



★ VIRGINIA ★  
STATE BOARD *of* ELECTIONS

# BOARD MEETING

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Tuesday, January 28, 2020  
West Reading Room  
Patrick Henry Building  
Richmond, VA  
1:00 P.M.

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SBE Board Working Papers



**STATE BOARD OF ELECTIONS  
AGENDA**

***DATE: Tuesday, January 28, 2020  
LOCATION: Patrick Henry Building  
West Reading Room  
1111 E Broad Street  
Richmond, VA  
TIME: 1:00 PM***

**I. CALL TO ORDER**

*Robert Brink, Chairman*

**II. APPROVAL OF MINUTES**

*Jamilah LeCruise, Secretary*

- A. November 18, 2019
- B. December 18, 2019

**III. COMMISSIONER'S REPORT**

*Christopher E. Piper  
Commissioner*

**IV. OLD BUSINESS**

- A. Recounts

*Samantha Buckley  
Policy Analyst*

- B. Election Equipment

*James Heo  
Confidential Policy Advisor*

**V. NEW BUSINESS**

- A. Stand By Your Ad –
  - i. Anonymous Complaints
  - ii. Penalties

*Arielle A. Schneider  
Policy Analyst*

- B. GREB Workgroup

*The Hon. John Hager  
GREB Co-Chair*

**NOTE:** Information about how to participate in the meeting via conference call is available online at <https://townhall.virginia.gov/L/ViewMeeting.cfm?MeetingID=30342>

All materials provided to the Board are available for public inspection under the Virginia Freedom of Information Act upon request.

## **VI. PUBLIC COMMENT**

## **VII. ADJOURNMENT**

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★ VIRGINIA ★  
STATE BOARD *of* ELECTIONS

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# Approval of Minutes

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BOARD WORKING PAPERS  
State Board of Elections

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The State Board of Elections (“the Board”) meeting was held Monday, November 18, 2019, in the West Reading Room of the Patrick Henry Building in Richmond, Virginia. In attendance: Robert Brink, Chairman, John O’Bannon, Vice Chairman, and Jamilah LeCruise, Secretary, represented the State Board of Elections (“the Board”). Christopher E. “Chris” Piper, Commissioner, and Jessica Bowman, Deputy Commissioner, represented the Department of Elections (“ELECT”). Carol L. Lewis represented the Office of the Attorney General (“OAG”). Chairman Brink called the meeting to order at 1:04 P.M.

The first order of business was the Commissioner’s Report, presented by Commissioner Piper. Commissioner Piper introduced new employee Karen Hoyt-Stewart, Voting Technology Program Manager. The Commissioner informed the Board that in January 2020 ELECT will be providing a Post-Election Report with a detailed analysis of the November 2019 election which included over 450 candidates, nearly 1,000 ballot styles, and over 450 split precincts. The Commissioner recognized the ELECT staff and all local elections officials throughout the Commonwealth for all of their hard work on the November 5<sup>th</sup> General Election. Commissioner Piper informed the Board that ELECT would be providing the Risk Limiting Audit report at the December Board meeting.

The Commissioner informed the Board that there would not be a Republican Presidential Primary, but there would be a March 2020 Presidential Primary Election for a Democratic candidate, a May 2020 General Election that encompasses over 100 cities and towns, and a June 2020 Statewide Primary. Commissioner Piper informed the Board that on December 5<sup>th</sup>, ELECT

22 will be hosting a Silent Auction for the Leukemia and Lymphoma Society, for more information  
23 reach out to Rise Miller.

24 The next order of business was the General Election Certification, presented by Matt  
25 Abell, Elections Administrator. Mr. Abell informed the Board that there were no ties, and all  
26 results are final. *This report is in the Working Papers for the November 18, 2019 meeting.* Vice  
27 Chair O'Bannon moved that the Board certify the results as presented by signing abstracts and  
28 the certificates of election. Secretary LeCruise seconded the motion, and the motion passed  
29 unanimously.

30 The next order of business was the Early Voting Report("Report"), presented by Danny  
31 Davenport, Policy Analyst. *The Early Voting Report is in the Working Papers for the November*  
32 *18, 2019 meeting.* Mr. Davenport thanked everyone who helped with the Report. Chairman  
33 Brink opened the floor to public comment. Carol Noggle, League of Woman Voters of Virginia,  
34 stated that they support the expansion and cannot wait to see the content of the Report. Katie  
35 Boyle, Virginia Association of Counties, expressed appreciation for the flexible approach to the  
36 establishment of voting centers and allow localities to set up better locations for what makes the  
37 most sense for that particular location. Ms. Boyle stated that the smaller localities lack sufficient  
38 parking so will be seeking larger building spaces. She explained to the Board that the State  
39 assistance with implementation will be very critical for some of the smaller jurisdictions.

40 Jessica Ackerman, Virginia Municipal League expressed appreciation for the Report  
41 acknowledges the potential cost that is associated with the expansion of early voting. Kate  
42 Hanley, Secretary of the Fairfax County Elections Board, stated that she appreciates that the  
43 Report allowed the smaller localities to participate. Allison Robbins, President of the Virginia

44 Registrar Association, looked forward to continue discussions and appreciated being a part of the  
45 Report. Vice Chair O’Bannon stated that he will be dissenting to Item #8 on page 13 of the  
46 report. Secretary LeCruise *moved the State Board of Elections approve the report as presented*  
47 *and direct the Department of Elections to submit the report to the Governor, General Assembly,*  
48 *and the House and Senate Committees on Privileges and Elections on behalf of the Board. Vice*  
49 *Chair O’Bannon seconded the motion with the dissent of Item #8, and the motion passed*  
50 *unanimously.*

51 The next order of business was Stand by Your Ad (“SBYA”), presented by Arielle A.  
52 Schneider, Policy Analyst. The first complaint was against Arika Phillips for CCPS School  
53 Board. Ms. Schneider presented the Board with one yard sign with no disclosure. She explained  
54 this would be a first time violation for the candidate. Vice Chair O’Bannon *moved subject to the*  
55 *Board’s authority under the Code of Virginia §24.2-955.3, to find Arika Phillips for CCPS*  
56 *School Board in violation of §24.2-956 print media requirements with regard to one print media*  
57 *advertisement and assess a \$100 penalty for one first-time violation. Secretary LeCruise*  
58 *seconded the motion, and the motion passed unanimously.*

59 The next complaint was against Charon Coffee Price. Ms. Schneider presented the Board  
60 with a photo of a yard sign lacking the required disclosure language. She explained that the  
61 complaint was sent anonymously, and this would be a first time violation for the candidate. Ms.  
62 Price addressed the Board and explained that the complaint was dated August 2<sup>nd</sup>, but she did not  
63 receive her signs until August 5<sup>th</sup>. She informed the Board that she is a first time candidate and  
64 was unaware of the disclosure needing to be on the yard sign. Ms. Price apologized to the Board  
65 and presented the Board with the updated yard signs showing the disclosure. She informed the

66 Board that she had a list of the location of all her signs, and five of them were stolen. Vice Chair  
67 O'Bannon moved *subject to the Board's authority under the Code of Virginia §24.2-955.3, to*  
68 *find Charon Coffee Price in violation of §24.2-956 print media requirements with regard to one*  
69 *print media advertisement and assess a \$50 penalty for a first-time violation.* Secretary LeCruise  
70 seconded the motion, and the motion passed unanimously.

71 The next complaint was against Darby McGeorge. Ms. Schneider presented the Board  
72 with two print media signs lacking the required disclosure language. Mr. McGeorge addressed  
73 the Board. He apologized and explained that he is a first time write-in candidate and was  
74 unaware of the disclosure requirement. Due to the apology Secretary LeCruise moved *subject to*  
75 *the Board's authority under the Code of Virginia §24.2-955.3, to find Darby McGeorge in*  
76 *violation of §24.2-956 print media requirements with regard to two print media advertisements*  
77 *and assess a \$100 penalty for two first-time violations.* Vice Chair O'Bannon seconded the  
78 motion, and the motion passed unanimously.

79 The next complaint was against Darryl V. Parker. Ms. Schneider presented the Board  
80 with one pamphlet lacking the required disclosure language. She informed the Board that  
81 ELECT had not yet received a response from the candidate. Vice Chair O'Bannon moved *subject*  
82 *to the Board's authority under the Code of Virginia §24.2-955.3, to find Darryl V. Parker in*  
83 *violation of §24.2-956 print media requirements with regard to one print media advertisement*  
84 *and assess a \$100 penalty for a first-time violation.* Secretary LeCruise seconded the motion,  
85 and the motion passed unanimously.

86 The next complaint was against Friends of Andrew Cullip. Ms. Schneider presented the  
87 Board with two signs. She explained that Mr. Cullip provided a response informing the Board



88 that the advertisements were created by a neighbor. Chairman Brink moved *subject to the*  
89 *Board's authority under the Code of Virginia §24.2-955.3, to dismiss the complaint against*  
90 *Friends of Andrew Cullip*. The motion was seconded and adopted unanimously.

91 The next complaint was against Friends of Chris Peace. Ms. Schneider presented the  
92 Board with one sign lacking the required disclosure language. She informed the Board that Mr.  
93 Peace provided a response stating that someone or some campaign committees unaffiliated with  
94 his campaign or team reused his original sign. Chairman Brink moved *subject to the Board's*  
95 *authority under the Code of Virginia §24.2-955.3, to dismiss the complaint against Friends of*  
96 *Chris Peace*. The motion was seconded and adopted unanimously.

97 The next complaint was against Friends of David Hardin. Ms. Schneider presented the  
98 Board with one print media website lacking the required disclosure language, reported on  
99 October 25<sup>th</sup>, within the 14 days prior to the election. Mr. Hardin addressed the Board and  
100 explained that he was unaware that the website did not have a discloser. He informed the Board  
101 that the webpage developer did not request any funds due to having issues with the website.

102 Ms. Schneider asked Mr. Hardin whether Google prohibited his page from searches or  
103 shut down his page. Mr. Hardin stated that it was prohibited in searches, but if you typed the  
104 website into the browser directly it would load. Ms. Schneider asked Mr. Hardin if he received  
105 any notification from the web developer stating that the draft website was online. Mr. Hardin  
106 stated that he did not receive any notifications from the developer. Due to the apology Vice  
107 Chair O'Bannon moved *subject to the Board's authority under the Code of Virginia §24.2-955.3,*  
108 *to find Friends of David Hardin in violation of §24.2-956 print media requirements with regard*  
109 *to one print media advertisement and assess a \$100 penalty for a first-time violation doubled due*

110 *to proximity to the election.* Chairman Brink seconded the motion, and the motion passed  
111 unanimously.

112           The next complaint was against Friends of Joe Dombroski. Ms. Schneider presented the  
113 Board with one double-sided print media sign lacking the required disclosure language. She  
114 recommended a penalty of \$100. Mr. Dombroski addressed the Board. Mr. Dombroski  
115 apologized and stated that he was unaware that a disclosure needed to be on the sign. He also  
116 informed the Board that he placed disclaimers on one side of the yard sign. Due to the apology  
117 and remedial action Secretary LeCruise moved *subject to the Board's authority under the Code*  
118 *of Virginia §24.2-955.3, to dismiss the complaint against Friends of Joe Dombroski.* Vice Chair  
119 O'Bannon seconded the motion, and the motion passed unanimously.

120           The next complaint was against Friends of Paul Petrauskas. Ms. Schneider presented the  
121 Board with ten yard signs lacking the required disclosure language. She informed the Board that  
122 ELECT has not received a response from the candidate. Vice Chair O'Bannon moved *subject to*  
123 *the Board's authority under the Code of Virginia §24.2-955.3, to find Friends of Paul*  
124 *Petrauskas in violation of §24.2-956 print media requirements with regard to ten print media*  
125 *advertisements and assess a \$1000 penalty for ten first-time violations.* Secretary LeCruise  
126 seconded the motion, and the motion passed unanimously.

127           The next complaint was against Friends of Scott Mayausky. Ms. Schneider presented the  
128 Board with three yard signs that are different on each side. She explained that one side is white  
129 and the other side is auburn. Ms. Schneider informed the Board that the auburn side has the  
130 disclaimer at the bottom of the sign. Vice Chair O'Bannon *subject to the Board's authority under*

131 *the Code of Virginia §24.2-955.3, to dismiss the complaint against Friends of Scott Mayausky.*

132 Secretary LeCruise seconded the motion, and the motion passed unanimously.

133         The next complaint was against Friends of Tim McLaughlin. Ms. Schneider presented the  
134 Board with two handcards. She stated that both handcards have insufficiently conspicuous  
135 disclosures and recommended a penalty of \$200. A representative from the McLaughlin  
136 campaign addressed the Board. He informed the Board that this was his first time as a media  
137 consultant for a campaign. The representative apologized to the Board, stating that he placed a  
138 low resolution disclosure on the high resolution handcard which when printed was unclear.  
139 Chairman Brink asked if he received a hard copy proof of the handcard. The representative  
140 explained that he received an electronic proof, due to the company being in another state. The  
141 representative approached the Board and provided a handout. After reviewing what appeared to  
142 be a zoomed in image of one of the advertisements (handcard with red background). Secretary  
143 LeCruise moved *subject to the Board's authority under the Code of Virginia §24.2-955.3, to find*  
144 *Friends of Tim McLaughlin in violation of §24.2-956 print media requirements with regard to*  
145 *one print media advertisement and assess a \$50 penalty for a first-time violation.* Chairman  
146 Brink seconded the motion, and the motion passed unanimously.

147         The next complaint was against Friends of Virginia. Ms. Schneider presented the Board  
148 with four yard signs lacking the required disclosure language. She stated that this is the second  
149 time this campaign committee has been brought to the Board during this election cycle, that the  
150 Board's Schedule of Penalties required a penalty of "\$250 for any second violation", and  
151 recommended the Board assess a \$2000 penalty for the four advertisements. Ms. Schneider  
152 informed the Board that due to the proximity of the election dates October 24<sup>th</sup>, October 25<sup>th</sup>, and

153 two on October 26<sup>th</sup>, each penalty would be doubled per the Board’s Schedule of Penalties,  
154 which states that “If the advertisement is disseminated or on display in the 14 days prior to or on  
155 the Election Day for which the advertisement pertains, the above penalties will be doubled and  
156 the maximum penalty would be \$2,500.” Ms. Smith addressed the Board and apologized. She  
157 explained that the signs presented were the original signs from the first campaign run. Ms. Smith  
158 stated that there were signs that were missing or stolen that had not been found. She informed the  
159 Board that the signs presented today were located in Charlotte and Pittsylvania County, Virginia.  
160 Ms. Smith stated that she believes the signs were held until the proximity of the elections,  
161 knowing the penalty would be doubled.

162 Secretary LeCruise confirmed with Ms. Smith that during the previous SBYA hearing  
163 she had a list of the locations for all of the yard signs except the ones that went missing.  
164 Chairman Brink confirmed with Ms. Smith that since the SBYA hearing she had additional signs  
165 printed with the disclaimer. Vice Chair O’Bannon asked Ms. Schneider if the documentation  
166 received shows the yard signs were in proximity to the election. Ms. Schneider informed the  
167 Board that the photos were timestamped on the dates specified. Vice Chair O’Bannon moved  
168 *subject to the Board’s authority under the Code of Virginia §24.2-955.3, to find Friends of*  
169 *Virginia in violation of §24.2-956 print media requirements with regard to four print media*  
170 *advertisements and assess a \$2000 penalty, for four second-time violations doubled due to the*  
171 *proximity of the election. Motion failed due to no second. Chairman Brink moved subject to the*  
172 *Board’s authority under the Code of Virginia §24.2-955.3, to dismiss the complaint against*  
173 *Friends of Virginia. Secretary LeCruise seconded the motion, voted in favor of the motion and*  
174 the motion passed 2-1, Vice Chair O’Bannon having voted no.

175           The next complaint was against Friends of Will Gardner. Ms. Schneider presented the  
176 Board with six signs lacking the required disclosure language. She informed the Board that Mr.  
177 Gardner provided a response apologizing and explaining remedial action. Due to the apology  
178 Secretary LeCruise moved *subject to the Board’s authority under the Code of Virginia §24.2-*  
179 *955.3, to find Friends of Will Gardner in violation of §24.2-956 print media requirements with*  
180 *regard to six print media advertisements and assess a \$300 penalty, for six first-time violations*  
181 *reduced due to the apology and remedial action.* Vice Chair O’Bannon seconded the motion, and  
182 the motion passed unanimously.

183           The next complaint was against Gerald Mitchell for Sheriff. Ms. Schneider presented the  
184 Board with one unauthorized webpage reported on October 25<sup>th</sup>, within the 14 days prior to the  
185 election. Mr. Mitchell addressed the Board stating that he is a first-time candidate and apologized  
186 for the error. He informed the Board that the person that created his webpage had never created a  
187 campaign page, which is why it states “Copyright” instead of “Paid For”. Secretary LeCruise  
188 asked Mr. Mitchell if he paid for the website. Mr. Mitchell stated that he did pay for the website.  
189 Due to the apology Secretary LeCruise moved *subject to the Board’s authority under the Code of*  
190 *Virginia §24.2-955.3, to find Gerald Mitchell for Sheriff in violation of §24.2-956 print media*  
191 *requirements with regard to one print media advertisement and assess a \$100 penalty for a first-*  
192 *time violation with an apology doubled due to the proximity to the election.* Chairman Brink  
193 seconded the motion, and the motion passed unanimously.

194           The next complaint was against Gilbert A. Smith. Ms. Schneider presented the Board  
195 with one pamphlet lacking the required disclosure language. Mr. Smith addressed the Board and  
196 apologized for the error. Due to the apology Secretary LeCruise moved *subject to the Board’s*

197 *authority under the Code of Virginia §24.2-955.3, to find Gilbert A. Smith in violation of §24.2-*  
198 *956 print media requirements with regard to one print media advertisement and assess a \$50*  
199 *penalty for one first-time violation. Vice Chair O’Bannon seconded the motion, and the motion*  
200 *passed unanimously.*

201 The next complaint was against John Edward Hall. Ms. Schneider presented the Board  
202 with one yard sign lacking the required disclosure language, reported on October 24<sup>th</sup>, within the  
203 14 days prior to the election. She informed the Board that ELECT has not received a response  
204 from the candidate. Vice Chair O’Bannon moved *subject to the Board’s authority under the*  
205 *Code of Virginia §24.2-955.3, to find John Edward Hall in violation of §24.2-956 print media*  
206 *requirements with regard to one print media advertisement and assess a \$200 penalty for one*  
207 *first-time violation doubled due to the proximity to the election. Secretary LeCruise seconded the*  
208 *motion, and the motion passed unanimously.*

209 The next complaint was against Kiser for Delegate. Ms. Schneider presented the Board  
210 with one handcard lacking the required disclosure language. She informed the Board that ELECT  
211 has not received a response from the candidate. Secretary LeCruise moved *subject to the Board’s*  
212 *authority under the Code of Virginia §24.2-955.3, to find Kiser for Delegate in violation of*  
213 *§24.2-956 print media requirements with regard to one print media advertisement and assess a*  
214 *\$100 penalty for a first-time violation. Vice Chair O’Bannon seconded the motion, and the*  
215 *motion passed unanimously.*

216 The next complaint was against Lyndsey Dotterer. Ms. Schneider presented the Board  
217 with one door hanger lacking the required disclosure language. She informed the Board that  
218 ELECT has not received a response from the candidate. Vice Chair O’Bannon moved *subject to*

219 *the Board's authority under the Code of Virginia §24.2-955.3, to find Lyndsey Dotterer in*  
220 *violation of §24.2-956 print media requirements with regard to one print media advertisement*  
221 *and assess a \$100 penalty for a first-time violation.* Secretary LeCruise seconded the motion, and  
222 the motion passed unanimously.

223         The next complaint was against Michael J. Hallahan, II – Candidate for Supervisor. Ms.  
224 Schneider presented the Board with one insufficiently conspicuous door hanger lacking the  
225 required disclosure language. She informed the Board that Mr. Hallahan provided a response.  
226 Curtis Marshall addressed the Board on behalf of Mr. Hallahan. Mr. Marshall explained to the  
227 Board that the complaint was viewed in June, so he had no opportunity to remedy the error. He  
228 stated that Mr. Hallahan apologized for the error as he was unaware of the font size. Due to the  
229 apology Vice Chair O'Bannon moved *subject to the Board's authority under the Code of*  
230 *Virginia §24.2-955.3, to find Michael J. Hallahan, II – Candidate for Supervisor, in violation of*  
231 *§24.2-956 print media requirements with regard to one print media advertisement and assess a*  
232 *\$50 penalty for a first-time violation with an apology.* Secretary LeCruise seconded the motion,  
233 and the motion passed unanimously.

234         The next complaint was against Missy for Senate. Ms. Schneider presented the Board  
235 with one bumper sticker lacking the required disclosure language. She informed the Board that  
236 ELECT has not received a response from the candidate. Vice Chair O'Bannon moved *subject to*  
237 *the Board's authority under the Code of Virginia §24.2-955.3, to find Missy for Senate in*  
238 *violation of §24.2-956 print media requirements with regard to one print media advertisement*  
239 *and assess a \$100 penalty for a first-time violation.* Secretary LeCruise seconded the motion, and  
240 the motion passed unanimously.

241           The next complaint was against Ralph Parham for Treasurer. Ms. Schneider presented the  
242 Board with one insert lacking the required disclosure language. She informed the Board that Mr.  
243 Parham and his printing company provided a response apologizing for the error. Due to the  
244 apology Vice Chair O'Bannon moved *subject to the Board's authority under the Code of*  
245 *Virginia §24.2-955.3, to find Ralph Parham for Treasurer in violation of §24.2-956 print media*  
246 *requirements with regard to one print media advertisement and assess a \$50 penalty for a first-*  
247 *time violation with an apology or remedial action.* Secretary LeCruise seconded the motion, and  
248 the motion passed unanimously.

249           The next complaint was against Reginald A. Williams, Sr. Ms. Schneider presented the  
250 Board with one sign lacking the required disclosure language. Secretary LeCruise moved *subject*  
251 *to the Board's authority under the Code of Virginia §24.2-955.3, to find Reginald A. Williams,*  
252 *Sr. in violation of §24.2-956 print media requirements with regard to one print media*  
253 *advertisement and assess a \$100 penalty for a first-time violation.* Vice Chair O'Bannon  
254 seconded the motion, and the motion passed unanimously.

255           The next complaint was against Samantha Bohannon, Candidate. Ms. Schneider  
256 presented the Board with ten signs lacking the required disclosure language. She informed the  
257 Board that ELECT has not received a response from the candidate. Vice Chair O'Bannon moved  
258 *subject to the Board's authority under the Code of Virginia §24.2-955.3, to find Samantha*  
259 *Bohannon, Candidate in violation of §24.2-956 print media requirements with regard to ten*  
260 *print media advertisements and assess a \$1000 penalty for ten first-time violations.* Secretary  
261 LeCruise seconded the motion, and the motion passed unanimously.



262           The next complaint was against Shick for Gainesboro District School Board. Ms.  
263 Schneider presented the Board with one t-shirt and two signs lacking the required disclosure  
264 language. She informed the Board that ELECT has not received a response from the candidate.  
265 Vice Chair O'Bannon moved *subject to the Board's authority under the Code of Virginia §24.2-*  
266 *955.3, to find Shick for Gainesboro District School Board in violation of §24.2-956 print media*  
267 *requirements with regard to three print media advertisements and assess a \$300 penalty for*  
268 *three first-time violations*. Secretary LeCruise seconded the motion, and the motion passed  
269 unanimously.

270           The next complaint was against Sue Kass for School Board. Ms. Schneider presented the  
271 Board with one sign and one insufficiently conspicuous card lacking the required disclosure  
272 language. She informed the Board that the card did have the disclosure. Ms. Schneider stated that  
273 Ms. Kass provided a response apologizing for the error and showing remedial action. Vice Chair  
274 O'Bannon moved *subject to the Board's authority under the Code of Virginia §24.2-955.3, to*  
275 *find Sue Kass for School Board in violation of §24.2-956 print media requirements with regard*  
276 *to two print media advertisements and assess a \$100 penalty for two first-time violations with an*  
277 *apology and remediation*. Secretary LeCruise seconded the motion, and the motion passed  
278 unanimously.

279           The next complaint was against Whitbeck for Chairman. Ms. Schneider presented to the  
280 Board three newspaper advertisements lacking the required disclosure language. She informed  
281 the Board that ELECT has not received a response from the candidate. Secretary LeCruise  
282 moved *subject to the Board's authority under the Code of Virginia §24.2-955.3, to find Whitbeck*  
283 *for Chairman in violation of §24.2-956 print media requirements with regard to three print*

284 *media advertisements and assess a \$300 penalty for three first-time violations.* Vice Chair

285 O'Bannon seconded the motion, and the motion passed unanimously.

286           The next complaint was against Winchester – Frederick Democratic Committee. Ms.  
287 Schneider presented the Board with one newspaper advertisement lacking the required disclosure  
288 language. She informed the Board that the newspaper was distributed on October 23<sup>rd</sup> which is  
289 within the 14 days prior to the election. Ms. Schneider presented the Board with a response from  
290 the Winchester Star apologizing for their error. Due to the apology Vice Chair O'Bannon moved  
291 *subject to the Board's authority under the Code of Virginia §24.2-955.3, to find the Winchester-*  
292 *Frederick Democratic Committee in violation of §24.2-956 print media requirements with*  
293 *regard to one print media advertisement and assess a \$100 penalty for a first-time violation*  
294 *doubled due to the proximity to the election.* Secretary LeCruise seconded the motion, and the  
295 motion passed unanimously.

296           The next order of business was the HB2178 Minimum Security Standards, presented by  
297 Daniel Persico, Chief Information Officer and Karen Tinucci. *This report is in the Working*  
298 *Papers for the November 18, 2019 meeting.* Vice Chair O'Bannon recognized the group that  
299 worked on this project and thanked the group for allowing him to be a part of it. Commissioner  
300 Piper stated that this project highlights Virginia's efforts to ensure the integrity of the elections  
301 and combat against the issues that arose in 2016.

302           Chairman Brink opened the floor to the public. Katie Boyle on behalf of the Virginia  
303 Association of Counties, Jessica Ackerman on behalf of the Virginia Municipal League, Jason  
304 Corwin, Mecklenburg County, General Registrar all addressed the Board. Vice Chair O'Bannon  
305 *moved that the Board adopt the proposed HB2178 minimum security standards related to*

306 *information systems identified as sensitive to election related activities.* Secretary LeCruise  
307 seconded the motion, and the motion passed unanimously.

308 Secretary LeCruise moved *to adjourn the Board.* Vice Chair O'Bannon seconded the  
309 motion, and the motion passed unanimously. The meeting adjourned at approximately 3:35 P.M.

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312 \_\_\_\_\_

313 Chairman

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315 \_\_\_\_\_

316 Vice Chair

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319 Secretary

State Board of Elections  
FINAL Meeting Minutes  
Wednesday, December 18, 2019

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The State Board of Elections (“the Board”) meeting was held on Wednesday, December 18, 2019, in the Virginia State Capitol, Senate Room 3, in Richmond, Virginia. In attendance: Robert Brink, Chairman: John O’Bannon, Vice Chairman: and Jamilah LeCruise, Secretary, represented the State Board of Elections (“the Board”). Jessica Bowman, Deputy Commissioner, represented the Department of Elections (“ELECT”). Carol L. Lewis represented the Office of the Attorney General (“OAG”). Chairman Brink called the meeting to order at 1:00 P.M.

The first order of business was approval of the minutes for the October 29 and November 18, 2019 minutes, presented by Secretary LeCruise. Chairman Brink stated that he had provided minor changes to the minutes. Vice Chair O’Bannon *moved that the Board approve the minutes from the October 29, 2019 Board meeting.* Secretary LeCruise seconded the motion, and the motion passed unanimously. Secretary LeCruise *moved that the Board approve the minutes from the November 18, 2019 Board meeting.* Vice Chair O’Bannon seconded the motion, and the motion passed unanimously.

The next order of business was the Commissioner’s Report, presented by Deputy Commissioner Bowman. The Deputy Commissioner introduced new employee Taylor Melton, Registrar Liaison. Deputy Commissioner Bowman informed the Board that Governor Northam introduced the budget proposes providing ELECT with seven new positions for IT and Training, and fully funding the General Registrar and Electoral Board salaries. Deputy Commissioner Bowman stated two regulations, on candidate filings and candidate petitions, have completed the public comment period and will take effect January 1, 2020. The Deputy Commissioner informed the Board that ELECT will soon begin ballot proofing for all localities. Deputy Commissioner Bowman stated that absentee voting would begin on January 16, 2020.

24           The next order of business was the Delegation of Policy presented by Arielle A.  
25 Schneider, Policy Analyst. Ms. Schneider explained to the Board that the proposed policy would  
26 require the Board to take a vote prior to exercising any authority under provisions that it had  
27 previously delegated to the Department of Elections. *The memo and SBE Policy 2019-003 is in*  
28 *the Working Papers for the December 18, 2019 meeting.* Vice Chair O’Bannon *moved that the*  
29 *Board adopt SBE Policy 2019-003.* Secretary LeCruise seconded the motion, and the motion  
30 passed unanimously.

31           The next order of business was the Presidential Primary Plan presented by Dave Nichols,  
32 Director of Election Services. *This memo is in the Working Papers for the December 18, 2019*  
33 *meeting.* Chairman Brink asked if the parties are required to notify ELECT once a candidate has  
34 been selected. Mr. Nichols explained that each party must develop a plan to provide a  
35 notification, which may include a process for notifying ELECT upon the selection of a candidate.  
36 Secretary LeCruise, *in accordance with § 24.2-545 of the Code of Virginia, moved that the*  
37 *Board approve the plans for selecting delegates to the national convention of the Democratic*  
38 *Party of Virginia and the Republican Party of Virginia.* Vice Chair O’Bannon seconded the  
39 motion, and the motion passed unanimously.

40           The next order of business was the Drawing for the Presidential Primary Ballot Order  
41 presented by Dave Nichols, Director of Election Services. Mr. Nichols explained to the Board  
42 that in accordance with the Code of Virginia §24.2-545(C), once each political party holding a  
43 presidential primary has provided a list of the candidates qualified to be on the presidential  
44 primary ballot, the Board determines how each candidate shall appear on the ballot by  
45 conducting a drawing by lot. He informed the Board that the Chairwoman of the Democratic  
46 Party of Virginia had submitted the list of candidates, as well as a submission to edit one of the

47 candidates' names. *This report is in the Working Papers for the December 18, 2019 meeting.* Mr.  
48 Nichols read out the list of candidates to be placed on the Democratic Party, March 3, 2020,  
49 Presidential Ballot. The ballot order drawing was conducted by the State Board Members and  
50 confirmed by Mr. Nichols. The ballot order for the Democratic Party is as follows:

- 51 1. Cory Booker
- 52 2. Julián Castro
- 53 3. Bernie Sanders
- 54 4. Elizabeth Warren
- 55 5. Marianne Williamson
- 56 6. Michael Bennet
- 57 7. Joseph R. Biden
- 58 8. Amy Klobuchar
- 59 9. Tulsi Gabbard
- 60 10. Deval Patrick
- 61 11. Pete Buttigieg
- 62 12. Andrew Yang
- 63 13. Tom Steyer
- 64 14. Michael R. Bloomberg

65  
66 Vice Chair O'Bannon *moved that the Board certify the ballot order as drawn.* Secretary  
67 LeCruise seconded the motion, and the motion passed unanimously.

68 The next order of business was a report on the Risk Limiting Audit ("RLA"), presented  
69 by James Heo, Confidential Policy Advisor. *This report is in the Working Papers for the*  
70 *December 18, 2019 meeting.* Mr. Heo stated that over the past year, ELECT conducted eight  
71 pilot audits in 33 participating localities throughout the Commonwealth. He explained the pilot  
72 audits allowed ELECT to develop a process on how to administer the RLA pilot properly. Vice  
73 Chair O'Bannon asked if the statute requires ELECT to move forward with the process. Mr. Heo  
74 stated that the remaining 99 localities would be randomly selected to determine when the audit  
75 should be conducted. Secretary LeCruise asked when the next group of localities would be

76 selected to participate. Mr. Heo informed the Board that once the RLA consultant contract is  
77 renewed, the audits will continue, and that the contractors would help train ELECT staff to assist  
78 localities in administering the audits.

79           The next order of business was appointment of members to the Advisory Review  
80 Workgroup, presented by Chairman Brink. Chairman Brink stated that on October 29th, the  
81 Board adopted a resolution providing that appointments to the workgroup be made based on  
82 recommendations from groups in the Virginia elections community as well as five citizen  
83 members. The Chairman provided the recommendations as follows: from the Voter Registrars  
84 Association of Virginia: Tracy Howard, Director of Elections and General Registrar, Radford  
85 City; Walter Latham, Director of Elections and General Registrar, York County; Allison  
86 Robbins, Director of Elections and General Registrar, Wise County. From the Virginia Electoral  
87 Board Association: Kate Hanley, Secretary, Fairfax County Electoral Board; JoAnne Speiden,  
88 Secretary, Orange County Electoral Board; Barbara Tabb, Chairman, Prince George County  
89 Electoral Board. From the Virginia Association of Counties: Donald L. Hart, Jr., Supervisor,  
90 Accomack County. From the Virginia Municipal League: Jessica Ackerman, Policy and  
91 Advisory Relations Manager, VML. The Citizen Members are Barry Condrey, Chief Information  
92 Officer, Chesterfield County; Kim Cummings, Retired Educator, Prince William County  
93 Schools; Lisa Gerchick, League of Women Voters of Virginia; John Hager, Former Lieutenant  
94 Governor, Commonwealth of Virginia; and Tram Nguyen, Co-Executive Director, New Virginia  
95 Majority.

96           Secretary LeCruise moved *that the Board to approve the recommended appointees*. Vice  
97 Chair O'Bannon seconded the motion, and the motion passed unanimously.

State Board of Elections  
FINAL Meeting Minutes  
Wednesday, December 18, 2019

98 Chairman Brink opened the floor for public comment. Robin Lind, former secretary for  
99 the GREB Workgroup and Carol Noggle, League of Woman Voters of Virginia, addressed the  
100 Board.

101 Secretary LeCruise moved to adjourn the Board. Vice Chair O'Bannon seconded the  
102 motion, and the motion passed unanimously. The meeting adjourned at approximately 1:42 P.M.

103

104 \_\_\_\_\_  
105 Chairman

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108 \_\_\_\_\_

109 Vice Chair

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111  
112 \_\_\_\_\_

113 Secretary





★ VIRGINIA ★  
STATE BOARD *of* ELECTIONS

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# Commissioner's Report

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BOARD WORKING PAPERS  
Christopher E. Piper  
Commissioner



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STATE BOARD *of* ELECTIONS

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# Recount Suite

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BOARD WORKING PAPERS  
Samantha Buckley  
Policy Analyst



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STATE BOARD *of* ELECTIONS

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**Memorandum**

To: Chairman Brink, Vice Chair O'Bannon, and Secretary LeCruise  
From: Samantha Buckley, Policy Analyst  
Date: January 28, 2020  
Re: Amendment to Virginia Recount Procedures

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**Suggested motion for a Board member to make:**

Move that the Board adopt the proposed amendments to the Recount Suite effective immediately.

**Applicable Code Sections:** Va. Code § 24.2-800 et. seq.

**Attachments:**

Your Board materials include the following:

- Memo for the Recount Suite
- Current Recount Suite
  - o Recount Precinct Results form
  - o Recount: Step by Step Instructions
  - o Manual Tally sheet
- Proposed amendments to Recount Suite
  - o Recount Precinct Results form
  - o Recount: Step by Step Instructions
  - o Hand Count Tally Sheet

**Background:**

Pursuant to Va. Code § 24.2-802(A), the State Board of Elections is required to “promulgate standards for (i) the proper handling and security of voting and counting machines, ballots, and other materials required for a recount, (ii) accurate determination of votes based upon objective evidence and taking into account the counting machine and form of ballots approved for use in the Commonwealth, and (iii) any other matters that will promote a timely and accurate resolution of the recount.”

A recount is a secondary tabulation of votes cast for a particular office between two candidates: (1) the candidate certified the winner by the appropriate authority and (2) the candidate that lost within a specific margin to the winner (*see* Va. Code § 24.2-800).

In conducting a recount the voting machine, which will scan all valid ballots, must be programmed to reject or return ballots that have (1) write-ins, (2) undervotes, (3) overvotes, and (4) ballots that cannot be read by the machine (*see* Va. Code § 24.2-802). Returned ballots are hand counted, along with “paper” ballots, by recount officials (*see* Va. Code § 24.2-802). Recount officials may challenge ballots when they question the validity of the ballot or cannot determine the voter’s intent as presented on the ballot (*see* Va. Code § 24.2-802). The recount court will make the adjudication of the ballot’s validity and voter intent. Additionally, the recount court is required to certify the final results of the recount.

A recount involves multiple entities and moving parts to ensure legal compliance; as such, the State Board is charged with establishing the standards for uniform and proper execution of all recounts across the Commonwealth. The current Recount Suite, adopted 2015 by the State Board, contains multiple documents for the execution of a recount. These standards and the recount procedure are documented in:

- The **Virginia Step-by-Step Instructions** which are the complete instructions for conducting a recount; and
- The **Recount Results Precinct form** which is used to capture data from the recount.

**Proposed amendments:**

In reviewing and revising the current Recount documents, ELECT enlisted the assistance of several general registrars. General registrars provided feedback and insight into the recount procedure during the development stage of the proposed Recount Suite amendments.

The overall goal in amending the Suite was to produce documents that simplified the recount procedure for all entities.

To simplify the recount documents, ELECT:

**Updated language.** Recount officials are selected from a list of election officials present on Election Day; thus, recount officials already have knowledge of current Election Day language. The update uses language used in the polling place.

**Clarified instructions.** The current instructions are detailed to the point of being confusing. Instructions do not consider that recount officials have background knowledge of items used and procedures conducted on Election Day.

The update takes into consideration that recount officials have a background in Election Day procedure and are familiar with different tasks that must be completed on Election Day, which simplifies the instructions.

**Clarified separation in responsibilities.** The current instructions provide a complete overview of the recount procedure; however, responsibilities of each entity involved in the recount become unclear.

The update clearly labels which entity is completing what task while providing a complete overview of the recount procedure. Further, the Step-by-Step Instructions may be separated by each entity to permit whomever is completing the task to find their responsibilities without reviewing the entire recount procedure.

**Updated voting systems.** Adopted in 2015, the current standards discuss DREs. DREs were decertified by the SBE in the summer of 2017; however, the recount standards and related forms were never updated to reflect this major change in the elections.

The proposed update was developed for optical scanner machines, which are the only voting systems permitted in the Commonwealth. This amendment significantly simplifies the recount forms because there is no need to account for multiple voting systems.

**Intuitive design.** The current Recount Results Precinct form is not intuitive. A recount official, who will be familiar with various aspects of election day and the voting system, would require the Step by Step instructions to complete the Recount Results Precinct form.

The proposed update provides for the Recount Results Precinct form to be intuitive and direct the official without an abundance of supplemental instruction outside of the form.

**Additional flexibility.** The current standards make no consideration for instances when the recount court requires the locality to provide vote count totals for all candidates in the recount rather than just two candidates. For instance, when the recount court makes the requirement for all vote totals of candidates in the election, the updated recount precinct form provides flexibility to the general registrar to amend the form.

**Simplified hand count procedure.** As previously stated, current standards make no consideration for situations in which the recount court requires the locality to provide vote count totals for all candidates in the recount rather than just two candidates.

The updated procedure instructs recount officials to group ballots by 10 and tally the votes rather than separating, stacking, and counting ballots. The hand count tally sheet permits officials to track ballots to improve accuracy of the recount total.

## Before:

A note inside the field/data box provides instructions or crosschecks:

- "Carry to C1(i)" means to copy that figure to line C1, Column (i) (Line numbers begin with the same letters as sections, so line C1 is in section C.)
- "Should = C1(ii)" is a crosscheck letting the official know that the numbers should be the same. (If not, the official should recheck data entry and math before going any further).
- "Line A2 Total" tells the source of the number for that box -- copy it from there.
- A column titled "calculation or source" identifies the math or source used to fill in the next column.
- And "=B4+B5" and "=B2-B3" are instructions to arrive at the calculated number.

Part B - 2 - Certification of DRE Machine Results for Precinct		Calculation or Source	VM-1 or Consolidation Tape*	VM-2	VM-3	VM-4	VM-5	VM-6	Candidate Totals	
B3	Candidate Name ( )	Machine Tape							Should = C4(ii)	B3
B4	Candidate Name ( )	Machine Tape							Should = C4(iii)	B4
B5	Total votes for both candidates on DRE(s)	= B3 + B4	⌘	⌘	⌘	⌘	⌘	⌘	Should = C4(iv)	B5
B6	DRE ballots undervoted or voted for other candidates (this office)	= B2 - B5	⌘	⌘	⌘	⌘	⌘	⌘	Carry to C8(ii)	B6

Figure 1. The current instructions were confusing, partially due to the Recount Results Precinct form which required election officials calculate totals and carry totals across the entire form.

\* If **consolidation tape** available, list total number of voters and results for recount candidates from consolidation tape under **VM-1 above** and **list all serial numbers for DREs included in the consolidation tape below**. If any DRE is not included in the consolidation tape, list the serial number and results for each such machine under VM-2, etc. Use additional copies of page if needed.

Figure 2. Current instructions are out of date with current voting systems and terminology. DREs were decertified in the Summer of 2017 and are no longer permitted for use in the Commonwealth. All elections are required to use ballot scanner machines.

**After:**

<b>PART 1: Complete this information at the start of the precinct recount</b>
---

<b>Instructions – Recount Officials (Hand count ballots)</b>
--

<b>Print two (2) zero tapes from the voting machine.</b>
<ol style="list-style-type: none"><li>1. <b>Check</b> that all totals on the zero tapes read 0000</li><li>2. <b>Check</b> the public counter total reads 0000</li><li>3. <b>Complete</b> PART 1 on the recount precinct results report.</li><li>4. <b>Staple</b> a zero tape to the first page of each Recount Precinct Results form</li></ol>

Figure 3. Clear labeling of each part to be completed by the recount official. These labels are also reflected in the instructions for recount officials. Additionally, language was changed to reflect current terminology used in the polling place.

<b>What to do before you start the recount for this precinct:</b>
<ul style="list-style-type: none"><li>• <b>Print two (2) copies of the zero tape from each machine</b></li></ul>

<b>PART 1: Complete this information at the start of the precinct recount</b>
---

<b>PART 2: Total results for scanned ballots</b>
Candidate Name 1

<b>PART 3: Total results for hand counted ballots</b>
Candidate Name 1

Figure 4. The proposed amendments to the Recount Precinct Results form are meant to guide a recount official through the recount procedure.

<b>PART 2: Total vote count for scanned ballots</b>	
Candidate Name 1	
Candidate Name 2	
Total vote count for candidates not party to the recount	
<b>Total</b> (add each row)	<b>2A</b>

The general registrar may amend PART 2 and PART 3 of the recount precinct results form to reflect the requirements of the recount order. The form will be available in Microsoft Word to permit easy amendment to the form.

<b>PART 3: Total vote count for hand counted ballots</b>	
Candidate Name 1	
Candidate Name 2	
Total vote count for candidates not party to the recount	

This is also reflected in the instructions to the general registrar and the electoral board members.

- Review and amend the **Recounts documents** (if needed).
 

Your recount court may require you to account for vote totals for more than two candidates. If so, amend the **votes cast for candidates not party to the recount** on the recount forms to include any other candidate names party to the recount.

Your recount court determines how many recount officials will assist with the recount. You may be given multiple teams for each precinct or only one team. As such, **review and amend** your instructions for handing off returned ballots from the scanning team to the hand counting team (see page 9 of the instructions).

Figure 5. Page 7 of the Step by Step Instructions provide that the general registrar the ability to update the Recount Precinct Results form to reflect the recount order regarding vote totals. Page 11 of the instructions are highlighted as the same color to indicate where the general registrar should make the change.

**ELECT Staff Recommendation:**

ELECT staff recommends the State Board adopt the proposed amendments to the current Recount procedure and documents, effective immediately.





# Virginia Election Recounts Step-by-Step Instructions



Includes:

- Overview of Recounts and Contests
- Preparations for the Recount
- Precinct Instructions for Recount Coordinators and Officials-All Voting Systems
- Suggested Steps for the Court's Review and Compilation of Recount Results
- After the Recount



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## **A Message to General Registrars and Electoral Board Members**

*Please carefully review this document as soon as you know that a recount is possible in one of your elections. Also provide a copy to your local Clerk of Court. These instructions accompany the **RECOUNT PRECINCT RESULTS For All Voting Systems** (form SBE-802-PR )*

*If you have any questions about this information, please do not hesitate to contact a Department of Elections policy analyst.*

## **Overview -- Election Recounts and Contests**

### **Recounts**

A recount is a simple redetermination (retabulation) of all of the votes cast on Election Day. Recount officials only count the ballots that were previously cast. A voter's eligibility to vote or any alleged irregularities cannot be called into question during a recount (only in a contest, see below).

In Virginia, there are no automatic recounts. Only an apparent losing candidate can ask for a recount, and only if the difference between the apparent winning candidate and that apparent losing candidate is not more than one percent (1%) of the total votes cast for those two candidates.

As of 2009, a losing candidate may request a recount if the difference is not more than five percent (5%) of the total votes cast for those two candidates if one of those candidates was a write-in candidate for that office. (§ 24.2-800, Code of Virginia)

The apparent losing candidate cannot request a recount until after the election is certified. (§ 24.2-801) The Department of Elections certifies primary and election results for all federal offices (Presidential Electors, U.S. Senate, and U.S. Congress), state offices (Governor, Lt. Governor, and Attorney General and General Assembly seats) and any offices shared by two or more localities.

An apparent losing candidate requesting a recount of a primary or general election for statewide office files the petition requesting a recount with the Circuit Court of the City of Richmond. A candidate requesting a recount for any other office files the recount petition with the Circuit Court where the candidate being challenged resides.

Local electoral boards certify all other election results for local offices. Each electoral board meets in the days following the election to canvass and certify these results. To request a recount, an apparent losing candidate for a local election must file a petition for a recount with the Circuit Court where the challenged candidate resides within ten days after the electoral board certifies the election results. Any local candidate seeking a recount should



check with their local general registrar or electoral board to determine the actual date of certification for these local offices.

The Chief Judge of the Circuit Court where the recount petition was filed and two other judges appointed by the Chief Justice of Supreme Court of Virginia make up the recount court. The recount court, outlines all procedures and the manner in which the recount will be conducted for each type of voting equipment used (pursuant to § 24.2-802 of the Code of Virginia).

The recount court appoints recount officials from among the officers of election who served in the locality during the election. These recount officials are appointed to represent the respective parties to the recount. In setting the procedures for the recount, the court will also decide if the actual recounting of votes cast will take place in the various localities or in a central location. After all of the votes cast are recounted, the court will certify the candidate with the most votes as the winner.

The counties and cities involved in a recount are responsible for paying their own costs for the recount if the margin between the two candidates who are parties to the recount is one-half percent or less, or if the candidate requesting the recount is declared the winner by the recount court. Otherwise, the candidate who requested the recount must pay the costs for conducting the recount. Any candidate requesting a recount who may be assessed with costs shall post a bond with surety with the court in the amount of \$10 per precinct in the area subject to the recount. (More information about recount costs is available in § 24.2-802(E) and (F) of the Code of Virginia).

Because of the federal deadline for the seating of the state's presidential electors, Virginia law provides an accelerated schedule for any recount of such election (see § 24.2-801.1). The presidential candidate represents the vice presidential candidate and the candidates for electors (§ 24.2-800). The deadline for filing of notice of intent to contest is 5:00 PM on the second calendar day following certification of the election by the Department of Elections. The recount "shall be held promptly" and must be concluded at least six days before the time fixed for the convening of the electors. If a *contest* of an election for Virginia's presidential electors is also filed, they would proceed simultaneously (§ 24.2-805).

## **Contests**

An unsuccessful candidate in the election may file a notice of intent to contest the election. The notice must state the grounds for the contest, which must include one of the following:

- (i) objections to the eligibility of the contestee based on specific allegations, OR
- (ii) objections to the conduct or results of the election accompanied by specific allegations which, if proven true, would have a probable impact on the outcome of the election, OR
- (iii) both.

Contests of elections for most offices in Virginia may be filed only within 30 days of the election or 10 days of the date of the primary or a special election held on a date other than that of a general election. A contest may also be filed after a recount under Va. Code § 24.2-814 within 10 days after the recount court's order declaring a winner under Va. Code § 24.2-802(D).

If a recount has been held for an election to the House of Delegates, State Senate, Governor, Lieutenant Governor, or Attorney General, the apparent losing candidate for that



office who also loses the recount has until 3 days after the conclusion of the recount (or 30 days after Election Day, whichever date is later) to file notice of intent to contest. A candidate who was originally declared the winner and loses as a result of a recount may file notice of intent to contest the election within 10 days following the conclusion of the recount.

In elections for a Member of the U.S. Senate or U.S House of Representatives, [Article I, section 5](#) of the U.S. Constitution provides that "Each House shall be the Judge of the Elections, Returns and Qualifications of its own Members." [Article IV, section 7 of the Virginia Constitution](#) has a nearly identical provision. [Virginia Code § 24.2-803](#) requires that contests for elections of General Assembly members must be filed with the respective clerks for decision by the affected body.

To contest an election for the House of Representatives, a notice of intent to contest the election must be filed with the Clerk within 30 days after the result of the election has been certified by the Department of Elections, or if there is a recount, within 30 days after the recount court certifies the election result. ([2 USC Chapter 12, particularly Sections 384 and 392](#))

The contestant "would have to formally petition the U.S. Senate for a probe into the election, and the Rules Committee has broad authority to investigate election cases, including conducting its own recount. The Rules panel, however, would have to vote to begin the inquiry, and historically, those probes have taken months if not years to complete. Any findings — such as whether an election was legitimate — would be forwarded to the full Senate with a recommendation on what, if any, action to take, which the Senate could then decide whether to take up."<sup>1</sup> A deadline for filing such a contest is not stated in federal law.<sup>2</sup>

As with recounts of elections for presidential electors, Virginia law provides an accelerated schedule for any contests of such presidential elections as well. The presidential candidate represents the vice presidential candidate and the candidates for electors (§ [24.2-807](#)). The deadline for filing of the notice of intent to contest is 5:00 PM on the second calendar day following certification of the election by the Department of Elections. The contest "shall not wait upon the results of any recount" and must be concluded at least 6 days before the time fixed for the convening of the electors (§ [24.2-805](#)). Any recount or contest for an election for presidential electors would proceed simultaneously.

<i>Office</i>	<i>Notice of intent to contest is filed with</i>
Election of Presidential Electors	Circuit Court, City of Richmond
Primary for U.S. Senate or Statewide Office	Circuit Court, City of Richmond
Presidential Primary	No contest provisions in Code of Virginia

<sup>1</sup> [David M. Drucker & Emily Pierce, "Democrats May Join Minnesota Fray," Roll Call, 12/8/08](#)

<sup>2</sup> In the event of a U.S. Senate recount in Virginia, Department of Elections would ask the Parliamentarian of the Senate (through the state's other Senator(s)) if the rules at that time specify a deadline for filing a contest after the conclusion of a recount.



Election for Governor, Lt. Governor or Attorney General	Clerk of the House of Delegates
Election for House of Delegates	Clerk of the House of Delegates
Election for State Senate	Clerk of the State Senate
Primary for U.S. House of Representatives, House of Delegates or State Senate	Circuit Court where challenged candidate resides
Primary or Election for any county, city, town or district office	Circuit Court where challenged candidate resides

## Persons Involved in the Recount

Electoral Boards – Give court and parties a list of all Officers of Election who served in the last election, with their party affiliations, etc. One electoral board member representing each party will be selected by the Recount Court to serve as one of the pair of **Recount Coordinators** for the locality.

Recount Officials – Each candidate or petitioner and governing body/chief executive officer (in the case of a referendum) involved in the recount may select an equal number of officers of election to serve as recount officials. Recount officials have the duty of counting the ballots, or redetermining the vote (if DREs). Recount officials will work in groups or pairs with the parties to the recount being equally represented.

Registrars – Permit parties to make copies of statements of results, machine tapes, printed return sheets, pollbooks (whether paper or in electronic format), and abstract of votes (original and corrected) for the election at issue, etc.

Recount Court – Upon receipt of the petition for recount, the Chief Judge of the court in which it was filed must alert the Chief Justice of the Virginia Supreme Court, who will thereafter appoint two judges to serve on the Recount Court. These three judges will constitute the Recount Court. The Recount Court will determine the procedures to be followed during the recount, what information will be accessible to the parties, and for which candidate, if any, a challenged ballot should be counted.

Clerks of Court – Secure election materials and certify security to recount court; be present and administer oaths on the day of the recount; deliver election materials to State Police after the recount for delivery to the Court.

Clerk of Recount Court – In addition to duties of all clerks (above), summons Recount Officials and is present at all hearings of the Recount Court.

Candidates – May be present. They are responsible for selecting which officers of election will serve as the recount officials representing their interest, based on the number established by the Recount Court. They may also send one authorized representative per team of recount officials to observe the process.



## Preparations for the Recount

### Department of Elections, General Registrar(s), and Electoral Board Members

The Department of Elections' Standards for Recounts in Virginia Elections (and accompanying Ballot Examples) provides details and guidance to help carry out Virginia's recount laws (§§ 24.2-800 - 24.2-802). The Code of Virginia directs:

A. The Department of Elections shall promulgate standards for (i) the proper handling and security of voting and counting devices, ballots, and other materials required for a recount, (ii) accurate determination of votes based upon objective evidence and taking into account the counting device and form of ballots approved for use in the Commonwealth, and (iii) any other matters that will promote a timely and accurate resolution of the recount. The chief judge of the circuit court or the full recount court may, consistent with Department of Elections standards, resolve disputes over the application of the standards and direct all other appropriate measures to ensure the proper conduct of the recount.

The recount procedures to be followed throughout the election district shall be as uniform as practicable, taking into account the types of ballots and voting devices in use in the election district. (§ 24.2-802)

As soon as it appears that a recount in a local, district, or state election may be possible, the General Registrar and Electoral Board Members from the impacted locality(ies) must begin making preparations.

Electoral Boards should first create a list of names of officers of election who served in the precincts subject to the recount. The political parties involved in the recount need this list to appoint *recount officials* from this group of officers of election. The number of recount officials necessary will be determined by the Recount Court.

General registrars should also begin assembling all appropriate forms for conducting the recount and ensure that these forms are delivered to the Recount Coordinators.

### Duties of Clerk(s) of Court

Section § 24.2-802 of the Code of Virginia directs the Clerks of Court in a jurisdiction where there may be a recount to secure the ballots and election materials until the recount. This should be done under normal circumstances, but it is added into the recount laws for emphasis. Also, the Clerk is required to certify to the chief judge in the recount, as directed, that the proper security measures have been taken.

In preparation for the recount, the clerks of the circuit courts shall (a) secure all printed ballots and other election materials in sealed boxes; (b) place all of the sealed boxes in a vault or room not open to the public or to anyone other than the clerk and his staff; (c) cause such vault or room to be securely locked except when access is necessary for the clerk and his staff; and (d) certify that these security measures have been taken in whatever form is deemed appropriate by the chief judge. (§ 24.2-802(A))



## Duties of the Chief Judge of the Recount Court

The Chief Judge must hold a preliminary hearing within 7 calendar days of the petition for recount unless the recount is requested for a presidential election, in which case it must be held within 5 calendar days. The Chief Judge will rule on motions and establish rules of procedure during the preliminary hearing, but such decisions are subject to review by the full Recount Court. The security measures adopted to secure materials after Election Day, and those going forward must be examined and established by the Chief Judge. The Chief Judge may also allow parties to examine election materials. The Chief Judge may also set the locations for the recount and may order the delivery of election materials to a central location, but such action is subject to review by the full Recount Court.

## Duties of the Recount Court

Once established, the Recount Court will hold a hearing. All motions and rules of procedure shall be finalized at this hearing. The parties (or their counsel) shall meet and confer and submit a proposed "Recount Procedural Order" and eventual "Final Order" for consideration by the three-judge Recount Court. If the parties do not agree, they will file competing legal memoranda and proposed orders. The Recount Court will also allow parties to the recount to select an equal number of officers of election to be Recount Officials. The date for submissions will be included in the Preliminary Order by the Recount Court.

The three-judge Recount Court shall supervise the recount and redetermination of the vote, with assistance from the Department of Elections and the local electoral boards.

## Terminology

Throughout this document the terms "machine-readable ballot," "paper ballot," and "printed ballot" are used to describe physical ballots. The usage of terms is consistent with the definitions provided in Va Code § 24.2-101:

"*Machine-readable ballot*" means a tangible ballot that is marked by a voter or by a system or device operated by a voter and then fed into and scanned by a counting machine capable of reading ballots and tabulating results;

"*Paper ballot*" means a tangible ballot that is marked by a voter and then manually counted; and

"*Printed ballot*" means a tangible ballot that is printed on paper and includes both machine-readable ballots and paper ballots.

A ballot's designation is based on **how it was counted on election day**. A machine-readable ballot that is manually counted during the recount should not be tallied as a *paper ballot* upon the recount paperwork.

The terms "ballot scanner machine," "ballot scanner," and "scanner" are used interchangeably throughout this document and within the recount forms.





## "Part One" - Recount Day in the City or County

### Check in and Logistics

The offices or other facilities for the recount will be provided or arranged by the Clerks of Court and shall be of sufficient size for the purposes of the recount and shall allow for direct and proximate observation of the recount officials by the recount observers.

All participants at the recount, whether as officials or observers, should check in with the Clerk of Court, and a record should be kept of all attendees.

### Precinct Instructions for Recount Coordinators & Officials - All Voting Systems

Use appropriate instructions for any combination of

- ✓ MACHINE-READABLE BALLOTS AND BALLOT SCANNER MACHINES
- ✓ DIRECT RECORDING ELECTRONIC (DRE) MACHINE PRINTOUTS
- ✓ PAPER BALLOTS

Each Recount Team will complete one precinct at a time, under the supervision of Recount Coordinators.

#### **Materials**

A copy of each of these instructions (SBE-802-SBS, this entire document) should have been provided previously to each Recount Coordinator and to the Clerk of Court.

The Recount Coordinators should have already provided a copy of the following to each Recount Official during training for the recount:

- The full section of this document titled "Part One" - Recount Day in the City or County" which includes the Precinct Instructions
- A sample copy of SBE-802-PR - Recount Precinct Results for All Voting Systems
- A copy of the Ballot Examples for Hand Counting Printed Ballots for Virginia Elections or Recounts

The following materials prepared for the recount must be provided for each precinct:

- **SBE-802-PR - Recount Precinct Results for All Voting Systems** (1 set per precinct. If no DRE was used in the precinct, the two pages with Parts B-1 through B-3 should not be provided to the Recount Officials. The other four pages will be used for all precincts.)
- **SBE-802-CB - Challenged Ballot Forms** (4 per page; multiple copies may be needed)
- **Challenged Ballots envelope** (have one per precinct on hand)
- **SBE-802-MA - Precinct Manual Tally Sheet** (an optional form that can be used when hand counting printed ballots) (4 or more copies per precinct recommended, to keep paper and machine-readable ballot counts separate, and so each officer can



- prepare tally while other officer counts ballots)
- **The memory card, cartridge, or other data storage medium (one per precinct)** that has been prepared especially for the recount if machine-readable ballots are to be rerun through a tabulator during the recount.
  - It is recommended that the prepared cards, cartridges, or media be placed in the custody of the Clerk, to be released to the Recount Coordinators one precinct at a time with the other materials below.

The following materials will be released by the Clerk of Court to a Recount Coordinator upon request, one precinct at a time. The Coordinator will deliver them to the Recount Team that will recount that precinct.

