 3, 2023 in the O'Halloran v Benson case before the Michigan Court of Appeals, Department of State lawyer Heather Meingast demonstrated her client's flagrant disregard for the law in the following concerning statement:

"I don't think we would want to create a war between the branches and if there was something telling us to do something and we thought it was OK, we would probably do it. But if ... this isn't something that we can really do because we couldn't really control it or it's a bad idea we might just choose not to do it you could leave that statute sitting there and we could continue to issue instructions and give guidance and somebody would probably sue us."

Voters were forced to sue her multiple times at their own expense, often AFTER the impact of her unlawful guidance was already inflicted upon the conduct of our elections. This blatant disregard for the rule of law is concerning. This behavioral pattern underscores the need for a professional review of these proposed rules for electronic voting systems BEFORE they go into effect.

Evaluation of Proposed Electronic Voting System Rules

By Patrick Colbeck

10 Conclusion

Electronic voting systems are complex. We rely upon the integrity of regulatory bodies to secure these complex systems. These regulatory bodies in turn delegate this responsibility to non-government organizations (NGO's) with personnel that have the necessary skillsets to evaluate the security of such systems. These NGO's are not subject to any substantive oversight. NGO's, including electronic voting system vendors, are not subject to FOIA requests for example. This oversight is made even more problematic by the fact that the contracts between government bodies and electronic voting system vendors feature illusory provisions. These illusory provisions prevent examination of the design and implementation of these systems by all but a select group of election officials. Meanwhile, more and more of our election processes are being ceded to these NGO's because of the complexity of elections featuring electronic voting systems.

During my aerospace engineering career, I was responsible for designing elements of the International Space Station life support system. Since the lives of the Astronauts depended upon the effectiveness and integrity of my design for their very lives, my systems were viewed as "critical infrastructure". There was a significant degree of rigor applied to the design, analysis and testing of these systems. We conducted rigorous failure modes and effects analyses, conducted rigorous component-level and system-level tests based in large part upon these analyses, and enacted strict configuration control practices to prevent tampering with the integrity of our flight articles.

Our election systems have also been designated as critical infrastructure. This proposed ruleset, however, does not come anywhere close to the rigor needed to ensure the accuracy and integrity of our electronic voting systems. In fact, this proposed ruleset for electronic voting systems does not come close to providing the level of security evident in the regulations for children toys much less what is needed for an element of our nation's critical infrastructure. We need to do better. The 126-page report that I submit to you today is my attempt to assist the Michigan Department of State achieve its constitutional obligation to ensure the accuracy and integrity of our elections.

The accuracy and integrity of our elections in Michigan would be compromised significantly if the rules proposed by the Michigan Department of State were to be adopted without the incorporation of the recommendations cited in this report.

Patrick Colbeck

President, Michigan Grassroots Alliance

Former Michigan State Senator and Vice Chair of Senate Elections and Government Reform Committee

Certified Microsoft Small Business Specialist