- **Envelope #2** containing the
  - **POLLBOOKS and POLLBOOK COUNT Forms (all divisions)** (if paper pollbooks were used),
  - one copy of the **Statement of Results with machine tapes attached** (General Registrar will have the second copy, available for public inspection, after the canvass),
  - **Write-Ins Certification** (if cast on printed ballots or voting systems that do not include the names written-in and votes cast for each), and
  - **Incident Report**
- **Box/Envelope #3** containing the **COUNTED BALLOTS** (Envelope 3 may be combined with Envelope 5 so as to also contain outside poll envelopes).

And the following envelopes if used in the election:

- **Envelope #7B** containing the voting equipment keys for scanners and DRE dial/touchscreen voting systems
- **Envelope #7/7C** containing the voting equipment keys and memory cartridges for AVC Advantage DRE equipment and the data storage units and seals for scanners and DRE dial/touch screen equipment;

### **If Machine-readable ballots are to be rerun through a tabulator during the recount**

- **The memory card, cartridge, or other data storage medium** that will be used for the precinct, and has been prepared specifically for the recount.
  - It is programmed to count, as required by law, only the votes cast for the office or issue in question in the recount and to set aside all ballots containing write-in votes, overvotes, and undervotes for that office or issue for hand counting.
  - (If the card, cartridge, or medium could not be reprogrammed as required by the recount law, all machine-readable ballots for the precinct will be hand counted by the recount team.)
- One memory card, cartridge, or other data storage medium for each precinct will be used to recount the ballots cast at the polling places in the district (including absentee ballots if counted at the precincts).
- If a Central Absentee Precinct (CAP) was used, one **memory card, cartridge, or other data storage medium** will be used to count the machine-readable ballots of absentee voters whose ballots were originally handled by the tabulator for the CAP.
- NOTE: The **memory card, cartridge, or other data storage medium** used in the precinct (or Central Absentee Precinct) on Election Day to count machine-readable ballots will remain sealed and in the custody of the Clerk. It should not be needed during the recount.



- (Counted provisional votes, even if voted on machine-readable ballots, were originally hand counted by the electoral board and will be treated in the recount as paper ballots. Provisional Ballots will be counted as a separate precinct, which is the same manner in which they were originally counted after Election Day).

## **General Instructions**

The Recount Officials will be divided into teams consisting of equal representatives for each party. Teams will be tasked with recounting printed ballots or redetermining votes cast on DREs. At least one team will insert ballots into electronic counting devices programmed to count only those votes cast for parties to the recount or for or against the question in a referendum recount.

There are only two Recount Coordinators appointed per locality. One Coordinator may need to supervise multiple teams. Coordinators may offer advice to the Recount Officials.

The Recount Officials may either enter the required data on the Recount Precinct Results form or may read each total aloud to the Recount Coordinator who will enter it and read it back for verification by the Recount Officials. (Recount Officials must sign the first page, certifying the precinct results for each precinct that they recount.)

Only the Recount Officials may handle ballots. Recount Coordinators will deliver sealed election materials from the Clerk of Court, and return the resealed materials, one precinct at a time.

Each party to the recount (candidate) is allowed one observer per recount team. The observer may stand behind or sit to the outside of the Recount Officials as they work and may only watch and take notes. Observers must be close enough to see and hear what is happening. No observer may handle ballots, election materials, or recount materials. If an Observer has a question, it should be directed to the supervising Recount Coordinator -- not the Recount Officials -- without disturbing the proceedings.

Members of the news media and the general public may also be in the room, but are not allowed to handle any official materials or disturb the proceedings in any way.

Some suggested table layouts --

1.                                   Observer    Official    Official    Observer  
 [-----Table-----]  
 [-----]  
 [-----]  
 [-----]

2.                                   Observer                    Official                    Official                    Observer  
                                   [-----Table-----]  
                                   [-----]  
                                   [-----]



3. Official  
Observer [----Table-----] Official  
[-----]  
[-----] Observer  
[-----]

For each precinct, the Recount Coordinators will ensure as the work progresses that the following data is entered on each form page as required work begins (if not previously entered):

1. The name of the county or city
2. The name/number of the precinct in which the election was conducted
3. The date of the election
4. The name of the office and the names of the two candidates involved in the recount (in the same order that they appeared on the ballot in the election)<sup>3</sup>

The Recount Coordinators will provide the necessary materials to the Recount Officials, one precinct at a time.

**Instructions for the SBE-802-PR – Recount Precinct Results**

- A highlighted line  indicates a number is to be filled in during this sequence of steps.
- A highlighted box with a hand and pencil means that this is a calculation.  
✍

A note inside the field/data box provides instructions or crosschecks:

- "Carry to C1(i)" means to copy that figure to line C1, Column (i) (Line numbers begin with the same letters as sections, so line C1 is in section C.)
- "Should = C1(ii)" is a crosscheck letting the official know that the numbers should be the same. (If not, the official should recheck data entry and math before going any further).
- "Line A2 Total" tells the source of the number for that box -- copy it from there.
- A column titled "calculation or source" identifies the math or source used to fill in the next column.
- And "=B4+B5" and "=B2-B3" are instructions to arrive at the calculated number.

Part B - 2 – Certification of DRE Machine Results for Precinct		Calculation or Source	VM-1 or Consolidation Tape*	VM-2	VM-3	VM-4	VM-5	VM-6	Candidate Totals	
B3	Candidate Name ( )	Machine Tape							Should = C4(ii)	B3
B4	Candidate Name ( )	Machine Tape							Should = C4(iii)	B4
B5	Total votes for both candidates on DRE(s)	= B3 + B4	✍	✍	✍	✍	✍	✍	Should = C4(iv)	B5
B6	DRE ballots undervoted or voted for other candidates (this office)	= B2 - B5	✍	✍	✍	✍	✍	✍	Carry to C8(iii)	B6

<sup>3</sup> If the recount is for a referendum, insert title of the question involved in the recount and its two separate responses, instead of the office and candidate names.



## **A. Preparing for and Evaluating Machine-readable Ballots**

### **i. If Machine-readable ballots are to be rerun, prepare the ballot scanner machine.**

1. Insert the **MEMORY CARD, CARTRIDGE, OR OTHER DATA STORAGE MEDIUM** for the precinct to be counted.
3. Turn the machine **ON**.
4. Produce a **ZERO** printout.
5. Verify that all totals on the **ZERO** printout, including the ballots cast, and the total on the Public Counter on the front of the machine read **0000**.
6. Record the **Serial Number** from this scanner in the **Recount Precinct Results, Part A, line A1** under "**Scanner 1.**"
7. Read the number from the **Public Counter** aloud and enter it in the **Recount Precinct Results, Part A, line A3 ("Before Recount")** under "**Scanner 1.**"
8. If two scanners are used, repeat steps 1-7, filling in under "**Scanner 2**" for steps 6 and 7.
9. Feed ballots.

### **ii. Insert Machine-readable ballots for precinct into ballot scanner machines**

1. Open **Box/Envelope #3** containing **COUNTED BALLOTS** for the precinct being counted.
2. As they are removed from the box/envelope, **set aside the paper ballots for separate hand counting** (face down); "Paper ballots" in a precinct that also uses ballot scanner machines may include:
  - traditional paper ballots
  - official reproductions of paper ballots or machine-readable ballots
  - ballots sent to military or overseas voters by email or fax and printed by the voters (if absentee ballots are counted in the precinct -- or if precinct being recounted is the CAP)
  - Federal Write-In Absentee Ballots (FWABs) from military or overseas voters (if absentee ballots are counted in the precinct -- or if precinct being recounted is the CAP). See 11.2.2010 Emergency Declaration of Secretary of Department of Elections.

All paper ballots were originally counted by hand, and must be recounted by hand, separately from the machine-readable ballots.

3. Feed all **Machine-readable** ballots into the scanner without examination of any ballot.



- If the scanner indicates that for the office being recounted the ballot was **overvoted or undervoted**, or the ballot contains a **write-in** vote for that office, it must be **separated out to be counted by hand**. The scanner should have been programmed to reject these ballots so that they can separately hand counted. If so, simply set that ballot aside (face down) for hand counting.

If the machine is instead programmed to accept the **write-in** ballots, but automatically divert them into a separate "write-in" bin, do not include these ballots in the number provided on **Line A5** for "*Number of Manually Counted Machine-readable Ballots.*" These ballots will be accounted for on paperwork in the total number of ballots scanned. The ballots **must still be hand-counted** the same as overvoted and undervoted ballots **after separation**, but should not be accounted for twice on the paperwork.

Part A - 2 – Certification of Precinct Manual Count		Calculation or Source	Total	
<b>A5</b>	Number of <i>Manually Counted Machine-readable Ballots</i> <sup>2</sup>	Count	Carry to C2(i)	<b>A5</b>

If any **Machine-readable ballot** is so **damaged** that the counting device will not accept it, it must also be set aside for hand counting.

- Both Recount Officials must verify that the **Box/Envelope #3** container is empty, that all **Machine-readable ballots** have been inserted in the scanner, and that all **paper ballots** have been **set aside** for separate hand counting.
- Repeat steps 1 - 5 above for any additional **Box/Envelope #3** containers of **COUNTED BALLOTS** for that precinct.

### iii. Obtain results determined by the electronic counting device

- When all Machine-readable ballots for the precinct have been inserted in the scanner, read the number from the **Public Counter** aloud and enter it in the **Recount Precinct Results, Part A, line A2** ("After Recount"). Subtract **line A3** from **line A2**, and enter it on the form in **line A4** (public counter difference).

If two scanners are used, enter values for both "**Scanner 1**" and "**Scanner 2**." Then **add** the values for "**Scanner 1**" and "**Scanner 2**" on **line A2**, and enter the total on **line A2**, under "**Total (Scanner 1 + Scanner 2)**." Repeat for **lines A3 and A4**.

Part A - 1 – Certification of Precinct Ballot Scanner Machine Counter		Calculation or Source	Scanner 1	Scanner 2 <sup>1</sup>	Total (Scanner 1 + Scanner 2)	
<b>A1</b>	Ballot Scanner Machine Serial Number (used to recount this precinct, if applicable)	From Machine				<b>A1</b>
<b>A2</b>	Number on This Scanner's Public Counter – After Recount (if applicable)	Public Counter				<b>A2</b>
<b>A3</b>	Number on This Scanner's Public Counter – Before Recount (if applicable)	Public Counter				<b>A3</b>
<b>A4</b>	<b>Public Counter Difference</b> (Must Equal the Number of Ballots Read By the Scanner During Recount [From Tape])	= A2 – A3			Carry to C1(i)	<b>A4</b>

- Run one printout to obtain the recount results for the precinct:



- a) Produce the **FINAL RESULTS** tape.
- b) Remove the **MACHINE-READABLE ballots** from the ballot compartments, return them to the **COUNTED BALLOTS** container(s), and seal it (them).
- c) Remove the printout with **ZERO** report and the **FINAL RESULTS** intact.

**3. Record the data from the ballot scanner machine tape on the Recount Precinct Results form:**

- a) Enter the **total Machine-readable ballots read in Part C, line C1, column (i). This number must match** the public counter difference previously entered in **Part A, line A4**. If the numbers do not match, first recheck the counter numbers and number of ballots entered on the form, and the math. If they still do not match, ask for the advice of the Recount Coordinator.
- b) Read aloud the name of the first candidate involved in the recount and the number of votes cast for first candidate and enter the total in **line C1, column (ii)**, double-checking that each number is copied to the column for the appropriate candidate.
- c) Read aloud the name of the second candidate involved in the recount and the number of votes cast for the second candidate and enter the total in **line C1, column (iii)**, double-checking that each number is copied to the column for the appropriate candidate.
- d) Add together the number of machine-readable ballots counted by the scanner for **both** candidates and enter the total in **line C1, column (iv)**.

Part C - Certification of Official Ballots				
VOTES CAST FOR CANDIDATES IN RECOUNT IMPORTANT: - Lines C1-C5 include only recount parties [listed to the right under (ii) and (iii)] - Lines C6-C9 include all other ballots	(i)	(ii)	(iii)	(iv)
	Total Number Voting	Candidate Name	Candidate Name	Total Cast for Candidates (ii) + (iii)
		( )	( )	
<b>C1</b> Total Ballots Read by Ballot Scanner Machine in Recount (From tape; when finished attach tape to back of page with Part A.)	<b>A4</b> Total = _____			

- e) Enter the precinct code on the **BALLOT SCANNER MACHINE RECOUNT TAPE** and **staple it** to the back (behind the top right) of the **RECOUNT - PRECINCT RESULTS page containing Part A**. (See instructions at the top of that page.)

**iv. Hand count Machine-readable ballots previously set aside**

Any Machine-readable ballots set aside from the steps above must be counted by hand.

A second team of Recount Officials may be used to count the ballots by hand.



- Count **all** set aside **Machine-readable** ballots (preferably with the office being recounted face down) without examining how they were cast. When both officials agree on the total count, enter the total on the **Recount Precinct Results** in **Part A, line A5**. Enter the same total in **Part C, line C2, column (i)**.

(Remember that write-in ballots should not be included in this number if the scanner accepted the ballots and diverted them to a separate write-in bin).

(Remember that paper ballots must be counted separately. If any are found among the set aside Machine-readable ballots, put them with the other paper ballots.)

A5	Number of <i>Manually</i> Counted Machine-readable Ballots <sup>2</sup>	Count	Carry to C2(i)	A5
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- Examine each of the **Machine-readable ballots** to be counted and separate them into the following stacks (refer to the ballot examples in the "Hand Counting Printed Ballots for Virginia Elections or Recounts" if there is any question about how to count a mark).

During the sort, an official should lay each ballot face up on the table in the following stacks so that both officials and all observers can clearly see each ballot as it is sorted.

- (1) and (2) One stack each for ballots clearly voted for either candidate involved in the recount
- (3) Ballots either not voted for the office (undervoted) or not voted for candidates in the recount
- (4) Ballots clearly voided by the voter for the office per [§ 24.2-663](#) (overvoted or title of office erased)
- (5) Ballots challenged by either Recount Official (or the Officials cannot initially determine or agree how to count it)

After the first sort, re-examine the ballots in stacks 1-4 to make sure that each ballot is in the appropriate stack.

**SBE-802-MA Precinct Manual Recount Tally Sheet** is an optional form that may help Recount Officials when there are many ballots to hand count. If using it, complete the appropriate blanks/boxes at the top of the form and the candidates' names if not already completed. It covers each of the separate categories represented by the "stacks" and those counted/recorded in the procedures below. The final counts must still be recorded on the Recount Precinct Results form, as directed below.

The basic procedure for manually counting each stack (separately, when directed to do so below) is:

- a. One Recount Official should count the ballots while the other closely observes.





- b. Count the ballots by laying each ballot with the office being recounted face up on the table so that both officials and all observers can clearly see each ballot as it is counted.
  - c. Then the other official should count the same ballots while being closely observed by the first.
  - d. The official observing may use Department of Elections' Manual Recount Tally Sheet.
  - e. If the two officials do not arrive at the same number, repeat.
3. Re-examine all **Machine-readable ballots** in the "challenge" stack. Refer to the Ballot Examples. If the two Recount Officials agree on how to count the ballot, place the ballot in the appropriate other stack (1-4 above).

If both Recount Officials cannot agree, or they cannot determine how or whether to count a ballot, at least one of them must officially "challenge" the ballot.

- a. For each challenged ballot, complete the form entitled **STATEMENT OF RECOUNT OFFICIAL - CHALLENGED BALLOT (SBE-802CB)**, setting forth the reason(s) for the challenge. The officer challenging must sign the form and attach it to the ballot. This ballot will go to the Recount Court for a decision.
  - b. When all the ballots remaining in the "challenge" stack have been officially challenged, count the **Machine-readable ballots** being challenged and, when both officials agree on the number, enter total in **Part C, line C9, column (i)** of the **Recount Precinct Results** form.
  - c. Place the signed challenged ballot statements and attached ballots in the **Challenged Ballots envelope** for the precinct, and enter the name/number of the precinct. DO NOT enter the number of challenged ballots on the envelope at this time. DO NOT SEAL IT at this time. Set the envelope containing **CHALLENGED BALLOTS** aside.
4. Count all **Machine-readable ballots** overvoted or voided and, when both officials agree on the count, enter total in **line C7, column (i)** of the Recount Precinct Results form. Return voided ballots to **Box/Envelope #3**.
  5. Count all **Machine-readable ballots** not voted (undervoted) or not voted for candidates involved in the recount and, when both officials agree on the count, enter total in **line C8, column (i)**. Return these ballots to **Box/Envelope #3**.

<b>C7</b>	Overvoted Ballots (plus ballots otherwise voided by Voter) § 24.2-663	Machine-readable	Paper		C7(i) + C7(ii) =	<b>C7</b>
<b>C8</b>	Ballots Undervoted or Voted for Other Candidates	Machine-readable	Paper	DRE	C8(i) + C8(ii) + C8(iii) =	<b>C8</b>
<b>C9</b>	Challenged Ballots (enclosed in attached envelope)	Machine-readable	Paper		C9(i) + C9(ii) =	<b>C9</b>

6. Now count the **Machine-readable ballots** voted for each of the two candidates in the recount (stacks 1 & 2). Count one candidate's ballots at a time.



When both officials agree on the count, enter each count on **Line C3, in either Column (ii) or (iii), as appropriate** of the **Recount Precinct Results** form, double-checking that each count is listed under the appropriate candidate.

7. Add together the number of **Machine-readable ballots** voted for **both** candidates and enter the total in **line C2, column (iv)**.

Part C - Certification of Official Ballots					
VOTES CAST FOR CANDIDATES IN RECOUNT IMPORTANT: - Lines C1-C5 include only recount parties [listed to the right under (ii) and (iii)] - Lines C6-C9 include all other ballots		(i) Total Number Voting	(ii) Candidate Name _____ _____ ( )	(iii) Candidate Name _____ _____ ( )	(iv) Total Cast for Candidates (ii) + (iii)
<b>C2</b>	Total Machine-readable Ballots <i>Manually</i> Counted in Recount	<b>A5</b> Total =			

## **B. Count the paper ballots**

Take the paper ballots that were set aside as they were removed from **Box/Envelope #3** and **count the paper ballots** as follows.

If a second team of Recount Officials was used to count the Machine-readable ballots by hand, this second team should also count the paper ballots.

1. Count **all paper ballots** that have the office being recounted listed without examining how or whether the voter voted for the office. When both officials agree on the total number, enter the total in **Part C, line C3, column (i)** of the **Recount Precinct Results** form.

		(i) Total Number Voting
<b>C3</b>	Total Paper Ballots Counted in Recount	<b>A6</b> Total =

Enter the same number in **Part A, line A6**.

<b>A6</b>	Number of Paper Ballots Counted in Recount <sup>2</sup> (DOES NOT INCLUDE MANUALLY COUNTED MACHINE-READABLE BALLOTS)	Count	Carry to C3(i) <sup>3</sup>	<b>A6</b>
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2. If the number entered in **Part A, line A6** is not the same as the numbers entered in **A7 and A8**, recount officials should explain the reasons for the difference -- as best they know or can determine -- on the reverse side of the page containing Part A. (For example, if the difference is due to X number of federal only ballots and the recount is for a state or local office.)

(Recent recount court orders have required all the pollbooks and ballots for the precinct to be referred to the court if the number of paper ballots actually cast is not the same as the number of paper ballots indicated on the pollbook. The



Recount Coordinator should be immediately informed if the numbers are not the same, and will know if the court order in the current recount contains instructions regarding this matter.)

3. If the total number of **paper ballots** in **Part A, line A6** does not exceed the total number voting by paper ballot in **Part A, line A7**, enter ZERO (0) in **Part C, line C6, column (iv) (paper ballots drawn)**;
4. If the total number of **paper ballots** in **Part A, line A6** exceeds the total number voting on paper ballots in **Part A, line A7** and no error is found, first consult with your Recount Coordinator. Recent recount orders have directed that the materials be sent to the Recount Court in this situation, not drawn down. The Recount Coordinator will know if the court order in the current recount contains instructions regarding this matter. If the court order is silent on this situation, the following procedures must be followed (§ 24.2-662):
  - a. Return all **paper ballots** to a container.
  - b. Have one of the Recount Officials, blindfolded, draw out the number of **paper ballots** necessary to reduce the total number to the number reported voting on paper ballots.
  - c. Mark the drawn **paper ballots** "**DRAWN AND NOT COUNTED**", and return them to **Box/Envelope #3**. Enter number drawn in **Part C, line C6, column (iv)**.
5. **To count the paper ballots, follow the same procedures described above in Section A under "iv. Hand count Machine-readable ballots previously set aside" with the differences below.** (The only difference for most of the "stacks" -- other than challenged ballots -- is where the information for the paper ballots is recorded on the Recount Precinct Results form.)
  - a. Place the **signed, challenged ballot statements** and **attached paper ballots** in the **Challenged Ballots envelope** for the precinct, and enter the name/number of the precinct if not previously entered. Enter the total number of challenged ballots (machine-readable and paper) on the envelope and complete any other information required. **SEAL** the Challenged Ballots envelope. Set the envelope containing **CHALLENGED BALLOTS** aside.

Enter the number of **challenged paper ballots** in Part C of the Recount Precinct Results form in **line C9, column (ii) (paper)**.
  - b. Enter total number of **paper ballots overvoted or voided** in **line C7, column (ii)** of the Recount Precinct Results form. Return voided paper ballots to **Box/Envelope #3**.
  - c. Enter the total number of **paper ballots not voted or not voted for candidates involved in the recount** in **line C8, column (ii)**. Return these paper ballots to **Box/Envelope #3**.



	(i)	(ii)	(iii)	(iv)	
<b>C6</b>	Paper Ballots Drawn (during recount) (§ 24.2-802)				<b>C6</b>
<b>C7</b>	Machine-readable	Paper		C7(i) + C7(ii) =	<b>C7</b>
<b>C8</b>	Machine-readable	Paper	DRE	C8(i) + C8(ii) + C8(iii) =	<b>C8</b>
<b>C9</b>	Machine-readable	Paper		C9(i) + C9(ii) =	<b>C9</b>
<b>C10</b>	TOTAL [Add C5 through C9 in column (iv) **Should equal C5 column (i)**			Carry to D5 and D10	<b>C10</b>

d. Now count the **paper** ballots voted for each of the two candidates in the recount (stacks 1 & 2). Count one candidate's ballots at a time.

When both officials agree on the count enter each count on **Line C3, in either Column (ii) or (iii), as appropriate** of the **Recount Precinct Results** form, double-checking that each count is listed under the appropriate candidate.

e. Add together the number of **Paper ballots** voted for **both** candidates and enter the total in **line C3, column (iv)**.

Part C - Certification of Official Ballots				
VOTES CAST FOR CANDIDATES IN RECOUNT	(i)	(ii)	(iii)	(iv)
<b>IMPORTANT:</b> - Lines C1-C5 include only recount parties (listed to the right under (ii) and (iii)) - Lines C6-C9 include all other ballots	Total Number Voting	Candidate Name	Candidate Name	Total Cast for Candidates (ii) + (iii)
		( )	( )	
<b>C3</b> Total Paper Ballots Counted in Recount	A6 Total =			

## C. One precinct at a time, Open Envelope #2; Record DRE Results

Open the **Envelope #2** and remove the *Statement of Results* with the attached **DRE** machine results printouts (tapes). Fold the *Statement of Results* back so only the *Consolidated* printout is visible. (If there is no *Consolidated* printout, or it does not include all DRE machines used in the precinct, see 1-e below.)

Both Recount Officials should examine the *Consolidated* printout for the precinct (also letting the observers see it clearly, but not handle it) and:

1. From that printout, enter the following information on the **SBE-802-PR -- Recount Precinct Results for All Voting Systems** form.
  - a. In **Part B-1, DRE Voting Machines**, enter the number of votes recorded as voting on all machines (from Consolidation printout) under **VM-1 (voting machine 1), line B2;**



- b. In **Part B-2, Certification of DRE Machine Results for Precinct**, enter the votes cast for each of the two candidates in the recount under **VM-1 (voting machine 1), lines B3 and B4**;
- c. Enter the **serial number** of each machine from which results were added by the *Consolidation* machine in the blanks provided at the bottom of the page below Part B-2. ↓

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\* If **consolidation tape** available, list total number of voters and results for recount candidates from consolidation tape under **VM-1 above** and **list all serial numbers for DREs included in the consolidation tape below**. If any DRE is not included in the consolidation tape, list the serial number and results for each such machine under VM-2, etc. Use additional copies of page if needed.

If the Recount Officials have any doubt that the *Consolidated* printout includes the results from every DRE used in the precinct in the election, they should check the machine serial numbers on the *Consolidated* printout against the serial numbers listed on the back of **Envelope # 7/7C**. If any DRE used in the election is not listed on the *Consolidated* printout, follow steps under "e" below.

- d. If the *Consolidated* printout is not clear, contact the Recount Coordinator and, if so advised by the Recount Coordinator, reprint the *Consolidated* printout if possible.
- e. If there is no Consolidated printout or it is not clear, and it cannot be reprinted, or it does not include the results for every machine in the precinct -- proceed as follows:

If the *Consolidated* printout does not include the results from every DRE used in the precinct in the election:

- ✓ Enter the *Consolidated* printout results under VM-1, lines B2, B3 and B4 (number of voters, and votes cast for the two candidates);
- ✓ Enter the serial numbers of every machine with results included in the *Consolidated* printout at the bottom of the page below Part B-2 in the blanks provided.
- ✓ For each machine not included in the *Consolidated* printout, from the individual DRE machine tapes, enter the machine serial number, number of voters who voted on this DRE and votes for each candidate in the recount on the appropriate lines under columns VM-2, VM-3, etc., until the results for all machines not listed on the *Consolidated* printout have been recorded. If an additional page is needed, continue to another copy of the *Recount Precinct Results* page containing Parts B-1 and B-2, manually crossing out and renumbering the machine number headings on the second page (VM-1 becomes VM-7 on page 2, etc.).

If there is no *Consolidated* printout and it cannot be reprinted, list the results from each DRE machine from the individual printouts under columns V-1, etc. (rows B1 through B4) as described above.

- ✓ Double check the machine serial numbers listed on the *Recount Precinct Results* (Parts B-1 and B-2) against the serial numbers listed



on the back of the 7/7C envelope to make sure that all of the machines have been listed.

- If an individual or *Consolidated* machine tape is not clear or not available and the Recount Coordinator advises that it must be rerun from the machine, complete the questions in **Part B-3**. Then, only examine the seals of the machines from which tapes are being rerun, comparing them to the information recorded on election night on the back of **Envelope # 7/7C**. ↓

### Part B - 3 -- If DRE Tape(s) Must Be Rerun

Complete this part if any DRE tape from the precinct was missing or not clear, and the recount officers were directed to rerun the tape(s). Compare the seal on the each machine opened to the to the final seal number listed for that machine on the key envelope.

#### I. Do the seal and key envelope numbers for the reopened machine(s) agree? YES NO

If **NO**, mark the serial number of the machine on which a discrepancy was found with a check (✓) in Part B-1 on previous page and complete A through E below. Attach the precinct Statement of Results from the election (including all pages and attached tapes).

A. Machine#: \_\_\_\_\_  
 B. \_\_\_\_\_ C. \_\_\_\_\_ D. \_\_\_\_\_ E. \_\_\_\_\_  
 Number on Protective Counter    Number on Public Counter    # on key envelope    # on machine seal

#### II. Seal(s) intact? YES NO

If **NO**, mark that machine number with an asterisk (\*) in Part B-1 on previous page. Enter, on the reverse side of this page, a description of the machine condition and complete lines F through H below. Attach the precinct Statement of Results from the election (including all pages and attached tapes).

F. Machine#: \_\_\_\_\_ G. \_\_\_\_\_ H. \_\_\_\_\_  
 Number on Protective Counter    Number on Public Counter

- Calculate the total votes cast for the two candidates in the recount, under each **VM** column, in **line B5 (B3 + B4)**. Then calculate the Total Voters on DREs in **line B2** (adding across), the DRE totals for each respective candidate in **lines B3 and B4** (adding across), and the total votes cast on DREs for both candidates in **line B5** (adding across).

✓ Double-check: the total votes on all DRE machines for the two candidates in the recount, calculated in the last column of line **B5** by adding across that line, must equal the totals for the two candidates adding down the last column of totals from rows **B3** and **B4**.

Now calculate the number of voters who undervoted this office or voted for another candidate by **subtracting B5 from B2 in each column** and put the result in the field **B6**. Add across that line and enter the total in the last column.

- From **Part B-1**, carry the total number of voters from the **last (total) column of line B2** over to **Part C, line C4, column (i), (Total DRE Machine Count/Total Number Voting)**.
- From **Part B-2**, carry the candidate totals from the **last (total) column in lines B3 and B4** over to **Part C, line C4, columns (ii) and (iii)**, double-checking that each number is copied to the column for the appropriate candidate.



- i. The candidates should have already been listed in both forms in the same order -- B3 should be the same candidate in Part C, column (ii), and B4 the same as column (iii) -- but check that they are actually properly placed. If not, correct the references to Lines B3 and B4 in line C4 and initial the change (both officers). Do not change or move the candidate names already listed on the pages.
6. Add the candidate totals entered **line C4, columns (ii) and (iii)** for the two candidates and enter the total in **line C4, column (iv)**. Check that this total is the same number entered in the **total column of line B5**.

Part C - Certification of Official Ballots					
VOTES CAST FOR CANDIDATES IN RECOUNT		(i)	(ii)	(iii)	(iv)
<b>IMPORTANT:</b> - Lines C1-C5 include only recount parties [listed to the right under (ii) and (iii)] - Lines C6-C9 include all other ballots		Total Number Voting	Candidate Name	Candidate Name	Total Cast for Candidates (ii) + (iii)
			( )	( )	
<b>C4</b>	Total DRE Machine Count [If no DREs used, mark each "0".]	<b>B2 Total =</b>	SHOULD = LINE B3 TOTAL	SHOULD = LINE B4 TOTAL	SHOULD = LINE B5 TOTAL
					<b>C4</b>

7. From **Part B-1**, carry over the total number of voters who undervoted this office, or voted for another candidate (**last column of line B6**) and enter the number in **Part C, line C8** (ballots undervoted...), **column (ii) (DRE)**.

<b>C8</b>	Ballots Undervoted or Voted for Other Candidates	Machine-readable	Paper	DRE	C8(i) + C8(ii) + C8(iii) =	<b>C8</b>
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8. Set the Statement of Results with its attachments aside for now. Return any machine printouts not attached to the SOR to **Envelope #2**.

## D. Paper Pollbooks: Verify pollbook count and number of paper ballots cast

If paper pollbooks were used, remove the **pollbook(s)** and the **Pollbook Count** forms from **Envelope #2** and examine them one at a time:

1. In **Part D-1 (Paper Pollbook Count and Reconciliation)** enter the division section (example "A-L") on the first line under the first "Division" column. Then enter the number of voters in the pollbook for the first pollbook division [this figure is shown on the bottom of the reverse side of the **Pollbook Count** form].

If a second team of recount officials will be used to hand count the paper and machine-readable ballots, that second team should perform steps 2 and 8 for each division of the pollbook.

2. Determine number of voters voting on **paper ballots** by examining each page of the first pollbook division, and enter the total number of paper ballots in the first **Part D-1 (Paper Pollbooks) line D1-PB** under the first pollbook division. (If a second team of recount officials is being used, the number should be provided to first team to enter on the form, and the entry verified by the second team.)



Paper ballot voters are those marked in the pollbook with a "P."

Outside Polls voters (marked with "OP") may have voted by paper ballot or on a portable DRE. If it is not clear from the pollbooks whether the OP voters voted on paper or machine, check the **Statement of Results** which will indicate each time a machine was removed from the precinct.

If the locality used a CAP to count absentee ballots, do not include the voters marked "AB" in the precinct counts unless they are also marked with a **pollbook count (PBC) number**.

When recounting the results for the CAP, refer to the final absentee ballot list (which serves in lieu of the pollbook) to determine the number of voters voting on DRE and by printed ballot.

Part D - 1 – Paper Pollbook Count (PBC) and Reconciliation		Division	Division	Calculation or Number	Total Pollbook Count	
D1	Enter <b>last PBC Number</b> for each division from PBC Count Sheet			Total of Division Counts		D1
D1-PB	Enter <b>number of Paper Ballots cast</b> (from Pollbooks by division)			Total of Division Counts		D1-PB

- RETURN the pollbook and pollbook count sheet to **Envelope #2**. Do not reseal Envelope #2 at this time.
- If more than one paper pollbook division was used in the precinct, repeat Steps 1, 2 and 3 for each such pollbook division.
- When all pollbook divisions have been entered, **add across Line D1** (Paper Pollbooks) to total the division counts and enter the total in the last column, Total Pollbook Count.
- Add across line D1-PB** to total the paper ballot counts from the pollbook divisions and carry this number over to **Part A, line A7**.
- From **Part A** of the **Statement of Results** (previously set aside), the number of paper ballot voters in the precinct is indicated in **line A9** (A18 if absentee ballots were counted in the precinct). Enter this number in **Part A, line A8** of the **Recount Precinct Results**.





<b>A7</b>	Number of Paper Ballot Voters as indicated on all paper pollbooks for the precinct, or on Electronic Pollbook (EPB)	<b>Pollbooks</b>	<input type="text"/>	<sup>3</sup>
<b>A8</b>	Number of Paper Ballot Voters as indicated by line A9 of SOR (A18 if absentee ballots were counted in the precinct)	<b>SOR line A9</b>	<input type="text"/>	<sup>3</sup>

8. *If A7 and A8 are not the same number*, ask for the advice of the Recount Coordinator. If the reason for the difference is known or can be determined by to the Recount Officials, it should be explained on the reverse of the Recount Precinct Results page containing Part A.

The Recount Coordinator may direct that the SOR and Incident Report be examined to determine possible variations in the number of paper ballots indicated on the pollbook and the SOR, and that the pollbook count sheets be examined if the pollbook officer noted paper or OP ballots.

Any other information contained in **Envelope #2** may be examined by the Recount Officials at the direction of the Recount Coordinator to determine the reason for the difference.

The Recount Coordinator may also direct that the pollbooks be re-examined to redetermine the number of paper ballots cast. If the re-examination yields a different number for any division, the correction should be entered in **line D1-PB** under the appropriate division. When the re-examination is complete, as determined by the Recount Coordinator, the line D1-PB total must be recalculated if any division entry changed, and the figure carried over to **line A7**. The changes must be explained by the Recount Officials on the reverse of both changed pages.

9. From **Part C1 of the Statement of Results** enter the number of canceled DRE ballots in the Recount Precinct Results, **Part D-1 (Paper Pollbooks), line D2** and the number of voided machine-readable and paper ballots in **line D3**. **Add D2 and D3**, and enter the total in **line D4**.
10. **Subtract line D4** (total canceled and voided ballots) **from D1** (total of division counts), and enter the figure in **line D5**.

<b>Part D - 1 – Paper Pollbook Count (PBC) and Reconciliation</b>		Division	Division	Division	Division	Calculation or Number	Total Pollbook Count	
		_____ - _____	_____ - _____	_____ - _____	_____ - _____			
<b>D1</b>	Enter <b>last PBC Number</b> for each division from PBC Count Sheet					Total of Division Counts	<input type="text"/>	<b>D1</b>
<b>D1-PB</b>	Enter number of <b>Paper Ballots cast</b> (from Pollbooks by division)					Total of Division Counts	<input type="text"/>	<b>D1-PB</b>
<b>D2</b>	<b>Number of cancelled DRE Ballots</b> – (DRE ballots that were CANCELLED because the voter left the booth without casting his/her ballot. Copy from precinct SOR.)					<input type="text"/>	<input type="text"/>	<b>D2</b>
<b>D3</b>	<b>Number of voided Machine-readable and Paper Ballots</b> - (Ballots that were VOIDED because the voter left the booth without casting his/her ballot. <u>DO NOT</u> include ballots spoiled by voter and replaced. Copy number from precinct SOR.)					<input type="text"/>	<input type="text"/>	<b>D3</b>
<b>D4</b>	<b>Total Number of Cancelled DRE and VOIDED Machine-readable and Paper Ballots</b>					= D2 + D3	<input type="text"/>	<b>D4</b>
<b>D5</b>	<b>Pollbook Count Reconciliation</b> - Subtract Total number of CANCELLED DRE and VOIDED Machine-readable and Paper ballots from Total Pollbook Count. <b>**D5 should not be more than C10**</b>					<b>C10 =</b> = D1 – D4	<input type="text"/>	<b>D5</b>

11. The Recount Officials must verify the totals entered.



12. Return all pollbooks, pollbook count sheets, the Statement of Results and any other materials removed from **Envelope #2** to that envelope. RESEAL **Envelope #2**, with both Recount Officers signing the seal. Set Envelope #2 aside.

## **E. Electronic Pollbooks: Verify pollbook count and number of paper ballots cast**

If electronic pollbooks were used, leave the first part D-1 (for paper pollbooks) blank, and use **Part D-2 - Electronic Pollbook Count and Reconciliation**.

1. If a printer was used with the EPB, remove the open/close poll report from the **Envelope #2** and enter the total voters Checked-In COUNT from the report in D-2 (EPB), line D6 (total voters Checked-in Count).

If the report includes the number of voters checked in as voting paper ballots, enter that number in **Part A, line A7**.

2. If there is no EPB open/close poll report, it will be necessary to obtain the information from the EPB data thumbdrive sealed on election night in **Envelope #2**. The General Registrar, EPB manager, Equipment Technician or other person designated by the Recount Coordinators will have already loaded the precinct manager software onto a laptop and set it up in the recount room with an attached printer. (Person performing this function should also be sworn at the beginning of the recount.) One member of the Recount Team, a Recount Coordinator, and the observer from the side not being represented by that Recount Coordinator will take the precinct thumbdrive to the designated person who can bring up the data from the precinct and print the appropriate reports. The other team member and observer will remain with the precinct materials while this is done.

If the number of paper ballot voters was not recorded by the Officers in the EPB data, or cannot be retrieved, **line A7 of Part A** must be left blank. On the back of that page of the Precinct Recount Results, the Recount Officials must explain -- to the best of their ability-- why the data is unavailable.

3. From **Part C1 of the Statement of Results** (previously set aside) enter the number of canceled DRE ballots in **Part D-2 (Electronic Pollbooks), line D7** and the number of voided machine-readable and paper ballots in **line D8**. **Add D7 and D8**, and enter the total in **line D9**.
4. **Subtract line D9** (total cancelled and voided ballots) **from D6** (Total EPB pollbook count), and enter the figure in **line D10**.
5. The Recount Officials must verify the totals entered.
6. RETURN the EPB open/close report (if applicable) and thumbdrive to **Envelope #2**, along with the Statement of Results and any other materials removed from **Envelope #2**. If a printout/report was produced from the thumbdrive during the recount, that printout/report should also be sealed inside **Envelope #2** (in the



event of a later contest). RESEAL **Envelope #2**, with both Recount Officers signing the seal. Set Envelope #2 aside.

## F. Finish the paperwork

1. Return all ballots except the challenged ballots to **Box/Envelope #3** (if not previously done). If manual tally sheets were used, put them in **Box/Envelope #3**, on top of the ballots (in case there is a contest following the recount). Then RESEAL it.
  - a. In **Part C** of the Recount Precinct Results, **find the totals for lines C1 through C4 in each vertical column (i - iv)** and enter the column totals in the corresponding column on **line C5**.

Part C - Certification of Official Ballots					
VOTES CAST FOR CANDIDATES IN RECOUNT	(i)	(ii)	(iii)	(iv)	
<b>IMPORTANT:</b> - Lines C1-C5 include only recount parties [listed to the right under (i) and (iii)] - Lines C6-C9 include all other ballots	Total Number Voting	Candidate Name	Candidate Name	Total Cast for Candidates (ii) + (iii)	
		( )	( )		
<b>C1</b> Total Ballots Read by Ballot Scanner Machine in Recount (From tape; when finished attach tape to back of page with Part A.)	A4 Total = ↓	↓	↓	↓	C1
<b>C2</b> Total Machine-readable Ballots <i>Manually</i> Counted in Recount	A5 Total = ↓	↓	↓	↓	C2
<b>C3</b> Total Paper Ballots Counted in Recount	A6 Total = ↓	↓	↓	↓	C3
<b>C4</b> Total DRE Machine Count (If no DREs used, mark each "0")	B2 Total = ↓	SHOULD = LINE B3 TOTAL	SHOULD = LINE B4 TOTAL	SHOULD = LINE B5 TOTAL	C4
<b>C5</b> Total Votes (Add C1 through C4 in each column)					C5

- b. In **Part C**, add together the number of machine-readable, paper and DRE ballots (**columns (i), (ii), and (iii)**) in each category listed on lines **C7 through C9**. Enter the respective totals in **Column (iv)** on the same line.
- c. In **Part C**, Enter the **total of column (iv)**, lines **C5 through C9** on **Line C10**.
- d. Is the number in **line C5, column (i)** the same as the number in **line C10, column (iv)**? If not, recheck math and recheck numbers entered. Ask Recount Coordinator for guidance.

	(i)	(ii)	(iii)	(iv)	
<b>C5</b> Total Votes (Add C1 through C4 in each column)					C5
<b>C6</b>	Paper Ballots Drawn (during recount) (§ 24.2-802)			↓	C6
<b>C7</b> <i>Manually</i> Counted Ballots Voided by Voter (Includes Overvoted; § 24.2-663) [For C7 - C9, list separately by ballot voting system]	Machine-readable →	Paper →		C7(i) + C7(ii) = ↓	C7
<b>C8</b> Ballots Undervoted or Voted for Other Candidates	Machine-readable →	Paper →	DRE →	C8(i) + C8(ii) + C8(iii) = ↓	C8
<b>C9</b> Challenged Ballots (enclosed in attached envelope)	Machine-readable →	Paper →		C9(i) + C9(ii) = ↓	C9
<b>C10</b>	TOTAL [Add C5 through C9 in column (iv) **Should equal C5 column (i)**			Carry to D5 and D10	C10



- e. Also enter the number on **line C10, column (iv)** in the proper box in Part D-1 line D5 or Part D-2 line D10 (depending on whether paper pollbooks or an electronic pollbook was used).

Paper Pollbook:

D5	Pollbook Count Reconciliation - Subtract Total number of CANCELLED DRE and VOIDED Machine-readable and Paper ballots from Total Pollbook Count. <b>**D5 should not be more than C10**</b>	C10 =	= D1 - D4	D5
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Electronic Pollbook:

D10	Pollbook Count Reconciliation - Subtract the number of CANCELLED DRE and VOIDED Machine-readable and Paper ballots from Total Pollbook Count. <b>**D5 should not be more than C10**</b>	C10 =	= D6 - D9	D10
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- If machine-readable ballots for this precinct were rerun through a counter during the recount, **make sure that the BALLOT SCANNER MACHINE TAPE for the ballots rerun during the RECOUNT is stapled to the back** (behind the top right -- see instructions on page) **of the Recount Precinct Results page with Part A.** Make sure that the precinct code is written on the tape.
- Make sure that the pages of the Recount Precinct Results are complete (including all information at the top of the pages if not previously filled in) and put them in order by "Part" letter. Number the pages if this has not been previously done, or if an additional page had to be added (for example, for more individual DRE tapes than the columns available).
- Each Recount Official must verify the totals entered and **sign and date the form** in the **CERTIFICATION (Part E – page 1)**. (If a second team of Recount Officials was used to hand count the ballots, those officials must also sign the form.)

<b>PART E - "DO NOT SIGN UNTIL ALL OTHER MATERIALS ARE COMPLETE"</b>	
<b>CERTIFICATION</b> — We hereby swear/affirm, under felony penalty for making willfully false material statements or entries, that all of the information entered heron is true and correct.	
<small>WARNING: INTENTIONALLY MAKING A MATERIALLY FALSE STATEMENT ON THIS FORM CONSTITUTES THE CRIME OF ELECTION FRAUD, WHICH IS PUNISHABLE UNDER VIRGINIA LAW AS A FELONY. VIOLATORS MAY BE SENTENCED TO UP TO 10 YEARS IN PRISON, OR UP TO 12 MONTHS IN JAIL AND/OR FINED UP TO \$2,500. (Va. Code § 24.2-1016)</small>	
<p>1. _____ Recount Official's Signature - Team 1</p> <p>_____</p> <p style="text-align: center;">Printed Name</p>	<p>3. _____ Recount Official's Signature - Team 2 (if applicable)</p> <p>_____</p> <p style="text-align: center;">Printed Name</p>
<p>2. _____ Recount Official's Signature - Team 1</p> <p>_____</p> <p style="text-align: center;">Printed Name</p>	<p>4. _____ Recount Official's Signature - Team 2 (if applicable)</p> <p>_____</p> <p style="text-align: center;">Printed Name</p>

- Staple the set of Recount Precinct Results pages together in the top left corner. If there were any challenged ballots in this precinct, staple the set of Results pages to the top left corner of the completed, sealed **Challenged Ballots envelope** (making sure not to staple through any ballots).**

If there were NOT any challenged ballots in this precinct, DO NOT staple the Recount Precinct Results to the empty **Challenged Ballots envelope**. Keep the envelope until needed for a precinct that has one or more challenged ballots. (The instructions preprinted on your Challenged Ballot envelope may say to complete and seal the envelope, and staple the precinct results to it even if there were no challenged ballots in the precinct. These instructions revise those instructions.)



6. Let the Recount Coordinator know that you have completed the precinct. The Coordinator should review the completeness of the Recount Precinct Results at that time, ensuring that all entries appear to be legible (to the Coordinator), and the pages are sequentially numbered and complete.

The Recount Officials will now give the Recount Coordinator:

**(1) The completed Recount Precinct Results set**

- with attached ballot scanner machine tape if machine-readable ballots were rerun during the recount
- attached to Challenged Ballots envelope ONLY if there was a challenged ballot

**(2) All of the election materials received from the precinct, properly resealed** in their envelope/box (with any Manual Tally Sheets that were used placed/sealed inside Box/Envelope #3 on top of the ballots)

**(3) The resealed memory card/cartridge used to rerun the machine-readable ballots** (if applicable).

7. The Recount Coordinator will then give the Clerk of Circuit Court the **completed Recount Precinct Results set** with the attached tape (if applicable) and attached **Challenged Ballots envelope** (if used), and **all other election materials for the precinct** and receive the packages for the next precinct.

## **G. Repeat for next precinct**

Repeat the above steps until all assigned precincts have been completed.



## Finishing the Locality's Results; Sealing and Delivery of Material

The following steps are recommended by the Department of Elections for security, accuracy and uniformity, subject to the direction and authority of the Recount Court.

The Recount Coordinator receiving materials from the recount officials should make sure that the materials are complete.

- ✓ If machine-readable ballots were rerun through a scanner for the precinct:
  - is the **recount ballot scanner machine tape** stapled to the back of the Recount Precinct Results page containing **Part B**?
  - If any **Challenged Ballots** are listed in **Part C, line C9** of the Recount Precinct Results form:
  - Is the **Challenged Ballot Envelope** attached to the Recount Precinct Results set, and has the envelope been sealed, signed, and completed?
  - Is the **total number of challenged ballots listed on the envelope the same** as the **total listed on line C9, column (iv)**?
- ✓ Do the entries on the Recount Precinct Results form set appear to be legible (to the Clerk), and are the pages sequentially numbered and complete?

The Clerk of Court for the locality will check in the materials received from the Recount Coordinator for the completed precinct. While the Recount Coordinator is present, the Clerk will make sure that the materials appear to be complete.

- ✓ Did all the election and recount envelopes/materials checked out by the Recount Coordinator for the precinct come back?
- ✓ Have all sealed materials opened during the recount been properly resealed?

Any questions should be addressed at that time to the Recount Coordinator and, if either the Clerk of Court or Recount Coordinator believes it necessary:

- The Clerk of Court will not accept the materials in question from the Recount Coordinator at that time (checking in only those not in question), and
- The Recount Coordinator will return to the Recount Team that prepared the materials, with the materials in question, to resolve any issues.

Once the precinct's recount materials are all accepted by the Clerk, if the locality's recount results are to be conveyed to another location after completion of all precincts, the Recount Coordinator for the locality, in the view of the Clerk of Court, will **enter the total number of votes for each of the two candidates in the recount and the number of challenged ballots referred to the Court in the first line for the precinct** on the **Locality Summary** form. **Enter ZERO "0" if there were no challenged ballots. Leave the second line for the precinct blank** ("challenged ballots counted by the Court").

Note: In the past this has been entirely done at the Recount Court level. In the revised process for a "two day" or "two part" recount, the Recount Coordinator will complete the first line for the precinct. The results will be checked by the Recount Court and tabulated after all challenges have been decided.

The Clerk of Court will place the recount materials to be conveyed to the Court for the locality as a whole in precinct number order, to be placed in the Locality Results Envelope when completed.



The Clerk of Court will then give the Recount Coordinator the materials for the next precinct (checking them out as given).

The Clerk of Court will replace the sealed materials for the election that will remain in the locality in a secure place with the other completed materials.

The Recount Court may be in session in the same room while the recount is underway, and may choose to review the precinct results and any challenged ballots (or just the challenged ballots) as each precinct is completed. If the Clerk of Court is instructed to convey these immediately to the Recount Court, it is recommended that the Clerk note on the materials check in/out record what was given to the Court, when it was received, and who received it.

**If the Recount Court decides to review precinct results and challenged ballots as the precincts complete them**, the Court or its designee would enter the total number of votes for each of the two candidates in the recount and the number of challenged ballots referred to the Court in the first line for the precinct on the Locality Summary form, entering ZERO "0" in the last column if there were no challenged ballots. The court would record its decision(s) on the challenged ballots on the second line for the precinct ("challenged ballots counted by the Court") on the Locality Summary form.

**If the Recount Court decides to review only the challenged ballots as the precincts are completed**, the Clerk would give that envelope to them with the attached precinct results. After reviewing the challenged ballots (without reviewing the Results), the Court would note its decision on the outside of the envelope by candidate (for example "Smith - 2, Jones - 1, not counted - 1), reseal the envelope and return it to the Clerk for the locality to put with the other completed recount precinct results.

Repeat the above steps until all assigned precincts have been completed.



## "Part Two" - Court Review and Compilation of Results -- Suggested Steps

### Check in and Logistics

Make sure you have the following documents and materials:

- ✓ *Locality Summary of Recount Results (SBE-802-LS)*  
(one form has been prepared for each locality)
- ✓ *Court Certification of Recount Form (SBE-802-CC)*  
(lists results by locality)
- ✓ Locality Results envelope/box for each locality
- ✓ Stickers to reseal the envelopes
- ✓ Notepads
- ✓ Pens

### Officials and Authorized Representatives

#### Floor Teams:

- One Department of Elections Staff Member,
- One representative of the accounting firm,
- One representative of each campaign.

Duties: Open locality results envelope/box received from **runner** one locality at a time. Handle challenged ballots. Report challenged ballots. Determine precinct results from the materials submitted by the locality. Complete *Recount Certification – County or City Results by Precinct (SBE 802-LS)* form for the locality being examined.

#### Floor Attorneys:

- Attorneys for each campaign

Duties: Available to Floor Teams to answer questions and resolve issues.

#### Appeals Team:

- Lead attorneys for both candidates,
- Department of Elections senior staff,
- Member of the Clerk's staff (at Clerk's option).

Duties: Resolves any issues raised by **Floor Teams**. Issues are resolved if the two party attorneys are in agreement, and the Department of Elections senior staff member bears witness to the agreement. Any issues not resolved by the Appeals Team will go to the **Recount Court** for a decision. Examine challenged ballots that could not be resolved by the **Floor Team** and refer to **Recount Court** for its decision (with recommendation if one is reached). Examine materials (pollbooks, ballots, etc.) referred to the **Recount Court** when number of paper ballots in a precinct does not equal the number of paper ballot voters on the pollbooks, or there are other problems.

#### Summary Team:

- One Department of Elections Staff member,
- One representative of the accounting firm,
- One representative from each campaign.

Duties: Examine *Recount Certification – County or City Results by Precinct (SBE 802-LS)* for each locality as received from the **runner**. Total columns and enter totals on *Summary*





form for the locality. If any challenged ballots that could not be resolved by the **Floor Teams** are later counted by the Court, add them to the *Summary* form under the locality (not on the *Results by Precinct* form) and recalculate totals.

### Runner:

- One Department of Elections Staff member

Duties: Take the materials from the **Clerk**, one locality at a time to the **Floor Teams**, pick them up when the **Floor Team** is finished, return the materials to the **Clerk**, and deliver the tabulation sheets to the **Summary Team**.

### Clerk

Duties: Clerk or Deputy Clerk should maintain control of the recount room, including press and general public, hand out locality documents and receive them back when completed, and transport any challenged ballots unresolved by the **Floor Team** or **Appeals Team** to the three judges of the **Recount Court** for their decision.

## Floor Team Step-by-Step

### Guidelines

- ONLY **ELECT STAFF** may handle ballots or other materials.
- Ensure all members of **Floor Team** and any observers are able to see the materials clearly.
- If, at any time, the packet is missing information or does not comply with the requirements set forth below, notify the **Appeals Team** (ELECT Executive/Policy Staff or Campaign Attorneys).

### Review and Compilation of Results

Local Results envelopes/boxes received from localities should be alphabetized by locality to make sure that they are present and clearly marked. If a county and city have the same name they should be marked to show the county or city designation before the recount begins.

#### 1) **Floor Team** Receives Locality Materials from the Runner

- a. Check to ensure the **Clerk** or Deputy Clerk of the Locality's Circuit Court **has signed** in the space provided in the lower right hand corner of the package.
- b. Check for SBE-802 LS form: "Recount Certification County or City Results by Precinct" (tabulation sheet).
  - i. If there is **no 802 LS form, the accountant will have to create** a form from a blank 802 LS.
- c. Count the number of SBE-802 PR forms "Recount Precinct Results for All Voting Systems".
  - i. Number of forms should equal number of precincts listed on tabulation sheet (SBE-802 LS + 2 for CAP and provisional ballots, if locality has a CAP).
  - ii. Also confirm precincts with spreadsheet of precincts provided.



- 2) **Open Recount Precinct Results** to Part C (SBE-802 PR).
  - a. Confirm **Line C5, column (ii) and (iii) of SBE-802 PR** correspond with precinct totals entered on Recount Certification (SBE-802 LS) for each candidate.
  - b. Confirm number of challenged ballots entered on **Line C9 of SBE-802 PR** correspond with number of challenged ballots entered on SBE-802 LS.
- 3) If any information does not match, please notify a member of the Appeals Team.

## **Dealing with Challenged Ballots**

- 4) **Open** the package.
  - a. Remove one envelope at a time.
  - b. Ensure there is an 802-CB attached to a Challenged Ballot (CB) Envelope.
  - c. Ensure the 802-CB is signed by the Recount Officials for that precinct.
  - d. Identify precinct and locate the precinct on the Recount Certification – County or City Results by Precinct form.
- 5) **Examine** the CB Envelope
  - a. **If zero indicated on front of envelope**, hold envelope to the light and ensure envelope it is empty.
    - i. **Accountant** shall enter ZERO on the 802-LS
  - b. **If a number is indicated on front of envelope**, open the envelope and verify the number of ballots included equals the number indicated on the form.
    - i. **Accountant** should enter the number of ballots challenged on 802-LS
      1. Ensure each challenged ballot has an 802-CB attached to it.
    - ii. Allow each party to examine, but not handle, the challenged ballot one at a time. (if there is any question, refer to the [Department of Elections Ballot Examples](#))
      1. If the two **Party Representatives agree** on which candidate the ballot should be counted for, then mark on the back of the 802-CB the name of the candidate the candidate for which the ballot shall be counted for.
      2. If the two **Party Representatives do NOT agree**, then request the **Appeals Team** over to review the ballot.
        - a. If **parties agree**, then follow procedure above for counting the ballot.



- b. If **parties do NOT agree**, then provide the ballot to the Runner who will take it to the Clerk for review by the Court.
- c. **If no number is entered on front of envelope**, open to verify if the envelope is empty.
  - i. Review 802-PR to find the number of ballots challenged.
  - ii. Accountant should enter the number found on 802-LS.
  - iii. If a challenged ballot is present, allow each party to examine, but not handle, the challenged ballot one at a time. (if there is any question, refer to the [Department of Elections Ballot Examples](#))
    1. If the two **party representatives agree** on which candidate the ballot should be counted for, then mark on the back of the 802-CB the name of the candidate the candidate for which the ballot shall be counted for.
    2. If the two **party representatives do NOT agree**, then request the **Appeals Team** over to review the ballot.
      - a. If **parties agree**, then follow procedure above for counting the ballot.
      - b. If **parties do NOT agree**, then provide the ballot to the Runner who will take it to the Clerk for review by the Court

## 6) **Finalize** the Locality Results

- a. Once all ballots have been determined, the accountant will complete the 802-LS.
  - i. ELECT staff and the party reps should confirm the 802-LS is entered correctly and initial under the totals.
- b. Call a **Runner** to take the **802-LS** to one of the **Summary Teams**.
- c. Call a **Runner** to take the **locality materials** back to the **Clerk**.

## Final Certification of Results: Re-seal material

After the **Floor Team** has completed the 802-LS *Recount Certification – County or City Results by Precinct*, the materials are transported to the **Summary Team**.

- 1) The **Summary Team** checks the math and completeness of the *Locality Summary of Recount Results (SBE-802-LS)*.
- 2) The **Summary Team** transfers the vote totals for each candidate in each locality from the *Locality Summary of Recount Results (SBE-802-LS)* to the *Court Certification of Recount (SBE-802-CC)* form.
- 3) The **Summary Team** transfers any information regarding challenged ballots (SBE-802-CB) received from the **Appeals Team** or the **Recount Court** on the *Court Certification of Recount (SBE-802-CC)* form.
- 4) The accountant on the **Summary Team** verifies the accuracy of the *Court Certification of Recount (SBE-802-CC)* form.
- 5) The *Court Certification of Recount (SBE-802-CC)* form is submitted to the **Recount Court** for their certification.



## After the Recount

### Issuance of Certificate of Election

The person having the highest number of votes shall be deemed to have been elected to such office and shall receive a certificate of election. The Attorney General's office has determined that the certificate of election should be issued by the local electoral board even though an election is being recounted. There are no provisions of §24.2-802 that would delay the local electoral board's issuance of the certificate of election as required by §24.2-676.

If the Court's certification of the recount declares the losing candidate the winner, a new certificate of election must be issued, making the original certificate null and void.

### Update Results on Department of Elections Website

Localities involved in a recount may need to change their election results. §24.2-671 requires there to be a record of all changes to vote totals made after Election Day. Therefore, all localities must enter a "Reason for Change" in VERIS before they can change their vote totals. These changes will be reflected on the Department of Elections website. The Department of Elections generally does not publish local results since they are not the certifying agent. However, since most local elections are held on an Election Day in which the Department of Elections is the certifying agent, local office results are included. The website will be updated accordingly.

### Return and Final Retention of Material

All of the recount material received from each city or county comprising the district being recounted should be resealed and signed by the Recount Court's designated officers tabulating the results, and preferably also by representatives for the parties to the recount if present, and then securely stored by the Clerk of Court for the Circuit Court in which the recount was held. These materials should remain secured and sealed until the time for the candidate losing the recount to initiate a contest has expired. See [Contests](#) near the beginning of this document and § 24.2-814 allowing 10 days from recount court order declaring winner to file contest.

If the recount was for a primary or election for a General Assembly seat, statewide office or federal office, the Department of Elections will check with the appropriate office to determine if a contest has been filed by the deadline, and then notify the Clerk. If no contest is pending, the records for the Clerk's own locality should then be treated as prescribed by law for other records from that same election date that are in the custody of the Clerk.

Materials sent from any other localities in the district to be recounted should be returned to the Clerks for those localities, again to be treated in the same manner as other records from that election date that are in the custody of the Clerk. The other Clerks may want to pick up the records, or the sending Clerk may have them delivered personally or by a method



that includes tracking of delivery. If the materials are picked up or delivered personally, both Clerks should keep a record documenting the transaction.

In the case of a primary or election for a county, city or town office, or local district office, any contest would be filed with the Circuit Court where the challenged candidate resides. Unless the recount was for a shared local office, the Clerk of the Court that conducted the recount will receive any contest filed, or should check with the Clerk where the winning candidate resides to determine if a contest has been filed by the deadline.



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DEPARTMENT of ELECTIONS

RECOUNT  
PRECINCT  
REPORT

Precinct || Office || District:  
Election Date:  
Recount Date:

County/City of: \_\_\_\_\_

Election Date: \_\_\_\_\_

Precinct: \_\_\_\_\_

Election Type: \_\_\_\_\_

Date of Recount: \_\_\_\_\_

Office: \_\_\_\_\_

District: \_\_\_\_\_

**PART E - \*\*DO NOT SIGN UNTIL ALL OTHER MATERIALS ARE COMPLETE\*\***

**CERTIFICATION** — We hereby swear/affirm, under felony penalty for making willfully false material statements or entries, that all of the information entered heron is true and correct.

**WARNING: INTENTIONALLY MAKING A MATERIALLY FALSE STATEMENT ON THIS FORM CONSTITUTES THE CRIME OF ELECTION FRAUD, WHICH IS PUNISHABLE UNDER VIRGINIA LAW AS A FELONY. VIOLATORS MAY BE SENTENCED TO UP TO 10 YEARS IN PRISON, OR UP TO 12 MONTHS IN JAIL AND/OR FINED UP TO \$2,500. (Va. Code § 24.2-1016)**

1. \_\_\_\_\_  
Recount Official's Signature - Team 1

3. \_\_\_\_\_  
Recount Official's Signature - Team 2 (if applicable)

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Printed Name

2. \_\_\_\_\_  
Recount Official's Signature - Team 1

4. \_\_\_\_\_  
Recount Official's Signature - Team 2 (if applicable)

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Printed Name

All Recount Officials who participated in recounting the votes in this precinct must sign the certification.



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DEPARTMENT of ELECTIONS

RECOUNT  
PRECINCT  
REPORT

Precinct || Office || District:  
Election Date:  
Recount Date:

**ATTACH BALLOT SCANNER MACHINE TAPE FOR RECOUNT OF THIS PRECINCT TO BACK OF THIS PAGE (STAPLE TOP RIGHT ▲ ▲)**  
**AFTER COMPLETING ENTRY OF SCANNER MACHINE RESULTS IN PARTS B AND C.**

Part A - 1 – Certification of Precinct Ballot Scanner Machine Counter		Calculation or Source	Scanner 1	Scanner 2 <sup>1</sup>	Total (Scanner 1 + Scanner 2)	
<b>A1</b>	Ballot Scanner Machine Serial Number (used to recount this precinct, if applicable)	<b>From Machine</b>				<b>A1</b>
<b>A2</b>	Number on This Scanner's Public Counter – After Recount (if applicable)	<b>Public Counter</b>				<b>A2</b>
<b>A3</b>	Number on This Scanner's Public Counter – Before Recount (if applicable)	<b>Public Counter</b>				<b>A3</b>
<b>A4</b>	<b>Public Counter Difference</b> (Must Equal the Number of Ballots Read By the Scanner During Recount [From Tape])	<b>= A2 – A3</b>			Carry to C1(i)	<b>A4</b>
Part A - 2 – Certification of Precinct Manual Count			Calculation or Source	Total		
<b>A5</b>	Number of <i>Manually</i> Counted Machine-readable Ballots <sup>2</sup>		<b>Count</b>	Carry to C2(i)	<b>A5</b>	
<b>A6</b>	Number of Paper Ballots Counted in Recount (DOES <u>NOT</u> INCLUDE MANUALLY COUNTED MACHINE-READABLE BALLOTS)		<b>Count</b>	Carry to C3(i) <sup>3</sup>	<b>A6</b>	
<b>A7</b>	Number of Paper Ballot Voters as indicated on all paper pollbooks for the precinct, or on Electronic Pollbook (EPB)		<b>Pollbooks</b>	<sup>3</sup>	<b>A7</b>	
<b>A8</b>	Number of Paper Ballot Voters as indicated by line A9 of SOR (A18 if absentee ballots were counted in the precinct)		<b>SOR line A9</b>	<sup>3</sup>	<b>A8</b>	
<b>A9</b>	<b>Total Machine-readable and Paper Ballots Manually Counted in Recount</b>		<b>= A5 + A6</b>		<b>A9</b>	

<sup>1</sup> If only one scanner is being used, enter "0" in each of the second column cells.

<sup>2</sup> This includes all manually counted machine-readable ballots, including ballots examined from Box/Envelope #3 (Counted Ballots) but voided by voter (including overvoted), undervoted, voted for other candidates, drawn or challenged by a recount official (also see Part C).

<sup>3</sup> If A7 and A8 are different, or A6 is not the same as *both* A7 and A8, recount officers should explain the reasons for the difference -- as best they know or can determine -- on the reverse side of this page.



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DEPARTMENT of ELECTIONS

RECOUNT  
PRECINCT  
REPORT

Precinct || Office || District:  
Election Date:  
Recount Date:

Part B - 1 – DRE Voting Machines (Serial # and Number of Voters)		Calculation or Source	VM-1 or Consolidation Tape <sup>4</sup>	VM-2	VM-3	VM-4	VM-5	VM-6			
<b>B1</b>	Machine Serial Number	Machine Tag or Tape								Total Voters	<b>B1</b>
<b>B2</b>	Total Number of Voters Who Voted on This DRE	Public Counter or Tape								Carry to C4(i)	<b>B2</b>
Part B - 2 – Certification of DRE Machine Results for Precinct		Calculation or Source	VM-1 or Consolidation Tape <sup>4</sup>	VM-2	VM-3	VM-4	VM-5	VM-6		Candidate Totals	
<b>B3</b>	Candidate Name _____ ( )	Machine Tape								Should = C4(ii)	<b>B3</b>
<b>B4</b>	Candidate Name _____ ( )	Machine Tape								Should = C4(iii)	<b>B4</b>
<b>B5</b>	Total votes for both candidates on DRE(s)	= B3 + B4	<i>✍</i>	<i>✍</i>	<i>✍</i>	<i>✍</i>	<i>✍</i>	<i>✍</i>	<i>✍</i>	Should = C4(iv)	<b>B5</b>
<b>B6</b>	DRE ballots undervoted or voted for other candidates (this office)	= B2 - B5	<i>✍</i>	<i>✍</i>	<i>✍</i>	<i>✍</i>	<i>✍</i>	<i>✍</i>	<i>✍</i>	Carry to C8(iii)	<b>B6</b>

<sup>4</sup> If **consolidation tape** available, list total number of voters and results for recount candidates from consolidation tape under **VM-1 above** and **list all serial numbers for DREs included in the consolidation tape below**. If any DRE is not included in the consolidation tape, list the serial number and results for each such machine under VM-2, etc. Use additional copies of page if needed.





**Part B - 3 – If DRE Tape(s) Must Be Rerun**

Complete this part if any DRE tape from the precinct was missing or not clear, and the recount officers were directed to rerun the tape(s). Compare the seal on each machine opened to the final seal number listed for that machine on the key envelope.

**I. Do the seal and key envelope numbers for the reopened machine(s) agree?**  YES  NO

If **NO**, mark the serial number of the machine on which a discrepancy was found with a check (✓) in Part B-1 on previous page and complete A through E below. Attach the precinct Statement of Results from the election (including all pages and attached tapes).

A. Machine#: \_\_\_\_\_

B. \_\_\_\_\_  
Number on Protective Counter

C. \_\_\_\_\_  
Number on Public Counter

D. \_\_\_\_\_  
seal # on key envelope

E. \_\_\_\_\_  
seal # on machine

**II. Seal(s) intact?**  YES  NO

If **NO**, mark that machine number with an asterisk (\*) in Part B-1 on previous page. Enter, on the reverse side of this page, a description of the machine condition and complete lines F through H below. Attach the precinct Statement of Results from the election (including all pages and attached tapes).

F. Machine#: \_\_\_\_\_

G. \_\_\_\_\_  
Number on Protective Counter

H. \_\_\_\_\_  
Number on Public Counter



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DEPARTMENT of ELECTIONS

**RECOUNT  
PRECINCT  
REPORT**

Precinct || Office || District:  
Election Date:  
Recount Date:

<b>Part C - Certification of Official Ballots</b>						
<b>VOTES CAST FOR CANDIDATES IN RECOUNT</b>		<u>(i)</u>	<u>(ii)</u>	<u>(iii)</u>	<u>(iv)</u>	
<b>IMPORTANT:</b> - Lines C1-C5 include only recount parties [listed to the right under (ii) and (iii)] - Lines C6-C9 include all other ballots		Total Number Voting	Candidate Name _____ _____ _____	Candidate Name _____ _____ _____	Total Cast for Candidates (ii) + (iii)	
<b>C1</b>	<b>Total Ballots Read by Ballot Scanner Machine in Recount</b> (From tape; when finished attach tape to back of page with Part A.)	<b>A4</b> Total =			<b>C1</b>	
<b>C2</b>	<b>Total Machine-readable Ballots <i>Manually</i> Counted in Recount</b>	<b>A5</b> Total =			<b>C2</b>	
<b>C3</b>	<b>Total Paper Ballots Counted in Recount</b>	<b>A6</b> Total =			<b>C3</b>	
<b>C4</b>	<b>Total DRE Machine Count</b> [If no DREs used, mark each "0".]	<b>B2</b> Total =	SHOULD = LINE B3 TOTAL	SHOULD = LINE B4 TOTAL	<b>C4</b>	
<b>C5</b>	<b>Total Votes</b> (Add C1 through C4 in each column)				<b>C5</b>	
<b>C6</b>		Paper Ballots Drawn (during recount) (§ 24.2-802)			<b>C6</b>	
<b>C7</b>	Overvoted Ballots (plus ballots otherwise <u>voided by Voter</u> ) § 24.2-663	Machine-readable	Paper		<b>C7(i) + C7(ii)=</b>	
<b>C8</b>	Ballots Undervoted or Voted for Other Candidates	Machine-readable	Paper	DRE	<b>C8(i) + C8(ii) + C8(iii) =</b>	
<b>C9</b>	Challenged Ballots (enclosed in attached envelope)	Machine-readable	Paper		<b>C9(i) + C9(ii) =</b>	
<b>C10</b>		<b>TOTAL [Add C5 through C9 in column (iv)]</b> **Should equal C5 column (i)**			Carry to D5 and D10	<b>C10</b>



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DEPARTMENT of ELECTIONS

**RECOUNT  
PRECINCT  
REPORT**

Precinct || Office || District:  
Election Date:  
Recount Date:

Part D - 1 – Paper Pollbook Count (PBC) and Reconciliation		Division ____ - ____	Division ____ - ____	Division ____ - ____	Division ____ - ____	Calculation or Number	Total Pollbook Count	
<b>D1</b>	Enter <b>last PBC Number</b> for each division from PBC Count Sheet					Total of Division Counts		<b>D1</b>
<b>D1-PB</b>	Enter <b>number of Paper Ballots cast</b> (from Pollbooks by division)					Total of Division Counts		<b>D1-PB</b>
<b>D2</b>	<b>Number of cancelled DRE Ballots</b> – (DRE ballots that were CANCELLED because the voter left the booth without casting his/her ballot. Copy from precinct SOR.)							<b>D2</b>
<b>D3</b>	<b>Number of voided Machine-readable and Paper Ballots</b> - (Ballots that were VOIDED because the voter left the booth without casting his/her ballot. <u>DO NOT</u> include ballots spoiled by voter and replaced. Copy number from precinct SOR.)							<b>D3</b>
<b>D4</b>	<b>Total Number of Cancelled DRE and VOIDED Machine-readable and Paper Ballots</b>					= D2 + D3		<b>D4</b>
<b>D5</b>	<b>Pollbook Count Reconciliation</b> - Subtract Total number of CANCELLED DRE and VOIDED Machine-readable and Paper ballots from Total Pollbook Count. <b>**D5 should not be more than C10**</b>				<b>C10 =</b>	= D1 – D4		<b>D5</b>
Part D - 2 – Electronic Pollbook (EPB) Count and Reconciliation						Calculation or Number	Total Pollbook Count	
<b>D6</b>	Enter the <b>total voters Checked-In Count</b> from the EPB							<b>D6</b>
<b>D7</b>	<b>Number of cancelled DRE Ballots</b> - (DRE Ballots that were CANCELLED because the voter left the booth without casting his/her ballot. Copy number from Part C1 of precinct SOR.)							<b>D7</b>
<b>D8</b>	<b>Number of voided Machine-readable and Paper Ballots</b> - (Ballots that were VOIDED because the voter left the booth without casting his/her ballot. <u>DO NOT</u> include ballots spoiled by voter and replaced. Copy number from precinct SOR.)							<b>D8</b>
<b>D9</b>	<b>Total Number of cancelled DRE and voided Machine-readable and Paper Ballots</b>					= D7 + D8		<b>D9</b>
<b>D10</b>	<b>Pollbook Count Reconciliation</b> - Subtract the number of CANCELLED DRE and VOIDED Machine-readable and Paper ballots from Total Pollbook Count. <b>**D5 should not be more than C10**</b>				<b>C10 =</b>	= D6 – D9		<b>D10</b>



# Precinct Manual Tally Sheet

Start a new tally sheet for each precinct; use additional sheets if necessary. Use separate sheets for paper ballots and for manually counted optical scan. Make a hash mark for each vote cast for the candidate in the grid, like this: / . Mark the 5<sup>th</sup> vote like this: ###. Use one box for each set of five marks. Combine all tallies in appropriate rows/boxes in **Part C** of *Recount Precinct Results*.

**Election Date:** \_\_\_\_\_ **Office:** \_\_\_\_\_ **Precinct #/Name:** \_\_\_\_\_

**Type of Ballots (check only one):**     Paper     Manually Counted Optical Scan

CANDIDATE NAME	5	10	15	20	25	30	35	40	45	50	
											50
											100
											150
											200
											250
											300
											350
Total votes on this sheet for this candidate:											400
											450
											500
Candidate Name	5	10	15	20	25	30	35	40	45	50	
											50
											100
											150
											200
											250
											300
											350
Total votes on this sheet for this candidate:											400
											450
											500
Other	5	10	15	20	25	<b>Total</b>					
Manually Counted Ballots <b>Voided by Voter</b> (includes Overvoted)											
Manually Counted Ballots <b>Undervoted or Voted for Other Candidates</b>											
<b>Challenged Ballots</b> (complete/sign challenge form, attach ballot & enclose in CB envelope)											



★ VIRGINIA ★  
STATE BOARD *of* ELECTIONS

# Recounts

Step-by-Step Instructions

Adopted

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# For the public, media, candidates, and their representation

## Recount background information

A recount is a secondary count of all votes cast for an office during an election that is directed by an appropriate court of law. A recount may occur for any race of any office.

Pursuant to Va. Code § 24.2-802(B), “The determination of the votes in a recount shall be based on votes cast in the election and shall not take into account (a) any absentee ballots or provisional ballots sought to be cast but ruled invalid and not cast in the election, (b) ballots cast only for administrative or test purposes and voided by the officers of election, or (c) ballots spoiled by a voter and replaced with a new ballot.”

Additionally, a recount is not an opportunity to validate or invalidate the eligibility of a voter. Pursuant to Va. Code § 24.2-802, “the eligibility of any voter to have voted shall not be an issue in a recount.” For instance, if a provisional voter was determined to be valid by the local electoral board and the vote counted for the election, the provisional voter remains valid and their ballot will be processed as all other ballots during a recount.

## Briefly, what is the process for a recount in Virginia?

A recount is a secondary tabulation of votes cast for a particular office between two candidates: (1) the candidate certified the winner by the appropriate authority and (2) the candidate that lost within a specific margin (1%) to the winner (Va. Code § 24.2-800).

In conducting a recount the voting machine, which will scan all valid ballots, must be programmed to reject or return ballots that have (1) write-ins, (2) undervotes, (3) overvotes, or (4) ballots that cannot be read (*see* Va. Code § 24.2-802). These returned ballots will be hand counted, along with other ballots required to hand counted, by recount officials (*see* Va. Code § 24.2-802). Recount officials may challenge ballots when they question the validity of the ballot or cannot agree to the voter’s intent presented on the ballots. The recount court will make the determination on the challenged ballot. Additionally, the recount court will certify the final results of the recount.

## How does a recount happen?

In Virginia, there is no automatic recount; rather, a recount will only occur under certain circumstances and when certain actions are conducted.

**First**, the election results must be certified. Certification of election results can happen at different times depending on the office being certified.

The local electoral board must have results certified for local offices within one week following the election (*see* Va. Code § 24.2-671).

The State Board of Elections (SBE) certifies primary and general election results for all federal offices, states offices, and any offices shared by two or more localities. For primary nominations, the SBE must meet to certify results no more than fourteen days after the election (*see* Va. Code § 24.2-534). For November general elections, the SBE must meet to certify the results on the third Monday in November (*see* Va. Code § 24.2-679).

**Second**, the losing candidate must have been defeated within one percent (1%) of the winning candidate. Votes cast for other candidates cannot be included within this total (*see* Va. Code § 24.2-800).

When the losing or winning candidate is a write-in, the difference between the winning and losing candidates cannot be more than five percent (5%) of the total votes cast for those two candidates (*see* Va. Code § 24.2-800).

**Third**, the losing candidate must petition the appropriate court to request a recount.

For local offices, the petition must be filed in the circuit court of the county or city in which the candidate being challenged resides. Here, the losing candidate has 10 days from day the results were certified to file a petition with the appropriate court (*see* Va. Code § 24.2-801).

For statewide offices, the petition must be filed in the Circuit Court of the City of Richmond. Here, the losing candidate has 10 days from day the results were certified to file a petition with the appropriate court (*see* Va. Code § 24.2-801).

For presidential electors, the petition must be filed in the Circuit Court of the City of Richmond. Here, the losing candidate must file the petition no later than 5:00 PM of the second calendar day after the day the SBE certifies the election results (*see* Va. Code § 24.2-801.1). Presidential candidates who anticipate the possibility of asking for a recount are encouraged to notify the State Board by letter or email as soon as possible after election day.

A recount for presidential electors must be “held promptly” and completed in accordance of the provisions of 3 U.S.C. § 5, at least six days before the time fixed for the meeting of the electors.

The petition to the appropriate court must contain:

- The certified results of the election and
- A request to the appropriate court to have the ballots in the election recounted.

### **What happens after a recount petition is correctly filed?**

A recount court (hereafter the “Court”) will be established (*see* Va. Code § 24.2-801.1). The Court will consist of three judges: the Chief Judge of the Circuit Court of where the recount petition was filed and two (2) judges appointed by the Chief Justice of the Supreme Court of Virginia. The Court will preside over the entirety of the recount process.



The winner of the seat on election day will be served a copy of the petition.

The Court must hold a preliminary hearing within seven (7) calendar days of a petition filed for a recount of any election other than an election for presidential electors. The Court must hold a preliminary hearing within five (5) calendar days of a petition filed for a recount of an election for presidential electors.

### **What happens at the preliminary hearing?**

At the preliminary hearing, (1) motions may be disposed of and (2) the rules of the procedure for the recount may be “fixed” or determined. The parties to the recount will be entitled access to the pollbooks and other election materials used in the election for “examination purposes” under the supervision of the electoral board; thus, the general registrar should be present and the locality’s legal representation must be present during the hearing. However, **individual ballots cannot be examined** here (*see* Va. Code § 24.2-802(B)).

The Chief Judge and the recount court will also determine other details; including but not limited to, transportation and delivery of election materials and voting machines and testing. The court will also determine the number of recount officials and confirm the officials suggested by the parties to the recount, confirm recount coordinators, and security measures for the recount (*see* Va. Code § 24.2-802).

### **How are ballots counted?**

**First**, ballots will be scanned by recount officials. Prior to the recount, the locality was required to program the voting machines to return or set aside ballots with (1) overvotes, (2) undervotes, or (3) write-ins.

**Second**, these returned ballots will be hand counted. The recount team will also hand count any ballot that was hand counted on election day.

**Third**, if the recount team cannot agree, the ballot will be challenged and handed to the Court for adjudication. The Court will adjudicate the validity of the ballot and the voter’s intent. Additionally, the Court will certify the results of the recount.

### **Can candidates/ media/ general public observe the recount?**

Yes, a recount is a public event.

“On the request of any party to the recount, the court shall allow that party to appoint one representative observer for each team of recount officials.” (*see* Va. Code § 24.2-802(C)).

Each party to the recount (candidate) is entitled to have one observer per recount official team, if they request to the Court to have observers. The observer may stand behind or sit to the outside of the recount officials as they work and may only watch and take notes. Observers

must have an unobstructed view of the recount officials' work. No observer may handle ballots, election materials, or recount materials for ballot security reasons.

If an observer has a question, it must be directed to the supervising Recount Coordinator -- not the recount officials -- without disturbing the proceedings.

Members of the news media and the general public may also be in the room, but are not allowed to handle any official materials or disturb the proceedings in any way.

### **What happens after the Court adjudicates the challenged ballots?**

The Court will certify the total results, including any votes adjudicated for those party to the recount. The winner of the recount will be issued a certificate of election from the local electoral board. Further, any updates to vote numbers will be shown on the Department of Elections' website.

## Instructions – General Registrar/ Electoral Board members

The requirement to execute a recount can occur very rapidly. The Department suggests that if you think a recount is likely to occur, you should begin making preparations for a recount prior to the issuance of the recount writ.

### What are the responsibilities of the General Registrar and Electoral Board for a recount?

There are multiple actions that must be completed prior to the recount and during the recount. The general registrar and electoral board members will likely share responsibilities; however, ultimately Virginia Code of Elections places responsibility of the completion of these actions on the local electoral board. Responsibilities of the general registrar and the electoral board members may shift depending on the court order. Ensure the following is completed prior to the recount.

- Provide to the Clerk of the Court a signed ELECT-659 (Request to Inspect Sealed Materials) from the Department of Elections.

You may also want to request to open **Envelope 6** (unused ballots) or have your ballot printer print a number of ballots for the test deck for the L & A testing.

- Provide to the candidates and the recount court a list of election officials, and the party they represent, that served on election day.

Each candidate and governing body/chief executive officer (in the case of a referendum) involved in the recount may select an equal number of officers of election to serve as recount officials. Each team of recount officials must be composed of one representative of each party (see Va. Code § 24.2-802).

- Have a data storage medium for the voting machines of each precinct.

Central Absentee Precinct (CAP) will be counted as a separate precinct.

Valid provisional votes cast for Election Day will be counted as a separate precinct.

- Program your voting machine(s) and data storage device(s).

You must have your voting machine(s)/ data storage medium(s) programed to count the votes cast for the candidates or issue ordered in the recount.

You must have your voting machine(s)/ data storage medium(s) programmed to return overvotes, undervotes, and write-ins (Va. Code § 24.2-802), these ballots must be hand counted.

- Conduct an L&A prior to the recount.

Your Recount Court may stipulate in the recount order when your L&A must be conducted and how many ballots will be used.

- Review and amend the **Recounts documents** (if needed).

Your recount court may require you to account for vote totals for more than two candidates. If so, amend the **votes cast for candidates not party to the recount** on the recount forms to include any other candidate names party to the recount.

Your recount court determines how many recount officials will assist with the recount. You may be given multiple teams for each precinct or only one team. As such, **review and amend** your instructions for handing off returned ballots from the scanning team to the hand counting team (see page 9 of the instructions).

- Prepare materials for recount official training.

Ensure the recount officials and coordinators understand how to fill out the **Recount Precinct Results Report** and the **hand count tally sheet** as directed by the Department of Elections and the recount court.

Ensure the recount officials and coordinators understand how to conduct the hand count procedure.

- Prepare set up/ materials for the recount.

Prepare office supplies and required recount documents for your recount teams and coordinators in a “recount kit” for easy access. Set up the recount location as most efficient for your teams.

## What documents are accessible for a recount?

“The petitioner and his counsel and each other party and their counsel under supervision of the electoral board and its agents shall also have access to pollbooks and other materials used in the election for examination purposes, provided that individual ballots cast in the election shall not be examined at the preliminary hearing.” (see Va. Code Sec. 24.2-802).

Prior to the appropriate court holding a hearing, the following election related materials are available to the public:

- Statement of results are available at the general registrar’s office (Va. Code Sec. 24.2-668(B)).
- Machine tapes are available with the appropriate Clerk of Court (Va. Code Sec. 24.2-658)
- Printed return sheets are available with the appropriate Clerk of Court (Va. Code Sec. 24.2-658).
- Abstract of votes are accessible with the electoral board (Va. Code Sec. 24.2-675).

### **Can candidates/ media/ general public observe the recount?**

Yes, a recount is a public event.

“On the request of any party to the recount, the court shall allow that party to appoint one representative observer for each team of recount officials.” (see Va. Code § 24.2-802(C)).

Each party to the recount (candidate) is entitled to have one observer per recount official team, if they request to the Court to have observers. The observer may stand behind or sit to the outside of the recount officials as they work and may only watch and take notes. Observers must have an unobstructed view of the recount officials’ work. No observer may handle ballots, election materials, or recount materials for ballot security reasons.

If an observer has a question, it must be directed to the supervising Recount Coordinator -- not the recount officials -- without disturbing the proceedings.

Members of the news media and the general public may also be in the room, but are not allowed to handle any official materials or disturb the proceedings in any way.

### **Closing the Recount**

#### **Issuance of a new Certificate of Election**

The person having the highest number of votes after the recount will be determined to have been elected to the office and will receive a certificate of election. The Attorney General’s office determined that the certificate of election should be issued by the local electoral board even though an election is being recounted.

If the Recount Court’s certification of the recount declares the petitioning candidate the winner, a new certificate of election must be issued, making the original certificate null and void.

## **Update Results**

Localities involved in a recount may need to change their election results. Per Virginia Code § 24.2-671, amendments to official abstracts must be provided to the Department of Elections. Official amendments to abstracts should be certified and mailed to ELECT. Further, the locality must change election results in VERIS. To do so, the locality must enter a “Reason for Change” in VERIS before they can change their vote totals.

## **Return and Final Retention of Material**

All of the recount material received from each city or county comprising the district being recounted should be resealed and signed by the recount officials and then securely stored by the Clerk of Court for the Circuit Court in which the recount was held. These materials should remain secured and sealed until the time for the candidate losing the recount to initiate a contest has expired.

If the recount was for a primary or election for a General Assembly seat, statewide office or federal office, the Department of Elections will check with the appropriate office to determine if a contest has been filed by the deadline, and then notify the Clerk. If no contest is pending, the records for the Clerk's own locality should then be treated as prescribed by law for other records from that same election date that are in the custody of the Clerk.

Materials sent from any other localities in the district to be recounted should be returned to the Clerks for those localities, again to be treated in the same manner as other records from that election date that are in the custody of the Clerk. The other Clerks may want to pick up the records, or the sending Clerk may have them delivered personally or by a method that includes tracking of delivery. If the materials are picked up or delivered personally, both Clerks should keep a record documenting the transaction.

In the case of a primary or election for a county, city or town office, or local district office, any contest would be filed with the Circuit Court where the challenged candidate resides. Unless the recount was for a shared local office, the Clerk of the Court that conducted the recount will receive any contest filed, or should check with the Clerk where the winning candidate resides to determine if a contest has been filed by the deadline.

## Instructions – Recount Coordinators

### What are my responsibilities as a recount coordinator?

- Supervise multiple recount teams' work progress.
- Assist the recount teams.

Provide information on the recount procedure to recount teams.

Enter data on the recount precinct results form for the recount teams, if needed.

Pick up from the Clerk and deliver to recount teams sealed ballots precinct by precinct.

Ensure recount teams have all necessary materials.

Check that ballot bins are empty as requested by recount officials.

- Speak with the general public, candidate(s), and their representatives, and media regarding recount information.

Recount teams may have to count many, many ballots by hand and third parties speaking with recount teams may disturb their process of the hand count. To ensure that teams work effectively, recount teams cannot speak to the general public, candidate(s), or their representatives, or media.

- Ensure the recount proceedings are not disturbed.
- **A recount coordinator cannot touch any ballots.**

Only recount teams may touch the ballots. This requirement is due to ballot security and chain of custody.

## Instructions – Recount Officials (scanning ballots)

### Check that you have these materials.

- Two (2) copies of Recount Precinct Results form
- Data storage device for the ballot scanning machine
- Container(s)/ Envelope(s) #3
- Returned ballot bin/ place to set aside ballots that could not be scanned

### Print two (2) zero tapes from the voting machine.

1. **Check** that all totals on the zero tapes read 0000
2. **Check** the public counter total reads 0000
3. **Complete** PART 1 on the recount precinct results report.
4. **Staple** a zero tape to the first page of each Recount Precinct Results form

### Scan all ballots through the machine.

1. **Open** container/envelope #3 and take out the counted ballots for the precinct.

If you have multiple containers, open one container at a time.

2. **Feed** the counted ballots into the scanner

If the machine returns a ballot or a ballot will not scan, **put the ballot aside in the returned ballots bin.**

3. **Repeat** Step 1 and 2 with all containers /Envelopes #3 for the precinct until all ballots have been scanned or set aside for hand counting.
4. **Ask** the recount coordinator to check that all container /Envelope #3 are empty.

### Print two (2) results tapes from the voting machine.

1. **Complete** PART 2 of the Recount Precinct Results form with the results tapes.
2. **Staple** one (1) results tape to page 3 of each Recount Precinct Results form
3. **Remove** the ballots that successfully scanned from the ballot scanner compartment.
4. **Return** successfully scanned ballots to container/ envelope #3s.
5. **Ask** the recount coordinator to check that the ballot scanner compartment is empty.



## **Instructions – Recount Officials (scanning ballots)**

**If you do not have returned ballots set aside.**

1. **Jump** to page 13 of these instructions to the section titled: **Complete the Recount Precinct Results form.**

**If you have returned ballots set aside.**

1. **Remove** the returned ballots from the bin if directed by the recount coordinator.
2. **Place** returned ballots in the designated area if directed by the recount coordinator.
3. **Ask** the recount coordinator to check that the returned ballot bin is empty.
4. **Go to** the instructions of the section titled: **Instructions – Recount Officials (hand counting ballots).**

# Instructions – Recount Officials (hand counting ballots)

## Check that you have these materials.

- Returned ballots for the precinct
- Two (2) copies of the Recount Precinct Results Form for the precinct
- The Department of Elections' *Ballot Examples*
- Challenged Ballot Form
- Challenged Ballots envelope
- One (1) copy of the Hand counting tally sheet
- Envelope #2

## Review these definitions.

Definitions you must know:
<b>Undervote:</b> means the voter did not vote the total number of candidates they could have for a seat. For instance, the voter could have voted for six candidates but the voter only cast a vote for three candidates.
<b>Overvote</b> means the voter made more choices than they were entitled to
<b>Write-in vote:</b> Voter wrote the name of an individual that is not printed on the ballot.

## Group the returned ballots.

1. **Separate** and group the ballots into groups of 10.
2. **Secure** each group and label with a group number, starting with Group 1.

## Review ballots one at a time.

1. **Starting** with Group 1, take the first ballot from the group.
2. **Place** the ballot with the office of the recount face up.
3. **Review** the ballot for a vote, undervote, or overvote.

## Record the vote of the ballot.

1. **Tally** a vote, undervote, or overvote presented on the ballot on the **Hand counted ballots tally sheet**.

You and your teammate must agree on the vote(s) presented on the ballot.

## **Instructions – Recount Officials (hand counting ballots)**

If you and your teammate do not agree on how the vote was cast, **challenge the ballot and set the ballot aside**. Tally the ballot as “challenged” on the Hand counted ballots tally sheet.

### **Return the ballot.**

1. **Turn** the counted ballot face down. You will stack all returned ballots for this group like this.

### **Repeat this process until all ballots in the group have been counted.**

1. **Total** the numbers for this group of ballots on the hand counted ballots tally sheet.
2. **Check** your numbers with your teammate.

If you and your teammate do not have the same numbers, **count again**.

3. **Secure** together the hand counted ballots tally sheet, the group of hand counted ballots, and the label.
4. **Set** the documents aside.

### **Repeat this process until all ballot groups have been counted and tallied.**

### **If you have ballots that were set aside to be challenged.**

1. **Continue** to the next section titled: **Challenge the ballot**.

### **If you do not have ballots that were set aside to be challenged.**

1. **Jump** to page 13 of these instructions to the section titled: **Complete the Recount Precinct Results form**.

## Instructions – Recount Officials (hand counting ballots)

### Challenge the ballot

1. **Fill** out the Statement of recount official – challenge ballot
2. **Attach** the Statement of recount official – challenge ballot slip to the ballot
3. **Place** the ballot and attached Statement of recount official – challenge ballot slip into the Challenged Ballots envelope
  - Leave the envelope unsealed
  - Leave the envelope blank
4. **Repeat** steps 2 and 3 until there are no more ballots.
5. **Fill** in the total number of challenged ballots for the precinct in PART 4 of the Recount Precinct Results form.

## Instructions – Recount Officials (hand counting ballots)

### Complete the Recount Precinct Results form

1. **Complete** PART 4 of the Recount Precinct Results form.
2. **Complete** PART 5 of the Recount Precinct Results form.
3. **Complete** PART 6 of the Recount Precinct Results form.

Use the SOR in envelope #2 for your number of votes cast on election day.

If you did not check “Yes” in PART 6, explain why your numbers do not match.  
Speak with your recount coordinator for assistance.

Place SOR back in envelope #2 and reseal when you are done.

4. **Complete** PART 7 of the Recount Precinct Results form.
5. **Complete** PART 8 of the Recount Precinct Results form.

### Collect all groups of hand counted ballots (if applicable).

1. **Remove** the hand counted tally sheet(s) and labels from the grouped ballots.
2. **Secure** together all hand counted tally sheet(s) and labels from the grouped ballots.
3. **Place** all hand counted tally sheet(s) and labels from the grouped ballots in envelope #2
4. **Place** all ballots that were not challenged into envelope/ container #3.
5. **Check** that all challenged ballots are in the Challenged Ballots envelope.

### Seal all envelopes/ containers.

1. **Give** all recount materials to your recount coordinator.
  - Sealed envelope #2
  - Sealed container/ envelope #3
  - Sealed challenged ballots envelope
  - Completed Recount Precinct Results form for the precinct
  - Secured hand counted tally sheet(s) and labels from the grouped ballots

# Instructions – Clerk of the Court

## Briefly, what is the process for a recount in Virginia?

A recount is a secondary tabulation of votes cast for a particular office between two candidates: (1) the candidate certified the winner by the appropriate authority and (2) the candidate that lost within a specific margin (1%) to the winner (Va. Code § 24.2-800).

In conducting a recount, the voting machine, which will scan all valid ballots, must be programmed to reject or return ballots that have (1) write-ins, (2) undervotes, (3) overvotes, or (4) ballots that cannot be read (*see* Va. Code § 24.2-802). These ballots that were returned will be hand counted, along with “paper” ballots, by recount officials (*see* Va. Code § 24.2-802). Recount officials may challenge ballots when they question the validity of the ballot or cannot agree to the voter’s intent as presented on the ballots. The recount court will make the adjudication of the ballot’s validity and voter intent. Additionally, the recount court will certify the final results of the recount.

## What are my responsibilities during a recount?

For a recount, you are responsible for ensuring the security of the ballots and other necessary election materials.

- Certify that security measures have been taken in whatever form is deemed appropriate by the chief judge of the recount court (Va. Code § 24.2-802(A)).
- Be present and administer oaths to recount officials on the day of the recount.
- Release sealed ballots as requested to the **recount coordinator**.

Ensure to sign out the sealed materials before giving them to the recount coordinator.

- Accept completed recount materials and sealed ballots from the **recount coordinator** per precinct.

Before accepting materials, ensure that all materials are being returned that were released and that they are sealed.

- Convey sealed recount materials to the Recount Court for the entire locality in precinct number order.
- Secure sealed election materials after the recount as required by Va. Code § 24.2-669.

## Instructions – Recount Court

### Briefly, what is the process for a recount in Virginia?

A recount is a secondary tabulation of votes cast for a particular office between two candidates: (1) the candidate certified the winner by the appropriate authority and (2) the candidate that lost within a specific margin (1%) to the winner (Va. Code § 24.2-800).

In conducting a recount, the voting machine, which will scan all valid ballots, must be programmed to reject or return ballots that have (1) write-ins, (2) undervotes, (3) overvotes, or (4) ballots that cannot be read (*see* Va. Code § 24.2-802). Returned ballots will be hand counted, along with “paper” ballots, by recount officials (*see* Va. Code § 24.2-802). Recount officials may challenge ballots when they question the validity of the ballot or cannot agree to the voter’s intent presented on the ballot. Your court will adjudicate the validity of the ballot and the voter’s intent. Additionally, your court will certify the results of the recount.

### What are the legal requirements of the chief judge/ recount court?

Review Va. Code § 24.2-802 for a full outline of your and the recount court’s legal requirements.

- The Chief Judge must call a preliminary hearing within seven (7) calendar days of a petition filed for a recount of an election (five [5] days for a presidential election) (*see* 24.2-802(B)).
- Determine logistics and security of the recount and relevant election materials (*see* Va. Code § 24.2-802(B)).

The Chief Judge must review all security measures for all ballots and voting machines taken prior to the recount and “ensure proper security to conduct the recount.”

Determine the time/ location for recount, delivery and transportation of election material and voting machines.

Determine the procedures for the recount.

Determine the number of recount officials required to conduct the recount within a “reasonable period.” (*see* Va. Code § 24.2-802(C)). Parties to the recount are entitled to choose the officials.

- Your court may select pairs of recount coordinators to serve for each county or city in the election district. These coordinators must be members of the county or city electoral board and represent the political parties as defined by Va. Code § 24.2-101. (*see* Va. Code § 24.2-802(C)).
- Supervise the recount (*see* Va. Code § 24.2-802(C)).

- Determine the validity and voter intent of a ballot challenged by recount officials (Va. Code § 24.2-802(B)).
- Certify the results of the recount (*see* Va. Code § 24.2-802(D)(3)).

### **Why were ballots challenged?**

Your court received a challenged ballot because the recount officials during the hand counting phase of the recount procedure could not agree on the validity of the ballot or the voter’s intent as presented on the ballot. Per Va. Code § 24.2-802, a written statement from a recount official challenging the ballot is “sufficient to require” the submission of the ballot to the Court.

The challenged ballot should be attached to another paper which provides information on the specific ballot regarding (1) the precinct number, (2) precinct name, (3) office seat up for election, and (4) reason for the challenge.

### **Is there any guidance on determining the validity of a ballot?**

The recount court will ultimately determine the voter’s intent as presented on the ballot. Determination of the validity (and vote) of the challenged ballot is under the authority of your court.

At the beginning of the recount, the recount officials were provided with State Board of Election’s guidance titled, “*Ballot Examples: Handcounting Printed Ballots for Virginia Elections and Recounts,*” which exemplifies how a ballot may be marked and how voter intent may be interpreted by the viewer.

### **Should the court adjudicate challenged ballots as they become available within the precinct or adjudicate challenged ballots within a precinct all at once?**

The Department of Elections recommends the recount court view all challenged ballots of a precinct at once for purposes of ballot security and handling.

### **How are political parties and/or candidates involved in the Recount procedure?**

A recount process is an election administrative procedure that your court directs. As a result, candidates and/or their representatives (observers) will be more involved with the Court’s hearings; including, preliminary and any hearing regarding appropriately challenged ballots.

Political parties, candidates, and/or their representatives (observers) are entitled to observe the recount process but have no explicit legal standing to determine voter intent on a ballot (legally reserved for the recount officials or your court) or challenge a ballot (legally reserved for the recount officials).



Staple Recount  
Zero Tapes Here

Place in Envelope 2
------------------------

## Recount Precinct Results

<b>Locality:</b>	Click here to enter text.
<b>District:</b>	Click here to enter text.
<b>Precinct:</b>	Click here to enter text.
<b>Election Date:</b>	Click here to enter text.
<b>Recount Date:</b>	Click here to enter text.
<b>Seat/ Contest:</b>	Click here to enter text.

### What to do before you start the recount for this precinct:

- **Print** two (2) copies of the zero tape from each machine
- **Have** all precinct recount officials sign each zero tape
- **Staple** one (1) zero tape on the left side of this page
- **Staple** one (1) zero tape on the first page of your second copy of the Recount Precinct Results

### PART 1: Complete this information at the start of the precinct recount

Check this box if ballot envelope(s)/ bin(s) is #3 sealed:	<input type="checkbox"/>
Check this box when the public counter is set to ZERO	<input type="checkbox"/>
Scanning machine serial # :	
Scanning machine seal #:	
What is the protective counter?	

### PART 2: Total vote count for scanned ballots

Candidate Name 1	
Candidate Name 2	
Total vote count for candidates not party to the recount	
<b>Total</b> (add each row)	2A

<b>PART 3: Total vote count for hand counted ballots</b>	
Candidate Name 1	
Candidate Name 2	
Total vote count for candidates not party to the recount	
Undervotes	
Overvotes	
<b>Totals</b> (add each row)	<b>3A</b>

<b>PART 4: Total vote count for candidates party to the recount</b>	
Candidate Name 1 (Total for candidate from Part 2 + Part 3)	
Candidate Name 2 (Total for candidate from Part 2 + Part 3)	

<b>PART 5: What was the total ballot count for the recount?</b>	
How many ballots were scanned?	See 2A
How many ballots were hand counted?	See 3A
How many ballots were challenged?	
<b>Total</b> (add each row)	<b>5A</b>

<b>PART 6: Ballot count reconciliation</b>	
How many total ballots were cast in this precinct for this race? (Check the SOR/ election day tapes)	
Does this number equal 5A? <input type="checkbox"/> Yes <input type="checkbox"/> No	

Explain if you marked "No" in PART 6:

---



---



---

Staple Recount  
Results Tapes  
Here

**What to do when you complete the recount for this precinct:**

- **Print** two (2) copies of the results tapes
- **Have** all precinct recount officials sign the results tapes
- **Check** that one (1) results tapes is stapled on the left side of this page
- **Check** one (1) results tapes is stapled on the last page of your second copy of the Recount Precinct Results
- **Complete** part 7 and part 8 of this form below

<b>PART 7: Complete this information when you complete the recount for this precinct</b>	
Check this box that the envelope(s)/ bin(s) #3 is resealed:	<input type="checkbox"/>
Scanning machine seal #:	
Scanning machine serial # :	
What is the public counter?	
What is the protective counter?	

<b>PART 8: Collect Signatures of Precinct Recount Officials</b>	
For all Recount Officials that completed this precinct, read the following statement and sign below.	
<i>We hereby certify that all information entered here is true and correct.</i>	
1.	Sign: X _____ Print: _____
2.	Sign: X _____ Print: _____
3.	Sign: X _____ Print: _____
4.	Sign: X _____ Print: _____

### Part 3. Hand counted ballots tally sheet

Place in  
Envelope 2

**Only use this form if you are required to hand count ballots.**

<b>Locality:</b>	Click here to enter text.
<b>District:</b>	Click here to enter text.
<b>Precinct:</b>	Click here to enter text.

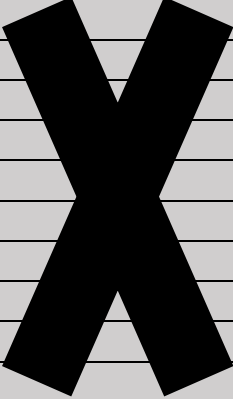
<b>Election Date:</b>	Click here to enter text.
<b>Recount Date:</b>	Click here to enter text.
<b>Seat/ Contest:</b>	Click here to enter text.

#### Returned Ballots. Group 1

Ballot No.	Challenged	Overvote	Undervote	Vote cast for a candidate not party to the recount	Candidate 1	Candidate 2	Total
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
<b>Total</b>							(=)

Previous group running total	+	+	+	+	+	+	+	+
<b>RUNNING TOTAL</b>	=	=	=	=	=	=	=	=

**Returned Ballots. Group \_\_\_\_\_**

Ballot No.	Challenged	Overvote	Undervote	Vote cast for a candidate not party to the recount	Candidate 1	Candidate 2	Total
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							
<b>Total</b>							(=)

Previous group running total	+	+	+	+	+	+	+	+
<b>RUNNING TOTAL</b>	=	=	=	=	=	=	=	=

**Returned Ballots. Group \_\_\_\_\_**

Ballot No.	Challenged	Overvote	Undervote	Vote cast for a candidate not party to the recount	Candidate 1	Candidate 2	Total
21.							
22.							
23.							
24.							
25.							
26.							
27.							
28.							
29.							
30.							
<b>Total</b>							(=)

Previous group running total	+	+	+	+	+	+	+	+
<b>RUNNING TOTAL</b>	=	=	=	=	=	=	=	=



★ VIRGINIA ★  
STATE BOARD *of* ELECTIONS

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# Election Equipment

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BOARD WORKING PAPERS  
James Heo  
Confidential Policy Advisor



★ VIRGINIA ★  
DEPARTMENT *of* ELECTIONS

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**Memorandum**

To: Chairman Brink, Vice Chair O'Bannon and Secretary LeCruise

From: James Heo, Confidential Policy Advisor

Date: January 28, 2020

Re: Hart InterCivic 2.3 Voting System Certification

---

**Suggested motion for Board Member to make:**

I move that the Board certify the use of Hart InterCivic 2.3 in elections in the Commonwealth of Virginia, pursuant to the *State Certification of Voting Systems: Requirements and Procedures*.

**Applicable Code Section:** § 24.2-629

**Attachments:**

Your Board materials include the following:

- EAC Agency Decision Grant of Certification Letter
- EAC Certificate of Conformance
- Hart InterCivic 2.3 Virginia Test Report provided by SLI Compliance Lab
- Essex County November 12, 2019 Pilot General Election Day Letter
- Virginia State Certification of Voting Systems Requirements and Procedures

**Background:**

Following the steps prescribed in the *Virginia State Certification of Voting Systems: Requirements and Procedures*, Hart InterCivic initiated the certification evaluation to the Department of Elections on July 1, 2019. Hart InterCivic provided their Technical Data Package and Corporate Information (required under step 2 of the *Requirements and Procedures*). Both of these submissions were deemed complete and in sufficient detail to warrant Step 3, the Preliminary Review.

During the Preliminary Review, the state-designated evaluation agent conducted a preliminary analysis of the TDP, Corporate Information, and other materials provided and prepared an Evaluation Proposal (i.e. Test Plan). Upon Hart InterCivic agreement with the test plan, the evaluation was conducted on August 12, 2019 through August 14, 2019, in the Department of Elections offices in Richmond, Virginia.



In addition the system was successfully piloted in an election in Essex County on November 5, 2019 General Election. The Hart InterCivic 2.3 voting system successfully completed Virginia Voting Systems State Certification.



# Certification Test Report - Modification

Report Number *HRT-18002-CTR-01*

## Hart InterCivic Verity Voting 2.3

Modification Certification Test Report version 1.3

February 26<sup>th</sup>, 2019

Prepared for:

<b>Vendor Name</b>	<i>Hart InterCivic Inc. (Hart)</i>
<b>Vendor System</b>	<i>Verity Voting 2.3</i>
<b>EAC Application No.</b>	<i>HRT-Verity-2.3</i>
<b>Vendor Address</b>	<i>15500 Wells Port Drive Austin, TX 78728</i>

Prepared by:



SLI Compliance<sup>SM</sup>  
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Accredited by the National Institute of Standards and Technology (NIST) National Voluntary Lab Accreditation Program (NVLAP), and accredited by the Election Assistance Commission (EAC) for VSTL status.



## Revision History

Release	Author	Revisions
v1.0	M. Santos	Initial Release; submitted to EAC for approval
v1.1	M. Santos	Updates for EAC comments
v1.2	M. Santos	Updates for additional EAC comments
v1.3	M. Santos	Updated for Hardware test report listing in "Attachments"

### Disclaimer

The Certification Test results reported herein must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. Results herein relate only to the items tested.

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### **Trademarks**

- SLI is a registered trademark of SLI Compliance, a Division of Gaming Laboratories International, LLC.
- Intel and Pentium are registered trademarks of Intel Corporation.
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- Verity is a trademark of Hart InterCivic Inc.
- All other products and company names are used for identification purposes only and may be trademarks of their respective owners.

The tests referenced in this document were performed in a controlled environment using specific systems and data sets, and results are related to the specific items tested. Actual results in other environments may vary.

### Opinions and Interpretations

There are no SLI opinions or interpretations included in this report beyond the final recommendation.



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# 1 Introduction

SLI Compliance is submitting this test report as a summary of the certification testing efforts for the **Hart Verity Voting 2.3** system, a modified system from **Verity Voting 2.0**, as detailed in the section System Identification. The purpose of this document is to provide an overview of the certification testing effort and the findings of the testing effort for the **Hart Verity Voting 2.3** system.

This effort included documentation review of the Technical Data Package, source code review, and testing of the **Hart Verity Voting 2.3** voting system. Testing consisted of the development of a test plan, managing system configurations, hardware testing, component and system level tests prepared by SLI, and analysis of results. The review and testing was performed at SLI's Denver, Colorado facility.

## 1.1 References

1. Election Assistance Commission Voluntary Voting System Guidelines version 1.0 (EAC VVSG 1.0), Volumes I & II
2. NIST NVLAP Handbook 150: 2016
3. NIST NVLAP Handbook 150-22: 2008
4. EAC Voting System Testing and Certification Program Manual, United States Election Assistance Commission, v 2.0, May 2015
5. EAC Voting System Test Laboratory Program Manual, United States Election Assistance Commission, v 2.0, May 2015
6. SLI VSTL Quality System Manual, v 2.6, prepared by SLI, March 28, 2018

## 1.2 Document Overview

This document contains:

- The "Introduction", which discusses the applications tested/reviewed.
- The "Certification Test Background", which discusses the testing process.
- The "System Identification", which identifies hardware and software for the **Hart Verity Voting 2.3** system.
- The "System Overview", which discusses the functionality of **Hart Verity Voting 2.3** system software and firmware.
- The "Certification Tests Results and Summary", which is a summary of the testing effort.
- The "Recommendations" section, which contains the final analysis of the testing effort.
- Attachments as follows:
  - Attachment A – Warrant of Change Control for Verity Voting 2.3
  - Attachment B - Attestation of Durability for Verity Voting 2.3
  - Attachment C - Attestation of Integrity for Verity Voting 2.3
  - Attachment D - Attestation of Production Hardware and Software for Verity Voting 2.3
  - Attachment E1 - Record of Trusted Build for Verity Voting 2.3.1



- Attachment E2 - Record of Trusted Build for Verity Voting 2.3.2
- Attachment F - Modification of Certified System Analysis Summary Verity 2.3
- Attachment G – As Run Hart Verity 2.3 EAC Modification Test Plan v1.1
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- Attachment H1 - HRT\_C#\_MSAllInOneStandard\_SCRF
- Attachment H2 - HRT\_C\_&\_C++\_MSAllInOneStandard\_SCRF
- Attachment I – List of Source Code Reviewed and Results
- Attachment J – Verity Voting 2.0 to 2.3 System Modifications
- Attachment K1 - Immunity Testing for Verity Scan, Controller and TW Duo Rev 1
- Attachment K2 - Immunity Testing for Verity Scan Rev 1
- Attachment K3 -Radiated and Conducted Emissions for Verity Controller and TW Duo Rev 1
- Attachment K4 -Radiated and Conducted Emissions for Verity Scan Rev 1
- Attachment L - Hart Verity 2.3 EAC Environmental Hardware Test Report

## 2 Certification Test Background

This section provides a brief overview of the EAC Certification Program and the activities involved in order for a voting system to be considered for certification against the VVSG 1.0 and the current EAC program manuals.

### 2.1 PCA - Document and Source Code Reviews

The Physical Configuration Audit (PCA) review of the **Hart Verity Voting 2.3** documentation, submitted in the requisite Technical Data Package (TDP), was performed in order to verify conformance with the VVSG 1.0. Source code was reviewed for each software and firmware application declared within the **Verity Voting 2.3** voting system. As this is a modification test campaign, the source code was compared against the final code base of **Verity Voting 2.0**, and changes were subject to review.

All PCA reviews were conducted in accordance with *Volume II Section 2* of the VVSG 1.0, to demonstrate that the system meets the requirements. Results of the PCA documentation review can be found in section 5.2 of this Certification Test Report.

All PCA source code reviews were conducted in accordance with *Volume I Section 5.2 and Volume II Section 5* of the VVSG 1.0, to demonstrate that the system meets the requirements. Results of the PCA source code reviews can be found in *Attachment I – List of Source Code Reviewed and Results*. Inconsistencies or errors in the source code were identified to Hart for resolution or comment. Additional details of the source code review criteria can be found in *Attachments H1-H2*.



## 2.2 FCA - Functional & System Testing and Sampling

The Functional Configuration Audit (FCA) review of the test documentation submitted by Hart in the TDP was reviewed in order to verify testing of the voting system.

SLI's standard Test Suites were customized for the **Hart Verity Voting 2.3** voting system and conducted in accordance with *Volume II Section 6 of the VVSG 1.0*. Simulations of elections were conducted to demonstrate a beginning-to-end business use case process for the **Hart Verity Voting 2.3** voting system.

### 2.2.1 Test Methods

All test methods employed are within the scope of SLI's VSTL accreditation.

The following validated test methods were employed during this test campaign:

**Table 1 – Test Methods**

SLI VSTL Test Method Name
TM_Accuracy v1.2
TM_Basic_Election_Components v1.1
TM_Ballot Formatting and Production v1.1
TM_Error Message and Recovery v1.3
TM_HW Integrity v1.2
TM_Maintainability v1.1
TM_Readiness v1.1
TM_Tally_and_Reporting v1.1
TM_Security Access Control v1.1
TM_Security Physical Security Measures v1.1
TM_Security Software v1.1
TM_Security Telecommunications and Data Transmission v1.2
TM_Stress v1.1
TM_System Audit v1.1
TM_Telecommunications v1.1
TM_Volume v1.1
TM_Voting Capabilities v1.3
TM_Voting Straight Party v1.2

The above listed test methods are implemented in a complementary fashion: modules are employed from various methods to form suites. Suites included the logical sequence of functionality that was used to validate the requirements addressed by each module within the suite. Please see Table 3 - Terms and Abbreviations below for additional information about Test Modules and Test Suites.





- **Deviations from, to, or exclusions from the test methods**

The test methods listed in Table 1 above, contain the requirements listed in section 4.6 below. The established and validated test methods did not have any deviations. Test cases utilizing those methods were selected and grouped into test suites to validate the requirements in section 4.6.

## 2.2.2 Terms and Abbreviations

This section details pertinent terms applicable within this report.

**Table 2 – Terms and Abbreviations**

Term	Abbreviation	Description
Ballot Marking Device	BMD	An accessible computer-based voting system that produces a marked paper ballot that is the result of voter interaction with visual or audio prompts.
Cast Vote Record	CVR	Record of all selections made by a single voter whether in electronic or paper. Also referred to as a ballot image when used to refer to electronic ballots.
Central Count Scanner	CCS	High Speed Digital Scanner is a ballot scanning device typically located at a central count facility and is operated by an automated multi-sheet feeding capability.
Chevron (Arrows at top of current screen)	No Abbreviation	Verity software applications are organized around easy-to-follow workflows, with specific activities associated with “chevrons” or “arrows” in the application user interface.
Compact Flash card	CF	This is a type of flash memory card in a standardized enclosure often used in voting systems to store ballot and/or vote results data.
Compact Flash AST	CFAST	A compact flash media based on the Serial ATA bus rather than the Parallel ATA bus, used by the original Compact Flash.
Commercial Off the Shelf	COTS	Commercial, readily available hardware devices (such as card readers, printers or personal computers) or software products (such as operating systems, programming language compilers, or database management systems).
Election Assistance Commission	EAC	An independent, bipartisan commission created by the Help America Vote Act (HAVA) of 2002 that operates the federal government's voting system certification program.



Term	Abbreviation	Description
Election Management System	EMS	Typically utilizes a database management system to enter jurisdiction information (district, precincts, languages, etc.) as well as election specific information (races, candidates, voter groups (parties), etc.). In addition, the EMS is also used to lay out the ballots, download the election data to the voting devices, upload the results and produce the final results reports.
Electromagnetic Compatibility	EMC	The goal of EMC is to validate the correct functioning of different equipment in the same environment and the avoidance of any interference effects between them.
Functional Configuration Audit	FCA	Exhaustive verification of every system function and combination of functions cited in the vendor's documentation. The FCA verifies the accuracy and completeness of the system's Voter Manual, Operations Procedures, Maintenance Procedures, and Diagnostic Testing Procedures.
National Institute of Standards and Technology	NIST	A non-regulatory federal agency within the U.S. Dept. of Commerce. Its mission is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life.
National Voluntary Laboratory Accreditation Program	NVLAP	A division of NIST that provides third-party accreditation to testing and calibration laboratories.
Physical Configuration Audit	PCA	The testing activities associated with the physical aspects of the system (hardware, documentation, builds, source code, etc.).
Primary – Closed	No Abbreviation	The Closed Primary election segregates each political party onto its own ballot, along with all pertinent non-political contests and referendums.
Primary - Open	No Abbreviation	The Open Primary election combines all political parties' contests onto a single ballot, along with all pertinent non-political contests and referendums.
Precinct Count Scanner	PCS	A precinct-count optical scanner is a mark sense-based ballot and vote counting device located at a precinct and is typically operated by scanning one ballot at a time.
Request For Information	RFI	A form used by testing laboratories to request, from the EAC, interpretation of a technical issue related to testing of voting systems.



Term	Abbreviation	Description
Requirements Matrix	N/A	This is the matrix created by the EAC and maintained by SLI that traces the requirements to the various test modules and test methods.
Standard Lab Procedure	SLP	SLI's quality system documentation is made up of standard lab procedures (SLPs), which are procedures required to ensure a systematic, repeatable and accurate approach to voting systems testing and governing the actual performance of SLI's work.
(Verity) Tab	No Abbreviation	Verity software applications are organized around easy-to-follow workflows and activities; a "Tab" provides specific activities associated with "chevron" workflows in the application user interface.
Voting Center	No Abbreviation	Typically, a convenient voting location that manages multiple ballot styles.
Technical Data Package	TDP	This is the data package that is supplied by the vendor and includes: Functional Requirements, Specifications, End-user documentation, Procedures, System Overview, Configuration Management Plan, Quality Assurance Program, and manuals for each of the required hardware, software, firmware components of each voting system.
Test Method	No Abbreviation	SLI proprietary documents which are designed to group sets of EAC VVSG requirements in a logical manner that can be utilized to efficiently validate where and how requirements, or portions of a requirement, are met.
Test Module	No Abbreviation	An actionable component of a Test Method, that functionally verifies that a requirement is met within a voting system. Test Modules are at a generic level within the Test Method, and are customized for a particular voting system, within a Test Suite.
Test Suite	No Abbreviation	An actionable grouping of test modules designed to test a set of functions of a voting system or component in a specific way.
Validation	No Abbreviation	Confirmation by examination and through provision of objective evidence that the requirements for a specific intended use or application have been fulfilled (ISO 9000).
Verification	No Abbreviation	Confirmation by examination and through provision of objective evidence that specified requirements have been fulfilled (ISO 9000).



Term	Abbreviation	Description
Voluntary Voting Systems Guidelines Volumes I & II	VVSG	A set of specifications and requirements against which voting systems can be tested to determine if the systems provide all of the basic functionality, accessibility and security capabilities required of these systems.
Voting System Test Lab	VSTL	The accredited lab where the voting system is being tested.
Voting System Under Test	VSUT	The designation for a voting system that is currently being tested.
Voting Test Specialist	VTS	An SLI Compliance employee who has been qualified to perform EAC voting system certification testing.

### 3 System Overview

#### 3.1 Scope of the Hart Verity Voting 2.3 Voting System

This section provides a description of the scope of **Hart Verity Voting 2.3** voting system components:

- The **Hart Verity Voting 2.3** voting system represents a set of software applications for pre-voting, voting and post-voting election project activities for jurisdictions of various sizes and political division complexities. **Verity Voting 2.3** functions include:
  - Defining the political divisioning of the jurisdiction and organizing the election with its hierarchical structure, attributes and associations.
  - Defining the election events with their attributes such as the election name, date and type, as well as contests, candidates, referendum questions, voting locations and their attributes.
  - Preparing and producing ballots for polling place and absentee voting or by-mail voting.
  - Preparing media for precinct voting devices and central count devices.
  - Configuring and programming the **Verity Scan** digital scanners for marked paper ballots and Verity Touch Writer printed vote records..
  - Configuring and programming the **Verity Touch Writer** BMD devices.
  - Configuring and programming the **Verity Controller** with **Verity Touch Writer Duo** BMD devices.
  - Configuring and programming the **Verity Controller** with **Verity Touch** and **Touch Writer Duo** DRE devices.
  - Configuring and programming the **Verity Print** on-demand ballot production device.
  - Producing the election definition and auditing reports.



- Providing administrative management functions for user, database, networking and system management.
  - Import of the Cast Vote Records from **Verity Scan** devices and **Verity Central**.
  - Preview and validation of the election results.
  - Producing election results tally according to voting variations and election system rules.
  - Producing a variety of reports of the election results in the desired format.
  - Publishing of the official election results. Auditing of election results including ballot images and log files.
- **Verity Scan** is a digital scan precinct ballot counter (tabulator) that is used in conjunction with an external ballot box. The unit is designed to scan marked paper ballots or Verity Touch Writer Duo printed vote records, interpret and record voter marks on the marked paper ballot or record voter selections on the printed vote records, and deposit into the secure ballot box.
  - The **Verity Touch Writer** is a standalone precinct level Ballot Marking Device (BMD) which also includes an Audio Tactile Interface (ATI), which allows voters who cannot complete a paper ballot to generate a machine-readable and human readable paper ballot, based on vote selections made, using the ATI.
  - The **Verity Touch Writer Duo** is a daisy chained configuration of a **Verity Controller** device configured with up to twelve **Verity Touch Writer Duo** BMD devices, which allows voters to utilize the touchscreen or optional Audio Tactile Interface to generate a machine-readable and human readable printed vote record, based on vote selections made.
  - The **Verity Touch** is a Direct Recording Electronic (DRE) device chained configuration of a **Verity Controller** device configured with up to twelve **Verity Touch** devices, which allows voters to cast their vote electronically via a touchscreen.
  - The **Verity Touch with Access** is a DRE device chained configuration of a **Verity Controller** device configured with up to twelve **Verity Touch** or **Touch with Access** devices, which allows voters to cast their vote electronically via a touchscreen or Audio Tactile Interface (ATI).
  - **Verity Print** is an on-demand ballot production device for unmarked paper ballots.
  - **Verity Election Management** allows users with the Administrator role to import and manage election definitions. Imported election definitions are available through the Elections chevron in Build. Users can also delete, archive, and manage the election definitions.
  - **Verity User Manager** enables users with the correct role and permissions to create and manage user accounts within the **Verity Voting** system for the local workstation in a standalone configuration, or for the network in a networked configuration.
  - **Verity Desktop** enables users, with the correct roles, to set the workstations' date and time, gather **Verity** application hash codes (in order to validate the correctness of the installed applications), and access to Windows desktop.
  - **Verity Data** provides the user with controls for entering and proofing data and audio. **Verity Data** also performs validation on the exported information to ensure that it will successfully import into **Verity Build**.



- **Verity Build** opens the election to proof data, view reports, and print ballots, and allows for configuring and programming the **Verity Scan** digital scanners, and **Verity Touch Writer** and **Controller/Touch Writer Duo** BMD devices, **Verity Print**, **Verity Controller/Touch** series devices, as well as producing the election definition and auditing reports.
- **Verity Central** is a high-speed, central digital ballot scanning system used for high-volume processing of ballots (such as vote by mail). The unit is based on COTS scanning hardware coupled with custom **Hart**-developed ballot processing application software which resides on an attached work-station.
- **Verity Count** is an application that tabulates election results and generates reports. **Verity Count** can be used to collect and store all election logs from every **Verity** component/device used in the election, allowing for complete election audit log reviews.

### 3.1.1 Supported Languages

The **Hart Verity Voting 2.3** voting system supports English, Spanish, Chinese, Japanese, Korean, Khmer, Thai, Vietnamese, Tagalog, Ilocano, Hindi.

## 3.2 Changes from Verity 2.0 to Verity 2.3

### 3.2.1 Modifications new to Verity 2.3

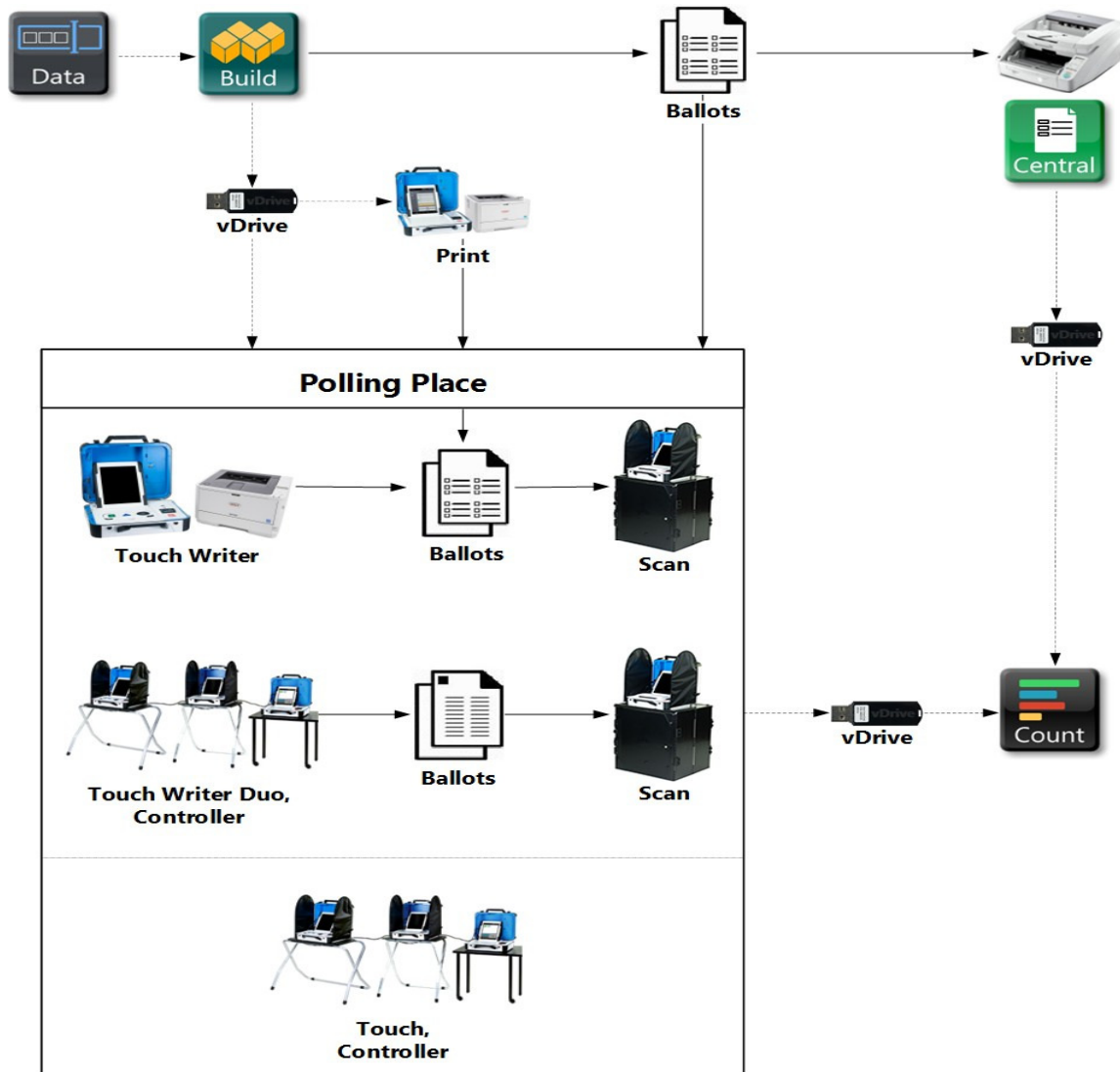
**Verity Voting 2.3** is a modification of the EAC-certified **Verity Voting 2.0** system.

The modifications to **Verity 2.3** address multiple facets of the system, including state specific features, new features for **Verity Scan**, **Verity Touch Writer**, **Verity Controller**, **Verity Touch**, **Verity Touch with Access**, **Verity Data**, **Verity Build**, **Verity Central**, **Verity Count**, **Verity User**, **Verity Desktop**, as well as associated documentation updates. **Touch Writer Duo** is a newly introduced ballot mark device based off of **Touch Writer** with an output of a print vote record rather than a marked ballot. Specific details on all implemented modifications can be found in Attachment J – Verity Voting 2.0 to 2.3 System Modifications.

## 4 System Identification

The **Hart Verity Voting 2.3** voting system was submitted for certification testing with the documentation, hardware and software listed below.

### 4.1 System Topology Diagram



Overview of the diagram:

- The components are displayed as touch points of data access, transfers, and verification.
- Dotted lines show the flow of data and air gaps using vDrives and are also used to separate the deployment models shown within the polling place.



- Verity Print is a ballot production device that provides unmarked printed ballots.
- Verity Touch Writer and Scan may be installed in polling places to support paper-based voting.
- Verity Controller, Touch Writer Duo, and Scan may be installed in polling places to support paper-based voting.
- Verity Controller and Touch may be installed in polling places to support DRE voting.
- Verity Key (not shown) is required for user access into components to load election elections, to use critical features, and to generate reports. Feature access depends on the roles applied to user accounts.
- vDrive Duplicator (not shown) is an optional device, used for populating multiple vDrives simultaneously.

## 4.2 Documentation

The TDP documentation listed below are deliverables of the certified system delivered as part of the examined system, as follows:

Document Title	Version
All-In-One Code Framework Coding Standards	© 2014 Microsoft Corporation
Verity Voting 2.3 Change Notes: Update from 2.0 to 2.3.0	A.00
Verity Voting 2.3 Change Notes: Update from 2.3.0 to 2.3.1	A.00
Verity Voting 2.3 Change Notes: Verity Controller Update from 2.3.1 to 2.3.2	A.00
Configuration Management Process	D.01
Continual Improvement Process	E.02
Control of Nonconforming Product Procedure	B.02
DEVICE CONFIGURATION PROCESS DOCUMENT	B.00
DEVICE OS CREATION AND CONFIGURATION PROCESS DOCUMENT	A.01
DEVICE WES7 CREATION PROCESS DOCUMENT	A.01
Document Control Procedure	E.05
Factory TUV SUD inspection 2018 June report	N/A
Hardware 2005713-CFAST Door Security Kit Design.pdf	B
Hardware 3005018-ATI Kit Design.pdf	A





Hardware 3005174-AutoBallot Kit Design.pdf	B
Hardware 3005350-Scan Design.pdf	H
Hardware 3005351-Controller Design.pdf	D
Hardware 3005352-Touch Writer Design.pdf	G
Hardware 3005353-Touch with Access Design.pdf	E
Hardware 3005355-Touch Design.pdf	D
Hardware 3005356-Print Design.pdf	D
Hardware 3005357-Ballot Box Design.pdf	D
Hardware 3005358-Standard Booth Design.pdf	C
Hardware 3005359-Accessible Booth Design.pdf	D
Hardware 3005700-Touch Writer Duo Design.pdf	A
Hardware 3005800-Scan Design.pdf	A
Hardware 3005801-Accessible Booth With ATI Tray Design.pdf	A
Hardware 3005825-Controller Design.pdf	A
Hardware Design and Development Procedure	D.01
Hardware PCB Photos	N/A
Hardware Verification and Validation Process	D.01
Hart NRTL Safety Certificate U8 17 10 90917 004	N/A
Hart Secure Ballot Stock Specification	A.01
Verity 2.3 Test Cases	N/A
Verity Voting 2.3 Notice of Protected Information	A.00
Quality Manual	D.04
Records Retention Matrix	E.02
Software Design and Development Procedure	D.02
Software Production Procedure	E.01
Software Test Design and Development Procedure	D.02
Software Verification and Validation Process	D.02
Software Versioning Procedure	C.04
Hart Requirements Management Requirements Management Process	A.02



Supplier Qualification and Management Procedure	C.02
THE VERITY ACCESS FIRMWARE BUILD PROCEDURE	A.01
THE VERITY MCU FIRMWARE BUILD PROCEDURE	A.02
THE CREATION AND CONFIGURATION OF THE TRUSTED BUILD ENVIRONMENT	A.03
Verity Voting 2.3 TDP Abstract	A.01
Verity 2.3 VVSG 1.0 TDP Trace	N/A
Verity 2.3.X COTS List	N/A
Airgap Interface for Portable Electronic Media Technical Reference	A.02
Verity Application Framework Technical Requirements Document (TRD)	A.00
THE VERITY APPLICATION BUILD PROCESS FOR VERITY 2.3.1	A.01
Verity Application Programming Interface Specification Technical Document	A.04
Verity Ballot Creation Technical Requirements Document (TRD)	A.00
Verity Base Station Microcontroller Specification	A.01
Verity Build Technical Requirements Document (TRD)	A.00
Verity Central Technical Requirements Document (TRD)	A.00
Verity Coding Standard Standards Document	A.14
Verity Controller Technical Requirements Document (TRD)	A.01
Verity Count Technical Requirements Document (TRD)	A.01
Verity Data Technical Requirements Document (TRD)	A.00
Verity Database Attributes	C.02
Verity Device Suite Technical Requirements Document (TRD)	A.00
Verity Election Definition Data Technical Requirements Document (TRD)	A.01
Verity Election Management Technical Requirements Document (TRD)	A.00
Verity System Design Verity Electronics Specification	A.15
Verity Entity Relationship Diagram Database - Devices	N/A



Verity Entity Relationship Diagram Database - Servers (Count Only)	N/A
Verity Entity Relationship Diagram Database - Servers (No Count)	N/A
Verity Key Design Technical Document	A.02
Verity Logging Design Technical Document	1.03
Verity Logging Technical Requirements Document (TRD)	A.00
Verity Voting Verity Operational Environment	C.05
PC Application Framework UI Design Document	5
Verity Voting Performance Characteristics	C.02
Verity Print Technical Requirements Document (TRD)	A.00
Verity Risk Assessment	B.01
Verity Scan Technical Requirements Document (TRD)	A.00
Verity Security Requirements Document	A.07
Verity Shared Device User Interface Design Document	7
Verity Software Architecture-Design 4005463 B01	B.01
Usability Test Report of Verity Touch/Touch Writer and Verity Scan	N/A
Verity Voting Summative Usability Test Plan	A.01
Verity – Supply Chain PRD Supply Chain / Operations / Services Planning Document	C.01
Verity Voting 2.3 System Limits	C.01
Verity Touch Technical Requirements Document (TRD)	A.00
Verity Touch Writer Duo Base Station Microcontroller Specification	A.00
Touch Writer Duo Technical Requirements Document (TRD)	A.00
Verity Touch Writer Technical Requirements Document (TRD)	A.00
Verity User Management Technical Requirements Document (TRD)	A.00
Verity Vote Counting and Cast Vote Records Technical Requirements Document (TRD)	A.00
Verity Voting 2.3 Implementation Statement	A.00



Application for Certification – Verity Voting 2.3 Usability Impact Statement	N/A
Verity Voting 2.3.1, 2.3.2 Source Documentation.zip	N/A
Verity Voting National Certification Test Specification	B.02
Verity Workstation Manufacturing Process Document	B.01
Administrator’s Guide VERSION 2.3 (Build)	A.01
Administrator’s Guide VERSION 2.3 (Central)	A.02
Administrator’s Guide VERSION 2.3 (Count)	A.03
Administrator’s Guide VERSION 2.3 (Data)	A.02
Device Troubleshooting Field Guide VERSION 2.3	A.03
Polling Place Field Guide VERSION 2.3 (CDS)	A.02
Polling Place Field Guide VERSION 2.3 (CT)	A.02
Polling Place Field Guide VERSION 2.3 (SW)	A.01
Support Procedures Guide VERSION 2.3	A.03
System Administrator’s Guide VERSION 2.3	A.02
Verity Print Field Guide VERSION 2.3	A.01
VIRTEX ENTERPRISES LP QUALITY SYSTEM MANUAL	R
Voting System Implementation And Maintenance Process Document	C.02
VSTL Product Submission Procedure	D.02
Verity 2.3 Workstation Configuration Process Document	A.01
WORKSTATION WES7 CREATION PROCESS DOCUMENT	A.00

### 4.3 Software and Firmware

Any and all software/firmware that is to be used by the declared voting system whether directly or indirectly, in a production environment, must be validated during the certification process.

The software and firmware employed by **Hart Verity Voting 2.3** consists of 2 types, custom and commercial off the shelf (COTS). COTS applications were verified to be pristine, or were subjected to source code review for analysis of any modifications and verification of meeting the pertinent standards. The COTS software and firmware was either obtained directly from the 3rd party manufacturer, or was verified against digital signatures obtained from the 3rd party manufacturer. No modified COTS were implemented.

Tables 3 and 4 below detail each application employed by the **Hart Verity Voting 2.3** voting system.



**Table 3 – Hart Verity Voting 2.3 Custom Software and Firmware**

Application	Version
Verity Data	2.3.1
Verity Build	2.3.1
Verity Central	2.3.1
Verity Count	2.3.1
Verity Print	2.3.1
Verity Scan	2.3.1
Verity Touch Writer	2.3.1
Verity Touch Writer Duo	2.3.1
Verity Controller	2.3.2
Verity Touch	2.3.1
Verity Touch with Access	2.3.1

**Table 4 – COTS Software**

Verity Data/Build	
Description	Version
Microsoft Windows Embedded Standard 7, Service Pack 1	6.1.7601
Microsoft SQL Server 2012 for Embedded Systems License	11.00.2100
McAfee Application Control for Devices	6.1.1.369
Verity Central	
Microsoft Windows Embedded Standard 7, Service Pack 1	6.1.7601
Microsoft SQL Server 2012 for Embedded Systems License	11.00.2100
McAfee Application Control for Devices	6.1.1.369
Verity Count	
Microsoft Windows Embedded Standard 7, Service Pack 1	6.1.7601
Microsoft SQL Server 2012 for Embedded Systems License	11.00.2100
McAfee Application Control for Devices	6.1.1.369
Verity Print	
Microsoft Windows Embedded Standard 7, Service Pack 1	6.1.7601



Microsoft SQL Server 2012 Express License	11.00.2100
McAfee Application Control for Devices	6.1.1.369
<b>Verity Scan – Paper Ballot Scanner</b>	
Microsoft Windows Embedded Standard 7, Service Pack 1	6.1.7601
Microsoft SQL Server 2012 Express License	11.00.2100
McAfee Application Control for Devices	6.1.1.369
Nuance Western OCR, Desktop, OEM	V20
<b>Verity Touch Writer – Electronic BMD Device</b>	
Microsoft Windows Embedded Standard 7, Service Pack 1	6.1.7601
Microsoft SQL Server 2012 Express License	11.00.2100
McAfee Application Control for Devices	6.1.1.369
<b>Verity Touch Writer Duo – Electronic BMD Device</b>	
Microsoft Windows Embedded Standard 7, Service Pack 1	6.1.7601
Microsoft SQL Server 2012 Express License	11.00.2100
McAfee Application Control for Devices	6.1.1.369
<b>Verity Controller – Networked Centralized Management Device</b>	
Microsoft Windows Embedded Standard 7, Service Pack 1	6.1.7601
Microsoft SQL Server 2012 Express License	11.00.2100
McAfee Application Control for Devices	6.1.1.369
<b>Verity Touch - Electronic DRE Device</b>	
Microsoft Windows Embedded Standard 7, Service Pack 1	6.1.7601
Microsoft SQL Server 2012 Express License	11.00.2100
McAfee Application Control for Devices	6.1.1.369
<b>Verity Touch with Access - Electronic DRE Device</b>	
Microsoft Windows Embedded Standard 7, Service Pack 1	6.1.7601
Microsoft SQL Server 2012 Express License	11.00.2100
McAfee Application Control for Devices	6.1.1.369



#### 4.4 Equipment (Hardware)

The hardware employed by **Hart Verity Voting 2.3** consists of 2 types, custom and commercial off the shelf (COTS). COTS hardware was verified to be unmodified, or was subjected to review for analysis of any modifications and verification of meeting the pertinent standards.

Tables 5 and 6 below detail each device employed by the **Hart Verity Voting 2.3** voting system.

**Table 5 – Hart Verity Voting 2.3 Custom Voting Equipment**

Description	Version
Verity Print – Ballot Printer	3005356 Rev D
Verity Scan – Paper Ballot Scanner	3005350 Rev H
Verity Scan – Paper Ballot Scanner – Update for scanner mechanism and tablet electronics obsolescence.	3005800 Rev A
Verity Touch Writer – Electronic BMD Device	3005352 Rev G
Verity Touch Writer Duo – Electronic BMD Device	3005700 Rev A
Verity Controller – Networked Centralized Management Device	3005351 Rev D
Verity Controller – Networked Centralized Management Device – Update for tablet electronics obsolescence.	3005825 Rev A
Verity Touch - Electronic DRE Device	3005355 Rev D
Verity Touch with Access - Electronic DRE Device	3005353 Rev E

**Table 6 – Hart Verity Voting 2.3 COTS Equipment**

Verity Data/Build	
Description	Version
Verity Central Applications and Workstation Kit <ul style="list-style-type: none"> <li>• HP Z240 Workstation</li> <li>• HPZ230 Workstation supported for existing customers only</li> <li>• Verity Central Software (see below)</li> </ul>	C
Canon DR G1100 High-Speed Scanner	M111181
Canon DR G1130 High-Speed Scanner	M111171
OKI Data B432dn Mono Printer Report printer	N22500A
OKI Data B431d Mono Printer for existing customers only Report printer	N22202A



8-port Ethernet Switch	1405-8GV3
Vinpower Digital USB Duplicator 7-targets	USBShark-7T-BK
Vinpower Digital USB Duplicator 23-targets	USBShark-23T-BK
<b>Verity Central</b>	
Verity Central Applications and Workstation Kit <ul style="list-style-type: none"> <li>• HP Z240 Workstation</li> <li>• HPZ230 Workstation supported for existing customers only</li> <li>• Verity Central Software (see below)</li> </ul>	C
Canon DR G1100 High-Speed Scanner	M111181
Canon DR G1130 High-Speed Scanner	M111171
OKI Data B432dn Mono Printer Report printer	N22500A
OKI Data B431d Mono Printer for existing customers only Report printer	N22202A
8-port Ethernet Switch	1405-8GV3
<b>Verity Count</b>	
Verity Count Applications and Workstation Kit <ul style="list-style-type: none"> <li>• HP Z240 Workstation or HP Z230 Workstation</li> <li>• HPZ230 Workstation supported for existing customers only</li> <li>• Verity Count Software (see below)</li> </ul>	C
OKI Data B432dn Mono Report printer	N22500A
OKI Data B431d Mono Report Printer for existing customers only.	N22202A
8-port Ethernet Switch	1405-8GV3
<b>Verity Print</b>	
OKI Data C831dn Color Printer	N35100A
OKI Data B432dn Mono Blank Ballot Printer	N22500A
OKI Data B431d Mono Printer for existing customers only	N22202A
<b>Verity Scan – Paper Ballot Scanner</b>	
Verity Ballot Box	B
<b>Verity Touch Writer – Electronic BMD Device</b>	
OKI Data B432dn Mono Marked Ballot Printer	N22500A
OKI Data B431d Mono Printer for existing customers only Report printer	N22202A





Accessible Voting Booth	D
<b>Verity Touch Writer Duo – Electronic BMD Device</b>	
Brother PJ700 Series Thermal Printer	PJ723
Accessible Voting Booth	D
Standard Voting Booth	D
<b>Verity Touch - Electronic DRE Device</b>	
Standard Voting Booth	D
<b>Verity Touch with Access - Electronic DRE Device</b>	
Accessible Voting Booth	D

## 4.5 Test Materials

The following test materials are required for the performance of testing including, as applicable, test ballot layout and generation materials, test ballot sheets, and any other materials used in testing.

- Ballots & Blank Ballot grade paper
- Thumb Drives
- USB Dongle
- Ballot marking pens
- Printer paper rolls

## 4.6 Requirements

### 4.6.1 VVSG Requirements

The **Verity Voting 2.3** modifications were tested to applicable 2005 VVSG 1.0 requirements. This section details the requirements reviewed for **Verity Voting 2.3**.

The **Verity Voting 2.3** modification will be tested to the 2005 VVSG 1.0 requirements listed below:

#### Volume I:

- 2.1.2.a,b,c Accuracy
- 2.1.7.1.c Functions
- 2.2.1.2.b Ballot Formatting
- 2.2.2.d Election Programming
- 2.2.4.a-e Readiness Testing
- 2.3.3.1.c,d Common Requirements
- 2.3.3.2.b,e,h Paper based System Requirements
- 2.3.3.3.c,d,e,h,j,k,o DRE System Requirements
- 4.1.5.2 Ballot Reading Accuracy



## Volume II

- 3.2.3 Testing to Reflect Additional Capabilities
- 3.2.4 Testing to Reflect Previously Tested Capabilities
- 6.2.2 System Baseline for Testing
- 6.2.3 Testing Volume

### 4.6.2 Hardware Requirements

#### Volume I:

- 2.1.4 (b,c,d) Integrity
- 4.1.2.5-12 Environmental Requirements
- 4.1.7.1 Removable Storage Media
- 4.3.3 Reliability

#### Volume II:

- 4.6.2-6 Non-operating Environmental
- 4.7.1&3 Environmental Tests, Operating
- 4.8 Other Environmental Tests

## 4.7 Hart State Specific Modification Requirements

The modifications addressed represent Hart internally developed features designed to satisfy these jurisdictional requests.

Pertinent Hart requirements are listed in Attachment J – Verity Voting 2.0 to 2.3 System Modifications.

## 5 Certification Test Results Summary

### 5.1 Source Code Review Summary

SLI reviewed the software source code for each application in the **Hart Verity Voting 2.3** voting system to determine the code's compliance with Volume I Sections 5, 9 and Volume II Section 5.4 of the VVSG 1.0 and for compliance with **Hart's** internally developed coding standards. **Verity Voting 2.3** is implemented with the C, C++ and C# languages. Results of the source code review are detailed in *Attachment I – List of Source Code Reviewed and Results*.

#### 5.1.1 Evaluation of Source Code

The source code was reviewed for compliance per the guidelines defined in *Volume II, Section 5.4* of the VVSG 1.0. As a modification project, the **Verity Voting 2.3** code base was reviewed using the final **Verity Voting 2.0** code base as the baseline, to which the initial **Verity Voting 2.3** code base was compared. The differences found between those



two code bases served as the starting point of the code review. The source code was found to be in compliance with the terms of the VVSG 1.0, and Hart declared industry standards.

## 5.2 Technical Data Package Review Summary

SLI reviewed the **Hart Verity Voting 2.3** TDP, as detailed in sections 3.1 and 3.4, for compliance according to *Volume II Section 2* of the VVSG 1.0.

The review was conducted for the required content and format of:

- **System Change Notes:** Changes to certified system **Verity Voting 2.3**.
- **System Test and Verification Specifications:** Development and certification test specifications that **Hart** applied to their testing efforts. **Verity Voting 2.3**
- **Application Usability Impact statement:** Updated for **Verity Voting 2.3**
- **Performance Characteristics:** Updated for **Verity Voting 2.3**
- **System Description:** Updated for **Verity Voting 2.3**
- **Verity System Limits:** Updated for **Verity Voting 2.3**
- **Verity Operational Environment:** Updated for **Verity Voting 2.3**
- **Verity COTS List:** Updated for **Verity Voting 2.3**
- **Verity Data Technical Reference:** Updated for **Verity Voting 2.3**.
- **Verity Build Technical Reference Manual:** Updated for **Verity Voting 2.3**
- **Verity Central Technical Reference Manual:** Updated for **Verity Voting 2.3**
- **Verity Count Technical Reference Manual:** Updated for **Verity Voting 2.3**
- **Verity Service and Maintenance Operations Technical Reference Manual:** Updated for **Verity Voting 2.3**

### 5.2.1 Evaluation of TDP

The Technical Data Package for the **Hart Verity Voting 2.3** voting system was found to comply with the standards. A jurisdiction would be able to deploy the **Hart Verity Voting 2.3** voting system using the TDP.

## 5.3 Hardware Testing

Hardware testing was performed on **Verity Scan** and **Verity Controller/Touch Writer Duo**. Each device was subjected to: Electrical Power Disturbance, Electrical Fast Transient, Lightning Surge, Electrostatic Disruption, Electromagnetic Emissions, Electromagnetic Susceptibility, Conducted RF Immunity, Magnetic Fields Immunity, Bench Handling, Vibration, Low Temperature, High Temperature Test, Humidity Test, Temperature and Power Variation and Maintainability testing. Both devices successfully completed hardware testing.



## 5.4 Functional Testing Summary

Functionality was tested as identified below for the **Verity Voting 2.3** system.

### 5.4.1 Test Suites Utilized

The following test suites were executed:

**Verity Data/Build** test suite – The **Verity Data/Build** component was re-tested in depth in order to verify that the modifications implemented, and the subsequent Trusted Build of the software, did not adversely affect operations within this application. This testing was completed without issue.

**Verity Desktop** test suite – The **Verity Desktop** component was re-tested in depth in order to verify that the modifications implemented, and the subsequent Trusted Build of the software, did not adversely affect operations within this application. This testing was completed without issue.

**Verity User Management** test suite – The **Verity User Management** component was re-tested in depth in order to verify that the modifications implemented, and the subsequent Trusted Build of the software, did not adversely affect operations within this application. This testing was completed without issue.

**Verity Touch Writer** test suite – The **Verity Touch Writer** component was re-tested in depth in order to verify that the modifications implemented, and the subsequent Trusted Build of the firmware, did not adversely affect operations within this application. This testing was completed without issue.

**Verity Touch Writer Duo** test suite – The **Verity Touch Writer Duo** component was tested in depth in order to verify that the modifications implemented, and the subsequent Trusted Build of the firmware, did not adversely affect operations within this application. This testing was completed without issue. Note that basic functionality of this device mirrors that of **Verity Touch Writer**.

**Verity Touch** test suite – The **Verity Touch** component was re-tested in depth in order to verify that the modifications implemented, and the subsequent Trusted Build of the firmware, did not adversely affect operations within this application. This testing was completed without issue.

**Verity Print** test suite – The **Verity Print** component was re-tested in depth in order to verify that the modifications implemented, and the subsequent Trusted Build of the firmware, did not adversely affect operations within this application. This testing was completed without issue.

**Verity Scan** test suite – The **Verity Scan** component was re-tested in depth in order to verify that the modifications implemented, and the subsequent Trusted Build of the firmware, did not adversely affect operations within this application. This testing was completed without issue.

**Verity Central** test suite – The **Verity Central** application component was re-tested in depth in order to verify that the modifications implemented, and the subsequent Trusted Build of the software, did not adversely affect operations within this application. This testing was completed without issue.



**Verity Count** test suite – The **Verity Count** application component was re-tested in depth in order to verify that the modifications implemented, and the subsequent Trusted Build of the software, did not adversely affect operations within this application. This testing was completed without issue.

**Modifications** test suite – The **Modification** test suite explicitly examined each modification introduced into **Verity Voting 2.3** in order to verify that the modifications implemented, and the subsequent Trusted Build of the firmware, did not adversely affect operations. This testing was completed without issue

**General Election** test suite – The full **Verity Voting 2.3** voting system was reviewed in order to verify continued integration of the voting system and that all components continue to work as expected. This test was completed without issue.

**Closed Primary Election** test suite – The full **Verity Voting 2.3** voting system was reviewed in order to verify continued integration of the voting system and that all components continue to work as expected. This test was completed without issue.

**Open Primary Election** test suite – The full **Verity Voting 2.3** voting system was reviewed in order to verify continued integration of the voting system and that all components continue to work as expected. This test was completed without issue.

**Language** test suite – Testing was conducted to ensure the voting system is capable of presenting the ballot, ballot selections, review screens and instructions in the required languages. The system's ability to handle the prescribed foreign languages that have been declared to be supported, English, Spanish, Chinese, Japanese, Korean, Khmer, Thai, Vietnamese, Tagalog, Ilocano, and Hindi were validated. This test was completed without issue.

**Accuracy** test suite – **Verity Scan** was tested for accuracy of ballot marks reading in association with updated hardware. **Verity Central** was also tested to verify ability to read 8.5"x20" ballots accurately. This test was completed without issue.

**Volume** test suite – The full **Verity Voting 2.3** voting system was reviewed in order to verify compliance with the updated stated system limits. This test was completed without issue.

**Stress** test suite - The full **Verity Voting 2.3** voting system was reviewed in order to verify appropriate responses. This test was completed without issue.

## 5.5 Evaluation of Testing

The above tests were successfully conducted using the executables created in the Trusted Build, in association with the appropriate hardware versions as declared in this Test Report for the **Hart Verity Voting 2.3** voting system.

## 5.6 Quality Assurance and Configuration Management Audits

The review process verified that the manufacturer has written processes and procedures for Quality Assurance and Configuration Management. The processes and procedures were implemented within the software development life cycle used to produce the **Hart Verity Voting 2.3** system.



Coverage of tests employed by **Hart** was deemed satisfactory for meeting the requirements of the VVSG 1.0, as well as Hart internal requirements for state specific feature implementations. The CM portion of the review focused on the organization's understanding and implementation of the declared configuration management processes, procedures and policies. Deliverables were reviewed against all pertinent CM processes employed by **Hart**. Implementation of the **Hart** configuration processes was adequately documented and followed throughout the course of the **Verity Voting 2.3** project, and no issues were encountered.

## 5.7 Discrepancies Found During Testing

Discrepancies found fall into 4 major categories, Hardware, Documentation, Source Code, and Functional.

Hardware discrepancies are issues that occur specifically in the hardware arena, and are usually found during the hardware testing phase.

Documentation discrepancies are issues that occur during the PCA documentation (TDP) review phase and are issues that are resolved by updates to the documentation.

Source Code discrepancies are issues that occur during source code review and are issues that must be fixed in the source code prior to the Trusted Build.

Functional discrepancies are issues that occur during functional testing and can be related to any software or firmware within the system. Functional discrepancies often lead to source code modifications, additional source code review and an additional Trusted Build.

### 5.7.1 Documentation Discrepancies

Twenty-nine documentation discrepancies were written during this campaign, all were satisfactorily resolved

### 5.7.2 Source Code Discrepancies

Six source code discrepancies were written during this campaign, all were satisfactorily resolved.

### 5.7.3 Hardware Discrepancies

Four hardware discrepancies were written during this campaign, all were satisfactorily resolved.

- Verity Scan Failed ESD Causing Display Screen to Freeze
  - Resolved by:
    - Debug/Development components that were inadvertently left on the assembly were removed. These components serve no purpose in the product functionality and were present only for the development portion of the project.
    - Shielding of sensitive signals on the PCB was implemented through additional metal shields and conductive metal shielding tape.
    - Insulating the LCD metal frame from the seam between the LCD and the plastic enclosure.

- Verity Controller / TW Duo Failed ESD Causing Display Screen to Freeze



- Resolved by:
  - Debug/Development components that were inadvertently left on the assembly were removed. These components serve no purpose in the product functionality and were present only for the development portion of the project.
  - Shielding of sensitive signals on the PCB was implemented through additional metal shields and conductive metal shielding tape.
  - Insulating the LCD metal frame from the seam between the LCD and the plastic enclosure.
- Verity Scan Failed ESD, Scanner Diag Test Utility Lost Connection
  - Resolved by:
    - The test utility provided the scanning function for automation purposes during ESD testing. When the utility lost connection, it was able to be restarted. ESD testing was completed successfully with the anomaly noted, and all other applications and functions on the Verity Scan continued to operate without disruption. For future endeavors, however, Hart will develop an automated test utility in order to remove this occurrence.
- Verity Scan S1801828110 Fail Temperature and Power Variation Tests
  - Resolved by:
    - The scanner mechanism was determined to be part of an initial production run of the PageScan V scanner mechanism, in which the MSD boards were hand soldered. The less precise hand soldering method resulted in a cold solder joint on the MSD board, causing it to lose communication and cause the anomaly. All MSD boards after the initial production run are manufactured with a uniform and automated wave soldering process.

#### 5.7.4 Functional Discrepancies

Four functional discrepancies were encountered during this campaign, all were satisfactorily resolved.

- In Data, Help incorrectly describes Add Party Selection
  - The Help menu now accurately describes the button that is available to the user. The "Add Party Selector" button is described as, "Click the Add Party Selector button to add a straight party selection contest."
- In Controller & Duo, Robustness Error does not accurately describe device
  - The warning message now displays the following: "WARNING: A **device** with an active voting session was disconnected and never reconnected. There may be a stranded ballot or unreported session on that device. This situation can be resolved by reconnecting the device while polls are still open.  
The polls cannot be reopened once they are closed."
- In Controller, Reset Booth numbering Incorrectly describes device
  - The controller screen was updated to no longer display the 'Touch' device and now states, "If you reset your booth numbers, you will need to reassign a booth number to each connected device before voting can continue. "



- In Controller, Incorrectly Displayed ballot Cast on Message
  - The controller now allows the user to deactivate an access code that has not been used.

## 6 Recommendations

SLI has successfully completed the testing of the **Hart Verity Voting 2.3** voting system. It has been determined that the **Verity Voting 2.3** voting system meets the required acceptance criteria of the Election Assistance Commission Voluntary Voting System Guidelines 1.0 (2005).

It is SLI's recommendation that the EAC grant certification of **Hart Verity Voting 2.3** voting system. This recommendation reflects the opinion of SLI Compliance based on the testing scope and results.

**SLI:**

A handwritten signature in blue ink, appearing to read 'Traci Mapps'.

Traci Mapps

Director

February 26<sup>th</sup>, 2019





United States Election Assistance Commission



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Certificate of Conformance

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Hart Verity Voting 2.3

The voting system identified on this certificate has been evaluated at an accredited voting system testing laboratory for conformance to the 2005 *Voluntary Voting System Guidelines (2005 VVSG)*. Components evaluated for this certification are detailed in the attached Scope of Certification document. This certificate applies only to the specific version and release of the product in its evaluated configuration. The evaluation has been verified by the EAC in accordance with the provisions of the EAC *Voting System Testing and Certification Program Manual* and the conclusions of the testing laboratory in the test report are consistent with the evidence adduced. This certificate is not an endorsement of the product by any agency of the U.S. Government and no warranty of the product is either expressed or implied.

Product Name: Verity Voting

Model or Version: 2.3

Name of VSTL: SLI Compliance

EAC Certification Number: HRT-VERITY-2.3

Date Issued: March 15, 2019

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Executive Director  
U.S. Election Assistance Commission

Scope of Certification Attached

**Manufacturer:** Hart InterCivic  
**System Name:** Verity Voting 2.3  
**Certificate:** HRT-Verity-2.3

**Laboratory:** SLI Compliance  
**Standard:** 2005 VVSG  
**Date:** 3/14/2019



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## Scope of Certification

---

This document describes the scope of the validation and certification of the system defined above. Any use, configuration changes, revision changes, additions or subtractions from the described system are not included in this evaluation.

### Significance of EAC Certification

An EAC certification is an official recognition that a voting system (in a specific configuration or configurations) has been tested to and has met an identified set of Federal voting system standards. An EAC certification is **not**:

- An endorsement of a Manufacturer, voting system, or any of the system's components.
- A Federal warranty of the voting system or any of its components.
- A determination that a voting system, when fielded, will be operated in a manner that meets all HAVA requirements.
- A substitute for State or local certification and testing.
- A determination that the system is ready for use in an election.
- A determination that any particular component of a certified system is itself certified for use outside the certified configuration.

### Representation of EAC Certification

Manufacturers may not represent or imply that a voting system is certified unless it has received a Certificate of Conformance for that system. Statements regarding EAC certification in brochures, on Web sites, on displays, and in advertising/sales literature must be made solely in reference to specific systems. Any action by a Manufacturer to suggest EAC endorsement of its product or organization is strictly prohibited and may result in a Manufacturer's suspension or other action pursuant to Federal civil and criminal law.

### System Overview:

Verity Voting is a comprehensive voting system that includes software and hardware components to support paper-based, electronic, and by-mail voting. These components allow election professionals to accomplish the following high-level tasks:

- Input of election data
- Definition and maintenance of election databases
- Formatting of ballots
- Setup and deployment of voting devices

- Counting of votes
- Consolidation and reporting of results and election audits

**Verity Scan** is a scanning device (tabulator) that is used in conjunction with an external ballot box. The unit is designed to scan marked paper ballots, interpret and record voter marks on the paper ballot and deposit the ballots into the secure ballot box. Verity Scan is capable of tabulating votes, or producing a ballot count report which includes quantities of ballots scanned.

**Verity Touch Writer** is a standalone Ballot Marking Device (BMD) which also includes an Audio Tactile Interface (ATI). Touch Writer allows voters who cannot hand-mark a paper ballot to generate a machine-readable and human readable paper ballot, based on vote selections made through the accessible electronic interface.

**Verity Touch Writer Duo** is a Ballot Marking Device (BMD) which may include a Verity Access Audio Tactile Interface (ATI), has an integrated printer, and is configured for use in a daisy-chained network with Verity Controller. Touch Writer Duo generates a machine-readable and human-readable printed vote record, based on vote selections made through the electronic interface.

**Verity Print** is an on-demand ballot production device for unmarked paper ballots.

**Verity Election Management** allows users to manage and import elections. Elections are available through the “Elections” chevron in Verity Build. Users can also delete, archive, restore, and rename the elections.

**Verity User Management** enables users with the correct role and permissions to create and manage user accounts within the Verity Voting system for the local workstation in a standalone configuration, or for the network in a networked configuration.

**Verity Desktop** enables users with the correct roles to set the workstations’ date and time, gather Verity software application hash codes (in order to validate the correctness of the installed applications), and access to Windows desktop.

**Verity Data** provides users capabilities to input jurisdiction- and election-specific data for paper and accessible electronic ballots, as well as audio for accessible electronic ballots. Verity Data also includes capabilities to allow proofing of data, layout, and audio that has been created. Verity Data also performs validation on the entered information to ensure that it is ready for use in Verity Build.

**Verity Build** allows users to proof data, view reports, create election definitions, print ballots, and create election media (vDrives). Build also allows users to configure settings for Verity Scan digital scanners and Verity Touch Writer BMD devices.

**Verity Central** is a high-speed, central digital ballot scanning system used for high volume processing of ballots (such as vote by mail). Verity Central is based on COTS scanning hardware coupled with the custom Hart-developed ballot processing application software, which resides on an attached COTS work-station.

**Verity Count** is an application that tabulates election results and generates reports. Verity Count can also be used to collect and store all election logs from every Verity component/device used in the election, allowing for complete election audit log reviews.

**Verity Controller** is a polling place device used by the poll worker to monitor the operation and create access codes for Verity Touch, Touch with Access, and Touch Writer Duo systems. Access codes allow each voter to activate a ballot session and cast a vote (or mark a ballot, for Touch Writer Duo) in private. The poll worker uses the Verity Controller to manage up to 12 devices that are connected via a daisy-chain network.

**Verity Touch** is a Direct Recording Electronic (DRE) device controlled via a touch screen. It is networked to Controllers and other DRE devices via a daisy-chain network. After the voter privately and independently marks and reviews the ballot, that ballot is electronically cast.

**Verity Touch with Access** is a DRE device identical to the Verity Touch device, except that it adds a Verity Access Audio Tactile Interface (ATI) to provide additional options for accessible voting. Access has three tactile buttons, one audio port, and one port for two-switch adaptive devices (such as “jelly switches” or sip-and-puff devices). Jacks for headphones and adaptive devices are located on the top edge of the ATI device.

**Verity AutoBallot** is an optional barcode scanning kit for Verity Controller, Verity Print, and Verity Touch Writer that allows air-gapped integration between an e-pollbook check-in process and the task of selecting the proper ballot style for the voting system.

**vDrive** is a required Verity Voting component, used as a portable media device generated by Verity Build. vDrive allows election definitions to be moved from Verity Build to Verity Controller, Verity Scan, Verity Touch Writer, and Verity Print. vDrive supports the transfer of Cast Vote Records (CVRs) in Verity Controller (DRE configuration), Verity Scan, and Verity Central.

**Verity Key** is an electronic media that is created by Verity Build for a specific election. Verity Key is the electronic media that provides user authentication and configures election security throughout the Verity voting system.

### **Certified System before Modification (If applicable):**

Verity Voting 2.0

### **Anomalies and/or Additions addressed in Verity Voting 2.3:**

N/A

### Mark definition:

System supports marks that cover a minimum of 4% of the rectangular marking area.

### Tested Marking Devices:

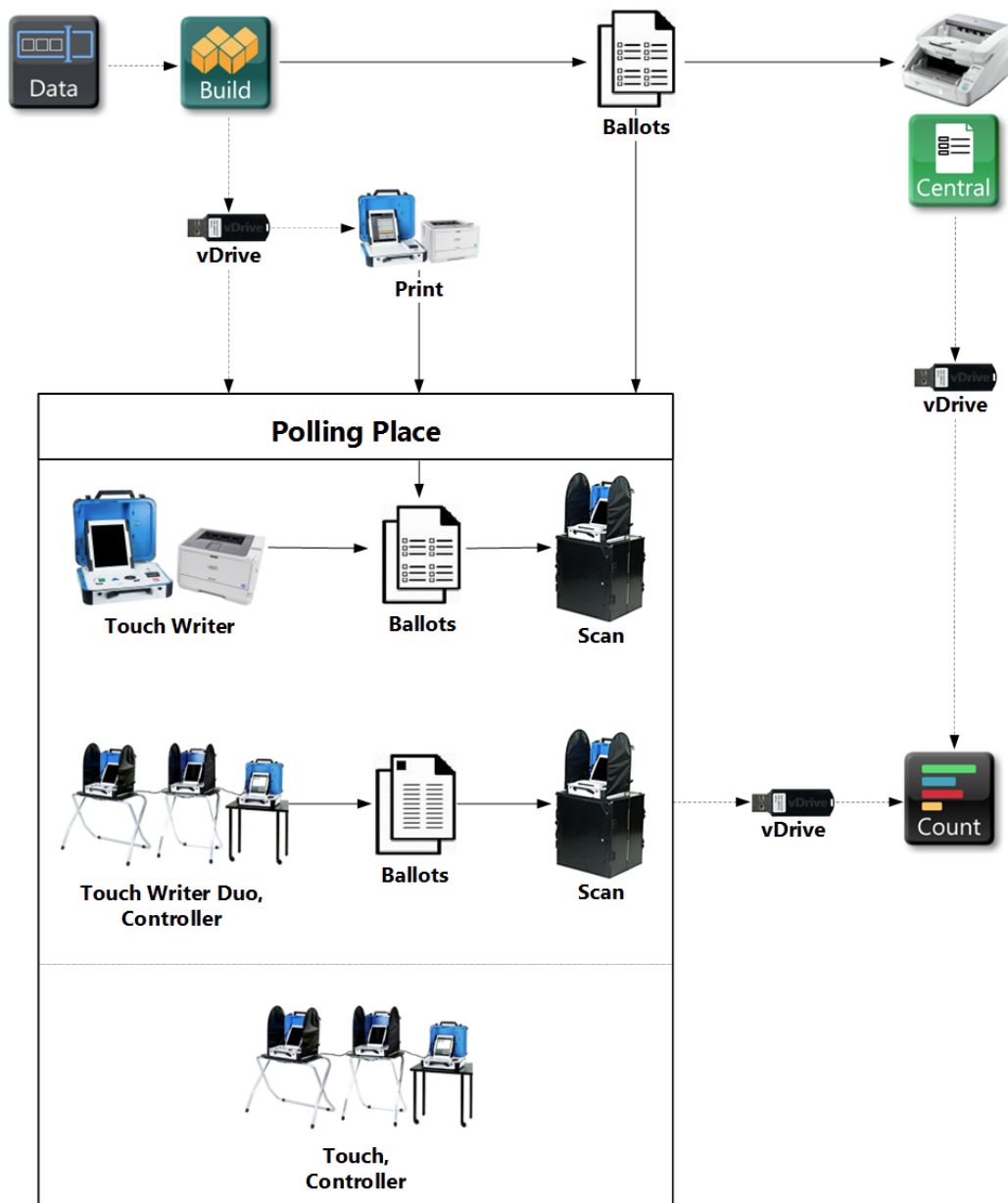
System supports Black and Blue ballpoint pens; testing was performed with black, blue, dark blue, pink, light green, green, orange, and red pens, as well as #2 pencil lead.

### Language capability:

System supports English, Spanish, Chinese, Japanese, Korean, Khmer, Thai, Vietnamese, Tagalog, Ilocano, and Hindi.

### Components Included:

This section provides information describing the components and revision level of the primary components included in this Certification.



System Component	Software or Firmware Version	Hardware Version	Operating System or COTS	Comments
Verity Data	2.3.1			Data management software
Verity Build	2.3.1			Election definition software
Verity Central	2.3.1			High speed digital scanning software
Verity Count	2.3.1			Tabulation and reporting software
Verity Print	2.3.1			On-demand ballot printing device firmware
Verity Scan	2.3.1			Digital scanning device firmware
Verity Touch Writer	2.3.1			Accessible BMD firmware
Verity Touch Writer Duo	2.3.1			Ballot marking device, with internal COTS ballot summary printer and optional audio tactile interface
Verity Controller	2.3.2			Polling place management device
Verity Touch	2.3.1			Direct Recording Electronic (DRE) voting device
Verity Touch with Access	2.3.1			Accessible DRE voting device, with audio tactile interface
Verity Device Microcontroller	V17			Firmware for Verity devices
Verity Touch Writer Duo Microcontroller	V1			Firmware for Verity Touch Writer Duo
Application control – Data/Build, Central, Count, Print, Scan, Touch Writer, Touch Writer Duo, Controller, Touch, Touch w/ Access	6.1.1.369		COTS: McAfee Application Control for Devices	Configured for Verity workstations and devices
Database-Data/Build, Central, Count	11.00.2100		COTS: Microsoft SQL Server 2012 for Embedded Systems	
Database - Print, Scan, Touch Writer, Touch Writer Duo, Controller, Touch, Touch w/ Access	11.00.2100		COTS: Microsoft SQL Server 2012 Express	
Verity Operating System – Data/Build, Central, Count, Print, Scan, Touch Writer, Touch Writer Duo, Controller, Touch,	6.1.7601		Microsoft Operating System	Microsoft Windows Embedded Standard 7 w/ service pack 1 – 64 bit

System Component	Software or Firmware Version	Hardware Version	Operating System or COTS	Comments
Touch w/ Access				
Verity Scan		Revision H		
Verity Scan – Update for scanner mechanism and tablet electronics obsolescence		Revision A		
Verity Touch Writer		Revision G		
Verity Print		Revision D		
Verity Touch Writer Duo		Revision A		
Verity Controller		Revision D		
Verity Controller – Update for tablet electronics obsolescence		Revision A		
Verity Touch		Revision D		
Verity Touch w/ Access		Revision E		
OKI Data	N22202A		B431d Printer Driver	Data/Build, Central, Count, Print, Touch Writer
OKI Data	N22500A		B432dn Printer Driver	Data/Build, Central, Count, Print, Touch Writer
OKI Data	N35100A		C831dn Printer Driver	Print
TWAIN Working Group	2.0.1		Twacker 32 Scanner Driver	Central
Canon	M111181		DR-G1100 Scanner Driver	Data/Build, Central
Canon	M111171		DR-G1130 Scanner Driver	Data/Build, Central
	1405-8GV3		8-port Ethernet Switch	Data/Build, Central, Count
Vinpower Digital USB Duplicator 7-targets	USBShark-7T-BK			Data/Build
Vinpower Digital USB Duplicator 23-targets	USBShark-23T-BK			Data/Build
Verity Ballot Box	Revision B			Scan
Accessible Voting Booth	Revision D			Touch Writer, Touch Writer Duo, Touch Writer w/ Access
Standard Voting Booth	Revision D			Touch Writer Duo, Touch
Thermal Printer	PJ723		Brother PJ700	Touch Writer Duo
Verity Key		N/A	COTS: Maxim iButton	Security key used with voting system
Verity vDrive		N/A	COTS: Apacer	4GB USB flash drive, portable electronic media used for transportation of voting system data
Ballot/Report Printer		B431d	COTS: OKI Data	

System Component	Software or Firmware Version	Hardware Version	Operating System or COTS	Comments
– Data/Build, Central, Count, Print, Touch Writer		B432dn		
Ballot Printer – Build, Print		C831dn	COTS: OKI Data	
Scanner – Central		DR-G1100	COTS: Canon	
Scanner – Central		DR-G1130	COTS: Canon	
Workstation – Data, Build, Central, Count			COTS: HP Z240 Workstation; HP Z230 Workstation	Min. Requirements: Processor – Intel Celeron D 420 3.06GHz Dual Core Memory – 2GB Hard Drive – 120 GB Removable Storage – 8xDVD+/-RW Slim line USB Ports – 4 ports Video Card - Integrated Graphics Keyboard - USB Keyboard Mouse - USB Mouse
Monitor – Data, Build, Central, Count			COTS: Monitor	Min. Requirements: Panel Size - 50.8 cm Aspect Ratio - Widescreen (16:9) Optimal Resolution - 1600 x 900 at 60Hz Contrast Ratio - 1000: 1 Brightness - 250 cd/m2 (typical)

## System Limitations

This table depicts the limits the system has been tested and certified to meet.

Element	Testing Limit/Requirement Z240 64GB Systems (does not include Data/Build/Count combined system)	Testing Limit/Requirement Z230 32GB Systems (includes Z240 64GB Data/Build/Count combined system)
Precincts	3,000	2,000
Splits per Precinct	20	20
Total Precincts + Splits in an election	3,000	2,000
Districts for voting devices and applications	400	75
Parties in a General Election	24	24
Parties in a Primary Election	10	10
Contests in an election	2,000	200
Choices in a single contest	300	75
Total contest choices (voting positions) in an election	5,000	600
Max length of choice name	100 characters	100 characters



Element	Testing Limit/Requirement Z240 64GB Systems (does not include Data/Build/Count combined system)	Testing Limit/Requirement Z230 32GB Systems (includes Z240 64GB Data/Build/Count combined system)
Max write-in length	25 characters	25 characters
Voting Types	5	5
Max polling places per election	3,050	1,200
Max devices per election	N/A	N/A
vDrive capacity – Scan voting device	9,999 sheets per vDrive	9,999 sheets per vDrive
vDrive capacity – Verity Central	80,000 sheets per vDrive	80,000 sheets per vDrive
Number of voters definable per election	2,500,000	1,000,000
Number of total ballots cast per election	1,750,000	1,000,000
Max number of sheets per ballot	4 sheets	4 sheets
Max number of sheets – Verity Scan	9,999	9,999
Max number of CVRs – Verity County	7,000,000	7,000,000
Ballot Sizes	8.5"x11", 8.5"x14", 8.5"x17", 8.5"x20", 11"x17" (Central only)	8.5"x11", 8.5"x14", 8.5"x17", 8.5"x20", 11"x17" (Central only)
Number of languages in a single election (including English)	11	11

## Functionality

### 2005 VVSG Supported Functionality Declaration

Feature/Characteristic	Yes/No	Comment
Voter Verified Paper Audit Trails		
VVPAT	No	
Accessibility		
Forward Approach	Yes	
Parallel (Side) Approach	Yes	
Closed Primary		
Primary: Closed	Yes	Supports standard closed primary and modified closed primary
Open Primary		
Primary: Open Standard (provide definition of how supported)	Yes	Open Primary
Primary: Open Blanket (provide definition of how supported)	Yes	General "top two"
Partisan & Non-Partisan:		
Partisan & Non-Partisan: Vote for 1 of N race	Yes	
Partisan & Non-Partisan: Multi-member ("vote for N of M") board races	Yes	
Partisan & Non-Partisan: "vote for 1" race with a single candidate and write-in voting	Yes	
Partisan & Non-Partisan "vote for 1" race with no declared candidates and write-in voting	Yes	
Write-In Voting:		

Feature/Characteristic	Yes/No	Comment
Write-in Voting: System default is a voting position identified for write-ins.	No	By default, the number of write-ins available in a contest is zero, users may increment as necessary
Write-in Voting: Without selecting a write in position.	No	
Write-in: With No Declared Candidates	Yes	
Write-in: Identification of write-ins for resolution at central count	Yes	
Primary Presidential Delegation Nominations & Slates:		
Primary Presidential Delegation Nominations: Displayed delegate slates for each presidential party	Yes	
Slate & Group Voting: one selection votes the slate.	Yes	
Ballot Rotation:		
Rotation of Names within an Office; define all supported rotation methods for location on the ballot and vote tabulation/reporting	Yes	Rotation by precinct and precinct split
Straight Party Voting:		
Straight Party: A single selection for partisan races in a general election	Yes	
Straight Party: Vote for each candidate individually	Yes	
Straight Party: Modify straight party selections with crossover votes	Yes	
Straight Party: A race without a candidate for one party	Yes	
Straight Party: "N of M race (where "N">1)	Yes	
Straight Party: Excludes a partisan contest from the straight party selection	Yes	
Cross-Party Endorsement:		
Cross party endorsements, multiple parties endorse one candidate.	No	
Split Precincts:		
Split Precincts: Multiple ballot styles	Yes	
Split Precincts: P & M system support splits with correct contests and ballot identification of each split	Yes	
Split Precincts: DRE matches voter to all applicable races.	Yes	
Split Precincts: Reporting of voter counts (# of voters) to the precinct split level; Reporting of vote totals is to the precinct level	Yes	
Vote N of M:		
Vote for N of M: Counts each selected candidate, if the maximum is not exceeded.	Yes	
Vote for N of M: Invalidates all candidates in an overvote (paper)	Yes	
Recall Issues, with options:		
Recall Issues with Options: Simple Yes/No with separate race/election. (Vote Yes or No Question)	Yes	
Recall Issues with Options: Retain is the first option, Replacement candidate for the second or more options (Vote 1 of M)	Yes	
Recall Issues with Options: Two contests with access to a second contest conditional upon a specific vote in contest one. (Must vote Yes to vote in 2 <sup>nd</sup> contest.)	Yes	

Feature/Characteristic	Yes/No	Comment
Recall Issues with Options: Two contests with access to a second contest conditional upon any vote in contest one. (Must vote Yes to vote in 2 <sup>nd</sup> contest.)	Yes	
Cumulative Voting		
Cumulative Voting: Voters are permitted to cast, as many votes as there are seats to be filled for one or more candidates. Voters are not limited to giving only one vote to a candidate. Instead, they can put multiple votes on one or more candidate.	Yes	
Ranked Order Voting		
Ranked Order Voting: Voters can write in a ranked vote.	Yes	
Ranked Order Voting: A ballot stops being counting when all ranked choices have been eliminated	N/A	Tabulation rules are unique per jurisdiction
Ranked Order Voting: A ballot with a skipped rank counts the vote for the next rank.	N/A	Tabulation rules are unique per jurisdiction
Ranked Order Voting: Voters rank candidates in a contest in order of choice. A candidate receiving a majority of the first choice votes wins. If no candidate receives a majority of first choice votes, the last place candidate is deleted, each ballot cast for the deleted candidate counts for the second choice candidate listed on the ballot. The process of eliminating the last place candidate and recounting the ballots continues until one candidate receives a majority of the vote	N/A	Tabulation rules are unique per jurisdiction
Ranked Order Voting: A ballot with two choices ranked the same, stops being counted at the point of two similarly ranked choices.	Yes	
Ranked Order Voting: The total number of votes for two or more candidates with the least votes is less than the votes of the candidate with the next highest number of votes, the candidates with the least votes are eliminated simultaneously and their votes transferred to the next-ranked continuing candidate.	N/A	Tabulation rules are unique per jurisdiction
Provisional or Challenged Ballots		
Provisional/Challenged Ballots: A voted provisional ballots is identified but not included in the tabulation, but can be added in the central count.	Yes	
Provisional/Challenged Ballots: A voted provisional ballots is included in the tabulation, but is identified and can be subtracted in the central count	Yes	
Provisional/Challenged Ballots: Provisional ballots maintain the secrecy of the ballot.	Yes	
Overvotes (must support for specific type of voting system)		
Overvotes: P & M: Overvote invalidates the vote. Define how overvotes are counted.	Yes	If the system detects more than the valid number of marks in a contest, it is counted as an overvote
Overvotes: DRE: Prevented from or requires correction of overvoting.	Yes	

Feature/Characteristic	Yes/No	Comment
Overvotes: If a system does not prevent overvotes, it must count them. Define how overvotes are counted.	Yes	If the system detects more than the valid number of marks in a contest, it is counted as an overvote
Overvotes: DRE systems that provide a method to data enter absentee votes must account for overvotes.	Yes	
Undervotes		
Undervotes: System counts undervotes cast for accounting purposes	Yes	
Blank Ballots		
Totally Blank Ballots: Any blank ballot alert is tested.	Yes	
Totally Blank Ballots: If blank ballots are not immediately processed, there must be a provision to recognize and accept them	Yes	
Totally Blank Ballots: If operators can access a blank ballot, there must be a provision for resolution.	Yes	
Networking		
Wide Area Network – Use of Modems	No	
Wide Area Network – Use of Wireless	No	
Local Area Network – Use of TCP/IP	Yes	
Local Area Network – Use of Infrared	No	
Local Area Network – Use of Wireless	No	
FIPS 140-2 validated cryptographic module	Yes	
Used as (if applicable):		
Precinct counting device	Yes	
Central counting device	Yes	

## ESSEX COUNTY, VIRGINIA



Edgar Robinson, Jr - Chair  
Richard Lyman – Vice Chair  
Gwen Darby - Secretary

Electoral Board  
205 S. Cross ST, Suite B  
P O Box 1561  
Tappahannock, Virginia 22560-1561

M. Kelly LaFollette  
Director of Elections/General Registrar  
(804) 443-4611 FAX (804) 443-4157

Chris Piper, Commissioner  
James Heo, Confidential Policy Advisor  
Virginia Department of Elections

November 12, 2019  
(via email)

Dear Sirs,

Thank you for the invitation and opportunity to assist the State of Virginia's certification of the Hart InterCivic Verity Voting 2.3.1 software upgrade after their March 2019 federal (US-EAC) certifications. Your choosing Essex County to participate in the last step of certification in Virginia; namely, use in a live election, is a source of great personal pride.

Essex County uses the VERITY voting system for ballot scanners and ADA ballot marking devices. The new software 2.3.1 upgrade applies to both systems. We update our software to the newest versions ever time Hart releases them post-certification. We believe in maintaining up to date equipment in order to conduct efficient, accurate and secure elections. Please approve the certification immediately.

On Election Day (November 5, 2019) we live-election tested the 2.3.1 software upgrade for the VERITY voting system. Eight VERITY Scanners and seven VERITY TouchWriters were utilized countywide in five precincts (Cap, 101, 201, 301, and 401). All 15 machines were L&A tested by the Electoral Board with vendor supervision on-site, after issuing public notice per Code of Virginia (§ 24.2-633). There were no incidents of any kind determined during L&A or Election Day use. The machines worked as predicted and Essex has retained documentation of testing and has quarantined the digital media with the Clerk of Court as required.

Please feel free to reach out if you have questions of my Board or me. Thanks again for including us.

M. Kelly LaFollette  
Director of Elections/General Registrar



## Memorandum

**To:** Chairman Brink, Vice Chair O'Bannon, and Secretary LeCruise

**From:** James Heo, Confidential Policy Advisor

**Date:** January 28, 2020

**Re:** Election Equipment Uniformity Plan, Amendment of Voting System Certification Standards, and Adoption of Electronic Pollbook Certification Standards

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### **Suggestion motions for a Board member to make:**

1. I move that the Board recognize that all existing voting systems and electronic pollbooks are considered compliant with SBE standards upon the Department's confirmation of proof of current and valid certification. These systems will remain certified under the previous standards until July 31, 2021.
2. I move that the Board approve the adoption of amendments to the Voting System Certification Standards and that these amended standards are effective immediately. Vendors for new equipment or software available for use in Virginia must comply with these standards.
3. I move that the Board approve the adoption of the proposed Electronic Pollbook Certification standards, effective immediately. Vendors for new equipment or software available for use in Virginia must comply with these standards.

### **Attachments:**

Your Board materials include the following:

- Overview of Implementation Guidelines PowerPoint
- Virginia Voting System Certification Standard (Amended)
- Virginia Voting System Certification Standard Amendment Change Log
- Virginia Electronic Pollbook Certification Standard PowerPoint
- Virginia Electronic Pollbook Certification Standard
- Virginia Electronic Pollbook Certification Standard Change Log



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**Background:**

*2020 Uniformity of Election Equipment*

In order to ensure equipment security during the 2020 November Presidential election, the Department has worked with the election vendor community to develop an implementation plan to upgrade localities to standardized versions of equipment. This plan will help localities through their transition to upgrade their equipment to comply with the proposed equipment standards that include additional security enhancements, while still protecting the integrity of our elections throughout the 2020 cycle. This transition plan should have minimal cost to the localities and will greatly improve the uniformity of election administration throughout the Commonwealth.

*Virginia Voting System Certification Standards*

In September of 2019, the State Board of Elections adopted a new set of voting system certification standards. These standards have been amended in consultation with members of the Election community in order to better reflect current technological capabilities of voting equipment. The changes include the following high level items, additional detail can be found in the change log included in the Board materials:

- Re-wrote and re-organized document to deliver the content in a concise style and improve overall clarity in alignment with EPB Certification Standard
- Sets forth additional security requirements to implement the Elections Security Best Practices
- Expanded the TDP requirements to include Software Deviation
- Removed Test Procedures and Test Cases from Federal Compliance Testing
- Removed latest NIST standard at time of certification
- Includes additional forms to clarify vendor's responsibility when requesting certification, submitting EOL plan and requesting for De Minimis Change
- Added clarifying language and updated test assertions with the following requirements:
  - All voting systems must provide a voter-verifiable audit trail, a permanent paper record of each vote.
  - ADA voting system must provide a voter-verifiable audit trail, a permanent record of each vote that can be checked for accuracy by the voter before the vote is submitted
- Requires testing at Voting Systems Test Laboratory (VSTL)
- Clarified and Referenced Cast Vote Record in new Appendix to ensure vendor compliances with SCAP checklist



## **STATE CERTIFICATION OF VOTING SYSTEMS**

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### **Requirements and Procedures**

Department of Elections  
1100 BANK STREET, 1ST FLOOR  
RICHMOND VA 23219

*Revised: April 2014*



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## **Part 1: Introduction**

### **1.1. Purpose of Procedures**

These procedures have been developed and issued as part of a continuing effort to improve the administration of elections in the Commonwealth of Virginia. They provide a formal and organized process for vendors to follow when seeking state certification for a new voting system or an improvement or modification to an existing voting system currently certified for use. To this end the procedures are designed to:

1. Ensure conformity with state election laws relating to the acquisition and use of voting systems and equipment.
2. Provide an organized and consistent means of evaluating and certifying voting systems and equipment marketed by vendors for use in Virginia.
3. Provide an organized and consistent means of evaluating and certifying additional capabilities and changes in the method of operation for voting systems previously certified for use in Virginia.
4. Provide an organized and consistent means of decertifying voting systems and equipment.
5. Provide for the improvement of the electoral process by ensuring that all voting systems operate properly and are installed and tested in compliance with the State Board of Elections approved procedures.
6. Provide for the accurate reporting of all election results for any jurisdiction in which each certified system is used.

### **1.2. Specific Requirements**

1. The voting system or equipment must meet the requirements contained in the most recent version or versions of the Voluntary Voting System Guidelines (VVSG) or Voting System Standards (VSS) currently accepted for testing and certification by the U.S. Election Assistance Commission (EAC). Compliance with the applicable VVSG/VSS may be substantiated through federal certification by the EAC, through certification by another state that requires compliance with the applicable VVSG/VSS, or through testing conducted by a federally certified voting system test laboratory (VSTL) to the standards contained in the applicable VVSG/VSS. Meeting the requirements contained in the VVSG or VSS will substantiate

compliance with the voting system requirements contained in Section 301 of the Help America Vote Act of 2002 (HAVA).

2. A modification to a voting system previously certified by SBE will be tested in a manner necessary to ensure that all changes meet applicable standards and that the modified system (as a whole) will function properly and reliably. If the system being modified has been tested or certified to a previous VVSG/VSS version, SBE may allow testing of modifications to the prior standards or require testing of the modification to the most current standards, at its discretion.
3. The voting system or equipment must comply with the provisions in the *Code of Virginia* relating to voting equipment (Article 3, Chapter 6 of Title 24.2).
4. The voting system or equipment must comply with any applicable regulations or policies issued by the State Board of Elections.
5. The vendor must ensure that the equipment and software can accommodate interactive visual and non-visual presentation of information to voters and alternative languages when required. (See HAVA, 42 USC 15481(a)(3), (4), §203 of the Voting Rights Act (42 USC 1973aa-1a) and Virginia Code Section 24.2-626.1)

### **1.3. Applicability**

1. The procedures outlined in this document are applicable to all voting systems first used on or after the effective date of this document.
2. These procedures are intended to assist local jurisdictions in identifying voting systems that meet all federal and state requirements and are available for purchase based on individual locality requirements.
3. The requirements of these procedures are waived for any voting system or equipment previously certified for and in use in the Commonwealth of Virginia on or before June 28, 2005. The State Board of Elections reserves the right to require re-certification of these systems or equipment at a future date.
4. Any modification to the hardware, firmware, or software of an existing system which has been certified by the State Board of Elections in accordance with these procedures will, in general, invalidate the certification unless it can be determined by the State Board of Elections that the change does not affect the accuracy, reliability, security, usability or accessibility of the system.
5. The intent of these procedures is to ensure that voting system hardware and software have been shown to be reliable, accurate, usable, accessible and capable of secure operation before they are certified for use in the Commonwealth. Hardware and software products with performance proven in commercial applications may be deemed acceptable, provided that they are shown to be compatible with the operational and administrative requirements of the voting environment. Typically, the vendor will be required to provide documentation of a product's proven performance, such as test reports to comparable standards. Products not in wide

commercial use, regardless of their performance histories, will require qualification, certification, and acceptance tests before they can be used. This requirement applies to the operating systems and monitors as well as to the application programs which control and do the work of ballot processing.

#### **1.4. Decertification**

The State Board of Elections reserves the right to reexamine and reevaluate any previously certified voting system for any reason, at any time. Any voting system that does not pass certification testing will be decertified. A voting system that has been decertified by SBE may not be used for elections held in the Commonwealth and may not be purchased by localities to conduct elections.

## **Part 2: Basis for Certification**

There are three distinct levels of testing that a voting system must successfully complete before a voting system can be used in the Commonwealth of Virginia. These levels are **Federal Compliance Testing, State Certification Testing, and Acceptance Testing.**

Federal Compliance Testing demonstrates that a voting system complies with the requirements of the most recent version or versions of the VVSG/VSS currently accepted for testing and certification by the EAC. Primary evidence of compliance with these requirements is certification of the system by the EAC. However, federal compliance may also be demonstrated through certification by another state electoral authority that requires compliance with the applicable VVSG/VSS or through testing conducted by a federally certified VSTL to the applicable VVSG/VSS.

State Certification Testing is intended to assure that a voting system complies with the requirements of the Commonwealth of Virginia. State Certification further examines the readiness of a voting system for use under the election management procedures currently in use or proposed for use with the system. State Certification Testing is more specific than Federal Compliance Testing and examines the fit between the voting system and the specific requirements and practices of the Commonwealth.

Acceptance Testing assures that the system delivered is identical to that which was certified and is in good working condition.

### **2.1. Federal Compliance Testing**

Federal Compliance Testing is performed to demonstrate compliance with the most recent version or versions of the VVSG/VSS currently accepted for testing and certification by the EAC. While EAC certification serves as prima facie evidence of compliance, federal compliance may also be demonstrated through certification by another state electoral authority that requires compliance with the applicable VVSG/VSS or through testing conducted by a federally certified VSTL to the applicable VVSG/VSS. SBE will make the final decision on compliance based on all available information. If there is evidence of a material non-compliance, the Commonwealth will work with the vendor to resolve the issue.

To support a review of Federal Compliance Testing, the following documents shall be provided to SBE:

1. A full copy of the Technical Data Package (TDP);
2. A copy of the Test Plan, Test Report and all Test Procedures and Test Cases used by the Voting System Test Lab (VSTL) in performing EAC certification testing or results of testing conducted by a VSTL to the applicable VVSG/VSS outside of the federal certification process;
3. A release to the VSTL to respond to any requests for information from the Commonwealth of Virginia;
4. A release to other states which have certified the system or prior versions of the system to respond to any requests for information from the Commonwealth of Virginia; and

5. Any additional information the State Board of Elections believes is necessary to determine compliance with the applicable Voluntary Voting System Guidelines or Voting System Standards.

### **2.1.1. Voting System Hardware Elements**

All equipment used in a voting system shall be examined to determine its suitability for election use according to the appropriate procedures contained in this document. Equipment to be tested shall be identical in form and function with production units. Engineering or development prototypes are not acceptable.

Modifications to existing hardware that has been previously certified by SBE will invalidate the results of the prior certification unless it can be determined by the State Board of Elections that the change does not affect the accuracy, reliability, security, usability or accessibility of the system.

### **2.1.2. Voting System Software Elements**

Voting system software shall be examined and tested to ensure that it adheres to the performance standards specified in the most recent version or versions of the VVSG/VSS currently accepted for testing and certification by the EAC.

Modifications to existing software that has been previously certified by SBE will invalidate the results of the prior certification unless it can be determined by the State Board of Elections that the change does not affect the accuracy, reliability, security, usability or accessibility of the system.

### **2.1.3. Reciprocity**

The State Board of Elections may accept the qualification tests of the hardware and/or software of a voting system conducted by another state electoral authority that requires compliance with the applicable VVSG/VSS or through testing conducted by a federally certified VSTL to the applicable VVSG/VSS. Any such tests that are accepted may be used to support certification approval in conjunction with, or in lieu of, EAC or State Board of Elections testing. The procedure for transferring qualification tests results from another state or a VSTL is contained in the following sections (see Supporting Information in Part 3). This reciprocity does not, of course, extend to the “Compliance with the *Code of Virginia*” and the “Acceptance Tests” described below since these items are considered unique to Virginia.

## **2.2. State Certification Testing**

State certification testing is intended to verify that the design and performance of the voting system seeking certification complies with all applicable requirements of the *Code of Virginia* and SBE regulations and policies.

The certification test is not intended to result in exhaustive tests of system hardware and software attributes; these are evaluated during federal compliance testing. However, all system functions, which are essential to the conduct of an election, will be evaluated.

An important focus of State Certification Testing is a review of experience with the current and prior versions of the system and the results of other state certification examinations. Any testing and or experiences of other states using the system may be considered. This review requires making inquiries of other users of the system. State certification reports and other evaluations of the system are read and analyzed for insight into the suitability of the system for use in Virginia.

The recommended use procedures are examined along with the voting system to determine how well the system will integrate into Virginia election law and management practices.

Testing is performed to evaluate the system with respect to the specific practices of Virginia. Testing will evaluate all system operations and procedures which:

- a. Define ballot formats for a primary election, a general election, and a recount including all voting options defined by the *Code of Virginia*,
- b. Install application programs and election-specific programs and data in the ballot counting device,
- c. Verify system readiness for operation,
- d. Count ballots,
- e. Perform status tests,
- f. Obtain voting data and audit data reports,
- g. Support recount or election audits, and
- h. Address compliance with physical and language accessibility requirements

The test environment will include the preparation and operation of election and voting databases, and the validation, consolidation, and reporting of administrative and voting data as required by law.

The state may perform hash testing of applications software to verify that the versions provided by the vendor are identical to the versions that have undergone federal compliance testing.

Certification testing will be complete after a successful test use of the equipment in an actual election (*Code of Virginia* §24.2-629 (E)) in one or more local jurisdictions, which have consented to conduct such a test. Successful completion of a test election shall include a post-election audit.

### **2.3. Acceptance Tests**

Acceptance Tests will be conducted by the local jurisdiction, with the assistance of state officials or consultants. Acceptance testing will be performed as part of the procurement process for the voting system.

The local jurisdiction will conduct tests to confirm that the purchased or leased system to be installed is identical to the certified system and that the installed equipment and/or software are fully functional and capable of satisfying the administrative and statutory requirements of the jurisdiction. The state may require localities to perform hash testing of applications software for this purpose. SBE will request that upon acquiring equipment, the locality forwards a letter to SBE confirming that the versions of all software and model(s) of equipment received are identical to the certified system that was ordered.

Typically, the acceptance test will demonstrate the system's ability to execute its designed functionality as advertised and tested, including but not limited to:

- a. Process simulated ballots for each precinct or polling place in the jurisdiction.
- b. Reject overvotes and votes not in valid ballot positions.
- c. Handle write-in votes.

- d. Produce an input to or generate a final report of the election, and interim reports as required.
- e. Generate system status and error messages.
- f. Comply with and enable voter and operator compliance with all applicable procedural, regulatory, and statutory requirements.
- g. Produce an audit log.



## **Part 3: Review and Approval Process**

### **3.1. Summary of Process**

These procedures are limited to those systems and equipment that have passed the prototype stage and are in full production and available for immediate installation and use. A total of six (6) steps have been established to carry out this process. These steps are designed so that the State Board of Elections can, at any point, make a determination to continue the evaluation.

### **3.2. Procedure for Certification**

The evaluation of the voting system will proceed in the following steps:

#### Step 1: Letter of Request for Certification and Certification Fee

The certification evaluation procedure shall be initiated by a letter from the vendor of the voting system to the Secretary of the State Board of Elections requesting certification for either a specific voting system or for a software, firmware, or hardware modification to a certified voting system. A response letter will be sent to the vendor requesting the certification fee if SBE finds no reason to deny the request for certification based on a preliminary review of the request.

Vendors must pay an initial fee of \$10,000 for new voting system certification requests and other fees as required for requests for modifications to a previously certified voting system. If SBE's actual costs for reviewing the vendor's submission exceed the amount of the initial fee, the vendor agrees to reimburse SBE for all additional costs incurred. All fees must be collected before certification will be granted.

The Commissioner of Elections of the Department of Elections or the Board's representative will notify the vendor of the earliest date after which the requested certification evaluation can begin.

#### Step 2: Technical Data Package and Corporate Information

The vendor shall submit the Technical Data Package, Corporate Information, and other material described in the next section of this document to an evaluation agent selected by the Commonwealth. The vendor will be supplied with the contact information of the evaluation agent.

The evaluation agent will review the Technical Data Package, Corporate Information, and other materials provided and notify the vendor of any deficiencies. Certification of the voting system will not proceed beyond this step until the Technical Data Package and Corporate Information are complete.

#### Step 3: Preliminary Review

The evaluation agent will conduct a preliminary analysis of the Technical Data Package, Corporate Information, and other materials provided and prepare an Evaluation Proposal containing the following information:

1. Components of the voting system requiring evaluation.

2. Identification of any additional materials needed to ascertain financial stability and capabilities of the vendor to maintain support of the voting system.
3. Description of the activities required to complete the portion of the evaluation performed by the evaluation agent.
4. Estimate of time required to complete the portion of the evaluation performed by the evaluation agent.

Step 4: Authorization to Proceed

The vendor will review the Evaluation Proposal and notify the Secretary of the State Board of Elections, in writing, of the desire to continue or terminate the evaluation process. A copy of this notification will be sent to the evaluation agent.

Step 5: Evaluation

The vendor will arrange for any “Non-operating, Environmental” testing if required and submit the results of these tests to the evaluation agent. After any required “Non-operating, Environmental” tests have been successfully completed, the evaluation agent will conduct the evaluation described in the Evaluation Proposal and submit a report of the findings to the State Board of Elections.

Step 6: Test Election

The State Board of Elections will supervise a test use of the system in an actual election with the vendor present prior to final certification.

Step 7: Certification

Based on the information contained in the report from the evaluation agent, the test election, and any other information in their possession, the State Board of Elections will determine whether the proposed voting system will be certified for use in the Commonwealth of Virginia and notify the vendor of the decision. In addition the Department of Elections will solicit a statewide contract from any vendor for voting systems certified for use in the Commonwealth.

### **3.3. Supporting Information**

Request for Certification

The request to begin the certification process for a voting system shall be a letter addressed to:

Commissioner of Elections  
Department of Elections  
1100 Bank Street, 1st Floor  
Richmond, Virginia 23219

This request shall be signed by a company officer and contain the following information:

1. Identification of the specific voting system to be evaluated for certification. Each different voting system or version of a voting system requires a separate request for certification. Each component of the hardware, firmware, and software must be identified by version number.

2. Copies of documents substantiating completion of federal compliance testing, including whether the proposed voting system has been certified under the most recent version or versions of the VVSG/VSS currently accepted for testing and certification by the EAC in another state or by a VSTL.
3. Whether the proposed voting system has ever been denied certification or had certification withdrawn in any state or by the EAC.
4. A brief overview description of the voting system. Typical marketing brochures are usually sufficient for this description (8 copies).
5. Whether the proposed voting system or a version of the proposed voting system is currently used in Virginia or elsewhere. (List all locations where the system is used.)
6. A check or money order for the non-refundable certification fee must be included with this request before any certification work begins.

#### Technical Data Package

Before evaluation can begin, the vendor must submit to the evaluation agent a Technical Data Package. Each item in the package must be clearly identified; if the TDP is incomplete or the items in the package are not clearly identified, the entire package may be returned to the vendor and the evaluation of the voting system rescheduled.

The *Technical Data Package* must contain the following items, if they were not included in the TDP submitted to the VSTL:

1. *Hardware Schematic Diagrams.* Schematic diagrams of all hardware.
2. *Hardware Theory of Operations.* Documentation describing the theory of operation of the hardware.
3. *Customer Maintenance Documentation.* Documentation describing any maintenance that the vendor recommends can be performed by a customer with minimal knowledge of the system.
4. *Operations Manual.* Operations documentation that is normally supplied to the customer for use by the person(s) who will operate the equipment.
5. *Recommended Use Procedures.* Specific election administration procedures recommended for use with the system.
6. Definition of Marked Oval. Define the system thresholds used to declare a readable mark in an oval to be read by the scanner.
7. *Software License Agreement.* The software license agreement must be perpetual. An annual renewable support fee may be included as an option.

8. *Software Source Code.* Source code of the software and firmware is not required if it was submitted pursuant to federal certification. SBE may, at its discretion, request copies of the source code if the system has not been certified by the EAC. *{If source code is required to be submitted, it shall be supplied in the form of a listing and in a machine-readable form on media that is readable by the voting system. If there is any chance of ambiguity, the required compiler must be specified.}*
9. *Software System Design.* Documentation describing the logical design of the software. This documentation should clearly indicate the various modules of the software, their functions, and their interrelationships with each other. The minimum acceptable documentation is a system flowchart.
10. *Customer Documentation.* A complete set of all documentation which is available to the purchaser/user of the voting system. Clearly identify the documentation which is included in the cost of the system and the documentation which is available for an additional charge.
11. *Standard Contract.* Statement of deliverables to include: verification statement that equipment purchased is identical to equipment certified by the State Board of Elections, software licenses, warranties, support services provided, etc. and associated cost of each.
12. *Warranty.* The period and extent of the warranty and the method of repair/replacement for all hardware items; the circumstances under which equipment is replaced rather than repaired and the method by which a user requests such replacement; additional warranties that are available over and above the standard warranty, what these warranties cover, and their costs; the period and extent of warranty and the method of correction or replacement for all software provided as part of the voting system; and the technical documentation provided with all hardware and software that is used to certify that the individual component will perform in the manner and for the specified time.
13. *Test Data/Software (Optional).* Any available test data, ballot decks, and/or software that can be used to demonstrate the various functions of the voting system or verify that the version of the applications submitted are identical to the versions that have undergone federal compliance testing (i.e. hash testing tools). Although optional, these items can significantly reduce the effort, and hence the time and cost, involved in the evaluation of the system.
14. *Recommended Security Practices.* Documentation of the practices recommended by the vendor to ensure the optimum security and functionality of the system.

If the voting system is certified, the State Board of Elections will retain the Technical Data Package as long as the voting system is marketed or used in the Commonwealth of Virginia.

#### Transfer of Certification (Reciprocity)

If the voting system has successfully completed qualification testing by the EAC or another state, the State Board of Elections may accept the results of those tests. In this case, the Technical Data Package shall contain the following item in addition to the items described above:

*Qualification Test Report.* A certified copy of the results of the evaluation of the voting system under the most recent version or versions of the VVSG/VSS currently accepted for testing and certification by the EAC. This report must clearly identify the system evaluated, specifying the version numbers of all components of the hardware, firmware, and software. The evaluation report or an accompanying letter shall identify the state for which the evaluation was performed, the responsible state official, the organization conducting the evaluation, and the individual responsible for the evaluation. This report must be sent to the State Board of Elections directly from the organization which conducted the evaluation. This report will not prohibit the state from evaluating the voting system and testing all components of hardware, firmware and software to ensure it complies with the Code of Virginia.

#### Corporate Information

Before evaluation can begin, the vendor must submit to the evaluation agent the Corporate Information as detailed below with each item clearly identified. If the Corporate Information is incomplete or the items in the package are not clearly identified, the entire package may be returned to the vendor and evaluation of the voting system rescheduled.

The Corporate Information shall contain the following items:

1. History and description of the business including year established, products and services offered, areas served, branch offices and subsidiary and/or parent companies.
2. Management and staff organization, number of full time employees by category, number of part-time employees by category, resumes of key employees who will assist Virginia localities in acquiring the system if it is authorized for use.
3. Audited Report of the business' most current fiscal year. Multiple reports may need to be submitted depending on the business' fiscal calendar and the length of time to complete the certification process. Certification can take as long as a year.
4. Comfort letter from the business' primary bank. If the business uses more than one, multiple comfort letters must be submitted.
5. Financial history of the business including a financial statement for the past three (3) fiscal years. If the vendor is not the manufacturer of the equipment for which application is made, include a financial statement for the manufacturer for the past three (3) fiscal years.
6. Gross sales in voting products and services for the past three (3) years and the percent that is representative of the total sales of the business and its subsidiaries.

7. The location and manufacturing capability of each manufacturing facility that is used to fabricate and assemble all or any component part of the voting and/or tabulating system being submitted for certification.
8. The location and servicing capability of each service facility that will be used to service the voting and/or counting system for certification and the service limitation of the facility.
9. If publicly traded, indexes rating the business debt.
10. Quality assurance process used in the manufacturing of the voting system.
11. Configuration management process used with the voting system.

If the voting system is certified, the State Board of Elections will retain the Corporate Information as long as the voting system is marketed or used in Virginia. The Department of Elections will sign a statement of confidentiality for corporate information only.

#### Proprietary Information

The vendor must clearly mark any information it requests be treated as confidential and proprietary before providing it to Virginia representatives for evaluation. It is not sufficient to simply state that everything is proprietary. Every page of documentation that contains information the vendor considers proprietary information must be clearly marked. The State Board of Elections cannot guarantee the extent to which any material provided will be exempt from disclosure in litigation or otherwise.

### **3.4. Audit and Validation of Certification**

*It is the responsibility of both the vendor and the local jurisdiction to ensure that a voting system that is supplied or purchased for use in the Commonwealth of Virginia has been certified by the State Board of Elections. It is the responsibility of the vendor to submit any modifications to a previously certified voting system to the State Board of Elections for review.*

If any question arises involving the certification of a voting system in use in Virginia, the hardware and software system verification tools will be used to verify that the voting system in use is in fact identical to the voting system that was submitted for certification. Any unauthorized modifications to a certified system may result in decertification of the system by SBE or bar a voting system vendor from receiving certification of voting systems in the future.

### **3.5. Time Frame**

The State Board of Elections reserves the right to terminate the certification process at any time if the vendor fails to proceed in a timely manner. In particular, if a period of three months expires between any request for information by the Board or its evaluation agent and the vendor's response to that request, the Board will terminate the certification process. If the certification process is terminated under this provision, the vendor will forfeit any fees received by SBE. Any certification process terminated under this provision must be re-initiated from Step 1, Section 3.2: Procedure for Certification.

The certification process is also terminated when:

- a. SBE issues a determination regarding certification;
- b. The Vendor withdraws from the process; or
- c. The system fails the certification test; or
- d. The vendor cannot conduct the certification testing with the equipment on-hand.

The process can only be re-initiated from Step 1, Section 3.2: Procedure for Certification, if the process is terminated under conditions a., b., c. or d.

## Part 4: Appendix A - Glossary

The following terms are defined in SBE Policy 2009-001, Voting Equipment Security.

**Acceptance Testing** - The purpose of acceptance testing is to demonstrate and confirm to the greatest extent possible that the voting systems purchased or leased by a local jurisdiction are identical to the voting systems certified by the State Board of Elections and that the voting systems equipment and software are fully functional and capable of satisfying the administrative and statutory requirements of the local jurisdiction. Acceptance testing is conducted when voting systems are initially received by the local electoral board from a vendor or other outside source (e.g., another local jurisdiction).

**Certification Testing** - The purpose of certification testing is to verify that the design and performance of the voting system being tested comply with all of the requirements of the *Code of Virginia*. Certification testing is not intended to exhaustively test all of the voting system hardware and software attributes; these are evaluated during qualification testing by an approved VSTL. However, all voting system functions, that are essential to the conduct of an election and a recount, are evaluated.

**Evaluation Agent** – An independent outside consultant selected by the State Board of Elections to conduct certification testing of voting systems.

**Qualification Testing** - The purpose of qualification testing is to demonstrate that the voting system complies with the requirements of its own design specifications. This testing encompasses selective in-depth examination of software; inspection and evaluation of voting system documentation; tests of hardware under conditions simulating the intended storage, operation, transportation, and maintenance environments; and tests to verify system performance and function under normal and abnormal operating conditions. Qualification testing is normally conducted by a Voting System Test Laboratory (VSTL).

**Voting System** - The term “voting system” refers to the total combination of mechanical, electro-mechanical, electronic and digital equipment (including the software, firmware, and documentation required to program, control, and support the equipment) that is used to: define ballots; verify voter registration; cast and count votes; report or display election results; recount votes or produce audit records or support election recounts or audits; and to maintain and produce any review trail information; and the practices and associated documentation used to: identify voting system components and versions of such components; test the system during its development and maintenance; maintain records of system errors and defects; to determine specific system changes to be made a system after the initial qualification of the system; and make available any materials to the voter (such as notices, instructions, forms, or paper ballots).

**Voting System Test Laboratory (VSTL):** Test laboratory accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to be competent to test voting systems. When NVLAP has completed its evaluation of a test lab, the Director of NIST will forward a recommendation to the EAC for the completion of the accreditation process.



## **Part 5: Appendix B - Contacts**

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# Voting System Certification Standard

January 2020

Version 2.0

## Change History

Version	Brief Description of Change	Date	Author
1.0	Adoption by the State Board of Elections Primary changes were to improve clarity, security-related requirements, and document format; moving information that would likely change over time to appendices	09/17/2019	ELECT
2.0	Adoption by State Board of Elections Primary changes were in alignment with feedback and addition of Appendices I, & J	11/18/2019	ELECT

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## Chapter 1: Introduction

### 1.1. Purpose of Procedures

These procedures have been developed and issued as part of a continuing effort to improve the administration of elections in the Commonwealth of Virginia. They provide a formal and organized process for vendors to follow when seeking state certification for a new voting system or for improvements/modifications to a previously certified voting system in Virginia. To this end the procedures are designed to:

1. Ensure conformity with Virginia election laws relating to the acquisition and use of voting systems
2. Evaluate and certify voting systems marketed by vendors for use in Virginia
3. Evaluate and re-certify additional capabilities and changes in the method of operation for voting systems previously certified for use in Virginia
4. Standardize decertification and recertification of voting systems
5. Ensure that all voting systems operate properly and are installed and tested in compliance with the State Board of Elections' (SBE) procedures
6. Ensure accurate report of all election results from jurisdictions that use each certified system.

### 1.2. Specific Requirements

1. Compliance with the requirements contained in the latest version of the Voluntary Voting System Guidelines (VVSG) which are currently accepted for testing and certification by the U.S. Election Assistance Commission (EAC), or prior version if within the EAC transition period.
2. The voting system must comply with the provisions in the Code of Virginia relating to voting equipment (Article 3, [Chapter 6 of Title 24.2](#))
3. The voting system must comply with any applicable regulations or policies issued by the SBE or ELECT
4. The vendor must ensure that the voting system can accommodate an interactive visual and non-visual presentation of information to voters, and alternative languages when required. (See HAVA, 42 USC 15481(a)(3), (4), §203 of the Voting Rights Act (42 USC 1973aa-1a) and Virginia Code Section 24.2-626.1).

### 1.3. Decertification

ELECT reserves the right to reexamine any previously certified voting system for any reason at any time. Any voting system that does not pass certification testing will be decertified. A voting system that has been decertified by the SBE cannot be used for elections held in the Commonwealth of Virginia, and cannot be purchased by localities to conduct elections.

In addition, the SBE reserves the right to decertify the voting systems if the vendor does not comply with the following requirements:

1. Notify ELECT of any incident, anomaly or security-related breach experienced in an election jurisdiction, within 24 hours of knowledge
2. Report to ELECT within 30 calendar days of knowledge of any changes to Corporate Information including:
  - a. Business entity and structure
  - b. Parent and subsidiary companies
  - c. Capital or equity structure
  - d. Control; identity of any individual, entity, partnership, or organization owning a controlling interest
  - e. Investment by any individual, entity, partnership, or organization in an amount that exceeds 5% of the vendor's net cash flow from the prior reporting year
  - f. Location of manufacturing facilities; including names of the third-party vendor(s) employed to fabricate and/or assemble any component part of the voting and/or tabulating system being submitted for certification, along with the location of all of their facilities with manufacturing capability
  - g. Third-party vendors
  - h. Good Standing status
  - i. Credit rating
3. Submit any modifications to a previously certified voting system to ELECT for review within 30 calendar days from modification; see Appendix H for appropriate reporting process
4. If the operating system or any component has reached and/or will reach the Last Date of Mainstream Support within 18 months, as defined in Appendix H, send an upgrade plan with target date(s) to ELECT:
  - a. ELECT must receive the upgrade plan at least 12 months before the Last Date of Mainstream Support
  - b. The Last Date of Mainstream Support cannot include any type of Extended Support, as defined in Appendix H

- c. The voting system may still automatically be decertified as defined in Appendix H
5. Update all software with the latest patching and vulnerability updates in alignment with Appendix E.

**NOTE:** The SBE reserves the right to require recertification when new VVSG guidelines or changes to regulations and/or standards occur.

#### **1.4. Recertification**

See Appendix F for ELECT's guidelines on when voting system must go through recertification.

## Chapter 2: Basis for Certification

The Code of Virginia requires a voting system to be in compliance with the Federal and State Certification Standards.

Federal Compliance Testing demonstrates that the voting system adheres to all requirements set in the most up-to-date version of the VVSG by the EAC. The primary evidence of compliance is the certification of the system by the EAC. Federal compliance may also be demonstrated through testing conducted by a federally certified Voting System Test Lab (VSTL) to the applicable VVSG. Meeting the requirements contained in the VVSG will substantiate compliance with the voting system requirements contained in Section 301 of the Help America Vote Act of 2002 (HAVA).

State certification testing will evaluate that the voting system complies with all applicable requirements of the Code of Virginia and SBE and ELECT regulations and policies.

The voting system must demonstrate accuracy, reliability, security, usability, and accessibility throughout all testing phases.

### 2.1. Federal Compliance Testing

Federal Compliance Testing is performed to demonstrate compliance with the latest version of the VVSG currently accepted for testing and certification by the EAC, or prior version if within the EAC transition period. EAC certification serves as prima facie evidence of compliance; federal compliance may also be demonstrated through testing conducted by a federally certified VSTL to the applicable VVSG. ELECT will make the final decision on compliance based on all available information. If there is evidence of a material non-compliance, ELECT will work with the vendor to resolve the issue.

To support a review of Federal Compliance Testing, the following documents shall be provided to ELECT:

1. A full copy of the Technical Data Package (TDP) submitted for Federal compliance testing
2. A copy of the Test Plan, and Test Report used by the VSTL in performing EAC certification testing; or results of testing conducted by a federally certified VSTL to the applicable VVSG
3. A release to the VSTL to respond to any requests for information from the Commonwealth of Virginia
4. A release to other states which have decertified the system or prior versions of the system, to respond to any requests for information from the Commonwealth of Virginia



5. Any additional information ELECT believes is necessary to determine compliance with the applicable VVSG or Commonwealth of Virginia Voting System Certification Standards.

### **2.1.1. Voting System Hardware, Firmware, Infrastructure or Component Elements**

All equipment used in a voting system shall be examined to determine its suitability for election use according to the appropriate procedures contained in this document. Equipment to be tested shall be identical in form and function with production units. Engineering or development prototypes are not acceptable. See Appendix G for hardware guidelines.

Any modification to existing hardware, firmware, infrastructure or other components will invalidate the prior certification by the SBE unless ELECT can review and provide an assurance to the SBE that the change does not affect the accuracy, reliability, security, usability, or accessibility of the system. See Appendix J for the De Minimis Change Guideline that is applicable for hardware.

### **2.1.2. Voting System Software Elements**

Voting system software shall be examined and tested to ensure that it adheres to the performance standards specified in the latest version of the VVSG currently accepted for testing and certification by the EAC, or prior version if within the EAC transition period.

Any modification to existing software will invalidate the prior certification by the SBE, unless ELECT can review and provide an assurance to the SBE that the change does not affect the accuracy, reliability, security, usability, or accessibility of the system. See Appendix J for the De Minimis Change Guideline that is applicable for software.

## **2.2. State Certification Testing**

State certification testing will evaluate the design and performance of a voting system seeking certification to ensure that it complies with all applicable requirements in the Code of Virginia and SBE and ELECT regulations and policies. ELECT will examine the essential system functions, operational procedures, user guides, documents, and reviews from product users. Hash testing will be conducted to confirm that the application software is identical to the certified versions of federal compliance testing.

ELECT will evaluate the user experience with the current and prior versions of the voting system and certification reports from other states. In addition, the security and reliability analysis of the product model will be reviewed to determine the usability of the voting system for Virginia Elections.

State Certification Testing will examine all system operations and procedures, not limited to:

1. Define ballot formats for primary elections, general elections, and special elections including all voting options defined by the Code of Virginia

2. Install applications and election-specific programs and data in the ballot counting device
3. Count ballots
4. Prepare to perform and conduct the Logic and Accuracy tests
5. Obtain voting data and audit data reports
6. Support recount or election audits
7. Address compliance with physical and language accessibility requirements
8. Display an appropriate message on the review screen if a voter does not follow the ballot instruction; allow the voter to override the warning messages for overvote, undervote, blank ballot, or invalid Write-in to cast voter's ballot
9. Create a Cast Vote Record (CVR) for each vote for all elections
10. Integrate CVRs in a readable format
11. Does not have a built-in function for wireless connections or communications
12. Comply with the encryption requirement(s) as stated in Appendix D
13. Comply with the password protection requirement(s) as stated in Appendix D
14. Harden the voting system using the vendor's procedures and specifications
15. Comply with the requirements for Write-in image and format.

## Chapter 3: Review and Approval Process

### 3.1. Summary of Process

The State certification is limited to the final products that have been used in a full production environment and available for immediate installation. The certification review process goes through six phases. At the end of each phase, ELECT will evaluate the results to determine the certification status.

#### Six Phases of the Certification Review Process:

1. Certification Request from Vendor
2. Preliminary Review
3. Technical Data Package
4. Certification Test Report from VSTL
5. On-Site Testing in Mock Election
6. Approval by the SBE.

### 3.2. Certification Review Process

#### Phase 1: Certification Request from Vendor

A vendor will request a certification either for a specific voting system, software, firmware, hardware, and/or modification to an existing certified voting system. This request should include the following information:

1. Voting System Certification Application Form, signed by a company officer; see Appendix I

**NOTE:** This should clearly identify the specific voting system to be evaluated for certification, and:

- a. Each voting system or version of a voting system requires a separate request for certification
  - b. Each component of the hardware, firmware, software, and other components must be identified by version number
2. Copies of documents substantiating completion of federal compliance testing, including whether the proposed voting system has been certified under the latest version of the VVSG currently accepted for certification by the EAC or tested by a federally certified VSTL, or prior version if within the EAC transition period
  3. Whether the proposed voting system has ever been denied certification or had certification withdrawn in any state, or by the EAC
  4. Eight copies of a brief overview description of the voting system
    - a. Typical marketing brochures are usually sufficient for the description

5. A list of all states where the proposed voting system version is currently used
6. The vendor, VSTL and ELECT will review a statement of work that will result in the VSTL providing an estimate for the cost of testing. Testing will take place at the headquarters of the VSTL to limit the cost of testing. ELECT will give an estimate for their own staff to travel as well. Once this is agreed to, a check or money order for the non-refundable fee for a voting system certification request and applicable fees for modifications to a previously certified voting system, as applicable, will be paid.
  - a. All fees must be collected before the certification will be granted
    - i. Make checks or money order payable to Treasurer of Virginia
7. TDP must clearly identify all items:
  - a. If the TDP is incomplete or the items in the package are not clearly identified, the entire package could be returned to the vendor
  - b. Upon the receipt of the corrected TDP from the vendor, the evaluation of the voting system will be rescheduled
8. Corporate Information must clearly identify all items:
  - a. If the Corporate Information is incomplete or the items in the package are not clearly identified, the entire package could be returned to the vendor
  - b. The evaluation process will be rescheduled after the corrected package is received.

**NOTE:** The request package with the items above should be sent to the location indicated in Appendix B.

### **Technical Data Package**

The TDP must contain the following items if they were not included in the TDP submitted:

1. *Hardware Schematic Diagrams:* Schematic diagrams of all hardware
2. *Hardware Theory of Operations:* Documentation describing the theory of operation of the hardware, not limited to power cords and backup battery
3. *Software System Design:* Documentation describing the logical design of the software
  - a. This documentation should clearly indicate the various modules of the software, such as:
    - i. The list of functions
    - ii. System flowchart
    - iii. Its interrelationships with each other
    - iv. The list of data formats that the voting system can import and export
  - b. Clearly specify the operating system and version with:
    - i. The Last Date of Mainstream Support, as defined in Appendix H

- ii. The latest operating system version, security patches available, SHA256 hash value, and modification
4. *Software Deviations*: Include any exception(s) to the Security Content Automation Protocol (SCAP) checklist; document the reason why there is an exception and the mitigating controls/tools in place to secure the system
5. *Software Source Code*: A source code evaluation conducted in accordance with Software Design and Coding Standards of the most current version of the VVSG approved after March 1, 2015
6. *Definition of Marked Oval*: Define the system thresholds used to declare a readable mark in an oval to be read by the scanner
7. *Independent Third-Party Application Penetration Analysis Report*: An accredited application penetration test conducted, within the past 12 months, to analyze the system for potential vulnerabilities according to current industry standards. Potential vulnerabilities may result from poor or improper system configuration, known or unknown hardware or software flaws, or operational weaknesses in process or technical countermeasures. The test must involve active exploitation of security vulnerabilities of the voting system, whether or not the vulnerabilities can be mitigated through compensating controls. Pursuant to Virginia Code § 24.2-625.1, the Penetration Analysis Report is confidential and excluded from inspection and copying under the Virginia Freedom of Information Act. If a penetration test has been conducted in another state within 12 months on the same version of the voting system, then that may be submitted to fulfill this requirement.
8. *Customer Maintenance, Repair & Troubleshooting Manual*: Documentation that is normally supplied to the customer for use by the person(s) who will provide maintenance, repair and troubleshooting of the system
9. *Operations Manual*: Documentation that is normally supplied to the customer for use by the person(s) who will operate the system. At a minimum, the manual should include the maximum volume and speed of the scanner, the maximum capacity of container bin, ballot box, storage units, electronic storage device, and instructions for the proper and safe operation of the system to prevent injury or damage to any individual or the hardware, including fire and electrical hazards.
10. *User Guide and Documents*: The vendor should provide the following:
  - a. Quick reference guide with detailed instructions for a precinct election officer to set up, use, and shut down the voting system
  - b. ADA compliant training material that:
    - i. May be in written or video form

- ii. Must be in a format suitable for use at a polling place as a simple “how-to” guide(s)
  - c. Clear model of voting system architecture with the following documentations:
    - i. End-User Documentation
    - ii. System-Level and Administrator-Level Documentation
    - iii. Developer Documentation
  - d. Failsafe voting system data recovery procedures
    - i. For example: Recovery procedures for retrieving duplicated (contingency recovery) information from a different location within the device (or another device if networked capability is allowed and certified) in the event that access to the primary storage area is not possible for some unforeseen reason
  - e. A list of customers who are using or have previously used the voting system
    - i. The description of any known incidents or anomalies involving the functioning of the voting system, including how those incidents or anomalies were resolved with customer and date
  - f. If the operating system or any component (hardware and/or software) has reached and/or will reach the Last Date of Mainstream Support within 18 months, as defined in Appendix H, send an upgrade plan with target date(s) to ELECT; the Last Date of Mainstream Support cannot include any type of Extended Support, as defined in Appendix H.
11. *Recommended Security Practices*: CIS Security Best Practices, not limited to:
- a. System Security Architecture
  - b. System Event Logging
  - c. System Security Specification
  - d. Security Content Automation Protocol (SCAP)
  - e. Cryptography
  - f. Equipment and Data Security
  - g. Network and Data Transmission Security
  - h. Access control
  - i. Authentication procedure
  - j. Software
  - k. Physical Security
12. *Standard Contract, Product Support, and Service Level Agreement (SLA)*: Customer and Technical Support hours and contact information. SLA should specify the

escalation timeline and procedures with contact information. Vendor's capacity to provide, not limited to:

- a. On-Site Support and Technical Support within SLA on:
  - i. Election Day (defined as the start of the in-person absentee voting period up to and including Election Day)
  - ii. Within 60 days before Election Day
- b. Resolution to outstanding issue(s), repair, maintenance, and service requests within 30 days

13. *Maintenance Services, Pricing, and Financing Options*: A list of maintenance services with price. Terms for replacing a component or voting equipment. Available financing options for purchase or lease

14. *Warranty*: The vendor should provide a list of warranty specifications to include the following:

- a. The period and extent of the warranty
- b. Repair or Replacement
  - i. The circumstances under which equipment is replaced rather than repaired
  - ii. The method by which a user requests such replacement
- c. Warranty coverage and costs
- d. Technical documentation of all hardware and software that is used to certify that the individual component will perform in the manner and for the specified time

15. *Software License Agreement*

16. *Test Data and Software*: Vendor's internal quality assurance procedure, internal or external test data and reports, ballot decks, and software that can be used to demonstrate the various functions of the voting system. Vendor should also verify that the versions of the applications submitted are identical to the versions that have undergone federal compliance testing; for example, hash testing tools

17. *Non-Disclosure Agreement*: If applicable.

**NOTE:** If the voting system is certified, ELECT will retain the TDP as long as the voting system is marketed or used in the Commonwealth of Virginia.

## **Corporate Information**

Corporate Information must contain the following items:

1. History and description of the business including the year established, products and services offered, areas served, branch offices, subsidiary and parent companies, capital and equity structure, identity of any individual, entity, partnership, or organization owning a controlling interest, and the identity of any investor whose investments have an aggregate value that exceeds more than 5% of the vendor's net cash flow in any reporting year
2. Management and staff organization, number of full-time and part-time employees by category, and resumes of key employees who will assist Virginia localities in acquiring the system if it is authorized for use
3. Certified financial statements for current and past three (3) fiscal years
  - a. If the vendor is not the manufacturer of the voting system, then submit the certified financial statements of the manufacturer for the past three (3) fiscal years
4. Bank Comfort Letter from the vendor's primary financial institution
  - a. If the vendor uses more than one financial institution, multiple Comfort Letters must be submitted
5. Certificate of Good Standing issued within 2 months
6. Credit rating issued within 2 months
7. If publicly traded, indexes rating of the business debt
8. Gross sales in voting products and services for the past three (3) fiscal years and the percent of the vendor's total sales
9. The location of all facilities with manufacturing capability; including names of the third-party vendor(s) that are employed to fabricate and/or assemble any component part of the voting and/or tabulating system being submitted for certification, along with the location of all of their facilities with manufacturing capability
10. The location and servicing capability of each facility that will be used to service the voting and/or counting system for certification and the service limitation of the facility
11. Quality assurance process used in the manufacturing and servicing of the voting system
12. Configuration management process used with the voting system.

**NOTE:** If the voting system is certified, ELECT will retain the Corporate Information as long as the voting system is marketed or used in Virginia. ELECT will sign a statement of confidentiality for corporate information only.



### ***Proprietary Information***

Prior to or upon submission of its certification request, the vendor shall identify any information in its request and/or accompanying materials that it believes should be treated as confidential and proprietary. Furthermore, the vendor must state the reasons why such information should be treated as confidential and proprietary.

“Identify” means that the information must be clearly marked with a justification as to why the information should be treated as confidential and proprietary information. A vendor shall not designate as proprietary information (a) the entire certification request or (b) any portion of the certification request that does not contain trade secrets or proprietary information.

ELECT cannot guarantee the extent to which any material provided will be exempt from disclosure in litigation or otherwise. ELECT, however, agrees to provide the vendor with five (5) days’ notice prior to disclosing such material to third parties so that the vendor has the opportunity to seek relief from a court prior to the disclosure of such materials by ELECT.

### **Phase 2: Preliminary Review**

The Voting Technology Coordinator or designee will review the TDP, Corporate Information and other materials provided, and notify the vendor of any deficiencies. Certification of the voting system will not proceed beyond this phase until the TDP and Corporate Information are complete.

The Voting Technology Coordinator or designee will conduct a preliminary analysis of the Technical Data Package with VSTL. The Voting Technology Coordinator or designee will also review the Corporate Information and other materials to prepare an Evaluation Proposal, which includes:

1. Components of the voting system to be certified
2. Financial stability and sustainability of the vendor to maintain product support and contractual agreement for the voting system
3. Preliminary analysis of TDP

### **Phase 3: Technical Data Package to Voting System Test Laboratory (VSTL)**

In addition, the vendor should submit the TDP to the Voting Technology Coordinator, who shall provide the TDP to the VSTL following review.

### **Phase 4: Certification Test Report from VSTL**

VSTL will work directly with the vendor and ELECT designee to complete all test assertions and test cases and the Certification Test Report will be sent to ELECT upon completion.

### **Phase 5: On-Site Testing in Mock Election**

ELECT will coordinate with the local jurisdiction to test the voting system at two polling places. With the vendor present, the Electoral Board members from the local jurisdiction along with ELECT will oversee the test use of the system in a mock election.

### **Phase 6: Approval by the SBE**

Based on the report from the VSTL, the results from the On-Site Testing in Election and other information in their possession, the SBE will decide whether the voting system will be certified for use in the Commonwealth of Virginia. The decision will be sent to the vendor.

### **3.3. Incomplete Certification Process**

If the certification process is terminated, the vendor will forfeit all fees received by ELECT. Any certification process terminated under this provision must be re-initiated from Phase 1. The vendor is responsible to pay all outstanding balance due to ELECT before ELECT accepts subsequent requests from the vendor.

ELECT reserves the right to terminate the certification process when:

1. Vendor does not respond to a request from ELECT within 90 days
2. ELECT issues any concerns regarding the certification
3. The Vendor withdraws from the process
4. The system fails the VSTL certification test
5. The test lab cannot conduct the certification testing with the equipment on-hand.

## Appendices

### A – Glossary

**The following terms are defined in the United States Election Assistance Commission (EAC), the Code of Virginia and Virginia General Registrars and Electoral Boards (GREB) Handbook.**

**ADA** – Americans with Disability Act (ADA) of 1990 broadly protects the rights of individuals with disabilities in employment, access to State and local government services, places of public accommodation, transportation, and other important areas of American life. The ADA also requires newly designed and constructed or altered State and local government facilities, public accommodations, and commercial facilities to be readily accessible to and usable by individuals with disabilities.

**Anomaly** – Any event related to the security or functioning of the voting system that is out of the ordinary regardless of whether it is exceptional or not; a deviation from the norm.

**Cast Vote Record (CVR)** – Permanent record of all votes produced by a single voter.

**De Minimis Change** – A minimum change to a certified voting system’s hardware, software, TDP, or data. The nature of changes will not materially alter the system’s reliability, functionality, capability, or operation. Under no circumstance shall a change be considered De Minimis Change, if it has reasonable and identifiable potential to impact the system’s performance and compliance with the applicable Voting Standard. Reference: EAC Testing & Certification Program Manual version 2.0 and Notices of Clarification.

**Department of Elections (ELECT)** – ELECT conducts the SBE's administrative and programmatic operations and discharges the board's duties consistent with delegated authority.

**Election Assistance Commission (EAC)** – The Help America Vote Act (HAVA) directs the U.S. Election Assistance Commission (EAC) to provide for the testing, certification, decertification, and recertification of voting system hardware and software by accredited laboratories. HAVA also introduces different terminology for these functions. Under the EAC process, test labs are “accredited” and voting systems are “certified.” The term “standards” has been replaced with the term “*Guidelines*.” As prescribed by HAVA, the EAC process was initially based on the 2002 Voting Systems Standards and will transition to the latest standards issued.

**Help America Vote Act of 2002 (HAVA)** – The Help America Vote Act (HAVA) of 2002 made reforms to America’s voting process by establishing minimum standards for states regarding election administration. Title III of HAVA contains standards regarding voting systems, provisional voting and voting information, computerized statewide voter registration list, and

requirements for first-time voters who register by mail. HAVA standards are critical to the operation of an election.

**Incident** – Any event related to the security or functioning of the voting system that may have caused or caused an interruption to the Check-in and/or Reporting process.

**Logic and Accuracy Testing** – Logic and accuracy testing is an integral part of preparing for an election. Each machine (not a sampling of machines) that will be used in an election must be tested prior to that election to ensure it has been programmed correctly and is functioning properly. The logic and accuracy test will also uncover any ballot printing or coding issues that may affect accurate and complete tabulation. Each machine should be tested with a sufficient number of ballots or votes to substantiate that each machine recorded the correct number of votes for each candidate. An electoral board member, general registrar, or a designated representative, must be present during this process and must certify the results from each machine. Form ELECT-633 must be submitted electronically to the Department of Elections after logic and accuracy testing is complete.

**State Board of Elections (SBE)** – The State Board of Elections is authorized to supervise, coordinate, and adopt regulations governing the work of local electoral boards, registrars, and officers of election; to provide electronic application for voter registration and delivery of absentee ballots to eligible military and overseas voters; to establish and maintain a statewide automated voter registration system to include procedures for ascertaining current addresses of registrants; to prescribe standard forms for registration, transfer and identification of voters; and to require cancellation of records for registrants no longer qualified. [Code of Virginia, Title 24.2](#), Chapters [1](#), [4](#) and [4.1](#).

**Voting System** – The total combination of mechanical, electromechanical, and electronic equipment, including the software, firmware, and documentation required to program, control, and support the equipment, that is used to define ballots, cast and count votes, report or display election results, recount votes and maintain and produce any audit trail information.

**Voting System Test Laboratory (VSTL)** – Test labs that are accredited to perform conformance testing of voting systems will use SBE approved voting system certification standard to guide the development of test plans, the testing of systems, and the preparation of test reports and recommendations for granting state certification.

## **B – Contacts**

### **The Department of Elections**

The certification request package should be sent to:

Virginia Department of Elections  
ATTN: Voting System Certification  
1100 Bank Street, 1st Floor  
Richmond, Virginia 23219-3497

All other inquiries should be sent to:

Email: [info@elections.virginia.gov](mailto:info@elections.virginia.gov)

### C – Acceptance Test

As required by the Code of Virginia §24.2-629 (E) and the procurement process, the local jurisdiction with the assistance of state officials or consultants will conduct the Acceptance Test.

The local jurisdiction will examine that the purchased or leased system to be installed is identical to the certified system and that the installed equipment and/or software are fully functional and compliant with the administrative and statutory requirements of the jurisdiction. The local jurisdiction could also perform a hash testing of application software, as well as, send a letter to ELECT as required by the procurement process, to confirm that the versions of all software and model(s) of equipment received are identical to the certified system.

As part of the acceptance test the vendor will demonstrate the system's ability to execute its designed functionality as presented and tested during certification, including:

1. Process simulated ballots for each precinct or polling place in the jurisdiction
2. Display an appropriate message on the review screen if a voter does not follow the ballot instruction.
  - a. Able to override the warning messages for overvote, undervote or blank ballot to cast the ballot
3. Handle Write-in votes
4. Create a Cast Vote Record (CVR) per each vote
5. Produce an input to or generate a final report of the election, and interim reports as required
6. Generate system status and error messages
7. Comply with and enable voter and operator compliance with all applicable procedural, regulatory, and statutory requirements
8. Produce an audit log

**Validation of Certification**

It is the responsibility of both the vendor and the local jurisdiction to ensure that a voting system that is supplied or purchased for use in the Commonwealth of Virginia has been certified by the SBE. The vendor is required to submit any modifications to a previously certified voting system to ELECT for review.

If any question arises involving the certification of a voting system in use in Virginia, ELECT shall verify the voting system in use is identical to the voting system that was submitted for certification. Any unauthorized modifications to a certified system may result in decertification by the SBE or bar the vendor from receiving certification of voting systems in the future with the Commonwealth of Virginia.

**D – Test Assertions**

The following test assertions will be executed by the ELECT designated VSTL.

<b>General Requirements</b>	
<i>Statutory Requirement</i>	<i>Test Assertions</i>
<p><i>§ 24.2-626.1. Acquisition and use of accessible voting devices.</i></p> <p><i>1. Provide for at least one voting system equipped for individuals with disabilities at each polling place, including nonvisual accessibility for the blind and visually impaired, in a manner that provides the same opportunity for access and participation (including privacy and independence) as for other voters.</i></p> <p><i>2. Provide alternative language accessibility when required by § 203 of the Voting Rights Act of 1965 (52 U.S.C. § 10503).</i></p>	<p>I – The voting system must support audio ballots.</p>
	<p>II – Using the voting system, an individual voting by audio ballot does not require assistance by marking the ballot.</p>
	<p>III – The voting system must support multiple languages; including, English, Spanish, Vietnamese and allow future additions and support of other languages.</p>
<p><i>§ 24.2-629 (1). State Board approval process of electronic voting systems.</i></p> <p><i>It shall provide clear instructions for voters on how to mark or select their choice and cast that vote.</i></p>	<p>I – Must be able to alter instructions on the voting system’s electronically displayed ballots and audio ballots.</p>
<p><i>§ 24.2-629 (3). State Board approval process of electronic voting systems.</i></p> <p><i>It shall be capable of processing ballots for all parties holding a primary election on the same day, but programmable in such a way that an individual ballot cast by a voter is limited to the party primary election in which the voter chooses to participate.</i></p>	<p>I - The voting system must support multiple ballot styles on a single tabulator in a primary election.</p>
	<p>II – All voting systems must provide a voter-verifiable audit trail, a permanent paper record of each vote.</p>
<p><i>§ 24.2-629 (5). State Board approval process of electronic voting systems.</i></p> <p><i>It shall enable the voter to cast votes for as many persons for an office as lawfully permitted, but no</i></p>	<p>I – The voting system can present an accurate ballot based on a voter’s geopolitical subdivision based on the districts, regions, cities or other boundaries defined by the Commonwealth of Virginia.</p>



<b>General Requirements</b>	
<p><i>more. It shall prevent the voter from casting a vote for the same person more than once for the same office. However, ballot scanner machines shall not be required to prevent a voter from voting for a greater number of candidates than he is lawfully entitled to.</i></p>	<p>II – The voting system presents the voter only with candidates and contests that they are lawfully permitted to vote for.</p>
	<p>III – The voting system allows for the selection of multiple candidates or contest options. The voting system restricts the voter to select only a certain number of candidates or options in each contest. The voting system allows the voter to select a different number of candidates or options in each contest on the ballot.</p>
<p><i>§ 24.2-629 (7). State Board approval process of electronic voting systems.</i></p> <p><i>It shall provide the voter with an opportunity to correct any error before a ballot is cast.</i></p>	<p>I – For electronically displayed ballots, the voting system must provide the voter with a screen to review their selected choices prior to submitting the ballot.</p>
	<p>II - For electronically displayed ballots, the voting system must provide the voter the ability to return to a contest or question to make corrections. The system must also allow for an audio voter to return to any contest or question.</p>
	<p>III – The voting system must provide a warning or alert on the review screen to the voter for an incomplete or incorrect ballot; i.e. overvotes, undervotes, blank ballot.</p>
	<p>IV – ADA voting system must provide a voter-verifiable audit trail, a permanent record of each vote that can be checked for accuracy by the voter before the vote is submitted.</p>
<p><i>§ 24.2-629 (8). State Board approval process of electronic voting systems.</i></p> <p><i>It shall correctly register or record and accurately count all votes cast for candidates and on questions.</i></p>	<p>I – All component and system-level reports generated by the voting system provide accurate results that can be verified against known results.</p>

<b>General Requirements</b>	
<p><i>§ 24.2-657. Determination of vote on voting systems.</i></p> <p><i>In the presence of all persons who may be present lawfully at the time, giving full view of the voting systems or printed return sheets, the officers of election shall determine and announce the results as shown by the counters or printed return sheets, including the votes recorded for each office on the Write-in ballots, and shall also announce the vote on every question. The vote as registered shall be entered on the statement of results. When completed, the statement shall be compared with the number on the counters on the equipment or on the printed return sheets. If, on any ballot scanner, the number of persons voting in the election, or the number of votes cast for any office or on any question, totals more than the number of names on the poll books of persons voting on the machines, then the figures recorded by the machines shall be accepted as correct. A statement to that effect shall be entered by the officers of election in the space provided on the statement of results.</i></p>	<p>II – Public and private ballot counters increment for each accepted ballot. The ballot counters do not increment for ballots rejected by the system.</p> <p>III – The voting system records how many ballots are cast as overvotes, undervotes, Write-ins, and blank ballots for each contest and question.</p>
<p><i>§ 24.2-629 (9). State Board approval process of electronic voting systems.</i></p> <p><i>It shall be provided with a "protective counter," whereby any operation of the machine before or after the election will be detected.</i></p>	<p>I – Each tabulator has a lifetime counter/ "protective counter" that cannot be reset without reloading the firmware.</p> <p>II – The "protective counter" increments correctly for each ballot accepted by the tabulator.</p> <p>III – The "protective counter" does not increment for ballots not accepted by the tabulator.</p>
<p><i>§ 24.2-629 (10). State Board approval process of electronic voting systems.</i></p>	<p>I – Each tabulator has a "public counter" which tracks the number of ballots processed and accepted for an election.</p>

<b>General Requirements</b>	
<p><i>It shall be provided with a counter that at all times during an election shall show how many persons have voted.</i></p>	<p>II – The “public counter” increments correctly for each ballot accepted by the tabulator.</p>
	<p>III – The “public counter” does not increment for ballots not accepted by the tabulator.</p>
<p>§ 24.2-629 (11). State Board approval process of electronic voting systems.</p> <p><i>It shall ensure voting in absolute secrecy. Ballot scanner machines shall provide for the secrecy of the ballot and a method to conceal the voted ballot.</i></p>	<p>I – The voter cannot be identified in any manner on a ballot.</p>
	<p>II – The voting system audit records contain no information on a specific voter.</p>
	<p>III – The voting system must provide a “privacy sleeve.”</p>
<p>§ 24.2-629 (12). State Board approval process of electronic voting systems.</p> <p><i>It shall be programmable to allow ballots to be separated when necessary.</i></p>	<p>I – All Write-ins can be segregated physically with a diverter or logically separated with an electronic Write-in Report.</p>
	<p>II – Voting systems that centrally process ballots must <u>physically separate Write-ins from other ballots</u> or logically separate ballots with Write-in votes electronically.</p>
<p>24.2-629 (13). State Board approval process of electronic voting systems.</p> <p><i>Ballot scanner machines shall report, if possible, the number of ballots on which a voter under voted or over voted.</i></p>	<p>I – The voting system must alert the voter when the ballot submitted has an overvote or undervote, or the ballot is blank.</p>
	<p>II – The voting system must allow the voter to submit a ballot with an overvote or undervote, or a blank ballot.</p>
	<p>III – The voting system must count ballots cast with an undervote, overvote, or blank ballot. The system must be capable of producing a human-readable report on the number of ballots on which a voter under voted, and the number of ballots on which a voter over voted.</p>

<b>General Requirements</b>	
	IV – All Write-ins are properly handled including segregation of Write-ins physically with a diverter or logically with electronic Write-in Report.
<p><i>§ 24.2-637. Furniture and equipment to be at polling places.</i></p> <p><i>Before the time to open the polls, each electoral board shall ensure that the general registrar has the voting and counting equipment and all necessary furniture and materials at the polling places, with counters on the voting or counting devices set at zero (000).</i></p>	I – The tabulation component of the voting system must have a public counter. Upon opening of the polls, the tabulator must print a zero-proof report and the voting system must provide a means by which the report and the counter can be reconciled.
<p><i>§ 24.2-658. If machines that print returns are used, the printed inspection sheet and two copies of the printed return sheet containing the results of the election for each machine.</i></p>	I – The voting system can support the ability to print multiple results tapes.
<p><i>§ 24.2-802. (Effective until July 1, 2020) Procedure for recount.</i></p> <p><i>The court shall permit each candidate, or petitioner and governing body or chief executive officer, to select an equal number of the officers of election to be recount officials and to count printed ballots. The number shall be fixed by the court and be sufficient to conduct the recount within a reasonable period. The court may permit each party to the recount to submit a list of alternate officials in the number the court directs. There shall be at least one team from each locality using ballot scanner machines to insert the ballots into one or more scanners. The ballot scanner machines shall be programmed to count only votes cast for parties to the recount or for or against the question in a referendum recount. Each team shall be composed of one representative of each party.</i></p>	I – The voting system can be programmed to recount a single contest.

<b>General Requirements</b>	
<i>Functional</i>	<i>Test Assertions</i>
<p><i>Voting equipment must display an appropriate message if a voter does not follow the ballot instruction. Allow the voter to override the warning message to cast his/her ballot.</i></p>	<p>I – The voting system must provide written and audio instruction for electronically displayed ballots.</p>
	<p>II - The voting system must allow the voter to return to a contest or question to make corrections for electronically displayed ballots. The voting system must allow an audio voter to return to a contest or question to make corrections.</p>
	<p>III – The voting system must provide feedback to the voter for incomplete/ incorrect votes. i.e. overvotes, undervotes, blank ballot.</p>
	<p>IV – The voting system must allow the voter to override warning messages for incomplete/ incorrect votes. i.e. overvotes, undervotes, blank ballot.</p>
<p><i>Define ballot formats for a primary election, a general election, and special election including all voting options defined by the Code of Virginia.</i></p>	<p>For a Virginia Primary Election, the voting system must define the primary ballot as follows:</p> <ul style="list-style-type: none"> <li>• Open Primary</li> <li>• Two Parties</li> <li>• No Write-in candidates</li> <li>• Support split precincts</li> <li>• Voting for N of M contests</li> <li>• Support of all contests</li> <li>• Support for all candidates</li> <li>• Multi-language support (English, Spanish, Vietnamese)</li> <li>• Referendum/Question contests</li> </ul>
	<p>For a Virginia General Election, the voting system must define the general ballot as follows:</p> <ol style="list-style-type: none"> <li>1. Partisan contests</li> </ol>

<b>General Requirements</b>	
	<ol style="list-style-type: none"> <li>2. Non-partisan contests</li> <li>3. Write-in candidates</li> <li>4. Support for split precincts</li> <li>5. Voting for N of M contests</li> <li>6. Support of all contests</li> <li>7. Support for all candidates</li> <li>8. Multi-language support (English, Spanish, Vietnamese)</li> <li>9. Referendum/Question contests</li> </ol>
<i>The voting system must create a Cast Vote Record (CVR) defined as, a Permanent record of all votes produced by a single voter whether in electronic, paper or other form, for each ballot for all elections.</i>	I – The voting system must produce a CVR in human-readable format.
<i>The CVR must integrate in a readable format.</i>	I – The voting system can export the CVR to a portable transport media. The voting system must produce a CVR in human-readable format.
<i>The voting system must be able to perform the Logic and Accuracy Tests.</i>	I – The voting system can be programmed for a primary, general, or special election.
	II – The voting system can process a known test deck containing valid marks, non-valid marks, undervotes, overvotes, and Write-in votes.
	III – The voting system can report accurate results from the known test deck.
	IV – The voting system provides a verifiable means that all test data are removed after the completion of the Logic and Accuracy Test from the voting system.
	V – Test ballots can be produced by a Ballot Marking Device (BMD) and can be used in the known test deck.

<b>General Requirements</b>	
<i>The voting system must comply with the requirements for Write-in image and format.</i>	I – The voting system must make a copy of the voter’s Write-in vote; the copy must be as legible as the original.

<b>Security Requirements</b>	
<i>Statutory</i>	Test Assertions
<p>§ 24.2-625.2. <i>Wireless communications at polling places.</i>  <i>There shall be no wireless communications on election day, while the polls are open, between or among voting machines within the polling place or between any voting machine within the polling place and any equipment outside the polling place. For purposes of this section, the term wireless communication shall mean the ability to transfer information via electromagnetic waves without the use of electrical conductors.</i></p>	<p>I – The voting system will not transfer information between or among voting machines wirelessly. Here, wirelessly means “via electromagnetic waves without the use of electrical conductors.”</p>
	<p>II – The voting system will be unable to communicate wirelessly between devices inside and outside the polling place. Here, wirelessly means “via electromagnetic waves without the use of electrical conductors.”</p>
<p>§ 24.2-634. <i>Locking and securing after preparation.</i>  <i>When voting equipment has been properly prepared for an election, it shall be locked against voting and sealed, or if a voting or counting machine cannot be sealed with a numbered seal, it shall be locked with a key. The equipment keys and any electronic activation devices shall be retained in the custody of the general registrar and delivered to the officers of election as provided in § <a href="#">24.2-639</a>. After the voting equipment has been delivered to the polling places, the general registrar shall provide ample protection against tampering with or damage to the equipment.</i></p>	<p>I – The tabulation component of the voting system must have the ability to be physically locked and require a key.</p>
<i>Functional</i>	Test Assertions
<p><i>The voting system must allow instruction to voters to be modified through administrative rights.</i></p>	<p>I – Only those with administrative rights can alter the instruction to voters.</p>

<b>Security Requirements</b>	
<i>The voting system cannot have the built-in wireless communications abilities.</i>	I - No component of the voting system can have wireless communications hardware unless disabled in the BIOS (password protected/locked BIOS and non-default password is different for each locality). i.e. wireless network cards, Bluetooth, infrared.
<i>The voting system must comply with the latest encryption standard.</i>	I – All modules are cryptographic and are FIPS 140-2 v1 compliant.
	II – All stored images are digitally signed.
	III – All digital hashes use SHA256 hashing algorithm or higher.
<i>The voting system must comply with the latest password protection standards.</i>	I – The voting system must require for a minimum 8 character password.
<i>The voting system must be hardened using the voting system provider’s procedures and specifications.</i>	I – The Security Content Automation Protocol (SCAP) for the voting system must be provided.
	II – The voting system can be verified to be in compliance with the SCAP checklist and all manufacturer procedures and specifications.



<b>Audit Requirements</b>	
<i>Statutory</i>	<i>Test Assertions</i>
<p><i>§ 24.2-671.1. Audits of ballot scanner machines.</i></p> <p><i>A. The Department of Elections shall coordinate a post-election risk-limiting audit annually of ballot scanner machines in use in the Commonwealth. The localities selected for the audit shall be chosen at random with every locality participating in the Department's annual audit at least once during a five-year period. The purpose of the audits shall be to study the accuracy of ballot scanner machines.</i></p> <p><i>B. No audit conducted pursuant to this section shall commence until after the election has been certified and the period to initiate a recount has expired without the initiation of a recount. An audit shall have no effect on the election results.</i></p> <p><i>C. All audits conducted pursuant to this section shall be performed by the local electoral boards and general registrars in accordance with the procedures prescribed by the Department. The procedures established by the Department shall include its procedures for conducting hand counts of ballots. Candidates and political parties may have representatives observe the audits.</i></p> <p><i>D. The local electoral boards shall report the results of the audit of the ballot scanner machines in their jurisdiction to the Department. At the conclusion of each audit, the Department shall submit a report to the State Board. The report shall include a comparison of the audited election results and the initial tally for each machine audited and an analysis of any detected discrepancies.</i></p>	<p>I – The voting system must be capable of producing a CVR for purposes of conducting a post-election risk-limiting audit.</p>

**E – Software Patching Guidelines**

All vendors must comply with the policies, guidelines, and directives regarding software patching of voting systems as adopted and modified by the EAC and the SBE from time to time.

**F – Recertification Guidelines**

All vendors must comply with the policies, guidelines, and directives regarding recertification of voting systems as adopted and modified by the SBE from time to time.

If there is evidence of a material non-compliance, ELECT will work with the vendor to resolve the issue, and ultimately the SBE reserves the right to decertify the voting system.

A voting system that has been decertified by the SBE cannot be used for elections held in the Commonwealth of Virginia and cannot be purchased by localities to conduct elections.

**G – Hardware Guidelines**

Memory devices or USB drives provided with the voting system and/or supplied to localities must follow these standards:

1. Must be fully wiped per the DoD 5220.22-M wiping standard to prevent any preloaded software from being inadvertently installed on the systems
2. Must be cryptographic and FIPS 140-2 v1 compliant
3. Must use SHA256 hashing algorithm or higher
4. Must comply with applicable Commonwealth information security standards
5. Must comply with applicable policies, guidelines, and directives as adopted and modified by the SBE from time to time.

## H – Voting System Modifications & Product End of Life Planning

### Voting System Modifications

The process of reporting modification will be determined by the Department of Elections based upon policies, guidelines, and directives as adopted and modified by the SBE from time to time.

### Product End of Life Planning

“End of life” (EOL) is a term used with respect to product (hardware/software/component) supplied to customers, indicating that the product is in the end of its useful life (from the vendor’s point of view), and a vendor stops sustaining it; i.e. vendor limits or ends support or production for the product.

Product support during EOL varies by product. Depending on the vendor, EOL may differ from end of service life, which has the added distinction that a vendor of systems or software will no longer provide maintenance, troubleshooting or other support. For example, Extended Support is the period following end of Mainstream Support.

The definitions of Last Date of Mainstream Support and Extended Support, as applicable to decertification/recertification and associated policies and procedures, will be determined by the ELECT based upon policies, guidelines, and directives as adopted and modified by the SBE from time to time. As of initial adoption of this standard by the SBE, the definitions are as follows:

**Mainstream Support**: The first phase of the product lifecycle; when support is complimentary

**Extended Support**: The phase following Mainstream Support, in which support is no longer complimentary

**Last Date of Mainstream Support**: The last day of Mainstream Support

Policies and procedures applicable to decertification/recertification of voting systems which contain software or hardware components that have and/or will reach the Last Date of Mainstream Support within 18 months, will be determined by the ELECT based upon policies, guidelines, and directives as adopted and modified by the SBE from time to time.

A voting system could still be decertified even if an upgrade plan is submitted. This could happen for a variety of reasons, such as a vendor is not showing progress in meeting their upgrade plan.



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**Vendor Notification of “End of Life”**

We have certified equipment with the SBE and have determined that the following (hardware/software/components) in our certified system will, within 18 months, be at “End of Life” status. Complete this form (for the areas applicable), attach the upgrade plan and send to:

Secretary of SBE, 1100 Bank Street, 1<sup>st</sup> Floor, Richmond, VA 23219

“End of life” (EOL) is a term used with respect to product (hardware/software/component) supplied to customers, indicating that the product is in the end of its useful life (from the vendor’s point of view), and a vendor stops sustaining it; i.e. vendor limits or ends support or production for the product.

**Mainstream Support:** The first phase of the product lifecycle; when support is complimentary

**Extended Support:** The phase following Mainstream Support, in which support is no longer complimentary

**Last Date of Mainstream Support:** The last day of Mainstream Support

Vendor \_\_\_\_\_ Date: \_\_\_\_\_

Certified Voting Systems Impacted: \_\_\_\_\_

Certified Version(s) Software: \_\_\_\_\_ Firmware: \_\_\_\_\_

Certified Product: \_\_\_\_\_

Certified EPB System Impacted: \_\_\_\_\_

Certified Version(s): \_\_\_\_\_

DATE(S) FOR “END OF LIFE”:

	Operating System (description) _____
	Software (Modules or Packages) (description) _____
	Product(s) (components) (description) _____

Vendor must submit an upgrade plan to the SBE 12 months in advance of “End of Life”. The plan should include timeline(s), list of impacted localities, estimated cost for localities (if any), and VSTL report(s) showing the upgrade(s) will ensure all systems operate properly with the new upgrade(s) and/or replacements(s).\*

\*A voting system could still be decertified even if an upgrade plan is submitted. This could happen for a variety of reasons, such as a vendor is not showing progress in meeting their upgrade plan.

ELECT Personnel Received and Reviewed by \_\_\_\_\_ Date: \_\_\_\_\_

EOL Upgrade Plan       Approved       REJECTED      SBE Meeting: \_\_\_\_\_

**I – Voting System Certification Application Form**

Certification <input type="checkbox"/>	Recertification <input type="checkbox"/>
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The company officer or designee who is responsible for the voting system should complete this form. With this signature, the company officer agrees to a release for the VSTL as well as other states that may have decertified the voting system to respond to any questions by ELECT. This application must be signed by a company officer and enclosed in the Voting System Certification Request Package.

Check if you prefer to have the VSTL testing performed at another site to be specified which may require additional cost for the testing.

Name of Company: \_\_\_\_\_

Name and Title of Corporate Officer: \_\_\_\_\_

Contact Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Primary Address of Company: \_\_\_\_\_

City, State, Zip Code: \_\_\_\_\_

Name of voting system to be certified: \_\_\_\_\_

Version Number/Name of Voting System to be certified: \_\_\_\_\_

I reviewed and confirmed that the voting system meets the requirements of the Virginia Voting System Certification Standard. My company will comply with additional requests in a timely manner to complete this certification.

Signature of Corporate Officer: \_\_\_\_\_

Date: \_\_\_\_\_

## **J – De Minimis Change Guideline**

The SBE has adopted the EAC’s De Minimis Change Guideline and applicable EAC Notice of Clarification of De Minimis Change Guidelines to manage a minimal hardware and/or software change to a certified voting system in a consistent and efficient manner. Software De Minimis Changes should have the following general characteristics:

1. Update a discrete component of the system and do not impact overall system functionality
2. Do not modify the counting or tally logic of a component or the system (formatting changes to reports are allowable)
3. Do not affect the accuracy of the component or system
4. Do not negatively impact the functionality, performance, accessibility, usability, safety, or security of a component or system
5. Do not alter the overall configuration of the certified system (e.g. adding ballot marking device functionality to a previously certified DRE component)
6. Can be reviewed and/or tested by VSTL personnel in a short amount of time (approximately less than 100 hours).

A vendor must submit the VSTL’s endorsed package to ELECT for approval along with a copy of the EAC determination. A proposed De Minimis Change may not be implemented to the certified voting system until the change has been approved in writing by ELECT.

### **VSTL Endorsed Changes**

The vendor will forward to ELECT any change that has been endorsed as De Minimis Change by VSTL. The VSTL’s endorsed package must include:

1. The vendor’s initial description of the De Minimis Change, a narrative of facts giving rise to, or necessitating, the change, and the determination that the change will not alter the system’s reliability, functionality, or operation.
2. The written determination of the VSTL’s endorsement of the De Minimis Change. The endorsement document must explain why the VSTL, in its engineering judgment, determined that the proposed De Minimis Change meet the definition in this section and otherwise does not require additional testing and recertification.

### **VSTL Review**

The vendor must submit the proposed De Minimis Change to a VSTL with complete disclosures, including:

1. Detailed description of the change
2. Description of the facts giving rise to or necessitating the change



3. The basis for its determination that the change will not alter the system's reliability, functionality, or operation
4. Upon request of the VSTL, the voting system model at issue or any relevant technical information needed to make the determination
5. Document any potential impact to election officials currently using the system and any required notifications to those officials
6. Description of how this change will impact any relevant system documentation
7. Any other information the VSTL needs to make a determination.

The VSTL will review the proposed De Minimis Change and make an independent determination as to whether the change meets the definition of De Minimis Change or requires the voting system to undergo additional testing as a system modification. If the VSTL determines that a De Minimis Change is appropriate, it shall endorse the proposed change as a De Minimis Change. If the VSTL determines that modification testing and certification should be performed, it shall reclassify the proposed change as a modification. Endorsed De Minimis Change shall be forwarded to ELECT for final approval. Rejected changes shall be returned to the vendor for resubmission as system modifications.

#### **ELECT's Action**

ELECT will review the proposed De Minimis Change endorsed by a VSTL. ELECT has sole authority to determine whether any VSTL endorsed change constitutes a De Minimis Change under this section.

**ELECT's Approval:** ELECT shall provide a written notice to the vendor that ELECT accepted the change as a De Minimis Change. ELECT will maintain the copies of approved De Minimis Change and track such changes.

**ELECT's Denial:** ELECT will inform the vendor in writing that the proposed change cannot be approved as De Minimis Change. The proposed change will be considered a modification and requires testing and recertification consistent with this Certification Standard.

De Minimis Change is not applicable to the voting system currently undergoing the State Certification testing; it is merely a change to an uncertified system and may require an application update.



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**Virginia State Board of Elections | Request for De Minimis Change**

In accordance with the State Certification of Voting System and Electronic Pollbook Requirements and Procedures, SBE has adopted guidelines to manage hardware/software related changes to certified Voting System and Electronic Pollbook System. To request a De Minis Change the procedure begins with a letter, from the vendor to the Secretary of the State Board of Elections and the VSTL endorsed package for the De Minimis Change. This letter shall begin the process to evaluate whether the De Minimis Change will be approved for use on Voting Systems and/or Electronic Pollbooks certified in Virginia.

De Minimis Changes should have the following characteristics:

1. Update a discrete component of the system and do not impact overall system functionality.
2. Do not affect the accuracy of the component or system.
3. Do not negatively impact the functionality, performance, accessibility, usability, safety, or security of a component or system.
4. Do not alter the overall configuration of the certified system.
5. Can be reviewed and/or tested by VSTL personnel in a short amount of time (approx. less than 100 hours).

Vendor description of the De Minimis Change: \_\_\_\_\_

\_\_\_\_\_

Description of the facts giving rise to or necessitating the change: \_\_\_\_\_

\_\_\_\_\_

Document any potential impact to election official currently using the system and any required notifications to those officials. \_\_\_\_\_

\_\_\_\_\_

VSTL endorsed package included.

Signature of Company Officer: \_\_\_\_\_ Date: \_\_\_\_\_

ELECT's Action: Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_

APPROVED

REJECTED

Vendor Notified of Status by: (initials) \_\_\_\_\_ Date: \_\_\_\_\_

**K – Cast Vote Record Clarification**

1. A permanent record of all votes produced by a single voter
2. Electronic CVRs are called ballot images
3. CVR is evidence that a ballot was available for review by the voter
4. CVR should have an identifier that can be linked to an identifier on the corresponding paper ballot provided; the scanner creating the CVR can impress an identifier on the ballot as it is scanned
5. CVR should include indications of what actions the scanner took if the scanner does contest-rule post-processing of the ballot selections
6. CVR has indications of marginal marks, mark quality/density (if scanner is capable).
7. A CVR can include signed/hashed references to an associated image of the ballot or images of write-ins made by the voter on a paper ballot



The Voting System Certification Standard

Changes in New Standard

Prior version: September 2019

New version: January 2020

	Description of Changes	Reason for changes	Implication
1	<p>Primary changes were to improve clarity, security-related requirements, and document format. Moved information to appendices in alignment with feedback and additional information of Appendices I &amp; J</p> <p>Note: The deleted words are <del>striketrough</del>. Inserted text is <b>highlighted</b>.</p>	<p>Re-wrote and re-organized document to deliver the content in a concise style and improve overall clarity in alignment with EPB Certification Standard</p>	<p>No impact except for the specified changes below.</p>
2	<p><b>1.1 Purpose of Procedures</b></p> <ol style="list-style-type: none"> <li>1. Ensure conformity with state <b>Virginia</b> election laws relating to the acquisition and use of voting systems</li> <li>2. <del>Provide an organized and consistent means of evaluating</del> <b>Evaluate</b> and certifying voting systems marketed by vendors for use in Virginia</li> <li>3. <del>Provide an organized and consistent means of evaluating</del> <b>Evaluate</b> and <b>re-</b>certifying additional capabilities and changes in the method of operation for voting systems previously certified for use in Virginia</li> <li>4. <del>Provide an organized and consistent means of evaluating</del> <b>Standardize</b> <del>decertifying decertification and</del> <b>recertification of</b> voting systems</li> <li>5. <del>Provide improvement for the electoral process by ensuring</del> <b>Ensure</b> that all voting systems operate properly and are installed and tested in compliance with the State Board of Elections' (SBE) procedures</li> </ol>	<p>Revised for clarity and to align with EPB Certification Standard. ELECT also standardize Recertification of Voting Systems.</p>	
3	<p><b>1.2 Specific Requirements</b></p> <ol style="list-style-type: none"> <li>1. <b>Compliance with</b> <del>The voting system must</del> meet the requirements contained in the latest version of the Voluntary Voting System Guidelines (VVSG) which are currently accepted for testing and certification by the U.S. Election Assistance Commission (EAC), or prior</li> </ol>	<p>This is a requirement, not an introduction to the requirements section.</p>	



	Description of Changes	Reason for changes	Implication
	<p>version if within the EAC transition period. Compliance with the applicable VVSG may be substantiated through federal certification by the EAC, or through testing conducted by a federally certified voting system test laboratory (VSTL). Meeting the requirements contained in the VVSG will substantiate compliance with the voting system requirements contained in Section 301 of the Help America Vote Act of 2002 (HAVA).</p> <p>1. Modification to existing hardware, firmware, software, or other components will invalidate the prior certification by the State Board of Elections (SBE) unless the Department of Elections (ELECT) can review and provide a recommendation to SBE that the change does not affect the accuracy, reliability, security, usability, or accessibility of the system.</p>		
4	<p><b>1.3 Decertification</b></p> <p>1. Within 24 hours of knowledge, vendor must notify ELECT of any incident, anomaly, and/or security-related breach, incident and anomaly experienced in an election jurisdiction, within 24 hours of knowledge</p> <p>3. Submit any modifications to a previously certified voting system to ELECT for review within 30 calendar days of the Last Modified Date from modification, as defined in see Appendix H for appropriate reporting process</p> <p>4. If the operating system or any component has Send an upgrade plan with target date(s) to ELECT if the operating system or any components have reached and/or will reach the Last Date of Mainstream Support within 18 months, as defined in Appendix H, within 18 months send an upgrade plan with target date(s) to ELECT:</p> <p>a. ELECT must receive the upgrade plan at least 12 months before the Last Date of Mainstream Support, and will automatically be decertified as defined in Appendix H</p>	<p>Revised vendor provisions to include additional security requirements to implement the Elections Security Best Practices.</p> <p>Clarify so that vendor does not believe that only security-related incidents and anomalies are reported.</p>	



	Description of Changes	Reason for changes	Implication
	<ul style="list-style-type: none"> <li>b. The Last Date of Mainstream Support cannot include any type of Extended Support, as defined in Appendix H</li> <li>c. The voting system may still automatically be decertified as defined in Appendix H</li> </ul>		
5	<p><b>Chapter 2: Basis for Certification</b></p> <p>Federal Compliance Testing demonstrates that the voting system adheres to all requirements set in the most up-to-date version of the VVSG by the EAC. The primary evidence of compliance is the certification of the system by the EAC. Federal compliance may also be demonstrated through testing conducted by a federally certified Voting System Test Lab (VSTL) to the applicable VVSG. Meeting the requirements contained in the VVSG will substantiate compliance with the voting system requirements contained in Section 301 of the Help America Vote Act of 2002 (HAVA).</p> <p>The voting system must demonstrate the accuracy, reliability, accessibility, reliability, security, usability, and accessibility usability throughout all testing phases.</p>	To align with other sections in the document & EPB System Certification Standard	
6	<p><b>2.1. Federal Compliance Testing</b></p> <p>To support a review of Federal Compliance Testing, the following documents shall be provided to ELECT:</p> <ul style="list-style-type: none"> <li>2. A copy of the Test Plan, and Test Report, all Test Procedures, and Test Cases used by the VSTL in performing EAC certification testing; or results of testing conducted by a federally certified VSTL to the applicable VVSG</li> <li>3. A release to the VSTL to respond to any requests for information from the Commonwealth of Virginia</li> <li>4. A release to other states which have decertified the system or prior versions of the system, to respond to any requests for information from the Commonwealth of Virginia</li> </ul>	Vendor does not have access to Test Procedures and Test Cases.	



	Description of Changes	Reason for changes	Implication
7	<p><b>2.1.1. Voting System Hardware, Firmware, Infrastructure or Component Elements</b> All equipment used in a voting system shall be examined to determine its suitability for election use according to the appropriate procedures contained in this document. Equipment to be tested shall be identical in form and function with production units. Engineering or development prototypes are not acceptable. See Appendix G for hardware guidelines.</p> <p>Any modification to existing hardware, firmware, infrastructure or other components will invalidate the prior certification by the SBE unless ELECT can review and provide a recommendation an assurance to the SBE that the change does not affect the accuracy, reliability, security, usability, or accessibility of the system. See Appendix J for the De Minimis Change Guideline that is applicable for hardware.</p>	<p>Changed for consistency and clarity to align with EPB System Certification Standard.</p>	
8	<p><b>2.1.2. Voting System Software Elements</b> Any modification to existing software will invalidate the prior certification by the SBE, unless ELECT can review and provide an explanation assurance to the SBE that the change does not affect the accuracy, reliability, security, usability, or accessibility of the system. See Appendix J for the De Minimis Change Guideline that is applicable for software.</p>	<p>To improve clarity</p>	
9	<p><b>2.2. State Certification Testing</b> State Certification Testing will examine all system operations and procedures, not limited to:</p> <ul style="list-style-type: none"> <li>8. Display an appropriate message on the review screen if a voter does not follow the ballot instruction; allow the voter to override the warning messages for overvote, undervote, blank ballot, or invalid Write-in to cast voter’s ballot</li> <li>9. Create a Cast Vote Record (CVR) for each vote for all elections; see Appendix K</li> <li>10. Integrate CVRs with the designated electronic storage devices in a readable format.</li> <li>12. Comply with the latest NIST encryption standard at time of certification requirement(s) as stated in Appendix D</li> </ul>	<p>Removed “latest NIST standard at time of certification” from requirement 12 and 13, as the vendor might not follow the latest published standard when the work is already in process.</p> <p>9. Added a new appendix to clarify Cast Vote Record</p>	



	Description of Changes	Reason for changes	Implication
	<p>13. Comply with the latest NIST password protection standard at time of certification requirement(s) as stated in Appendix D</p>		
10	<p><b>3.1. Summary of Process</b>  <b>Six Phases of the Certification Review Process</b></p> <ol style="list-style-type: none"> <li>2. Preliminary Review</li> <li>3. Technical Data Package</li> <li>5. On-Site Testing in Mock Election</li> </ol>	<p>Moved Preliminary Review to Phase 2 and Technical Data Package to Phase 3 because ELECT need to provide a view of the document and verify completion of the TDP first.</p> <p>Clarified Phase 5 as Mock Election to align with EPB Standard.</p>	
11	<p><b>3.2. Certification Review Process</b>  <b>Phase 1: Certification Request from Vendor</b></p> <p>A vendor will request a certification either for a specific voting system, software, firmware, hardware and/or hardware modification to an existing certified voting system. This request should be signed by a company officer and include the following information:</p> <ol style="list-style-type: none"> <li>1. Voting System Certification Application Form, signed by a company officer; see Appendix I</li> </ol> <p><b>NOTE:</b> Identification of This should clearly identify the specific voting system to be evaluated for certification, such as and:</p> <ol style="list-style-type: none"> <li>5. A list of all states locations where the proposed voting system, or version of the proposed voting system, is currently used</li> <li>6. The vendor, VSTL and ELECT will review a statement of work that will results in the VSTL providing an estimate for the cost of testing. Testing will take place at the headquarters of the VSTL to limit the cost of testing. ELECT will give an estimate for their own staff to travel as well. Once this is agreed to, a A check or money order for the non-refundable fee for a voting system certification request and applicable fees for modifications to a previously certified voting system, as applicable, will be determined by the</li> </ol>	<p>Entire section changed for consistency and clarity to align with EPB Certification Standard.</p>	





	Description of Changes	Reason for changes	Implication
	<p>Department of Elections in alignment with SBE policy: <b>paid.</b></p> <ul style="list-style-type: none"> <li>a. If the actual costs for reviewing the vendor's submission exceed the initial fee, the vendor agrees to reimburse ELECT for all additional costs. All fees must be collected before the certification will be granted.               <ul style="list-style-type: none"> <li>i. Make checks or money order payable to Treasurer of Virginia</li> </ul> </li> </ul> <p>7. <b>Technical Data Package (TDP)</b> must clearly identify all items:</p>		
12	<p><b>State Technical Data Package</b></p> <p>The TDP must contain the following items if they were not included in the TDP submitted to the VSTL:</p> <ul style="list-style-type: none"> <li>3. <i>Software System Design</i>: Documentation describing the logical design of the software           <ul style="list-style-type: none"> <li>a. This documentation should clearly indicate the various modules of the software such as:               <ul style="list-style-type: none"> <li>i. <b>The list of its functions</b></li> </ul> </li> <li>b. Clearly specify the operating system and version, including with:               <ul style="list-style-type: none"> <li>ii. The last operating system version, security patches available, SHA256 hash value, and last modified date modification</li> </ul> </li> </ul> </li> <li>4. <i>Software Deviations</i>: Include any exception(s) to the Security Content Automation Protocol (SCAP) checklist; document the reason why there is an exception and the mitigating controls/tools in place to secure the system</li> <li>7. <i>Independent Third-Party Application Penetration Analysis Report</i>: An accredited application penetration test conducted, <b>within the past 12 months</b>, to analyze the system for potential vulnerabilities according to current industry standards. Potential vulnerabilities may result from poor or</li> </ul>	<p>To provide clarity &amp; align with EPB doc.</p> <p>Added Software Deviations as an additional items for TDP to ensure vendor compliances with SCAP checklist</p>	<p>Additional security requirements and documents for vendors. Consistent with the current review process.</p>



	Description of Changes	Reason for changes	Implication
	<p>improper system configuration, known or unknown hardware or software flaws, or operational weaknesses in process or technical countermeasures. The test must involve active exploitation of security vulnerabilities of the voting system, whether or not the vulnerabilities can be mitigated through compensating controls. Pursuant to Virginia Code § 24.2-625.1, the Penetration Analysis Report is confidential and excluded from inspection and copying under the Virginia Freedom of Information Act. <b>If a penetration test has been conducted in another state within the past 12 months on the same version of the voting system, then that may be submitted to fulfill this requirement.</b></p> <p>10. <i>User Guide and Documents</i>: The vendor should provide the following:</p> <ul style="list-style-type: none"> <li>f. If the <b>operating</b> system or any components (hardware and/or software) <b>has</b> reached <b>and/or</b> will reach the Last Date of Mainstream Support within 18 months, as defined in Appendix H, <del>then provide</del> <b>send</b> an upgrade plan <b>with target date(s)</b> to <b>ELECT</b> <del>the latest system/components with the target date;</del> the Last Date of Mainstream Support cannot include any type of <b>Extended Support, as defined in Appendix H.</b></li> </ul> <p>12. <i>Standard Contract, Product Support, and Service Level Agreement (SLA)</i>: Customer and Technical Support hours and contact information. SLA should specify the escalation timeline and procedures with contact information. Vendor's capacity to provide, not limited to:</p> <ul style="list-style-type: none"> <li>a. On-Site Support and Technical Support within SLA on: <ul style="list-style-type: none"> <li>i. Election Day (defined as <b>the start of the in-person absentee voting</b> <del>Early Voting</del></li> </ul> </li> </ul>		



	Description of Changes	Reason for changes	Implication
	<p style="text-align: center;">period up to and including Election Day)</p> <p>14. <i>Warranty:</i> <del>A</del> The vendor should provide a list of warranty specifications to include the following:</p> <p>16. <i>Test Data and Software:</i> Vendor’s internal quality assurance procedure, internal or external test data and reports, ballot decks, and software that can be used to demonstrate the various functions of the voting system. Vendor should also, <del>or</del> verify that the versions of the applications submitted are identical to the versions that have undergone federal compliance testing; for example, hash testing tools</p> <p>17. <i>Non-Disclosure Agreement:</i> <del>If</del> if applicable</p>		
13	<p><b>Phase 2 3: Preliminary Review</b></p> <p>The Voting Technology Coordinator or designee will review the TDP, Corporate Information, and other materials provided, and notify the vendor of any deficiencies. Certification of the voting system will not proceed beyond this phase until the TDP and corporate information Corporate Information are complete.</p> <p>The Voting Technology Coordinator or their designee from ELECT will conduct a preliminary analysis of the Technical Data Package with VSTL. The Voting Technology Coordinator or their designee will also review the Corporate Information and other materials to prepare an Evaluation Proposal, which includes:</p>	Changed Phase 2 to Preliminary Review	Preliminary Review should happen before the TDP going to VSTL. ELECT needs to provide a review of the document and verify completion of the TDP first.
14	<p><b>Phase 3 2: Technical Data Package to Voting System Test Laboratory (VSTL)</b></p> <p>In addition, the vendor should submit the TDP to the designated VSTL. The Voting Technology Coordinator from ELECT, who shall will provide the TDP to the VSTL contact information to the vendor following review.</p>	<p>By removing from ELECT, it allows ELECT to alter their business practice in the future, as appropriate; such as during recertification periods, to utilize an independent consultant or non-ELECT resource Subject Matter Expert (SME) if needed.</p> <p>Vendor does not submit TDP directly to VSTL.</p> <p>Changed Phase 3 to Technical Data Package to Voting System Test Laboratory (VSTL)</p>	Following review, TDP will be provided to VSTL by the Voting Technology Coordinator.



	Description of Changes	Reason for changes	Implication
15	<p><b>Phase 4: Certification Test Report from VSTL</b> VSTL will work directly with the vendor and ELECT designee to complete all test assertions and test cases. In addition, and send the Certification Test Report will be sent to ELECT upon completion.</p>	To clarify that the test report will be sent to ELECT after completion	
16	<p><b>Phase 5: On-Site Testing in Mock Election</b></p>	To clarify and align with EPB.	
17	<p><b>Phase 6: Approval by the SBE</b> Based on the report from the VSTL evaluation agent, the results from the On-Site Testing in Election and other information in their possession, the SBE will decide whether the voting system will be certified for use in the Commonwealth of Virginia. The decision will be sent to the vendor.</p>	The Voting Technology Coordinator will conduct certification review as opposed to an independent outside consultant	
18	<p><b>A – Glossary</b></p> <p><b>Anomaly</b> – Any event related to the security or functioning of the voting system that is out of the ordinary regardless of whether it is exceptional or not; a deviation from the norm.</p> <p><b>De Minimis Change</b> – A minimum change to a certified voting system’s hardware, software, TDP, or data. The nature of changes will not materially alter the system’s reliability, functionality, capability, or operation. Under no circumstance shall a change be considered De Minimis Change, if it has reasonable and identifiable potential to impact the system’s performance and compliance with the applicable Voting Standard. Reference: EAC Testing &amp; Certification Program Manual version 2.0 and Notices of Clarification.</p> <p><b>Incident</b> – Any event related to the security or functioning of the voting system that may have caused or caused an interruption to the Check-in and/or Reporting process.</p>	<p>Added terms:</p> <ul style="list-style-type: none"> <li>• Anomaly</li> <li>• De Minimis Change</li> <li>• Incident</li> </ul>	
19	<p><b>C – Acceptance Test</b></p> <p>As part of the The acceptance test the vendor will demonstrate the system’s ability to execute all its designed functionality as advertised presented and tested during certification. The essential functions include, but not limited to, including:</p>	To align with EPB System Certification Testing	



	Description of Changes	Reason for changes	Implication
	<p>2. Display an appropriate message on the review screen if a voter does not follow the ballot instruction.</p> <p><b>Validation of Certification</b></p> <p>If any question arises involving the certification of a voting system in use in Virginia, ELECT <del>will probe whether</del> shall verify the voting system in use is identical to the certified voting system that was submitted for certification. Any unauthorized modifications to a certified system may cause result in decertification by the SBE to decertify the voting system and or bar the vendor from receiving certification of voting systems in the future business-with the Commonwealth of Virginia.</p>		
20	<p><b>D – Test Assertions</b></p>	<p>Modified for clarification and consistent with the current process.</p> <p>Additional requirements especially for non-ADA and ADA voting systems to provide a voter-verifiable audit trail, a permanent paper record of each vote</p>	<p>Consistent with the current process</p>
21	<p><b>E – Software Patching Guidelines</b></p> <p>All vendors must comply with the policies, guidelines, and directives regarding software patching of voting systems as adopted and modified by the EAC and the SBE from time to time.</p>	<p>To clarify vendor’s responsibilities for software patching of voting systems.</p>	<p>Software Patching must follow the EAC guideline which just updated the De Minimis Change</p>
22	<p><b>F – Recertification Guidelines</b></p> <p>If there is evidence of a material non-compliance, ELECT will work with the vendor to resolve the issue, and ultimately the SBE reserves the right to decertify the voting system.</p> <p>A voting system that has been decertified by the SBE cannot be used for elections held in the Commonwealth of Virginia and cannot be purchased by localities to conduct elections.</p>	<p>To clarify vendor’s responsibilities for recertification of voting systems.</p>	<p>Minor updates to a previously certified voting system must follow De Minimis Change Guideline and Recertification Guideline for any modifications to the hardware, software, firmware, or infrastructure.</p>



	Description of Changes	Reason for changes	Implication
23	<p><b>G – Hardware Guidelines</b></p> <p>Memory devices or USB drives provided with the voting system and/or provided to the localities USB drives used in connection with any voting system must follow these standards:</p> <ol style="list-style-type: none"> <li>1. Must be fully wiped per the DoD 5220.22-M wiping standard to prevent any preloaded software from being inadvertently installed on the systems made in the U.S.</li> <li>2. must be capable of encryption and password protection, and utilize both</li> <li>2. Must be cryptographic and FIPS 140-2 v1 compliant</li> <li>3. Must use SHA256 hashing algorithm or higher</li> <li>4. Must comply with applicable Commonwealth information security standards</li> <li>5. Must comply with applicable policies, guidelines, and directives as adopted and modified by the SBE from time to time.</li> </ol>	<p>Additional security requirements to implement Elections Security Best Practices.</p>	<p>Additional security requirements for vendors/localities to follow.</p>
24	<p><b>H – Voting System Modifications &amp; Product End of Life Planning</b></p> <p><b>Voting System Modifications</b></p> <p>The definitions of Last Modified Date and Voting System Modifications, as applicable to decertification/recertification and associated policies and procedures, process of reporting modification will be determined by the Department of Elections based upon policies, guidelines, and directives as adopted and modified by the SBE from time to time.</p> <p><b>Product End of Life Planning</b></p> <p>The definitions of Last Date, of Mainstream Support and Extended Support, as applicable to decertification/recertification and associated policies and procedures, will be determined by the Department of Elections ELECT based upon policies, guidelines, and directives as adopted and modified by the SBE from time to time. As of initial adoption of this standard by the SBE, the definitions are as follows:</p>	<p>To clarify ELECT’s responsibilities to vendors regarding modifications to a voting system and EOL with respect to voting hardware/software/components</p> <p>Added form: <b>Vendor Notification of “End of Life”</b> to clarify vendor’s responsibility when submitting EOL plan.</p>	<p>Consistent with the current process</p>



	Description of Changes	Reason for changes	Implication
	<p><b>Mainstream Support:</b> The first phase of the product lifecycle; when support is complimentary</p> <p><b>Extended Support:</b> The phase following Mainstream Support, in which support is no longer complimentary</p> <p><b>Last Date of Mainstream Support:</b> The last day of Mainstream Support</p> <p>Policies and procedures applicable to decertification/recertification of voting systems which contain software or hardware components that have and/or will reach the Last Date of Mainstream Support within 18 months, will be determined by the Department of Elections ELECT based upon policies, guidelines, and directives as adopted and modified by the SBE from time to time</p> <p>A voting system could still be decertified even if an upgrade plan is submitted. This could happen for a variety of reasons, such as a vendor is not showing progress in meeting their upgrade plan.</p> <p><b>Vendor Notification of "End of Life"</b></p>		
25	<b>I – Voting System Certification Application Form</b>	Added Appendix I – Voting System Certification Application Form to clarify vendor’s responsibilities when requesting certification of a voting system	Consistent with the current process.
26	<b>J – De Minimis Change Guideline</b>	<p>Minor changes to a certified voting system now has new guidelines for VSTL, vendors, and ELECT.</p> <p>Additional form: <b>“Virginia State Board of Elections   Request for De Minimis Change”</b> for vendor to fill out when requesting for De Minimis Change</p>	<p>VSTL must now endorse a De Minimis Change package to vendors who will submit the package to ELECT to be approved in writing.</p> <p>The proposed change(s) may not alter the system’s reliability, functionality, or operation.</p>
27	<b>K – Cast Vote Record Clarification</b>	Add Appendix K – Cast Vote Record Clarification.	Consistent with the current process.



# Overview of Implementation Guidelines

Department of Elections





# Agenda

- Establish Uniformity
- Voting Systems 2020 Plan
- Electronic Poll Books 2020 Plan
- 2021 and Beyond
- Uniform Guidelines



## Establish Uniformity

- Maintain and update inventory of voting systems and electronic poll books (EPB) existing software version and certification status
- Confirm and coordinate uniformity of software versions statewide with Vendors



## Voting Systems 2020 Election Plan

- Vendors will confirm a baseline certified software version (or higher version) is installed on voting equipment in all the localities in Virginia prior to November 2020 election
- All systems and software/firmware versions are certified to the 2015 Virginia Voting Systems Standards
- Certification will expire July 31, 2021



## Electronic Poll Books 2020 Election Plan

- Vendors will confirm a baseline software version plus test documentation for the version provided to localities in Virginia
- All systems and software/firmware versions will be certified to the 2015 EPB Standards
- Certification will expire July 31, 2021
- New Cloud connectivity will be allowed for use in early voting by localities after software certification



# 2021 and Beyond



# Certification Standards Year 2021 and Beyond

- Voting Systems and EPBs New Requirements
  - Vendors must certify equipment to the new 2019/2020 standards
  - All vendors' voting and e-poll book systems will be uniform throughout Virginia to the same software/firmware version
  - Decertification and Re-Certification requirements effective upon certification to the new standards



# Uniform Guidelines



## Uniform Guidelines

- Acceptance Testing
- Voting Systems Logic and Accuracy Testing (Pre-Election)
- EPBs Logic and Accuracy Testing (Pre-Election)
- Post-Election Audit
  - \_ Early Voting
  - \_ Post-Election Day





# Questions



# Electronic Pollbook Certification Standard

January 2020

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## Chapter 1: Introduction

### 1.1. Purpose of Procedures

These procedures provide a formal and organized process for vendors to follow when seeking state certification for an electronic pollbook (EPB) system in Virginia. To this end, these procedures are designed to:

1. Ensure conformity with Virginia election laws relating to the acquisition and use of EPB systems
2. Evaluate and certify EPB systems marketed by vendors for use in Virginia
3. Evaluate and re-certify additional capabilities and changes in the method of operation for EPB systems previously certified for use in Virginia
4. Standardize decertification and recertification of EPB systems

### 1.2. Specific Requirements

1. Compliance with the Code of Virginia and the policies and regulations issued by the State Board of Elections (SBE) or Department of Elections (ELECT) must be substantiated through the State Certification Test conducted by an independent testing authority recognized by the National Institute of Standards and Technology (NIST); referred to in this document henceforth as VSTL
2. Any modification to the hardware, software, firmware, infrastructure or any component of a certified EPB will invalidate the prior certification unless ELECT can review and provide an assurance to the SBE that the change does not affect the accuracy, reliability, security, usability or accessibility of the system; see Appendix J for the De Minimis Change Guideline that is applicable for hardware
3. An EPB shall not contain the following voter registration data:
  - a. DMV Customer Number
  - b. Full or Partial Social Security Number
  - c. Birth Month and Day

### 1.3. Decertification

ELECT reserves the right to reexamine any previously certified EPB system for any reason at any time. Any EPB system that does not pass certification testing will be decertified. An EPB system that has been decertified by the SBE cannot be used for elections held in the Commonwealth of Virginia and cannot be purchased by localities to conduct elections.

In addition, the SBE reserves the right to decertify the EPB systems if the vendor does not comply with any of the following requirements:

1. Notify ELECT of any incident, anomaly or security-related breach experienced in an election jurisdiction, within 24 hours of knowledge
2. Report to ELECT within 30 calendar days of knowledge of any changes to Corporate Information, including:
  - a. Business Entity and Structure
  - b. Parent and Subsidiary companies
  - c. Capital or equity structure
  - d. Control; identity of any individual, entity, partnership, or organization owning a controlling interest
  - e. Investment by any individual, entity, partnership, or organization in an amount that exceeds 5% of the vendor's net cash flow from the prior reporting year
  - f. Location of manufacturing facilities; including names of the third-party vendor(s) employed to fabricate and/or assemble any component part of the voting and/or tabulating system being submitted for certification, along with the location of all of their facilities with manufacturing capability
  - g. Third-party vendors
  - h. Good Standing status
  - i. Credit rating
3. Submit any modifications to a previously certified EPB system to ELECT for review within 30 calendar days from modification; see Appendix H for appropriate reporting process
4. If the operating system or any component has reached and/or will reach the Last Date of Mainstream Support within 18 months, as defined in Appendix H, send an upgrade plan with target date(s) to ELECT:
  - a. ELECT must receive the upgrade plan at least 12 months before the Last Date of Mainstream Support
  - b. The Last Date of Mainstream Support cannot include any type of Extended Support, as defined in Appendix H
  - c. The EPB system may still automatically be decertified as defined in Appendix H
5. Update all software with the latest patching and vulnerability updates in alignment with Appendix E.

**NOTE:** The SBE reserves the right to require recertification when changes to regulations and/or standards occur.

#### **1.4. Recertification**

See Appendix F for ELECT's guidelines on when EPB systems must go through recertification.

## Chapter 2: Basis for Certification

### 2.1. State Certification Testing

State certification testing will evaluate the design and performance of an EPB system seeking certification to ensure that it complies with all applicable requirements in the Code of Virginia and the SBE and ELECT regulations and policies. ELECT will examine the essential system functions, operational procedures, user guides, documents, certification reports from other states, and reviews from product users.

The EPB system must demonstrate accuracy, reliability, security, usability and accessibility throughout all testing phases.

State Certification Testing will examine all system operations and procedures, including:

1. Receive and process the voter registration and election information
2. Accurately maintain whole and separate count(s) of voters distinguishable by:
  - a. Ballot Style (Voter's Party/primary, Precinct, Precinct Split)
  - b. Curbside Voter
  - c. Challenged Voter
  - d. Voter Status
  - e. Provisional
  - f. Absentees
  - g. Early Votes
3. Provide an intuitive and easy to navigate user interface
4. Perform data and operational integrity safeguard tests including:
  - a. Ability to add or remove new units without disturbing the existing units
  - b. Power supply and battery life with an option to display power usage
  - c. Display an appropriate message when the EPB device is operating at less than 20% of remaining power
  - d. Display an appropriate error message when the EPB fails to check in a voter
5. Capacity/Load Test Report to include the maximum number of voters that the configuration/network setting can handle
6. Performance Report to include the optimal duration of check-in process per voter
7. System monitoring and notification of system errors, including:
  - a. Perform a self-test for peripheral connectivity
  - b. Visible display indicating power supply/battery life
  - c. Visible display indicating system connections

8. Data preservation and redundancy to maintain a printable checklist format of the voter registration record and voter activity record on a removable storage. When one to all of the EPBs become inoperable, and if there is not an alternate recovery means available then the removable storage must reflect the voter activity record at that moment and can be used to continue with election
9. During an interruption of network connection, EPBs should retain and synchronize all voter activities upon restoration of connectivity
10. Support the industry standard for clean wipe method remotely and manually
11. Transaction Logging and Audit Reports including the following details:
  - a. Log all changes to EPB post the initial download
  - b. Transactions at the polling places
  - c. Export logs in a readable format
  - d. The EPB's audit log(s) must be encrypted, track all transactions and include a date/time stamp
12. All modules and data are cryptographic and are FIPS 140-2 v1 compliant including at rest and in transit
13. Comply with the NIST SP 800-63B or better digital identity guidelines for authentication and lifecycle management
14. Harden the EPB system using the vendor's procedures and specifications.

## **2.2. EPB Hardware, Firmware, Infrastructure, or Component Elements**

All equipment used in an EPB system shall be examined to determine its suitability for election use according to the appropriate procedures contained in this document. Equipment to be tested shall be identical in form and function with production units. Engineering or development prototypes are not acceptable. See Appendix G for hardware guidelines.

Any modification to existing hardware, firmware, infrastructure, or other components will invalidate the prior certification by the SBE unless ELECT can review and provide an assurance to the SBE that the change does not affect the accuracy, reliability, security, usability, or accessibility of the system. See Appendix J for the De Minimis Change Guideline that is applicable for hardware.

EPB systems generally utilize vendor-designed software operating on a variety of commercial-off-the-shelf hardware devices. Certification shall be provided to only similarly identical, and previously designated, hardware and operating systems at the time of certification.



### 2.3. EPB System Software Elements

EPB system software shall be examined and tested to ensure that it adheres to the performance standards specified within this document. EPB Desktop applications must be compatible with all computers, devices, operating system, platforms as specified in the system requirements. See Appendix D for software requirement test assertions.

Any modifications to existing software will invalidate the prior certification by the SBE unless ELECT can review and provide an assurance to the SBE that the change does not affect the accuracy, reliability, security, usability, or accessibility of the system. See Appendix J for the De Minimis Change Guideline that is applicable for software.

### 2.4. Early Voting Connection Requirements

Beginning in November 2020, pursuant to the Code of Virginia, Title 24.2 Elections, [Chapter 7, Absentee Voting](#), Virginia will have a no-excuse absentee in person voting period, referred to as Early Voting.

The new law also allows electoral boards the opportunity to provide additional locations within their locality for all Early Voting activities. Based on the number of registered voters, each locality's electoral board will determine whether to open additional Early Voting locations. Any registered voter within each locality can vote at any one of the Early Voting locations within the specified period prior to Election Day. This requires each locality to have secure connectivity to the voter registration information (VRI) throughout the Early Voting period to:

1. Confirm the person is eligible to vote in the election
2. Confirm the person has not previously voted in the election
3. Record voter history in real-time.

Reference Appendix K for an additional list of security-related requirements that are applicable only for those vendors choosing to host EPBs in the Cloud, as a part of their solution for managed connectivity to/from locality devices during this Early Voting period.

## Chapter 3: Review and Approval Process

### 3.1. Summary of Process

The State certification is limited to the final products that have been used in full production environment and available for immediate installation. The certification review process goes through six phases. At the end of each phase, ELECT will evaluate the results to determine the certification status.

#### Six Phases of the Certification Review Process:

1. Certification Request from Vendor
2. Preliminary Review
3. Technical Data Package (TDP) to VSTL
4. Certification Test Report from VSTL
5. On-Site Testing in Mock Election
6. Approval by the SBE.

### 3.2. Certification Review Process

#### Phase 1: Certification Request from Vendor

A vendor will request a certification for either a specific EPB system, software, firmware, hardware, and/or modification to an existing certified EPB system. This request should include the following information:

1. EPB Certification Application Form, signed by a company officer; see Appendix I
2. A copy of the certification(s) from other state(s) for the proposed EPB
3. Whether the proposed EPB system has ever been denied certification or had certification withdrawn in any state
4. Eight copies of a brief overview description of the EPB system
  - a. Typical marketing brochures are usually sufficient for the description
5. A list of all states where the proposed EPB system version is currently used
6. The vendor, VSTL and ELECT will review a statement of work that will result in the VSTL providing an estimate for the cost of testing. Testing will take place at the headquarters of the VSTL to limit the cost of testing. ELECT will give an estimate for their own staff to travel as well. Once this is agreed to, a check or money order for the non-refundable fee for an EPB system certification request and applicable fees for modifications to a previously certified EPB system, as applicable, will be paid.

- a. All fees must be collected before the certification will be granted
  - i. Make checks or money order payable to Treasurer of Virginia
- 7. TDP must clearly identify all items:
  - a. If the TDP is incomplete or the items in the package are not clearly identified, the entire package could be returned to the vendor
  - b. Upon the receipt of the corrected TDP from the vendor, the evaluation of the EPB system will be rescheduled
- 8. Corporate Information must clearly identify all items:
  - a. If the Corporate Information is incomplete or the items in the package are not clearly identified, the entire package could be returned to the vendor
  - b. The evaluation process will be rescheduled after the corrected package is received.

**NOTE:** The request package with the items above should be sent to the location indicated in Appendix B.

### **Technical Data Package**

The TDP must contain the following items if they were not included in the TDP submitted:

1. *Hardware Schematic Diagrams*: Schematic diagrams of all hardware
2. *Hardware Theory of Operations*: Documentation describing the theory of operation of the hardware including power cords and backup battery
3. *System architecture with network and infrastructure connectivity*: Documentation to include system architecture, network, and data flow diagrams and to clearly specify all applicable components, cloud services and infrastructure connectivity
4. *Software Deviations*: Include any exception(s) to the Security Content Automation Protocol (SCAP) checklist; document the reason why there is an exception and the mitigating controls/tools in place to secure the system
5. *Software System Design*: Documentation describing the logical design of the software
  - a. This documentation should clearly indicate the various modules of the software, such as:
    - i. The list of functions
    - ii. System flowchart
    - iii. The interrelationships of modules
    - iv. The list of data formats that the EPB system can import and export
  - b. Clearly specify the operating system and version with:
    - i. The Last Date of Mainstream Support, as defined in Appendix H
    - ii. SHA256 hash value, and modification

6. *Software and Firmware Source Code*: A copy of the EPB, software and firmware source code including the operating system, directory structure of the source code, and a map to show how the source code was built into the final install files. The source code will be sent to the VSTL for review to VVSG standards and/or the vendor should supply VSTL report that the code was reviewed to the standards within the past year. If the operating system or any component has reached and/or will reach the Last Date of Mainstream Support within 18 months, as defined in Appendix H, send an upgrade plan with target date(s) to ELECT. The Last Date of Mainstream Support cannot include any type of Extended Support.
7. *Independent Third-Party Application Penetration Analysis Report*: An accredited application penetration test conducted, within the past 12 months, to analyze the system for potential vulnerabilities according to current industry standards. Potential vulnerabilities may result from poor or improper system configuration, known or unknown hardware or software flaws, or operational weaknesses in process or technical countermeasures. The test must involve active exploitation of security vulnerabilities of the EPB system, whether or not the vulnerabilities can be mitigated through compensating controls. Pursuant to Virginia Code § 24.2-625.1, the Penetration Analysis Report is confidential and excluded from inspection and copying under the Virginia Freedom of Information Act. If a penetration test has been conducted in another state within the past 12 months on the same version of the EPB system, then that may be submitted to fulfill this requirement.
8. *Customer Maintenance, Repair & Troubleshooting Manual*: Documentation that is normally supplied to the customer for use by the person(s) who will provide maintenance, repair and troubleshooting of the system
9. *Operations Manual*: Documentation that is normally supplied to the customer for use by the person(s) who will operate the system
10. *User Guide and Documents*: The vendor should provide the following:
  - a. A quick reference guide with detail instructions for a precinct election officer to set up, use, and shut down the EPB system
  - b. Clear model of EPB system architecture with the following documentations:
    - i. End User Documentation
    - ii. System-Level and Administrator-Level Documentation
    - iii. Developer Documentation
  - c. Failsafe data recovery procedures for information in the EPB system
  - d. A list of customers who are using or have previously used the EPB system

- i. The description of any known incidents or anomalies involving the functioning of the EPB system, including how those incidents or anomalies were resolved with customer and date
11. *Recommended Security Practices*: CIS Security Best Practices, including:
  - a. System Security Architecture
  - b. System Event Logging
  - c. System Security Specification
  - d. Security Content Automation Protocol (SCAP)
  - e. Cryptography
  - f. Equipment and Data Security
  - g. Network and Data Transmission Security
  - h. Access control
  - i. Authentication procedure
  - j. Software
  - k. Physical Security
12. *Standard Contract, Product Support and Service Level Agreement (SLA)*: Customer and Technical Support hours and contact information. The SLA should specify the escalation timeline and procedure with contact information. Vendor's capacity to provide, including:
  - a. On-Site Support and Technical Support within the SLA on:
    - i. Election Day (defined as the start of the Early Voting period up to and including Election Day; see Appendix K)
    - ii. Within 60 days before Election Day
  - b. Resolution to outstanding issue(s), repair, maintenance and service requests within 30 days
13. *Maintenance Services, Pricing and Financing Options*: A list of maintenance services with price. Terms for replacing a component or EPB system. Available financing options for purchase or lease
14. *Warranty*: The vendor should provide a list of warranty specifications to include the following:
  - a. The period and extent of the warranty
  - b. Repair or Replacement
    - i. The circumstances under which equipment is replaced rather than repaired
    - ii. The method by which a user requests such replacement
  - c. Warranty coverage and costs

- d. Technical documentation of all hardware and software that is used to certify that the individual component will perform in the manner and for the specified time

15. *Software License Agreement*

16. *Test Data and Software*: Vendor's internal quality assurance procedure, internal or external test data and reports, and software that can be used to demonstrate the various functions of the EPB system. Vendor should also verify that the version of the applications submitted are identical to the versions that have undergone the certification testing; for example, hash testing tools.

17. *Non-Disclosure Agreement*: If applicable.

**NOTE:** If the EPB system is certified, ELECT will retain the TDP as long as the EPB system is marketed or used in the Commonwealth of Virginia.

### **Corporate Information**

Corporate Information must contain the following items:

1. History and description of the business including the year established, products and services offered, areas served, branch offices, subsidiary and parent companies, capital and equity structure, identity of any individual, entity, partnership, or organization owning a controlling interest, and the identity of any investor whose investments have an aggregate value that exceeds more than 5% of the vendor's net cash flow in any reporting year
2. Management and staff organization, number of full time and part-time employees by category, and resumes of key employees who will assist Virginia localities in acquiring the system if it is authorized for use
3. Certified financial statements for current and past three (3) fiscal years
  - a. If the vendor is not the manufacturer of the EPB system, then submit the certified financial statements of the manufacturer for the past three (3) fiscal years
4. Bank Comfort Letter from the vendor's primary financial institution
  - a. If the vendor uses more than one financial institution, multiple Comfort Letters must be submitted
5. Certificate of Good Standing issued within 2 months
6. Credit rating issued within 2 months
7. If publicly traded, indexes rating of the business debt
8. Gross sales in EPB products and services for the past three (3) fiscal years and the percent of the vendor's total sales

9. The location of all facilities with manufacturing capability; including names of the third-party vendor(s) that are employed to fabricate and/or assemble any component part of the EPB system being submitted for certification, along with the location of all of their facilities with manufacturing capability
10. The location and servicing capability of each facility that will be used to service the EPB system for certification and the service limitation of the facility
11. Quality assurance process used in the manufacturing and servicing of the EPB system
12. Configuration management process used with the EPB system.

**NOTE:** If the EPB system is certified, ELECT will retain the Corporate Information as long as the EPB system is marketed or used in Virginia. ELECT will sign a statement of confidentiality for Corporate Information only.

### ***Proprietary Information***

Prior to or upon submission of its certification request, the vendor shall identify any information in its request and/or accompanying materials that it believes should be treated as confidential and proprietary. Furthermore, the vendor must state the reasons why such information should be treated as confidential and proprietary.

“Identify” means that the information must be clearly marked with a justification as to why the information should be treated as confidential and proprietary information. A vendor shall not designate as proprietary information (a) the entire certification request or (b) any portion of the certification request that does not contain trade secrets or proprietary information.

ELECT cannot guarantee the extent to which any material provided will be exempt from disclosure in litigation or otherwise. ELECT, however, agrees to provide the vendor with five (5) days’ notice prior to disclosing such material to third parties so that the vendor has the opportunity to seek relief from a court prior to the disclosure of such materials by ELECT.

### **Phase 2: Preliminary Review**

The Voting Technology Coordinator or designee will review the TDP, Corporate Information and other materials provided, and notify the vendor of any deficiencies. Certification of the EPB system will not proceed beyond this phase until the TDP and Corporate Information are complete.

The Voting Technology Coordinator or designee will notify the vendor to submit the following for evaluation:

1. Production working model of the EPB to run through all phases of testing, including:

- a. All hardware, software and firmware necessary to run the EPB
  - b. Software shall be provided in a format readable by the EPB hardware that is being submitted for certification
  - c. All commercial-off-the-shelf software and necessary drivers, including the operating system, any software applications for logging, reporting, printing, etc.
  - d. All peripheral devices, including those required for usability and accessibility
  - e. Any other components recommended by the manufacturer for use
2. Copy of the Test documents from prior VSTL certification testing, including Test Plan, Test Report, Test Procedures, and Test Cases
  3. A release to the VSTL to respond to any requests for information from the Commonwealth of Virginia
  4. A release to other states which have decertified the system or prior versions of the system to respond to any requests for information from the Commonwealth of Virginia
  5. Any other materials and equipment deemed necessary by ELECT

The Voting Technology Coordinator or designee will conduct a preliminary analysis of the TDP and the EPB system with VSTL. The Voting Technology Coordinator or designee will also review the Corporate Information and other materials to prepare an Evaluation Proposal, which includes:

1. Components of the EPB system to be certified
2. Financial stability and sustainability of the vendor to maintain product support and contractual agreement for the EPB system
3. Preliminary analysis of TDP

### **Phase 3: Technical Data Package to Voting Systems Test Laboratory**

In addition, the vendor should submit the TDP to the Voting Technology Coordinator, who shall provide the TDP to the VSTL following review.

### **Phase 4: Certification Test Report from VSTL**

VSTL will work directly with the vendor and ELECT designee to complete all test assertions and test cases and the Certification Test Report will be sent to ELECT upon completion.



### **Phase 5: On-Site Testing in Mock Election**

ELECT will coordinate with a local jurisdiction to test the EPB system in a Mock Election. With the vendor present, the Electoral Board members from the local jurisdiction along with ELECT will oversee the test use of the system in a Mock Election.

### **Phase 6: Approval by the SBE**

Based on the report from the VSTL, the results from the On-Site Testing in Election and other information in their possession, the SBE will decide whether the EPB system will be certified for use in the Commonwealth of Virginia. The decision will be sent to the vendor.

### **3.3. Incomplete Certification Process**

If the certification process is terminated, the vendor will forfeit all fees received by ELECT. Any certification process terminated under this provision must be re-initiated from Phase 1. The vendor is responsible to pay all outstanding balance due to ELECT before ELECT accepts subsequent requests from the vendor.

ELECT reserves the right to terminate the certification process when:

1. Vendor does not respond to a request from ELECT within 90 days
2. ELECT issues any concerns regarding the certification
3. The Vendor withdraws from the process
4. The system fails the VSTL certification test
5. The test lab cannot conduct the certification testing with the equipment on-hand

## Appendices

### A – Glossary

**Anomaly** – Any event related to the security or functioning of the EPB system that is out of the ordinary regardless of whether it is exceptional or not; a deviation from the norm.

**De Minimis Change** – A minimum change to a certified EPB system’s hardware, software, TDP, or data. The nature of changes will not materially alter the system’s reliability, functionality, capability, or operation. Under no circumstance shall a change be considered De Minimis Change, if it has reasonable and identifiable potential to impact the system’s performance and compliance with the applicable EPB Standard. Reference: EAC Testing & Certification Program Manual version 2.0 and Notices of Clarification.

**Department of Elections (ELECT)** – ELECT conducts the SBE's administrative and programmatic operations and discharges the board's duties consistent with delegated authority.

**Election Officer** – A registered voter in Virginia appointed by a local electoral board to serve at a polling place for any election. Officers of election must attend training conducted by the electoral board or the general registrar. Some of their duties on Election Day include identifying qualified voters and checking them in on the pollbooks; handing voters their correct ballots; telling voters the proper procedure for inserting ballots into the voting machine; and, when applicable, providing a voter with a provisional ballot.

**Electronic Pollbook (EPB) System**– A system containing an electronic list of registered voters that may be transported and used at a polling place. This is the official list of registered voters eligible to vote in the election; it is used to verify a voter’s eligibility to receive a ballot and captures voter history in real time to prevent double voting. The term “electronic pollbook system” refers to the total combination of mechanical, electro-mechanical, electronic and digital equipment (including the software, firmware, and documentation required to program, control, and support the equipment).

**Incident** – Any event related to the security or functioning of the EPB system that may have caused or caused an interruption to the Check-in and/or Reporting process.

**Precinct** – A precinct is a geographic area within a locality or a town, established by ordinance by the local governing body. As per the Code of Virginia § 24.2-307, the “governing body of each county and city may establish as many precincts as it deems necessary.” A precinct must be wholly contained in any district used to elect members of the local governing body. The local governing body also determines the location of the polling place where residents vote.

**State Board of Elections (SBE)** – The State Board of Elections is authorized to supervise, coordinate, and adopt regulations governing the work of local electoral boards, registrars, and officers of election; to provide electronic application for voter registration and delivery of absentee ballots to eligible military and overseas voters; to establish and maintain a statewide automated voter registration system to include procedures for ascertaining current addresses of registrants; to prescribe standard forms for registration, transfer and identification of voters; and to require cancellation of records for registrants no longer qualified. [Code of Virginia, Title 24.2](#), Chapters [1](#), [4](#) and [4.1](#).

**Voting Systems Test Laboratory (VSTL)** – Test laboratory accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to be competent to test EPB systems.

## **B - Contacts**

### **The Department of Elections**

The certification request package should be sent to:

Virginia Department of Elections  
ATTN: EPB System Certification  
1100 Bank Street, 1st Floor  
Richmond, Virginia 23219-3497

All other inquiries should be sent to:

Email: [info@elections.virginia.gov](mailto:info@elections.virginia.gov)

### C – Acceptance Test

As required by the Code of Virginia §24.2-629 (E) and the procurement process, the local jurisdiction with the assistance of state officials or consultants will conduct the Acceptance Test.

The local jurisdiction will examine that the purchased or leased system to be installed is identical to the certified system and that the installed equipment and/or software are fully functional and compliant with the administrative and statutory requirements of the jurisdiction. The state requires localities to perform hash testing of applications software, as well as, send a letter to ELECT, as required by the procurement process, to confirm that the versions of all software and model(s) of equipment received are identical to the certified system.

As part of the acceptance test the vendor will demonstrate the system's ability to execute its designed functionality as presented and tested during certification, including:

1. Mark voters as checked in, voted, and given a ballot only after specific actions
2. Provide the user notification and display an appropriate instruction based on the voter status:
  - a. Protected voters
  - b. Inactive voters
  - c. Absentee voters
  - d. Voters out of precinct
  - e. Voters that already voted
3. Perform data and operational integrity safeguard tests including:
  - a. Ability to add or remove new units without disturbing the existing units
  - b. Power supply and battery life with an option to display power usage
  - c. Display an appropriate message when the EPB device is operating at less than 20% of remaining power
  - d. Display an appropriate error message when the EPB fails to check in a voter
4. Performance Report to include the optimal duration of check-in process per voter
5. System monitoring and notification of system errors, including:
  - a. Perform a self-test for peripheral connectivity
  - b. Visible display indicating power supply/battery life
  - c. Visible display indicating system connections
6. Comply with and enable voter and operator compliance with all applicable procedural, regulatory, and statutory requirements
7. Produce an audit log

8. Close the election and provide multiple secure files which are capable of providing voter credit to the Voter Registration System
9. Data preservation and redundancy to maintain a printable checklist format of the voter registration record and voter activity record on a removable storage. When one to all of the EPBs become inoperable, and if there is not an alternate recovery means available, then the removable storage must reflect the voter activity record at that moment and can be used to continue with election
10. During an interruption of network connection, EPBs should retain and synchronize all voter activities upon restoration of connectivity
11. Secure the reliable data transfers and display appropriate message for each data transfer to outside of closed network including electronic data management system, central server and cloud data service (This is only for testing of EPBs that will be used for Early Voting)
12. Transaction Logging and Audit Reports including the following details:
  - a. Log all changes to EPB post the initial download
  - b. Transactions at the polling places
  - c. Export logs in a readable format
  - d. The EPB's audit log(s) must be encrypted, track all transactions and include a date/time stamp
13. All modules and data are cryptographic and are FIPS 140-2 v1 compliant including at rest and in transit
14. Comply with the NIST SP 800-63B or better digital identity guidelines for authentication and lifecycle management
15. Support the industry standard for clean wipe method remotely and manually.

### **Audit and Validation of Certification**

It is the responsibility of both the vendor and the local jurisdiction to ensure that an EPB system, that is supplied or purchased for use, in the Commonwealth of Virginia has been certified by the SBE. It is the responsibility of the vendor to submit any modifications to a previously certified EPB system to the ELECT for review.

If any questions arise involving the certification of an EPB system in use in Virginia, ELECT shall verify that the EPB system in use is identical to the EPB system submitted for certification. Any unauthorized modifications to a certified system may result in decertification of the system by the SBE or bar an EPB system vendor from receiving certification of EPB systems in the future with the Commonwealth of Virginia.

**D – Test Assertions**

The following test assertions will be executed by the ELECT designated VSTL.

<i>Statutory Requirement</i>	<i>Test Assertions</i>
<i>If EPBs are used in the locality or electronic voter registration inquiry devices are used in precincts in the locality, the Department shall provide a regional or statewide list of registered voters to the general registrar of the locality. The Department shall determine whether regional or statewide data is provided. Neither the pollbook nor the regional or statewide list or registered voters shall include the day and month of birth of the voter, but shall include the voter's year of birth. § 24.2-404(A7)</i>	I – The EPB must display the voter's birth year, but no other birthday information.
<i>In no event shall any list furnished under this section contain the social security number, or any part thereof, of any registered voter, except for a list furnished to the Chief Election Officer of another state permitted to use social security numbers, or any parts thereof, that provides for the use of such numbers on applications for voter registration in accordance with federal law, for maintenance of voter registration systems. § 24.2-406(C)</i>	I – The EPB cannot have a field to display partial or complete Social Security Numbers.
<i>The EPB System shall have the ability to prepare a separate pollbook report for each party taking part in a primary election at the same time. § 24.2-531</i>	I – The EPB provides a report that can be filtered by party.
<i>Record the name and consecutive number of the voter at the time he offers to vote. Enter an EPB record for each voter and recording each voter's name, including voters unable to enter the polling place, and for verifying the accurate entry of the</i>	I – The EPB provides an input field to record name and consecutive number of a voter when they present themselves to vote.
	II – The EPB shall automatically enter consecutive numbers from a given starting point.

<p><i>EPB record for each registrant on the Virginia Voter Registration System. § 24.2-611(B)</i></p>	<p>III – The EPB System shall have the ability to indicate whether a voter voted “Outside Polls” or “OP.” The operator shall be allowed to notate independently or in conjunction with other notations set forth in these requirements. The EPB System shall have the ability to provide listings and counts of such voters.</p>
<p><i>The State Board shall incorporate safeguards to assure that the records of the election, including the pollbook, voter count sheets, or other alternative records, will provide promptly an accurate and secure record of those who have voted. § 24.2-611(C)</i></p>	<p>I – The EPB must produce an audit log that records data that has been successfully transferred.</p>
<p><i>In the event that the EPBs for a precinct fail to operate properly and no alternative voter list or pollbook is available, the officers of election, in accordance with the instructions and materials approved by the State Board, shall (i) maintain a written list of the persons EPB and (ii) provide to each person EPB a provisional ballot to be cast as provided in § 24.2-653. § 24.2-611(E)</i></p>	<p>I – The EPB must be able to produce a data output in a format deemed necessary by the Commonwealth of Virginia.</p> <p>II – The EPB must maintain data preservation and redundancy so in the case where the EPB becomes inoperable the data that has been input can be retrieved.</p>
<p><i>If the person challenged refuses to sign the statement, he shall not be permitted to vote. If, however, he signs the statement, he shall be permitted to vote on the voting system in use at the precinct, unless he is required to cast a provisional ballot pursuant to § 24.2-651.1</i></p> <p><i>When the voter has signed the statement and is permitted to vote, the officers of election shall mark his name on the pollbook with the first or next consecutive number from the voter count form, or</i></p>	<p>I – The EPB must have the capability to display an indication that a voter has been challenged.</p> <p>II – The EPB must have the functionality to identify a voter that cannot be processed as a regular voter. This functionality has to be configurable so that the election day reasons can be updated without a software update.</p> <p>III – The name of required document must be pre-loaded in EPB. Poll worker must be able to</p>



<p><i>shall enter that the voter has voted if the pollbook is in electronic form, and shall indicate on the pollbook that he has signed the required statement in accordance with the instructions of the State Board.</i></p> <p><i>If the envelope containing a voted absentee ballot has been properly signed by the voter, such ballot shall not be subject to challenge pursuant to this section. § 24.2-651</i></p>	<p>select from the voter check-in screen the name of document that the voter is required to sign.</p>
<p><i>Any person who offers to vote, who is listed on the pollbook, and whose name is marked to indicate that he has already voted in person in the election shall cast a provisional ballot as provided in § 24.2-653. The State Board of Elections shall provide instructions to the electoral boards for the handling and counting of such provisional ballots. § 24.2-651.1</i></p>	<p>I – The EPB must disable all check in options if the voter’s status is VOTED.</p> <p>II – The EPB must require a supervisor control to change the voter status from VOTED or add the absentee status.</p>
<p><i>The data disc or cartridge containing the electronic records of the election, or, alternately, a printed copy of the pollbook records of those who voted, shall be transmitted, sealed and retained as required by this section, and otherwise treated as the pollbook for that election for all purposes subsequent to the election. § 24.2-668(C)</i></p>	<p>I – All reports produced by the EPB must contain election identification information.</p> <p>II – The removable media must be able to be sealed, transportable, and retain information as required.</p>
<p><i>Before the polls open, the officers of election at each precinct shall mark, for each person on the absentee voter applicant list, the letters "AB" (meaning absentee ballot) in the EPB record column on the pollbook. § 24.2-711</i></p>	<p>I – The EPB must notify and provide user instructions for absentee and early voters (“AB”).</p> <p>II – The EPB must require supervisor controls to change the absentee status of a voter.</p>

<i>Functional Requirement</i>	<i>Test Assertions</i>
<i>Allows user to cancel a voter check-in. Requires supervisor controls prior to cancellation of a voter check-in. Provides ability to select reason for cancellation.</i>	I – The EPB must have the ability to cancel a voter check-in.
	II – The EPB must provide the ability to select a reason for cancellation and provide an input for a supervisor password.
<i>At voter check in, provide notification of “inactive” voter status, including on-screen instructions and options for processing the “inactive” voter.</i>	I – The EPB must have the functionality to identify a voter that cannot be processed as a regular voter.
	II –The EPB displays on-screen instructions.
	III –The EPB allows selection of the appropriate document name that the voter is required to sign.
<i>Provides the voter address look-up to redirect voters to the correct polling place. Contains additional functionality to include driving directions.</i>	I – The EPB must contain a feature that allows the user to look-up voter’s address to redirect them to the correct polling place.
	II – The EPB must contain a feature that includes driving directions.
<i>Provides a variety of voter look-up capabilities, including first and last name, year of birth, address, District, and Voter ID. Enables each search to be filtered to reduce the number of records returned. Allows configuration of additional advanced search capabilities.</i>	I – All search for voters must have the capability for an advanced search so results can be filtered on any combination of the following data: last name, first name, year of birth, address, District and Voter ID.

<i>Maintain separate elections such as primary elections for multiple parties. Manage the voter list and counts by separate elections.</i>	I – The EPB must have the ability to manage the voter list and count by party in a partisan election.
<i>Allows configuration of on-screen poll worker instructions and messages without software changes.</i>	I – The EPB must have a feature that allows for messaging and instructions to be editable without requiring a software update.
<i>Allows configuration of document name(s) when a voter's status requires a document to be signed.</i>	I – The EPB must have a feature that allows for configuration of document name(s) prior to Election Day without requiring a software update.
<i>Ability to customize workflow requirements according to the State and/or jurisdiction requirements and preferences.</i>	I – The EPB must be customizable so changes in workflow requirements and/or the change State procedures in the voter check-in process can be accommodated.
<i>Provides the user with a continuous on-screen voter check-in count, customizable by specific category.</i>	I – The EPB must display and automatically update the voter credits issued and synchronize with other units on a network.
<i>Displays an opening screen to allow the user to confirm election date, polling place location, number of eligible voters, and zero voter check-in count prior to opening the polls.</i>	I – The EPB must have a verification screen that displays the election date, polling place location, the number of voters for the location, and zero voter have checked in.
<i>Users with minimal system knowledge should be able to configure and customize reports.</i>	I – The EPB reporting module should be configurable and customizable by a user with minimal system knowledge.
<i>Receive and process the voter registration and election information.</i>	I – The EPB must be able to add, remove, update, and delete stored information.

	<p>II – The EPB must be able to retrieve a specific voter from a list of provided voters and issue voter credit.</p>
<p><i>Accurately maintain whole and separate count(s) of voters distinguishable by Ballot Style (Voter’s Party/primary, Precinct, and Precinct Split), Curbside Voter, Challenged Voter, Voter Status, Provisional, Absentees and Early Votes.</i></p>	<p>III – The EPB must provide a verification that the voter and election data are accurately loaded in the EPB.</p>
<p><i>The EPB shall have the ability and the option to scan the barcode of a Virginia driver’s license.</i></p>	<p>I – The EPB must be able to provide reports that distinguish voters by ballot style, party, precinct, precinct split, curbside voter, and voter status.</p>
	<p>I – The EPB must be able to scan the barcode from the Virginia State Issued IDs: Driver’s License.</p>
	<p>II – If the download is successful, display the voter name and address on the check-in screen.</p>
	<p>III – Display an appropriate message if the ID is not accepted.</p>

<i>System Requirement</i>	<i>Test Assertions</i>
<p><i>EPBs cannot connect to a Voting System at any time.</i></p>	<p>I – The EPB must not be required for the voting system to perform any functions, but may provide a digital code for the voter’s ballot retrieval on Ballot Marking Devices.</p>
	<p>II – The EPB cannot connect to the voting system.</p>

<p><i>During an interruption of network connection, EPBs should retain and synchronize all voter activities upon restoration of connectivity.</i></p>	<p>I – The EPB must be networkable. Once networked together all EPB’s must synchronize to the most current voter information.</p> <p>II – If network connectivity is lost, once restored all devices on the network must synchronize.</p>
<p><i>Perform data and operational integrity safeguard tests including:</i></p> <ul style="list-style-type: none"> <li><i>i. Ability to add or remove new units without disturbing the existing units</i></li> <li><i>ii. Power supply and battery life with an option to display power usage</i></li> <li><i>iii. Display appropriate message when the EPB device is operating at less than 20% of remaining power</i></li> <li><i>iv. Display appropriate error message when a voter is not counted</i></li> <li><i>v. Capacity/Load Test report to include the maximum number of voters the configuration setting can handle</i></li> </ul> <p><i>Performance report to include the optimal duration of check-in process per voter.</i></p>	<p>I – The EPB must have a report that provides statistics on the duration of voter check-in process and the maximum number of voters the configuration can handle.</p>
<p><i>System monitoring and notification of system errors including:</i></p> <ul style="list-style-type: none"> <li><i>i. Perform a self-test for peripheral connectivity</i></li> <li><i>ii. Visible display indicating power supply/battery life</i></li> <li><i>iii. Visible display indicating system connections.</i></li> </ul>	<p>I – The EPB must have battery status indicator and a peripheral connectivity indicator.</p> <p>II – The EPB must log all system errors and notify the user of errors that can be corrected by the user.</p>

<i>Security Requirement</i>	<i>Test Assertions</i>
<i>Support the industry standard for clean wipe method remotely and manually.</i>	I -The EPB must support the ability to write ones and zeros or shred all removable media.
<i>Utilize security best practices for internet connectivity including network, wireless, and cloud services.</i>	I – The EPB must employ the following management techniques: <ul style="list-style-type: none"> <li>• Upgrade to a Modern Operating System and keep it up-to-date</li> <li>• Exercise Secure User Habits</li> <li>• Leverage Security Software</li> <li>• Safeguard against Eavesdropping</li> <li>• Protect Passwords</li> <li>• Limited Use of the Administrator Account</li> <li>• Employ Firewall Capabilities</li> <li>• Implement WPA2 on the Wireless Network</li> <li>• Limit Administration to the Internal Network</li> </ul>
<i>Comply with the latest encryption standard for all data including data-at-rest and data-in-transit. This requirement applies to all IT equipment including mobile and stand-alone.</i>	I – All modules and data are cryptographic and are FIPS 140-2 v1 compliant.
	II – The EPB’s audit log must be encrypted, track all transactions and include a date/time stamp.
<i>Comply with the NIST SP 800-63B or better digital identity guidelines for authentication and lifecycle management.</i>	I – All passwords used by the EPB follow the NIST SP 800-63B Standard.
	II – All passwords used by the EPB must allow upper case, lower case, numbers, and special characters.
	III – The same password cannot be reused within at least the past 10 times.

	IV – The EPB requires passwords to be changed every 6 months.
<p><i>Comply with the Access Management best practices for System Administrator and Network Administrator.</i></p>	<p>V – The EPB must provide the option to mask or unmask passwords at text entry.</p> <p>I – The EPB must employ the following management techniques:</p> <ul style="list-style-type: none"> <li>• Centralization of all components</li> <li>• Role Based Access Control</li> <li>• Employ Zero Trust Identity Security</li> <li>• Use the Principle of Least Privilege</li> <li>• Automated Onboarding</li> <li>• Automated Off-boarding</li> <li>• Orphaned Account Detection and Removal</li> <li>• Multifactor Authentication</li> <li>• Notification of failed logon attempts</li> <li>• Notification of use of Privileged Accounts.</li> </ul>
<p><i>Harden the EPB System using the vendor’s procedures and specifications.</i></p>	<p>I – The EPB Vendor must provide a system hardening specification for the system.</p> <p>II – Assessed via automated scanning tools (i.e. CIS L1 benchmarks).</p>
<p><i>Restrict connections to EPBs from the specified devices such as the printer and authorized USB at the polling place. Reject all connections from other external devices.</i></p>	<p>I – The EPB must restrict all ports to only allow known system components to communicate with the EPB and not allow unknown device to connect.</p>
<p><i>EPBs should be configured to synchronize data within the defined network only. Disable connection to all unauthorized network including publicly</i></p>	<p>I – The EPB must be networkable. Once networked together all EPB’s must synchronize to the most current voter information.</p>

<p><i>accessible network. Any external connectivity must be IP whitelisted.</i></p>	<p>II - Any failure of a device can not impact the remaining units.</p>
	<p>III – The EPB must not connect to unauthorized networks.</p>
	<p>IV – The EPB must not allow connections that are not IP whitelisted.</p>
<p><i>Secure and reliable data transfers and display appropriate message for each data transfer to outside of the approved network including electronic data management system, central server and cloud data service.</i></p>	<p>I – The EPB must have success and failure message to the user for the transfer of data outside of the approved network.</p>
<p><i>When wireless is activated on an EPB device, there is a very visible means/mechanism that alerts others of this state.</i></p>	<p>I – The EPB effectively alerts others when the wireless state is activated on EPB device. (E.g. clearly visible indicator light on device, text alert, etc.)</p>

Audit Requirement	Test Assertions
<p><i>Transaction Logging and Audit Reports includes the following details:</i></p> <ul style="list-style-type: none"> <li><i>a. Audit trail of election data preparations</i></li> <li><i>b. Transactions at the polling places</i></li> <li><i>c. View and export logs in a readable format</i></li> <li><i>d. Identify and manage security incidents and fraudulent activities</i></li> <li><i>e. Track and resolve operational problems.</i></li> </ul>	<p>I – The EPB must have a transaction log containing the following:</p> <ul style="list-style-type: none"> <li>• Records of election preparation</li> <li>• Records of transactions in the polling place</li> <li>• Human-readable logs</li> <li>• Ability to export logs</li> <li>• Identify and manage security incidents and fraudulent activities</li> <li>• Track and resolve operational problems.</li> </ul>



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<i>Reconciliation of data load to EPB to handle exceptions and discrepancies.</i>	I – The EPB must provide a verification that the data loaded for the election was successful, accurate, and any discrepancies in the process handled.
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**E – Software Patching Guidelines**

All vendors must comply with the policies, guidelines, and directives regarding software patching of EPB systems as adopted and modified by the SBE from time to time.

**F – Recertification Guidelines**

All vendors must comply with the policies, guidelines, and directives regarding recertification of EPB systems as adopted and modified by the SBE from time to time.

If there is evidence of a material non-compliance, ELECT will work with the vendor to resolve the issue, and ultimately the SBE reserves the right to decertify the EPB system.

An EPB system that has been decertified by the SBE cannot be used for elections held in the Commonwealth of Virginia and cannot be purchased by localities to conduct elections.

**G – Hardware Guidelines**

Memory devices or USB drives provided with the EPB system and/or supplied to localities must follow these standards:

1. Must be fully wiped per the DoD 5220.22-M wiping standard to prevent any preloaded software from being inadvertently installed on the systems
2. Must be cryptographic and FIPS 140-2 v1 compliant
3. Must use SHA256 hashing algorithm or higher
4. Must comply with applicable Commonwealth information security standards
5. Must comply with applicable policies, guidelines, and directives as adopted and modified by the SBE from time to time.

## H – EPB System Modifications & Product End of Life Planning

### EPB System Modifications

The process for reporting modification will be determined by ELECT based upon policies, guidelines, and directives as adopted and modified by the SBE from time to time.

### Product End of Life Planning

“End-of-life” (EOL) is a term used with respect to product (hardware/software/component) supplied to customers, indicating that the product is in the end of its useful life (from the vendor’s point of view), and a vendor stops sustaining it; i.e. vendor limits or ends support or production for the product.

Product support during EOL varies by product. Depending on the vendor, EOL may differ from end of service life, which has the added distinction that a vendor of systems or software will no longer provide maintenance, troubleshooting or other support. For example, Extended Support is the period following end of Mainstream Support.

The definitions of Last Date of Mainstream Support and Extended Support, as applicable to decertification/recertification and associated policies and procedures, will be determined by ELECT based upon policies, guidelines, and directives as adopted and modified by the SBE from time to time. As of initial adoption of this standard by the SBE, the definitions are as follows:

Mainstream Support: The first phase of the product lifecycle; when support is complimentary

Extended Support: The phase following Mainstream Support, in which support is no longer complimentary

Last Date of Mainstream Support: The last day of Mainstream Support

Policies and procedures applicable to decertification/recertification of EPB systems which contain software or hardware components that have and/or will reach the Last Date of Mainstream Support within 18 months, will be determined by ELECT based upon policies, guidelines, and directives as adopted and modified by the SBE from time to time.

An EPB system could still be decertified even if an upgrade plan is submitted. This could happen for a variety of reasons, such as a vendor is not showing progress in meeting their upgrade plan.

**I – EPB Certification Application Form**

Certification <input type="checkbox"/>	Recertification <input type="checkbox"/>
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The company officer or designee who is responsible for the Electronic Pollbook System should complete this form. With this signature, the company officer agrees to a release for the VSTL as well as other states that may have decertified the EPB to respond to any questions by ELECT. This application must be signed by a company officer and enclosed in the EPB Certification Request Package.

Check if you prefer to have the VSTL testing performed at another site to be specified which may require additional cost for the testing.

Name of Company: \_\_\_\_\_

Name and Title of Corporate Officer: \_\_\_\_\_

Contact Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Primary Address of Company: \_\_\_\_\_

City, State, Zip Code: \_\_\_\_\_

Name of EPB System to be certified: \_\_\_\_\_

Version Number/Name of EPB System to be certified: \_\_\_\_\_

I reviewed and confirmed that the EPB meets the requirements of the Virginia Electronic Pollbook Certification Standard. My company will comply with additional requests in a timely manner to complete this certification.

Signature of Corporate Officer: \_\_\_\_\_

Date: \_\_\_\_\_

## **J – De Minimis Change Guideline**

The SBE has adopted the EAC’s De Minimis Change Guideline and applicable EAC Notice of Clarification of De Minimis Change Guidelines to manage a minimal hardware and/or software related change to a certified EPB system in a consistent and efficient manner. Software De Minimis Changes should have the following general characteristics:

1. Update a discrete component of the system and do not impact overall system functionality
2. Do not affect the accuracy of the component or system
3. Do not negatively impact the functionality, performance, accessibility, usability, safety, or security of a component or system
4. Do not alter the overall configuration of the certified system
5. Can be reviewed and/or tested by VSTL personnel in a short amount of time (approximately less than 100 hours).

A vendor must submit the VSTL’s endorsed package to ELECT for approval. A proposed De Minimis Change may not be implemented to the certified EPB system until the change has been approved in writing by ELECT.

### **VSTL Endorsed Changes**

The vendor will forward to ELECT any change that has been endorsed as De Minimis Change by VSTL. The VSTL’s endorsed package must include:

1. The vendor’s initial description of the De Minimis Change, a narrative of facts giving rise to, or necessitating, the change, and the determination that the change will not alter the system’s reliability, functionality, or operation.
2. The written determination of the VSTL’s endorsement of the De Minimis Change. The endorsement document must explain why the VSTL, in its engineering judgment, determined that the proposed De Minimis Change meets the definition in this section and otherwise does not require additional testing and recertification.

### **VSTL Review**

The vendor must submit the proposed De Minimis Change to a VSTL with complete disclosures, including:

1. Detailed description of the change
2. Description of the facts giving rise to or necessitating the change

3. The basis for its determination that the change will not alter the system's reliability, functionality, or operation
4. Upon request of the VSTL, the EPB system model at issue or any relevant technical information needed to make the determination
5. Document any potential impact to election officials currently using the system and any required notifications to those officials
6. Description of how this change will impact any relevant system documentation
7. Any other information the VSTL needs to make a determination.

The VSTL will review the proposed De Minimis Change and make an independent determination as to whether the change meets the definition of De Minimis Change or requires the EPB system to undergo additional testing as a system modification. If the VSTL determines that a De Minimis Change is appropriate, it shall endorse the proposed change as a De Minimis Change. If the VSTL determines that modification testing and recertification should be performed, it shall reclassify the proposed change as a modification. Endorsed De Minimis Change shall be forwarded to ELECT for final approval. Rejected changes shall be returned to the vendor for resubmission as system modifications.

#### **ELECT's Action**

ELECT will review the proposed De Minimis Change endorsed by a VSTL. ELECT has sole authority to determine whether any VSTL endorsed change constitutes a De Minimis Change under this section.

**ELECT's Approval:** ELECT shall provide a written notice to the vendor that ELECT accepted the change as a De Minimis Change. ELECT will maintain the copies of approved De Minimis Change and track such changes.

**ELECT's Denial:** ELECT will inform the vendor in writing that the proposed change cannot be approved as De Minimis Change. The proposed change will be considered a modification and requires testing and certification consistent with this Certification Standard.

De Minimis Change is not applicable to the EPB system currently undergoing the State Certification testing; it is merely a change to an uncertified system and may require an application update.



## K – Early Voting Connection Requirements

The following additional requirements exist if the EPB Vendor utilizes the cloud to host EPBs for locality access during the Early Voting period:

1. Utilize security best practices for internet connectivity including network, wireless, and cloud services.
2. Utilize a cloud service provider (CSP) whose infrastructure and applications are NIST 800-53 certified through a third party entity.
3. Ensure that CSP SLA contains three major components: Service level objectives, Remediation policies, and penalties/incentives related to NIST compliance, exclusions, and caveats.
4. The connection via VPN must be FIPS 140-2 v1 certified, whether it is a dedicated SSLVPN or just a dedicated connection. If there is a dedicated connection, thorough documentation must be provided.
5. If the EPB Vendor supplies the mobile devices, ensure compliance with NIST 800-53 in relation to these devices, as is done with the infrastructure.
6. Storage, processing, migration, access control, and detection to and from the cloud must be NIST 800-53 compliant.
7. Ensure the CSP is NIST certified by validating their credentials through their third-party certification provider. Ask for internal vulnerability/penetration testing reports, audit reports, incident reports, and evidence of remedial actions for any issues raised. Also, verify tracking of mitigating action-tracking mechanisms (POA&M tracking).

All vendors must comply with the policies, guidelines, and directives regarding Early Voting connection requirements as adopted and modified by the SBE from time to time.



Electronic Pollbook Certification Standard

Changes in New Standard

Prior version: May 2015

New version: January 2020

	Description of Changes	Reason for changes	Implication
1	<p>Re-wrote most of the Certification Standard version from May 2015.</p> <p><b>Note:</b> The deleted words are <del>strikethrough</del>. Inserted text is <b>highlighted</b>.</p>	<p>Re-wrote and re-organized to deliver the content in a concise style and improve overall readability.</p>	<p>No impact except for the specified changes below.</p>
2	<p>Where we made blanket changes throughout the document, they're listed below:</p> <ol style="list-style-type: none"> <li>1. Changed the wording of headings from "Part" to "Chapter" in Table of Contents, and throughout the document.</li> <li>2. When regulations or policies issued by the SBE are referenced, we have added ELECT as well.</li> <li>3. Abbreviated "State Board of Elections" to "SBE".</li> <li>4. Abbreviated "Electronic Pollbook System" to "EPB System".</li> <li>5. Removed all references to 'and equipment' in "Electronic Pollbook System and Equipment"</li> <li>6. Replaced all references for the evaluation agent to Voting Technology Coordinator.</li> </ol>	<ol style="list-style-type: none"> <li>1. In order to consolidate revised document.</li> <li>2. Sometimes ELECT creates policies independent of, but in alignment with, the SBE.</li> <li>3. To be more succinct.</li> <li>4. "Electronic Pollbook 'System' and 'Equipment'" is now defined as "EPB System" to refer to the total combination of hardware, software, firmware, and infrastructure components.</li> <li>5. The Voting Technology Coordinator will conduct certification review as opposed to an independent outside consultant.</li> </ol>	<p>No impact to the current process.</p>
3	<p>Replaced SBE to ELECT whenever applicable to correctly reflect the responsible party.</p> <p><u>Example:</u> <del>SBE</del> ELECT reserves the right to reexamine any previously certified EPB system for any reason at any time.</p>	<p>To align with the current responsibilities of the State Board of Elections and the Department of Elections.</p>	<p>No impact to the current process.</p>
4	<p>Removed on cover page and footer: "Virginia State Board of Elections" "Procedures &amp; System Requirements Rev-0515 Approved – 05/13/2015" Prepared and Managed by: <b>Virginia Department of Elections Election Administration and Compliance Division</b> 1100 Bank Street Washington Building – 1st Floor</p>	<p>Revised by Virginia Department of Elections in 2019.</p>	<p>No impact to the current process.</p>



	Description of Changes	Reason for changes	Implication
	Richmond, Virginia 23219 800.552.9745 <a href="mailto:info@elections.vriginia.gov">info@elections.vriginia.gov</a> Prepared by Cameron Glen Sasnett Virginia Department of Elections REV-0515		
5	<p><b>1.1 Purpose of Procedures</b></p> <p><del>These procedures have been developed and approved as part of a continuing effort to improve the administration of elections in the Commonwealth of Virginia. They provide a formal and organized process for vendors to follow when seeking state certification for an electronic pollbook (EPB) system or a significant improvement or modification to an existing electronic pollbook system currently certified for use in Virginia. To this end, these procedures are designed to:</del></p> <ol style="list-style-type: none"> <li><del>1. Ensure conformity with Virginia election laws relating to the acquisition and use of electronic pollbook EPB systems and equipment;</del></li> <li><del>2. Provide an organized and consistent means of evaluating and certifying electronic pollbook systems and equipment Evaluate and certify EPB systems marketed by vendors for use in Virginia;</del></li> <li><del>3. Provide an organized and consistent means of evaluating and re-certifying Evaluate and re-certify additional capabilities and changes in the method of operation for EPB systems previously certified for use in Virginia;</del></li> <li><del>4. Provide for the improvement of the electoral process by ensuring that all electronic pollbook systems operate properly and are installed and tested in compliance with the State Board of Elections approved procedures; and</del></li> <li><b>4. Standardize decertification and recertification of EPB systems</b></li> <li><del>5. Provide for the accurate recording and reporting of a list of voters who participated in an election for any jurisdiction in which each certified system is used.</del></li> </ol>	<p>To clarify revised processes and procedures for vendors to follow when seeking certification for an EPB system.</p>	<p>No change to current certification procedure.</p>
6	<p><b>Changed From/To:</b></p> <p><b>1.2. Authority Specific Requirements</b></p>	<p>Added 1.2. Specific Requirements          Removed 1.2. Authority section.</p>	<p>Additional security requirements for vendors to follow.</p>



	Description of Changes	Reason for changes	Implication
	<p>§24.2-611(D) of the Code of Virginia requires Electronic Pollbook (EPB) programs to be approved for use in elections by the Virginia State Board of Elections. Each EPB System submitted for certification in Virginia shall undergo State Certification. State Certification is intended to verify that the design and performance of the electronic pollbook complies with all applicable requirements of the Code of Virginia and that it provides the functionality required by the Virginia State Board of Elections (SBE) and The Virginia Department of Elections (ELECT).</p> <ol style="list-style-type: none"> <li>1. Compliance with the Code of Virginia and the policies and regulations issued by the State Board of Elections (SBE) or Department of Elections (ELECT) must be substantiated through the State Certification Test conducted by an independent testing authority recognized by the National Institute of Standards and Technology (NIST); referred to in this document henceforth as VSTL</li> <li>2. Any modification to the hardware, software, firmware, infrastructure or any component of a certified EPB will invalidate the prior certification unless ELECT can review and provide an assurance to the SBE that the change does not affect the accuracy, reliability, security, usability or accessibility of the system; see Appendix J for the De Minimis Change Guideline that is applicable for hardware</li> <li>3. An EPB shall not contain the following voter registration data:               <ol style="list-style-type: none"> <li>a. DMV Customer Number</li> <li>b. Full or Partial Social Security Number</li> <li>c. Birth Month and Day</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. Same info available in 1.2. Specific Requirements and 2.1. State Certification Testing.</li> <li>2. Added specific requirements to align with National Institute of Standards and Technology (NIST) and Election Security Best Practices.</li> </ol>	
7	<p><b>Changed From/To:</b></p> <p><b>1.3.-Scope of Requirements Program</b></p> <p>1. The electronic pollbook system and equipment must comply with the provisions within the Code of Virginia and the Virginia Administrative Code relating to pollbooks, voting, and voter registration.</p> <p>2. The electronic pollbook system or equipment must comply with the provisions in the Code of Virginia relating to pollbooks (Chapter 6, Article 3 of Title 24.2).</p>	<p>Removed 1.3 Scope of Requirements Program.</p> <p>The entire section had same info available in 1.2. Specific Requirements</p>	No impact to current process.



	Description of Changes	Reason for changes	Implication
8	<p><b>Changed From/To:</b></p> <p><b>1.4. Applicability</b></p> <p><del>1. The procedures outlined in this document are applicable to all electronic pollbook systems first used on or after the effective date of this document.</del></p> <p><del>2. These procedures are intended to assist local jurisdictions in identifying electronic pollbook systems that meet all state requirements and are available for purchase based on any individual locality requirements.</del></p> <p><del>3. The requirements of these procedures are waived for any electronic pollbook system or equipment previously certified for and in use in the Commonwealth of Virginia on or before May 1, 2014. The State Board of Elections reserves the right to require re-certification of these systems or equipment at any future date.</del></p> <p><del>4. Any modification to the hardware, firmware, or software of an existing system which has previously been certified by the Virginia State Board of Elections in accordance with these procedures will, in general, invalidate the certification unless it can be determined by the State Board of Elections that the change does not affect the accuracy, reliability, security, usability or accessibility of the system.</del></p> <p><del>5. The intent of these procedures is to ensure that electronic pollbook systems have been shown to be reliable, accurate, usable, accessible and capable of secure operation before they are certified for use in the Commonwealth. EPB Systems with performance proven in commercial applications may be deemed acceptable, provided that they are shown to be compatible with the operational and administrative requirements of the election environment.</del></p> <p><del>Typically, the vendor will be required to provide documentation of a product's proven performance, such as test reports to comparable standards. Products not in wide commercial use, regardless of their performance histories, will require qualification, certification, and acceptance tests before they can be used.</del></p>	<p>Removed 1.4. Applicability.</p> <ol style="list-style-type: none"> <li>1. Not applicable.</li> <li>2. Same info available in Appendix C – Acceptance Test.</li> <li>3. Not applicable.</li> <li>4. Repeat of 2.2. EPB Hardware, Firmware, Infrastructure, or Component Elements.</li> <li>5. Same information is provided in Chapter 2: Basis for Certification.</li> <li>6. Now addressed in 2.2. EPB Hardware, Firmware, Infrastructure, or Component Elements.</li> <li>7. Not applicable.</li> <li>8. Recertification guideline information now available in Appendix F.</li> <li>9. Minimal change guidelines now available in Appendix J – De Minimis Change Guideline.</li> </ol>	<p>No impact.</p>



	Description of Changes	Reason for changes	Implication
	<p><del>6. Electronic pollbook systems generally utilize vendor designed software operating on a variety of commercial off-the-shelf hardware devices. Certification shall be provided to only similarly identical, and previously designated, hardware and operating systems at the time of certification.</del></p> <p><del>7. For the purpose of certification, web-based electronic pollbook systems that are operated via a web browser, must certify all requirements across all anticipated device platforms and browsers.</del></p> <p><del>8. Re-certification shall be required when a vendor makes significant changes or enhancements to its electronic pollbook system. This shall include, and not limited to, changes to:</del></p> <p style="padding-left: 20px;"><del>a. The programming language in which the certified software was written.</del></p> <p style="padding-left: 20px;"><del>b. The operating system(s). Minor updates to previously certified operating systems are excluded, however and SBE will determine if an update to a previously certified operating system is classified as major or minor and shall be consulted prior to any patching of an operating system. Generally, SBE will only seek certification of operating system updates if the update results in a risk to the interfacing systems used for the electronic pollbook device.”</del></p> <p><del>9. A currently certified EPB system vendor may submit an Electronic Pollbook System Feature Enhancement Review &amp; Recertification Waiver Request to the Virginia Department of Elections when the vendor believes that an enhancement to its currently certified electronic pollbook software does not warrant the necessity of a full certification review of the electronic pollbook system. The Virginia Department of Elections will prepare a summary for the Virginia State Board of Elections to determine if the request is approved. Vendors may submit a</del></p>		



	Description of Changes	Reason for changes	Implication
	<p>maximum of one request per system within a six month period. A chart of major and minor changes can be found in APPENDIX C.</p> <p><b>1.4. Recertification</b> See Appendix F for ELECT's guidelines on when EPB systems must go through recertification.</p>		
9	<p><b>1.5. DECERTIFICATION &amp; SUSPENSION</b> <del>The State Board of Elections reserves the right to reexamine and reevaluate any previously certified electronic pollbook system for any reason, at any time. Any previously certified electronic pollbook system that does not pass the re-certification testing will be decertified. An electronic pollbook system that has been decertified by SBE may not be used in elections in the Commonwealth. When sufficient evidence is provided indicating that a data security vulnerability is present in the software, SBE may suspend the usage of an electronic pollbook system pending the results of its recertification.</del></p> <p><b>1.3. Decertification</b> ELECT reserves the right to reexamine and reevaluate any previously certified EPB system for any reason at any time. Any previously certified electronic pollbook-EPB system that does not pass the recertification testing will be decertified. An electronic pollbook-EPB system that has been decertified by the SBE may not <b>cannot be used for in elections held in the Commonwealth of Virginia and cannot be purchased by localities to conduct elections.</b></p> <p>In addition, the SBE reserves the right to decertify the EPB systems if the vendor does not comply with any of the following requirements:</p> <ol style="list-style-type: none"> <li>1. Notify ELECT of any incident, anomaly or security-related breach experienced in an election jurisdiction, within 24 hours of knowledge</li> <li>2. Report to ELECT within 30 calendar days of knowledge of any changes to Corporate Information, including:             <ol style="list-style-type: none"> <li>a. Business Entity and Structure</li> <li>b. Parent and Subsidiary companies</li> <li>c. Capital or equity structure</li> <li>d. Control; identity of any individual, entity, partnership, or organization owning a controlling interest</li> </ol> </li> </ol>	<p>Moved to 1.3. Decertification.</p> <ul style="list-style-type: none"> <li>• Revised vendor provisions to include additional security requirements to implement the Elections Security Best Practices.</li> </ul>	<p>Additional security requirements for vendors to follow.</p>



	Description of Changes	Reason for changes	Implication
	<ul style="list-style-type: none"> <li>e. Investment by any individuals, entity, partnership, or organization in an amount that exceeds 5% of the vendor's net cash flow from the prior reporting year</li> <li>f. Location of manufacturing facilities; including names of third party vendor(s) employed to fabricate and/or assemble any component part of the voting and/or tabulating system being submitted for certification, along with the location of all of their facilities with manufacturing capability</li> <li>g. Third-party vendors</li> <li>h. Good Standing status</li> <li>i. Credit rating</li> </ul> <p>3. Submit any modifications to a previously certified EPB system to ELECT for review within 30 calendar days from modification; see Appendix H for appropriate reporting process</p> <p>4. If the operating system or any component has reached and/or will reach the Last Date of Mainstream Support within 18 months, as defined in Appendix H, send an upgrade plan with target date(s) to ELECT:</p> <ul style="list-style-type: none"> <li>a. ELECT must receive the upgrade plan at least 12 months before the Last Date of Mainstream Support</li> <li>b. The Last Date of Mainstream Support cannot include any type of Extended Support, as defined in Appendix H</li> <li>c. The EPB system may still automatically be decertified as defined in Appendix H</li> </ul> <p>5. Update all software with the latest patching and vulnerability updates in alignment with Appendix E.</p> <p><b>NOTE:</b> The SBE reserves the right to require recertification when changes to regulations and/or standards occur.</p>		
10	<p><b>Changed From/To:</b></p> <p><b>Part 2: Review and Approval Process</b></p>	<p>Removed Part 2: Review and Approval Process</p>	<p>Consistent with the current review process.</p>





	Description of Changes	Reason for changes	Implication
	<p><b>Chapter 2: Basis for Certification</b></p> <p><del>2.1.</del> <b>3.1. Summary of Process</b>  <del>These procedures are limited to those systems and equipment that are the final products that have been used in full production environment and available for immediate installation and use.</del> The certification review process goes through six phases. At the end of each phase, ELECT will evaluate the results to determine the certification status.  A total of six (6) steps have been established to carry out The Review and Approval Process. These steps are designed so that the State Board of Elections can, at any point, make a determination to continue the evaluation.</p> <p><b>Six Phases of the Certification Review Process:</b></p> <ol style="list-style-type: none"> <li>1. Certification Request from Vendor</li> <li>2. Preliminary Review</li> <li>3. Technical Data Package (TDP) to VSTL</li> <li>4. Certification Test Report from VSTL</li> <li>5. On-Site Testing in Mock Election</li> <li>6. Approval by the SBE.</li> </ol>	<p>Changed to Chapter 2: Basis for Certification  Moved 2.1. Summary of Process to 3.1. Summary of Process.</p> <p>Revised the Summary of Process to:</p> <p>Six Phases of the Certification Review Process:</p> <ol style="list-style-type: none"> <li>1. Certification Request from Vendor</li> <li>2. Preliminary Review</li> <li>3. Technical Data Package (TDP) to VSTL</li> <li>4. Certification Test Report from VSTL</li> <li>5. On-Site Testing in Mock Election</li> <li>6. Approval by the SBE.</li> </ol>	
11	<p><b>Changed From/To:</b></p> <p><del>2.2. Procedure for Certification</del>  The evaluation of the electronic pollbook system will proceed in the following steps:</p> <p><b>2.2. EPB Hardware, Firmware, Infrastructure, or Component Elements</b>  All equipment used in an EPB system shall be examined to determine its suitability for election use according to the appropriate procedures contained in this document. Equipment to be tested shall be identical in form and function with production units. Engineering or development prototypes are not acceptable. See Appendix G for hardware guidelines.  Any modification to existing hardware, firmware, infrastructure, or other components will invalidate the prior certification by the SBE unless ELECT can review and provide an assurance to the SBE that the change does not affect the accuracy, reliability, security, usability, or accessibility of the system. See Appendix J for the</p>	<p>Removed 2.2. Procedure for Certification.</p> <ul style="list-style-type: none"> <li>• Same information available in 3.1. Summary of Process and 3.2. Certification Review Process to identify vendor process for certification.</li> <li>• This section now includes a review of all hardware, firmware, infrastructure or other component elements of EPBs.</li> </ul>	<p>Expanded the scope of hardware, firmware, infrastructure, or component elements such as vendor-designed software for EPBs.</p>



	Description of Changes	Reason for changes	Implication
	<p>De Minimis Change Guideline that is applicable for hardware. EPB systems generally utilize vendor-designed software operating on a variety of commercial-off-the-shelf hardware devices. Certification shall be provided to only similarly identical, and previously designated, hardware and operating systems at the time of certification.</p>		
12	<p><b>Changed From/To:</b></p> <p><del><b>2.2.1. Step 1: Submit Letter of Request for Certification and Certification Fee</b></del> <b>Phase I: Certification Request from Vendor</b></p> <p>The certification evaluation procedure shall be initiated by a letter from the vendor of the electronic pollbook system to the Secretary of the State Board of Elections requesting certification. <b>A vendor will request a certification for either a specific electronic pollbook EPB system, or for a software, firmware, or hardware, and/or modification to a an existing certified electronic pollbook EPB system.</b></p> <p><del>Vendors must pay a certification fee of \$5,000.00 for Electronic Pollbook System certification and any other fees as required for requests for modifications to a previously certified electronic pollbook system. If SBE's actual costs for reviewing the vendor's submission exceed the amount of the initial fee, the vendor agrees to reimburse SBE for all additional costs incurred. All fees must be collected before certification will be granted.</del></p> <p><del>The State Board of Elections will notify the vendor of the earliest date after which the requested certification evaluation can begin. If the State Board of Elections finds any reason to deny the request, the vendor will be notified in writing and the certification fee will be returned. The This request to begin the certification process for an electronic pollbook system shall be a written letter addressed to: should include the following information:</del></p> <p style="padding-left: 40px;">Virginia Department of Elections Election Administration and Compliance Division 1100 Bank Street, 1st Floor Richmond, Virginia 23219 REV-0515-5</p> <p><b>I. Letter of Request for EPB Certification Components Application Form,</b></p>	<p>Removed 2.2.1. Step 1: Submit Letter of Request for Certification and Certification Fee.</p> <ul style="list-style-type: none"> <li>• Same information available in 3.2. Phase I: Certification Request from Vendor.</li> <li>• Additional documents required for further clarification of EPB system overview and TDP packet/Corporate Information packet.</li> </ul>	<p>Consistent with current review process.</p>



Description of Changes	Reason for changes	Implication
<p>The request shall be signed by a company officer and contain the following information; see Appendix I</p> <ul style="list-style-type: none"> <li>• Identification of the specific electronic pollbook system to be evaluated for certification. Each electronic pollbook system or version of an electronic pollbook system requires a separate request for certification. Each component of the hardware, firmware, and software must be identified by version number.</li> <li>• Copies of documents substantiating completion of certification by any other states' election administration agency. <ul style="list-style-type: none"> <li>2. A copy of the certification(s) from other state(s) for the proposed EPB</li> <li>3. Whether the proposed electronic pollbook EPB system has ever been denied certification or had certification withdrawn in any other state.</li> <li>4. Eight copies of a A-brief overview description of the electronic pollbook-EPB system: <ul style="list-style-type: none"> <li>a. Typical marketing brochures are usually sufficient for this description (4 copies).</li> </ul> </li> </ul> </li> <li>• The completed Ability to Comply form (Appendix B). <ul style="list-style-type: none"> <li>5. A list of all states where the proposed EPB system version is currently used</li> <li>6. A The vendor, VSTL and ELECT will review a statement of work that will results in the VSTL providing an estimate for the cost of testing. Testing will take place at the headquarters of the VSTL to limit the cost of testing. ELECT will give an estimate for their own staff to travel as well. Once this is agreed to, a check or money order for the non-refundable certification fee must be included with this request before any certification work begins. for an EPB system certification request and applicable fees for modifications to a previously certified EPB system, as applicable, will be paid. <ul style="list-style-type: none"> <li>a. All fees must be collected before the certification will be granted <ul style="list-style-type: none"> <li>i. Make checks or money order payable to Treasurer of Virginia</li> </ul> </li> </ul> </li> <li>7. TDP must clearly identify all items: <ul style="list-style-type: none"> <li>a. If the TDP is incomplete or the items in the package are not clearly</li> </ul> </li> </ul> </li> </ul>		



	Description of Changes	Reason for changes	Implication
	<p>identified, the entire package could be returned to the vendor</p> <p>b. Upon the receipt of the corrected TDP from the vendor, the evaluation of the EPB system will be rescheduled</p> <p>8. Corporate Information must clearly identify all items:</p> <p>a. If the Corporate Information is incomplete or the items in the package are not clearly identified, the entire package could be returned to the vendor</p> <p>b. The evaluation process will be rescheduled after the corrected package is received.</p> <p><b>NOTE:</b> The request package with the items above should be sent to the location indicated in Appendix B.</p>		
13	<p><del>1.2. Step 2: Submit a Technical Data Package and Corporate Information</del></p> <p>The vendor shall submit a Technical Data Package, Corporate Information, and other material described within this section of the document to an evaluation agent. The vendor will be supplied with the contact information of the evaluation agent.</p> <p>The evaluation agent will review the Technical Data Package, Corporate Information, and other materials provided and notify the vendor of any deficiencies. Certification of the electronic pollbook system will not proceed beyond this step until the Technical Data Package and Corporate Information are completely submitted.</p> <p><b>Technical Data Package Components</b></p> <p>Each item in the package must be clearly identified; if the TDP is incomplete or the items in the package are not clearly identified, the entire package may be returned to the vendor and the evaluation of the electronic pollbook system rescheduled.</p> <p>The TDP must contain the following items if they were not included in the TDP submitted:</p> <ol style="list-style-type: none"> <li>1. <b>Hardware Schematic Diagrams:</b> Schematic diagrams of all hardware</li> <li>2. <b>Hardware Theory of Operations:</b> Documentation describing the theory of operation of the hardware including power cords and backup battery</li> </ol>	<p>Moved TDP and Corporate Information to Chapter 3, Phase I: Technical Data Package</p> <ul style="list-style-type: none"> <li>• Expanded the TDP requirements to include the Election Security Best Practices; Hardware Schematic Diagrams; Hardware Theory of Operations; System architecture with network and infrastructure connectivity; Software Deviations; Independent Third-Party Application Penetration Analysis Report; Maintenance, Repair &amp; Troubleshooting Manual; User Guide and Manuals; and Maintenance Services, Pricing and Financing Options.</li> <li>• Replaced all references of Evaluation Agent to Voting Technology Coordinator.</li> </ul>	<p>Additional security requirements and documents for vendors.</p> <ul style="list-style-type: none"> <li>• Consistent with the current review process.</li> </ul>



Description of Changes	Reason for changes	Implication
<p>3. <i>System architecture with network and infrastructure connectivity</i>: Documentation to include system architecture, network, and data flow diagrams and to clearly specify all applicable components, cloud services and infrastructure connectivity</p> <p>4. <i>Software Deviations</i>: Include any exception(s) to the Security Content Automation Protocol (SCAP) checklist; document the reason why there is an exception and the mitigating controls/tools in place to secure the system</p> <p>5. <i>Software System Design</i>: Documentation describing the logical design of the software</p> <ul style="list-style-type: none"><li>a. This documentation should clearly indicate the various modules of the software such as:<ul style="list-style-type: none"><li>i. <del>Their</del> The list of functions</li><li>ii. System flowchart</li><li>iii. <del>Their</del> The interrelationships with each other of modules</li><li>iv. The list of data formats that the EPB system can import and export</li></ul></li><li>b. Clearly specify the operating system and version with:<ul style="list-style-type: none"><li>i. The Last Date of Mainstream Support</li><li>ii. SHA256 hash value, and modification</li></ul></li></ul> <p>6. <i>Software and Firmware Source Code</i>. A copy of the electronic pollbook EPB, software and firmware source code shall be provided. It shall be supplied in the form of a listing and in a machine-readable form on media that is readable by the electronic pollbook system. If there is any chance of ambiguity, the required compiler must be specified, including the operating system, directory structure of the source code, and a map to show how the source code was built into the final install files. The source code will be sent to the VSTL for review to VVSG standards and/or the vendor should supply VSTL report that the code was reviewed to the standards within the past year. If the operating system or any component has reached and/or will reach the Last Date of Mainstream Support within 18 months, as defined in Appendix H, send an upgrade plan with target date(s) to ELECT. The Last Date of</p>		



	Description of Changes	Reason for changes	Implication
	<p>Mainstream Support cannot include any type of Extended Support</p> <p>7. <i>Independent Third-Party Application Penetration Analysis Report</i>: An accredited application penetration test conducted, within the past 12 months, to analyze the system for potential vulnerabilities according to current industry standards. Potential vulnerabilities may result from poor or improper system configuration, known or unknown hardware or software flaws, or operational weaknesses in process or technical countermeasures. The test must involve active exploitation of security vulnerabilities of the EPB system, whether or not the vulnerabilities can be mitigated through compensating controls. Pursuant to Virginia Code § 24.2-625.1, the Penetration Analysis Report is confidential and excluded from inspection and copying under the Virginia Freedom of Information Act. If a penetration test has been conducted in another state within the past 12 months on the same version of the EPB system, then that may be submitted to fulfill this requirement.</p> <p>8. <i>Customer Maintenance, Repair &amp; Troubleshooting Manual Documentation</i>: Documentation describing any maintenance that the vendor recommends can be performed by a customer with minimal knowledge of the system that is normally supplied to the customer for use by the person(s) who will provide maintenance, repair and troubleshooting of the system</p> <p>9. <i>Operations Manual</i>: Documentation that is normally supplied to the customer for use by the person(s) who will operate the system</p> <p><del>Recommended Use Procedures</del>. Specific election administration procedures recommended for use with the system.</p> <p>10. <i>User Guide and Documents</i>: The vendor should provide the following:  a. A quick reference guide with detail instructions for a precinct election</p>		



	Description of Changes	Reason for changes	Implication
	<p>officer to set up, use, and shut down the EPB system</p> <p>b. Clear model of EPB system architecture with the following documentations:</p> <ul style="list-style-type: none"> <li>i. End User Documentation</li> <li>ii. System-Level and Administrator-Level Documentation</li> <li>iii. Developer Documentation</li> </ul> <p>c. Failsafe data recovery procedures for information in the EPB system</p> <p>d. A list of customers who are using or have previously used the EPB system</p> <ul style="list-style-type: none"> <li>i. The description of any known incidents or anomalies involving the functioning of the EPB system, including how those incidents or anomalies were resolved with customer and date</li> </ul> <p>• <i>Customer Documentation.</i> A complete set of all documentation which is available to the purchaser/user of the electronic pollbook system. Clearly identify the documentation that is included in the cost of the system and the documentation that is available for an additional charge.</p> <p>• <b>II. Recommended Security Practices:</b> Documentation of the practices recommended by the vendor to ensure the optimum security and functionality of the system. <b>CIS Security Best Practices</b>, including:</p> <ul style="list-style-type: none"> <li>a. System Security Architecture</li> <li>b. System Event Logging</li> <li>c. System Security Specification</li> <li>d. Security Content Automation Protocol (SCAP)</li> <li>e. Cryptography</li> <li>f. Equipment and Data Security</li> <li>g. Network and Data Transmission Security</li> <li>h. Access control</li> <li>i. Authentication procedure</li> <li>j. Software</li> <li>k. Physical Security</li> </ul>		



	Description of Changes	Reason for changes	Implication
	<p>12. <i>Standard Contract, Product Support and Service Level Agreement (SLA)</i>: Statement of deliverables to include: verification statement that equipment purchased is identical to equipment certified by the State Board of Elections, software licenses, warranties, support services provided, etc. and associated cost of each. Customer and Technical Support hours and contact information. The SLA should specify the escalation timeline and procedure with contact information. Vendor's capacity to provide, including:</p> <ul style="list-style-type: none"> <li>a. On-Site Support and Technical Support within the SLA on: <ul style="list-style-type: none"> <li>i. Election Day (defined as the start of the Early Voting period up to and including Election Day; see Appendix K)</li> <li>ii. Within 60 days before Election Day</li> </ul> </li> <li>b. Resolution to outstanding issue(s), repair, maintenance and service requests within 30 days</li> </ul> <p>13. <i>Maintenance Services, Pricing and Financing Options</i>: A list of maintenance services with price. Terms for replacing a component or EPB system. Available financing options for purchase or lease</p> <p>14. <i>Warranty</i>: The vendor should provide a list of warranty specifications to include the following:</p> <ul style="list-style-type: none"> <li>a. The period and extent of the warranty</li> <li>b. The method of Repair / or Replacement for all hardware items <ul style="list-style-type: none"> <li>i. The circumstances under which equipment is replaced rather than repaired</li> <li>ii. The method by which a user requests such replacement; additional warranties that are available over and above the standard warranty</li> </ul> </li> <li>c. Warranty coverage and costs what these warranties cover, and their costs; the period and extent of warranty and the method of correction or replacement for all software provided as part of the electronic pollbook system; and</li> </ul>		





	Description of Changes	Reason for changes	Implication
	<p>d. Technical documentation of all hardware and software that is used to certify that the individual component will perform in the manner and for the specified time</p> <ul style="list-style-type: none"> <li>15. <i>Software License Agreement.</i> The software license agreement must be perpetual. An annual renewable support fee may be included as an option.</li> <li>16. <i>Test Data and Software.</i> Any available test data and/or software that can be used to demonstrate the various functions of the electronic pollbook system or verify that the version of the applications submitted are identical to the versions that will be certified. Vendor's internal quality assurance procedure, internal or external test data and reports, and software that can be used to demonstrate the various functions of the EPB system. Vendor should also verify that the version of the applications submitted are identical to the versions that have undergone the certification testing; for example, hash testing tools.</li> <li>17. <i>Non-Disclosure Agreement:</i> If applicable.</li> </ul> <p>If the electronic pollbook system is certified, the State Board of Elections will retain all contents of the Technical Data Package as long as the electronic pollbook system is marketed or used in the Commonwealth of Virginia.</p> <p><b>NOTE:</b> If the EPB system is certified, ELECT will retain the TDP as long as the EPB system is marketed or used in the Commonwealth of Virginia.</p>		
14	<p><b>Corporate Information Components</b> Before evaluation can begin, the vendor must submit to the evaluation agent the Corporate Information as detailed below with each item clearly identified. If the Corporate Information is incomplete or the items in the package are not clearly identified, the entire package may be returned to the vendor and evaluation of the electronic pollbook system rescheduled.</p>	<p>Additional information to evaluate financial stability.</p> <ul style="list-style-type: none"> <li>Added third-party vendor(s) to understand all contractors &amp; Third Party vendors employed to manufacture the EPB system.</li> <li>To ensure that the similar quality assurance is provided for all servicing requests.</li> </ul>	<p>Additional Corporate Information for vendors to submit.</p>



Description of Changes	Reason for changes	Implication
<p>The Corporate Information <del>shall</del> <b>must</b> contain the following items:</p> <ul style="list-style-type: none"> <li>• <b>1. History and description of the business including the year established, products and services offered, areas served, branch offices, subsidiary and parent companies, capital and equity structure, identity of any individual, entity, partnership, or organization owning a controlling interest, and the identity of any investor whose investments have an aggregate value that exceeds more than 5% of the vendor's net cash flow in any reporting year</b></li> <li>• <b>2. Management and staff organization, number of full time employees by category, number of part-time employees by category, resumes of key employees who will assist Virginia localities in acquiring the system if it is authorized for use.</b></li> <li>• <b>3. Audited Report of the business' most current Certified financial statements for current and past three (3) fiscal years.</b> <ul style="list-style-type: none"> <li>a. <b>If the vendor is not the manufacturer of the EPB system, then submit the certified financial statements of the manufacturer for the past three (3) fiscal years</b></li> </ul> </li> <li>• <b>4. Bank Comfort Letter from the business' primary bank vendor's primary financial institution.</b> <ul style="list-style-type: none"> <li>a. <b>If the business vendor uses more than one financial institution, multiple Comfort Letters must be submitted.</b></li> </ul> </li> <li>• <b>5. Certificate of Good Standing issued within 2 months</b></li> <li>• <b>6. Credit rating issued within 2 months</b></li> <li>• <b>7. If publicly traded, indexes rating of the business debt</b></li> <li>• <b>8. Gross sales in voting EPB products and services for the past three (3) years and the percent that is representative of the vendor's total sales of the business and its subsidiaries.</b></li> <li>• <b>9. The location of all facilities with manufacturing capability; including names of the third-party vendor(s) that are employed</b></li> </ul>		



	Description of Changes	Reason for changes	Implication
	<p>to fabricate and/or assemble any component part of the EPB system being submitted for certification, along with the location of all of their facilities with manufacturing capability</p> <p><b>10.</b> The location and servicing capability of each service facility that will be used to service the electronic pollbook EPB system for certification and the service limitation of the facility-</p> <p><b>11.</b> Quality assurance process used in the manufacturing and servicing of the electronic pollbook EPB system.</p> <p><b>12.</b> Configuration management process used with the electronic pollbook EPB system.</p> <p><b>NOTE:</b> If the EPB system is certified, ELECT will retain the Corporate Information as long as the EPB system is marketed or used in Virginia. ELECT will sign a statement of confidentiality for Corporate Information only.</p>		
15	<p><b>Changed From/To:</b></p> <p><b>2.2.2. Proprietary Information</b>  <del>The vendor must clearly mark any information it requests. Prior to or upon submission of its certification request, the vendor shall identify any information in its request and/or accompanying materials that it believes should be treated as confidential and proprietary before providing it to Virginia representatives for evaluation. Stating that the entire package is proprietary will be insufficient. All pages of the documentation that contain information the vendor considers proprietary information must be clearly marked as such. Furthermore, the vendor must state the reasons why such information should be treated as confidential and proprietary.</del></p> <p>“Identify” means that the information must be clearly marked with a justification as to why the information should be treated as confidential and proprietary information. A vendor shall not designate as proprietary information (a) the entire certification request or (b) any portion of the certification request that does not contain trade secrets or proprietary information.</p> <p>The State Board of Elections ELECT cannot guarantee the extent to which any material provided will be exempt from disclosure in litigation or otherwise. ELECT, however, agrees</p>	<p>Moved 2.2.2. Proprietary Information to 3.2. Phase I: Certification Request from Vendor.</p> <ul style="list-style-type: none"> <li>Additional information to clarify vendor’s and ELECT’s responsibilities.</li> </ul>	<p>Consistent with current review process.</p> <ul style="list-style-type: none"> <li>Vendor could be impacted if they do not respond to a notification from ELECT within the 5-day period.</li> </ul>



	Description of Changes	Reason for changes	Implication
	<p>to provide the vendor with five (5) days' notice prior to disclosing such material to third parties so that the vendor has the opportunity to seek relief from a court prior to the disclosure of such materials by ELECT.</p> <p><del>Any non-profit or government agency, including the Virginia State Board of Elections, shall be exempt from sections 2.2.1 and 2.2.2 of this document, at the discretion of the Virginia State Board of Elections.</del></p>		
16	<p><b>Changed From/To:</b></p> <p><del>2.2.3. Step 3: Allow for Preliminary Review</del>  <b>Phase 2: Preliminary Review</b>            The Voting Technology Coordinator or designee will review the Technical Data Package, TDP, Corporate Information, and other materials provided and prepare an Evaluation Proposal containing the following information: notify the vendor of any deficiencies. Certification of the EPB system will not proceed beyond this phase until the TDP and Corporate Information are complete.</p> <p>The Voting Technology Coordinator or designee will notify the vendor to submit the following for evaluation:</p> <ol style="list-style-type: none"> <li>1. Production working model of the EPB to run through all phases of testing, including:               <ol style="list-style-type: none"> <li>a. All hardware, software and firmware necessary to run the EPB</li> <li>b. Software shall be provided in a format readable by the EPB hardware that is being submitted for certification</li> <li>c. All commercial-off-the-shelf software and necessary drivers, including the operating system, any software applications for logging, reporting, printing, etc.</li> <li>d. All peripheral devices, including those required for usability and accessibility</li> <li>e. Any other components recommended by the manufacturer for use</li> </ol> </li> <li>2. Copy of the Test documents from prior VSTL certification testing, including Test Plan, Test Report, Test Procedures, and Test Cases</li> <li>3. A release to the VSTL to respond to any requests for information from the Commonwealth of Virginia</li> </ol>	<p>Added TDP to Voting Systems Test Laboratory (VSTL) to Phase 3.</p> <ul style="list-style-type: none"> <li>• Replaced all references for the evaluation agent to Voting Technology Coordinator. Removed the Evaluation Agent from Appendix A – Glossary.</li> </ul> <p>This information is not correct. The Voting Technology Coordinator does this task; an independent outside consultant does not complete this task.</p>	<p>Consistent with the current review process.</p>



	Description of Changes	Reason for changes	Implication
	<p>4. A release to other states which have decertified the system or prior versions of the system to respond to any requests for information from the Commonwealth of Virginia</p> <p>5. Any other materials and equipment deemed necessary by ELECT</p> <p>The Voting Technology Coordinator or designee will conduct a preliminary analysis of the TDP and the EPB System with VSTL. The Voting Technology Coordinator or designee will also review the Corporate Information and other materials to prepare an Evaluation Proposal, which includes:</p> <ul style="list-style-type: none"> <li>1. Components of the electronic pollbook EPB system requiring evaluation: to be certified <ul style="list-style-type: none"> <li>• Identification of any additional materials needed to ascertain financial stability and capabilities of the vendor to maintain support of the electronic pollbook system.</li> </ul> </li> <li>2. Financial stability and sustainability of the vendor to maintain product support and contractual agreement for the EPB system <ul style="list-style-type: none"> <li>• Description of the activities required to complete the portion of the evaluation performed by the evaluation agent.</li> <li>• Estimate of time required to complete the portion of the evaluation performed by the evaluation agent.</li> </ul> </li> <li>3. Preliminary analysis of TDP</li> </ul> <p><b>Phase 3: Technical Data Package to Voting Systems Test Laboratory</b></p> <p>In addition, the vendor should submit the TDP to the Voting Technology Coordinator, who shall provide the TDP to the VSTL following review.</p>		
17	<p><b>Changed From/To:</b></p> <p><del>2.2.4. Step 4: Receive Authorization to Proceed</del></p> <p>The vendor will review the Evaluation Proposal and notify the Virginia Department of Elections, in writing, of the desire to continue or terminate the evaluation process. A copy of this notification will be sent to the evaluation agent.</p> <p><b>Phase 4: Certification Test Report from VSTL</b></p> <p>VSTL will work directly with the vendor and ELECT designee to complete all test assertions</p>	<p>Removed Step 4: Receive Authorization to Proceed. The current review process does not include these steps.</p> <p>Revised the review process to:</p> <p>Six Phases of the Certification Review Process:</p> <ol style="list-style-type: none"> <li>1. Certification Request from Vendor</li> <li>2. Preliminary Review</li> <li>3. Technical Data Package (TDP) to VSTL</li> </ol>	<p>Consistent with the current review process.</p>



	Description of Changes	Reason for changes	Implication
	<p>and test cases and the Certification Test Report will be sent to ELECT upon completion.</p> <p><b>2.2.5. Step 5: Test/Pilot Election</b> The State Board of Elections will supervise a test use of the system in an actual election with the vendor present prior to final certification.</p> <p><b>Phase 5: On-Site Testing in Mock Election</b> ELECT will coordinate with a local jurisdiction to test the EPB system in a Mock Election. With the vendor present, the Electoral Board members from the local jurisdiction along with ELECT will oversee the test use of the system in a Mock Election.</p> <p><b>2.2.6. Step 6: Certification</b> <b>Phase 6: Approval by the SBE</b> Based on the information contained in the report from the VSTL evaluation agent, the results from the On-Site Testing in Election and Technical Requirements Evaluation, the Test Election, Virginia Functional Configuration Audit, and any other information in their possession, the State Board of Elections SBE will determine will decide whether the proposed electronic pollbook EPB system will be certified for use in the Commonwealth of Virginia. and notify the vendor of the decision. The decision will be sent to the vendor.</p>	<ol style="list-style-type: none"> <li>4. Certification Test Report from VSTL</li> <li>5. On-Site Testing in Election</li> <li>6. Approval by the SBE.</li> </ol>	
18	<p><b>2.3. AUDIT AND VALIDATION OF CERTIFICATION</b></p> <p><b>Appendix C – Acceptance Test</b></p> <p><b>Audit and Validation of Certification</b></p> <p>It is the responsibility of both the vendor and the local jurisdiction to ensure that an electronic pollbook EPB system, that is supplied or purchased for use, in the Commonwealth of Virginia has been certified by the State Board of Elections SBE. It is the responsibility of the vendor to submit any modifications to a previously certified electronic pollbook EPB system to the State Board of Elections ELECT for review.</p> <p>If any questions arise involving the certification of an electronic pollbook EPB system in use in Virginia, SBE ELECT shall verify that the electronic pollbook EPB system in use is in fact identical to the electronic pollbook EPB system that was submitted for certification. Any unauthorized</p>	<p>Audit and Validation of Certification moved to Appendix C – Acceptance Test</p> <ul style="list-style-type: none"> <li>• This section belongs to Acceptance Test as a procurement guide for local jurisdictions.</li> <li>• Same information available.</li> </ul>	<p>Consistent with the current procurement procedure. No impact.</p>



	Description of Changes	Reason for changes	Implication
	<p>modifications to a certified system may result in decertification of the system by the SBE or bar an electronic pollbook EPB system vendor from receiving certification of electronic pollbook EPB systems in the future with the Commonwealth of Virginia.</p>		
19	<p><b>Changed To/From:</b></p> <p><b>2.4. TIME FRAME</b>  <del>The State Board of Elections reserves the right to terminate the certification process at any time if the vendor fails to proceed in a timely manner. In particular, if a period of three months expires between any request for information by the Board or its evaluation agent and the vendor's response to that request, the Board will terminate the certification process. If the certification process is terminated under this provision, the vendor will forfeit any fees received by SBE. Any certification process terminated under this provision must be re-initiated from Step 1, Section 2.2: Procedure for Certification. The certification process is also terminated when:</del>  <del>a. SBE issues a determination regarding certification;</del>  <del>b. The Vendor withdraws from the process; or</del>  <del>c. The system fails the certification test; or</del>  <del>d. The vendor cannot conduct the certification testing with the equipment on-hand.</del>  <del>The process can only be re-initiated from Step 1, Section 2.2.: Procedure for Certification, if the process is terminated under conditions b, c, or d.</del></p> <p><b>3.3. Incomplete Certification Process</b>          If the certification process is terminated, the vendor will forfeit all fees received by ELECT. Any certification process terminated under this provision must be re-initiated from Phase I. The vendor is responsible to pay all outstanding balance due to ELECT before ELECT accepts subsequent requests from the vendor. ELECT reserves the right to terminate the certification process when:</p> <ol style="list-style-type: none"> <li>1. Vendor does not respond to a request from ELECT within 90 days</li> <li>2. ELECT issues any concerns regarding the certification</li> <li>3. The Vendor withdraws from the process</li> <li>4. The system fails the VSTL certification test</li> </ol>	<p>Clarify vendor's and ELECT's responsibilities.</p>	<p>Consistent with the current review process.</p> <ul style="list-style-type: none"> <li>• Vendor could be impacted if they don't respond to a request from ELECT within 90 days.</li> </ul>



	Description of Changes	Reason for changes	Implication
	<p>5. The test lab cannot conduct the certification testing with the equipment on-hand</p>		
20	<p><b>2.4. Early Voting Connection Requirements</b></p> <p>Beginning in November 2020, pursuant to the Code of Virginia, Title 24.2 Elections, Chapter 7. Absentee Voting, Virginia will have a no-excuse absentee in person voting period, referred to as Early Voting.</p> <p>The new law also allows electoral boards the opportunity to provide additional locations within their locality for all Early Voting activities. Based on the number of registered voters, each locality’s electoral board will determine whether to open additional Early Voting locations. Any registered voter within each locality can vote at any one of the Early Voting locations within the specified period prior to Election Day. This requires each locality to have secure connectivity to the voter registration information (VRI) throughout the Early Voting period to:</p> <ol style="list-style-type: none"> <li>1. Confirm the person is eligible to vote in the election</li> <li>2. Confirm the person has not previously voted in the election</li> <li>3. Record voter history in real-time.</li> </ol> <p>Reference Appendix K for an additional list of security-related requirements that are applicable only for those vendors choosing to host EPBs in the Cloud, as a part of their solution for managed connectivity to/from locality devices during this Early Voting period.</p>	<p>New section covers the background and the requirements for EPBs that will be used during the Early Voting Period</p>	<p>If EPBs will be used for the Early Voting process then the requirements outlined here and in Appendix K must be met or the localities will not be able to enter into a contract with the vendor for that use.</p>
21	<p><b>PART 3: CERTIFICATION</b></p> <p><b>3.1. CERTIFICATION OVERVIEW</b></p> <p>There are two distinct elements of testing that an electronic pollbook system must successfully complete before it can be certified for use in the Commonwealth of Virginia. These two levels are a Technical Requirements Evaluation, Virginia Functional Configuration Audit, and Acceptance Testing.</p> <p>The Technical Requirements Evaluation is performed to ensure that the electronic pollbook system complies with any statutory and administrative requirements pertaining to data security and usage.</p>	<p>Changed 3.1. Certification Overview to 3.1. Summary of Process and removed 3.2. Technical Requirements Evaluation.</p> <ul style="list-style-type: none"> <li>• Not consistent with the current certification process.</li> <li>• Same information available in State Certification Testing and Preliminary Review.</li> <li>• Acceptance Testing moved</li> </ul>	<p>Consistent with the current certification review process.</p>





	Description of Changes	Reason for changes	Implication
	<p>The Functional Configuration Audit is performed to assure that the electronic pollbook system complies with statutory, administrative, and operational requirements set forth by the State Board of Elections.</p> <p>The Acceptance Testing is a locality event that will be completed after the electronic pollbook system is delivered to a locality to ensure that the system is functionally identical to the system that was certified.</p> <p><b>3.2. TECHNICAL REQUIREMENTS EVALUATION</b></p> <p>Prior to, or concurrently with, providing its electronic pollbook system to the State Board of Elections for a Functional Configuration Audit, the vendor shall submit its electronic pollbook system to a VSTL to verify functionality, stability, and applicability of the elements of the electronic pollbook system as set forth in this document. The primary goal of the Technical Requirements Evaluation is to determine if the electronic pollbook system appropriately and securely warehouses, manages, and transfer voter registration data in compliance with the standards set forth by this document.</p> <p>To support a review of Technical Requirements Evaluation, the following documents shall be provided to SBE:</p> <ol style="list-style-type: none"> <li>1. A full copy of the Technical Data Package (TDP);</li> <li>2. A copy of the Test Plan, Test Report and all Test Procedures and Test Cases from the VSTL;</li> <li>3. A release to the VSTL to respond to any requests for information from all agencies in the Commonwealth of Virginia;</li> </ol> <p>REV-0515-12</p> <ol style="list-style-type: none"> <li>4. A release to other state election administration agencies which have certified the system or prior versions of the system to respond to any requests for information from the Commonwealth of Virginia; and</li> </ol>	<p style="text-align: center;">to Appendix C.</p>	
22	<p><b>Changed From/To:</b></p> <p><b>3.2.1. 2.2. Electronic Pollbook EPB System Hardware, Firmware, Infrastructure, or Component Elements</b></p> <p>All equipment used in the electronic pollbook <b>an EPB system shall be examined to determine if it is its suitable suitability</b> for election use according to</p>	<p>Moved 3.2.1. Electronic Pollbook System Hardware Elements to 2.2. EPB System Hardware, Firmware, Infrastructure, or Component Elements</p> <ul style="list-style-type: none"> <li>• This section now includes a review of all Firmware,</li> </ul>	<p>Expanded the scope of hardware elements such as EPB desktops.</p>



	Description of Changes	Reason for changes	Implication
	<p>the appropriate procedures contained within this document. Equipment to be tested shall be identical in form and function with production units. Engineering or development prototypes are not acceptable. See Appendix G for hardware guidelines.</p> <p>Any modifications to existing hardware, firmware, infrastructure, or other components that has been previously certified by SBE will invalidate the prior certification unless it can be determined by the State Board of Elections SBE that the change does not affect the unless ELECT can review and provide an assurance to the SBE that the change does not affect the accuracy, reliability, security, usability, or accessibility of the system. See Appendix J for the De Minimis Change Guideline that is applicable for hardware.</p> <p>EPB systems generally utilize vendor-designed software operating on a variety of commercial-off-the-shelf hardware devices. Certification shall be provided to only similarly identical, and previously designated, hardware and operating systems at the time of certification.</p> <p>The Virginia SBE recognizes that most EPB vendors develop simple software solutions to be applicable to a variety of commercial-off-the-shelf (COTS) hardware elements that are traditionally chosen by its customers. It is because of this, SBE will only certify an EPB System on current or profoundly similar hardware platforms. A profoundly similar hardware platform shall be any device capable of running the identical version of the operating system as that being certified. If the vendor is providing a “web-based” EPB solution, the system may only be certified on the devices that are submitted to the VSTL and SBE for the testing.</p>	<p>Infrastructure, and Component Elements of an EPB system.</p>	
23	<p><b>Changed From/To:</b></p> <p><del>3.2.2.</del> <b>2.3. Electronic Pollbook EPB System Software Elements</b></p> <p>All elements of the electronic pollbook EPB system software shall be examined and tested to ensure that it adheres to the performance standards specified within this document. EPB Desktop applications must be compatible with all computers, devices, operating system, platforms as specified in the system requirements. See Appendix D for software requirement test assertions. This shall include but is not limited to,</p>	<p>Moved 3.2.2. Electronic Pollbook System Software Elements to 2.3 EPB System Software Elements.</p> <ul style="list-style-type: none"> <li>Includes additional requirements to implement the Elections Security Best Practices.</li> </ul>	<p>Consistent with the current review process.</p>



	Description of Changes	Reason for changes	Implication
	<p>the firmware/operating system/platform of all hardware elements;</p> <p>Modifications Any modifications to existing software that has been previously certified by SBE will invalidate the prior certification by the SBE unless it can be determined by the State Board of Elections ELECT can review and provide an assurance to the SBE that the change does not affect the accuracy, reliability, security, usability or accessibility of the system. See Appendix J for the De Minimis Change Guideline that is applicable for software.</p> <p>If the vendor wishes to provide a single feature enhancement to a previously certified system, the vendor shall have the opportunity to provide documentation and certification that the code and algorithms previously certified were not substantially altered to facilitate the addition of the single feature. Vendors may submit only one single feature enhancement within a six month window without the necessity to recertify the entire EPB System.</p> <p>If the EPB system's operating system requires a modification after the system is certified the system shall maintain its certification with the operating system update, so long as the modification is provided solely to the operating system, the vendor provides notification of the modification of operating systems prior to their installation, and the update is provided directly from the operating system developer (ie Microsoft, Apple, or Android). This shall apply only to minor version numbers of operating systems. See Appendix C.</p> <p>The vendor shall submit to SBE, along with the operational version of the software, the source code and version change logs its electronic pollbook software at time of testing or modification.</p> <p>SBE will not allow any EPB software wholly or containing components utilizing Alpha or Beta versions of software or programs to be tested. The Virginia Department of Elections shall work directly with the VSTL to determine the specific manner in which the electronic pollbook system shall be evaluated with regards to the listing of the requirements in section 3.3.1 and 3.3.2 of this document and the features of the electronic pollbook system.</p>		



	Description of Changes	Reason for changes	Implication
24	<p><b>Changed From/To:</b></p> <p><b>3.3. VIRGINIA FUNCTIONAL CONFIGURATION AUDIT</b></p> <p><b>2.1. State Certification Testing</b></p> <p>State certification testing is intended to verify that <b>will evaluate</b> the design and performance of an the electronic pollbook EPB system being certified <b>seeking certification to ensure that it complies</b> with all applicable requirements of in the Code of Virginia and the SBE and ELECT regulations and policies. ELECT will examine the essential system functions, operational procedures, user guides, documents, certification reports from other states, and reviews from product users. The certification test is not intended to require exhaustive tests of system hardware and software attributes; these are evaluated during the Technical Requirements Audit. However, all system functions, which are essential to the conduct of an election, will be evaluated. An important focus of Virginia Functional Configuration Audit is to review the operation of the EPB system. This review requires making inquiries of other users of the system. State certification reports and other evaluations of the system are read and analyzed for insight into the suitability of the system for use in Virginia. The recommended use procedures are examined along with the EPB system to determine how well the system will integrate into Virginia election law and management practices.</p> <p><b>The EPB system must demonstrate accuracy, reliability, security, usability and accessibility throughout all testing phases.</b></p> <p>Testing is performed to evaluate the system with respect to the specific practices of Virginia. <b>State Certification Testing will evaluate examine</b> all system operations and procedures that, including:</p> <ul style="list-style-type: none"> <li>a. <b>1.</b> Receive and process data containing applicable the voter registration and election information;</li> <li>b. Receive and process data containing applicable polling place information;</li> <li>c. Receive and process data containing applicable election information;</li> <li>d. Verify system readiness for operation;</li> <li>e. <b>2.</b> Accurately maintain whole and separate count(s) of voters distinguishable by: <ul style="list-style-type: none"> <li>a. <b>Ballot Style(Voter’s Party/primary, Precinct, Precinct Split)</b></li> </ul> </li> </ul>	<p>Moved to 2.1. State Certification Testing.</p> <ul style="list-style-type: none"> <li>• Updated requirements to align with Elections Security Best Practices.</li> </ul>	<p>Additional vendor security requirements.</p>



	Description of Changes	Reason for changes	Implication
	<ul style="list-style-type: none"> <li>b. Curbside Voter</li> <li>c. Challenged Voter</li> <li>d. Voter Status</li> <li>e. Provisional</li> <li>f. Absentees</li> <li>g. Early Voting</li> </ul> <p>3. Provide an intuitive and easy to navigate user interface</p> <p>f. 4. Perform data and operational integrity safeguard tests including:</p> <ul style="list-style-type: none"> <li>i. <del>Removal and replacement of EPB units and other components;</del> <ul style="list-style-type: none"> <li>a. Ability to add or remove new units without disturbing the existing units</li> <li>b. Power supply and battery life with an option to display power usage</li> <li>c. Display an appropriate message when the EPB device is operating at less than 20% of remaining power</li> <li>d. Display an appropriate error message when the EPB fails to check in a voter</li> </ul> </li> <li>ii. <del>Variable power source evaluation(s);</del></li> <li>g. <del>Obtain data and audit data reports; and</del></li> <li>h. <del>Support recount or election audits.</del></li> </ul> <p>5. Capacity/Load Test Report to include the maximum number of voters that the configuration/network setting can handle</p> <p>6. Performance Report to include the optimal duration of check in process per voter</p> <p>7. System monitoring and notification of system errors, including: <ul style="list-style-type: none"> <li>a. Perform a self-test for peripheral connectivity</li> <li>b. Visible display indicating power supply/battery life</li> <li>c. Visible display indicating system connections</li> </ul> </p> <p>8. Data preservation and redundancy to maintain a printable checklist format of the voter registration record and voter activity record on a removable storage. When one to all of the EPBs become inoperable, and if there is not an alternate recovery means available then the removable storage must reflect the voter activity record at that moment and can be used to continue with election</p> <p>9. During an interruption of network connection, EPBs should retain and synchronize all voter activities upon restoration of connectivity</p>		



	Description of Changes	Reason for changes	Implication
	<p>10. Support the industry standard for clean wipe method remotely and manually</p> <p>11. Transaction Logging and Audit Reports including the following details:</p> <ol style="list-style-type: none"> <li>Log all changes to EPB post the initial download</li> <li>Transactions at the polling places</li> <li>Export logs in a readable format</li> <li>The EPB's audit log(s) must be encrypted, track all transactions and include a date/time stamp</li> </ol> <p>12. All modules and data are cryptographic and are FIPS 140-2 v1 compliant including at rest and in transit</p> <p>13. Comply with the latest NIST SP 800-63B or better digital identity guidelines for authentication and lifecycle management</p> <p>14. Harden the EPB system using the vendor's procedures and specifications.</p> <p>The test environment will include the preparation and operation of election and voting databases, and the validation, consolidation, and reporting of administrative and voter credit data as required by law.</p> <p>The state may perform hash testing of applications software to verify that the versions provided by the vendor are identical to the versions that have undergone Technical Requirements Evaluation.</p>		
25	<p><b>3.3.1. Chart of Statutory Requirements</b></p> <p>The chart below details EPB functional requirements as designated by statutory standings contained within The Code of Virginia, Title 24.2. Elections.</p> <p>For the purpose of this chart, the following terms shall apply:</p> <p>EPB System—an entire software and hardware solution (including networking and peripheral devices) that consists of an election management module and deployed scalable and networkable Precinct EPBs.</p> <p>Precinct EPB—a software and hardware solution (including networking and peripheral devices) that are operated specifically within a precinct for the purpose of checking voters into the polling place(s).</p> <p>VERIS—The Virginia Elections and Registration Information System. This is the online voter registration and election management portal used</p>	<p>Removed 3.3.1. Chart of Statutory Requirements and 3.3.2. Chart of Operational &amp; Technical Requirements.</p> <ul style="list-style-type: none"> <li>Appendix D – Test Assertions now includes EPB statutory, functional, system, security, and audit requirements as contained within The Code of Virginia.</li> </ul>	<p>Consistent with the current review process.</p>



	Description of Changes	Reason for changes	Implication
	<p>by SBE and ELECT to manage voters and elections:</p> <p><b>3.3.2. Chart of Operational &amp; Technical Requirements</b></p> <p>The chart below details EPB operational and technical requirements as determined necessary for the effective use of EPB systems in Virginia. For the purpose of this chart, the following terms shall apply:</p> <p><b>EPB System</b>—an entire software and hardware solution (including networking and peripheral devices) that consists of an election management module and deployed scalable and networkable Precinct EPBs.</p> <p><b>Precinct EPB</b>—a software and hardware solution (including networking and peripheral devices) that are operated specifically within a precinct for the purpose of checking voters into the polling place(s).</p> <p><b>VERIS</b>—The Virginia Elections and Registration Information System. This is the online voter registration and election management portal used by SBE and ELECT to manage voters and elections.</p>		
26	<p><b>Changed From/To:</b></p> <p><b>3.4. ACCEPTANCE TEST</b></p> <p><b>Appendix C – Acceptance Test</b></p> <p>Acceptance Tests will be conducted by the local jurisdiction, with the assistance of state. Acceptance testing will be performed as part of the procurement process for the electronic pollbook system.</p> <p>As required by the Code of Virginia §24.2-629 (E) and the procurement process, the local jurisdiction with the assistance of state officials or consultants will conduct the Acceptance Test. The local jurisdiction will conduct tests to confirm that the purchased or leased system to be installed is identical to the certified system and that the installed equipment and/or software are fully functional and capable of satisfying the administrative and statutory requirements of the jurisdiction.</p> <p>The local jurisdiction will examine that the purchased or leased system to be installed is <u>identical</u> to the certified system and that the installed equipment and/or software are fully functional and compliant with the administrative and statutory requirements of the jurisdiction.</p>	<p>Removed the Acceptance Test from Part 3: Certification.</p> <ul style="list-style-type: none"> <li>• SBE/ELECT certifies an EPB system based on State compliance testing results only.</li> <li>• Moved 3.4. Acceptance Test to Appendix C – Acceptance Test.</li> </ul>	<p>The old certification standard is incorrect to include Acceptance Test in the Certification Overview section.</p> <ul style="list-style-type: none"> <li>• The revised Chapter 2: Basis for Certification correctly reflects the current certification process.</li> </ul>



Description of Changes	Reason for changes	Implication
<p>The state may require localities to perform hash testing of applications software for this purpose, as well as, send SBE will request that upon acquiring equipment, the locality forwards a letter to SBE-ELECT, as required by the procurement process, to confirm confirming that the versions of all software and model(s) of equipment received are identical to the certified system. that was ordered.</p> <p>As part of the acceptance test the vendor will demonstrate the system's ability to execute its designed functionality as advertised-presented and tested during certification, including: but not limited to:</p> <ul style="list-style-type: none"> <li>a. Create a deployable election based on the type of locality;</li> <li>b. 1. Mark voters as checked in, having voted, and been given a ballot only after specific actions;</li> <li>c. 2. Provide the user notification and prompt specific action for: display an appropriate instruction based on the voter status: <ul style="list-style-type: none"> <li>a. Protected voters</li> <li>b. Inactive voters</li> <li>c. Absentee voters</li> <li>d. Voters out of precinct</li> <li>e. Voters that already voted;</li> </ul> </li> <li>d. Provide for the ability to add a voter to the electronic pollbook and to the ability to record as the voter as having voted;</li> <li>3. Perform data and operational integrity safeguard tests including: <ul style="list-style-type: none"> <li>a. Ability to add or remove new units without disturbing the existing units</li> <li>b. Power supply and battery life with an option to display power usage</li> <li>c. Display an appropriate message when the EPB device is operating at less than 20% of remaining power</li> <li>d. Display an appropriate error message when the EPB fails to check in a voter</li> </ul> </li> <li>4. Performance Report to include the optimal duration of check in process per voter</li> <li>5. System monitoring and notification of system errors, including: <ul style="list-style-type: none"> <li>a. Perform a self-test for peripheral connectivity</li> <li>b. Visible display indicating power supply/battery life</li> <li>c. Visible display indicating system connections</li> </ul> </li> <li>e. Generate system status and error messages;</li> </ul>		





	Description of Changes	Reason for changes	Implication
	<p>f. <del>6.</del> Comply with and enable voter and operator compliance with all applicable procedural, regulatory, and statutory requirements-</p> <p>g. <del>7.</del> Produce an audit log.</p> <p>h. <del>8.</del> Close the election and provide multiple secure files <b>which are</b> capable of providing voter credit to <del>SBE systems.</del> <b>the Voter Registration System</b></p> <p><b>9.</b> Data preservation and redundancy to maintain a printable checklist format of the voter registration record and voter activity record on a removable storage. When one to all of the EPBs become inoperable, and if there is not an alternate recovery means available, then the removable storage must reflect the voter activity record at that moment and can be used to continue with election</p> <p><b>10.</b> During an interruption of network connection, EPBs should retain and synchronize all voter activities upon restoration of connectivity</p> <p><b>11.</b> Secure the reliable data transfers and display appropriate message for each data transfer to outside of closed network including electronic data management system, central server and cloud data service (This is only for testing of EPBs that will be used for Early Voting)</p> <p><b>12.</b> Transaction Logging and Audit Reports includes, but not limited to the following details:</p> <ul style="list-style-type: none"> <li>a. Log all changes to EPB post the initial download</li> <li>b. Transactions at the polling places</li> <li>c. Export logs in a readable format</li> <li>d. The EPB's audit log(s) must be encrypted, track all transactions and include a date/time stamp</li> </ul> <p><b>13.</b> All modules and data are cryptographic and are FIPS 140-2 v1 compliant including at rest and in transit</p> <p><b>14.</b> Comply with the NIST SP 800-63B or better digital identity guidelines for authentication and lifecycle management</p> <p><b>15.</b> Support the industry standard for clean wipe method remotely and manually.</p>		
27	<b>Part 5: Appendix A – Glossary</b> <b>Appendix A – Glossary</b>	Definition of Acceptance Testing is now defined in Appendix C.	Consistent with the current review process.



Description of Changes	Reason for changes	Implication
<p><b>Anomaly</b> – Any event related to the security or functioning of the EPB system that is out of the ordinary regardless of whether it is exceptional or not; a deviation from the norm.</p> <p><b>De Minimis Change</b> – A minimum change to a certified EPB system’s hardware, software, TDP, or data. The nature of changes will not materially alter the system’s reliability, functionality, capability, or operation. Under no circumstance shall a change be considered De Minimis Change, if it has reasonable and identifiable potential to impact the system’s performance and compliance with the applicable EPB Standard. Reference: EAC Testing &amp; Certification Program Manual version 2.0 and Notices of Clarification.</p> <p><del>Acceptance Testing – The purpose of acceptance testing is to demonstrate and confirm to the greatest extent possible that the electronic pollbook systems purchased or leased by a local jurisdiction are identical to the electronic pollbook systems certified by the State Board of Elections and that the electronic pollbook systems equipment and software are fully functional and capable of satisfying the administrative and statutory requirements of the local jurisdiction. Acceptance testing is conducted when electronic pollbook systems are initially received by the local electoral board from a vendor or other outside source (e.g., another local jurisdiction).</del></p> <p><del>Certification Testing – The purpose of certification testing is to verify that the design and performance of the electronic pollbook system being tested comply with all of the requirements of the Code of Virginia. Certification testing is not intended to exhaustively test all of the electronic pollbook system hardware and software attributes; these are evaluated during qualification testing by an approved VSTL. However, all electronic pollbook system functions, that are essential to the conduct of an election and a recount, are evaluated.</del></p> <p><b>Department of Elections (ELECT)</b> – ELECT conducts the SBE's administrative and programmatic operations and discharges the board's duties consistent with delegated authority.</p> <p><b>Election Officer</b> – A member of a precinct board, shall be a voter of the state, shall be able to read and write the English language, and must attend training conducted by the Registrar of</p>	<ul style="list-style-type: none"> <li>• Definition of Certification testing is now defined in Chapter 2: Basis for Certification.</li> <li>• Evaluation Agent is not valid for the current process.</li> <li>• Functional Configuration Audit and Technical Requirements Evaluation are now covered in Basis for Certification and Appendix C.</li> </ul> <p>Added terms:</p> <ul style="list-style-type: none"> <li>• Anomaly</li> <li>• De Minimis Change</li> <li>• Election Officer</li> <li>• Incident</li> <li>• Precinct</li> </ul>	



Description of Changes	Reason for changes	Implication
<p>Voters (ROV) in order to serve at a polling place. Formerly known as a Poll Workers, Election Officers can be assigned as a Clerk or Inspector with varying duties. Election Officers assist voters at polling place, verify eligibility, issue Official Ballots, and perform other duties.</p> <p><b>Electronic Pollbook System</b> - The term “electronic pollbook system” refers to the total combination of mechanical, electro-mechanical, electronic and digital equipment (including the software, firmware, and documentation required to program, control, and support the equipment). <del>The system is used to verify voter registration; track and report on the voter count total(s); and to maintain and produce any review audit information.</del></p> <p><b>Electronic Pollbook (EPB) System</b> – A system containing an electronic list of registered voters that may be transported and used at a polling place. This is the official list of registered voters eligible to vote in the election; it is used to verify a voter’s eligibility to receive a ballot and captures voter history in real time to prevent double voting. The term “electronic pollbook system” refers to the total combination of mechanical, electro-mechanical, electronic and digital equipment (including the software, firmware, and documentation required to program, control, and support the equipment).</p> <p><del>Evaluation Agent—A staff member, or independent contractor, designated by the Virginia State Board of Elections to perform analysis and testing of an electronic pollbook system.</del></p> <p><b>Incident</b> – Any event related to the security or functioning of the EPB system that may have caused or caused an interruption to the Check-in and/or Reporting process.</p> <p><del>Functional Configuration Audit—A series of comprehensive tests of the Electronic Pollbook System to determine the specific and situational capability and compatibility of the system to facilitate the statutory and administrative requirements</del></p> <p><del>Technical Requirements Evaluation—The purpose of Technical Requirements Evaluation is to demonstrate that the electronic pollbook system complies with the requirements of its own design specifications and operates in accordance with the statutory and administrative requirements of the Commonwealth of Virginia and the State Board of</del></p>		



	Description of Changes	Reason for changes	Implication
	<p><del>Elections. This testing encompasses selective in-depth examination of software; inspection and evaluation of electronic pollbook system documentation; tests of hardware under conditions simulating the intended storage, operation, transportation, and maintenance environments; and tests to verify system performance and function under normal and abnormal operating conditions. Technical Requirements Evaluation is normally conducted by a Voting System Test Laboratory (VSTL).</del></p> <p><b>Precinct</b> – A precinct is a geographic area within a locality or a town, established by ordinance by the local governing body. As per the Code of Virginia § 24.2-307, the “governing body of each county and city may establish as many precincts as it deems necessary.” A precinct must be wholly contained in any district used to elect members of the local governing body. The local governing body also determines the location of the polling place where residents vote.</p> <p><b>State Board of Elections (SBE)</b> – The State Board of Elections is authorized to supervise, coordinate, and adopt regulations governing the work of local electoral boards, registrars, and officers of election; to provide electronic application for voter registration and delivery of absentee ballots to eligible military and overseas voters; to establish and maintain a statewide automated voter registration system to include procedures for ascertaining current addresses of registrants; to prescribe standard forms for registration, transfer and identification of voters; and to require cancellation of records for registrants no longer qualified. <a href="#">Code of Virginia, Title 24.2, Chapters 1, 4 and 4.1.</a></p> <p><b>Voting Systems Test Laboratory (VSTL):</b> Test laboratory accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to be competent to test electronic pollbook <b>EPB</b> systems. <del>When NVLAP has completed its evaluation of a test lab, the Director of NIST will forward a recommendation to the EAC for the completion of the accreditation process. It can also be referred to as an electronic pollbook system Test Laboratory.</del></p>		
28	<p><b>Changed From/To:</b></p> <p><b>PART 6: APPENDIX B – ABILITY TO COMPLY FORM</b></p>	<p>Removed Appendix B – Ability to Comply Form.</p> <p>Added Appendix I – EPB Certification Application Form</p>	Consistent with the current process.



	Description of Changes	Reason for changes	Implication
	<p><b>Appendix I – EPB Certification Application Form</b></p> <p>This form is required to initiate the procedures of Electronic Pollbook System Certification in Virginia. A corporate officer of the primary company that is responsible for the development, maintenance, and support of the Electronic Pollbook System must complete this form.</p> <p>The company officer or designee who is responsible for the Electronic Pollbook System should complete this form. With this signature, the company officer agrees to a release for the VSTL as well as other states that may have decertified the EPB to respond to any questions by ELECT. This application must be signed by a company officer and enclosed in the EPB Certification Request Package.</p>	<p>to clarify vendor's responsibilities when requesting certification of an EPB system.</p> <ul style="list-style-type: none"> <li>Form also now includes checkboxes for vendor specifications.</li> </ul>	
29	<p><b>PART 7: APPENDIX C – CHART OF MAJOR VS. MINOR CHANGES</b></p> <p>The chart below will help vendors understand the Virginia State Board of Elections' definition and applicability of the major and minor changes to electronic pollbook software and its operating system.</p> <p>"A major release is an incompatible change to the system software, and implies that [some] applications dependent on the earlier major release (specifically those that relied upon the specific features that have changed incompatibly) will need to be changed in order to work on the new major release. A minor release of the system software is an upward compatible change—one which adds some new interfaces, but maintains compatibility for all existing interfaces. Applications (or other software products) dependent on an earlier minor release will not need to be changed in order to work on the new minor release. Since the later release contains all the earlier interfaces, the change(s) imparted to the system does not affect those applications."</p>	<p>Chart of Major Vs. Minor Changes now is addressed in Appendix F – Recertification Guidelines and Appendix J – De Minimis Change Guideline.</p>	<p>VSTL endorses a proposed De Minimis Change package to vendor that may not be implemented to the certified EPB system, until the change has been approved in writing by ELECT.</p> <p>Any modification to the hardware, software, firmware, infrastructure or any component of a certified EPB will invalidate the prior certification unless ELECT can review and provide an assurance to the SBE that the change does not affect the accuracy, reliability, security, usability or accessibility of the system.</p>
30	<p><b>PART 8: APPENDIX D – CONTACTS</b></p> <p>Cameron Glenn Sasnett Systems Integration and Support Specialist Virginia Department of Elections Telephone: (804) 864-8948 Email: Cameron.Sasnett@Elections.Virginia.gov -or-</p>	<p>Inquiries directed to the Virginia Department of Elections must now be sent to <a href="mailto:info@elections.virginia.gov">info@elections.virginia.gov</a></p>	<p>No impact.</p>



	Description of Changes	Reason for changes	Implication
	<p><del>Eugene Burton</del> <del>Voting Technology Coordinator</del> <del>Virginia Department of Elections</del> <del>Telephone: (804) 864-8912</del> <del>Email: Eugene.Burton@Elections.Virginia.gov</del> <del>1100 Bank Street</del> <del>Washington Building, 1st Floor</del> <del>Richmond, Virginia 23219-3497</del></p> <p><b>Appendix B – Contacts</b> The Department of Elections</p> <p>The certification request package should be sent to: Virginia Department of Elections ATTN: EPB System Certification 1100 Bank Street, 1st Floor Richmond, Virginia 23219-3497</p> <p>All other inquiries should be sent to: Email: <a href="mailto:info@elections.virginia.gov">info@elections.virginia.gov</a></p>		
31	<p><b>Appendix E – Software Patching Guidelines</b></p> <p>All vendors must comply with the policies, guidelines, and directives regarding software patching of EPB systems as adopted and modified by the SBE from time to time.</p>	To clarify vendor’s responsibilities for software patching of EPB systems.	Minor updates to a previously certified EPB system must follow De Minimis Change Guideline and Recertification Guideline for any modifications to the hardware, software, firmware, or infrastructure.
32	<p><b>Appendix F – Recertification Guidelines</b></p> <p>All vendors must comply with the policies, guidelines, and directives regarding recertification of EPB systems as adopted and modified by the SBE from time to time.</p> <p>If there is evidence of a material non-compliance, ELECT will work the vendor to resolve the issue, and ultimately the SBE reserves the right to decertify the EPB system.</p> <p>An EPB system that has been decertified by the SBE cannot be used for elections held in the Commonwealth of Virginia and cannot be purchase by localities to conduct elections.</p>	To clarify vendor’s responsibilities for recertification of EPB systems.	Minor updates to a previously certified EPB system must follow De Minimis Change Guideline and Recertification Guideline for any modifications to the hardware, software, firmware, or infrastructure.
33	<p><b>Appendix G – Hardware Guidelines</b></p> <p>Memory devices or USB drives provided with the</p>	Additional security requirements to implement	Additional security requirements for



	Description of Changes	Reason for changes	Implication
	<p>EPB system and/or supplied to localities must follow these standards:</p> <ol style="list-style-type: none"> <li>1. Must be fully wiped per the DoD 5220.22-M wiping standard to prevent any preloaded software from being inadvertently installed on the systems</li> <li>2. Must be cryptographic and FIPS 140-2 v1 compliant</li> <li>3. Must use SHA256 hashing algorithm or higher</li> <li>4. Must comply with applicable Commonwealth information security standards</li> <li>5. Must comply with applicable policies, guidelines, and directives as adopted and modified by the SBE from time to time.</li> </ol>	<p>Elections Security Best Practices.</p>	<p>vendors/localities to follow.</p>
<p>34</p>	<p><b>Appendix H – EPB System Modifications &amp; Product End of Life Planning</b></p> <p><b>EPB System Modifications</b> The process for reporting modification will be determined by ELECT based upon policies, guidelines, and directives as adopted and modified by the SBE from time to time.</p> <p><b>Product End of Life Planning</b> “End-of-life” (EOL) is a term used with respect to product (hardware/software/component) supplied to customers, indicating that the product is in the end of its useful life (from the vendor’s point of view), and a vendor stops sustaining it; i.e. vendor limits or ends support or production for the product. Product support during EOL varies by product. Depending on the vendor, EOL may differ from end of service life, which has the added distinction that a vendor of systems or software will no longer provide maintenance, troubleshooting or other support. For example, Extended Support is the period following end of Mainstream Support. The definitions of Last Date of Mainstream Support and Extended Support, as applicable to decertification/recertification and associated policies and procedures, will be determined by ELECT based upon policies, guidelines, and</p>	<p>To clarify ELECT’s responsibilities to vendors regarding modifications to an EPB system and EOL with respect to EPB hardware/software/components.</p>	<p>ELECT will now determine Mainstream Support, Last Date of Mainstream Support, and Extended Support for EPB devices and products (applications/software).</p>



	Description of Changes	Reason for changes	Implication
	<p>directives as adopted and modified by the SBE from time to time. As of initial adoption of this standard by the SBE, the definitions are as follows:</p> <p><b>Mainstream Support:</b> The first phase of the product lifecycle; when support is complimentary</p> <p><b>Extended Support:</b> The phase following Mainstream Support, in which support is no longer complimentary</p> <p><b>Last Date of Mainstream Support:</b> The last day of Mainstream Support</p> <p>Policies and procedures applicable to decertification/recertification of EPB systems which contain software or hardware components that have and/or will reach the Last Date of Mainstream Support within 18 months, will be determined by ELECT based upon policies, guidelines, and directives as adopted and modified by the SBE from time to time.</p> <p>An EPB system could still be decertified even if an upgrade plan is submitted. This could happen for a variety of reasons, such as a vendor is not showing progress in meeting their upgrade plan.</p>		
35	<p><b>Appendix J – De Minimis Change Guideline</b></p> <p>The SBE has adopted the EAC’s De Minimis Change Guideline and applicable EAC Notice of Clarification of De Minimis Change Guidelines to manage a minimal hardware and/or software related change to a certified EPB system in a consistent and efficient manner. Software De Minimis Changes should have the following general characteristics:</p> <ol style="list-style-type: none"> <li>1. Update a discrete component of the system and do not impact overall system functionality</li> <li>2. Do not affect the accuracy of the component or system</li> <li>3. Do not negatively impact the functionality, performance, accessibility, usability, safety, or security of a component or system</li> <li>4. Do not alter the overall configuration of the certified system</li> <li>5. Can be reviewed and/or tested by VSTL personnel in a short amount of time (approximately less than 100 hours).</li> </ol> <p>A vendor must submit the VSTL’s endorsed package to ELECT for approval. A proposed De</p>	<ul style="list-style-type: none"> <li>• Minor changes to a certified EPB system now has new guidelines for VSTL, vendors, and ELECT.</li> <li>• Major changes are now classified as modifications that will invalidate prior certifications and require additional testing and re-certification.</li> </ul>	<p>VSTL must now endorse a De Minimis Change package to vendors who will submit the package to ELECT to be approved in writing.</p> <ul style="list-style-type: none"> <li>• The proposed change(s) may not alter the system’s reliability, functionality, or operation.</li> </ul>





Description of Changes	Reason for changes	Implication
<p>Minimis Change may not be implemented to the certified EPB system until the change has been approved in writing by ELECT.</p> <p><b>VSTL Endorsed Changes</b> The vendor will forward to ELECT any change that has been endorsed as De Minimis Change by VSTL. The VSTL's endorsed package must include:</p> <ol style="list-style-type: none"><li>1. The vendor's initial description of the De Minimis Change, a narrative of facts giving rise to, or necessitating, the change, and the determination that the change will not alter the system's reliability, functionality, or operation.</li><li>2. The written determination of the VSTL's endorsement of the De Minimis Change. The endorsement document must explain why the VSTL, in its engineering judgment, determined that the proposed De Minimis Change meets the definition in this section and otherwise does not require additional testing and recertification.</li></ol> <p><b>VSTL Review</b> The vendor must submit the proposed De Minimis Change to a VSTL with complete disclosures, including:</p> <ol style="list-style-type: none"><li>1. Detailed description of the change</li><li>2. Description of the facts giving rise to or necessitating the change</li><li>3. The basis for its determination that the change will not alter the system's reliability, functionality, or operation</li><li>4. Upon request of the VSTL, the EPB system model at issue or any relevant technical information needed to make the determination</li><li>5. Document any potential impact to election officials currently using the system and any required notifications to those officials</li><li>6. Description of how this change will impact any relevant system documentation</li><li>7. Any other information the VSTL needs to make a determination.</li></ol> <p>The VSTL will review the proposed De Minimis Change and make an independent determination</p>		



	Description of Changes	Reason for changes	Implication
	<p>as to whether the change meets the definition of De Minimis Change or requires the EPB system to undergo additional testing as a system modification. If the VSTL determines that a De Minimis Change is appropriate, it shall endorse the proposed change as a De Minimis Change. If the VSTL determines that modification testing and recertification should be performed, it shall reclassify the proposed change as a modification. Endorsed De Minimis Change shall be forwarded to ELECT for final approval. Rejected changes shall be returned to the vendor for resubmission as system modifications.</p> <p><b>ELECT's Action</b> ELECT will review the proposed De Minimis Change endorsed by a VSTL. ELECT has sole authority to determine whether any VSTL endorsed change constitutes a De Minimis Change under this section.</p> <p><b>ELECT's Approval:</b> ELECT shall provide a written notice to the vendor that ELECT accepted the change as a De Minimis Change. ELECT will maintain the copies of approved De Minimis Change and track such changes.</p> <p><b>ELECT's Denial:</b> ELECT will inform the vendor in writing that the proposed change cannot be approved as De Minimis Change. The proposed change will be considered a modification and requires testing and certification consistent with this Certification Standard.</p> <p>De Minimis Change is not applicable to the EPB system currently undergoing the State Certification testing; it is merely a change to an uncertified system and may require an application update.</p>		
36	<p><b>Appendix K – Early Voting Connection Requirements</b></p> <p>The following <u>additional</u> requirements exist if the EPB vendor utilizes the cloud for hosting EPBs for locality access during the Early Voting Period:</p> <ol style="list-style-type: none"> <li>1. Utilize security best practices for internet connectivity including network, wireless, and cloud services.</li> <li>2. Utilize a cloud service provider (CSP) whose infrastructure and applications are NIST</li> </ol>	Added Appendix K to cover the requirements for EPBs and the use of the cloud during the Early Voting Period	If EPBs will be used for the Early Voting process then the requirements outlined here and in Appendix K must be met or the localities will not be able to enter into a contract with the Vendor for that use.



	Description of Changes	Reason for changes	Implication
	<p>800-53 certified through a third party entity.</p> <p>3. Ensure that CSP SLA contains three major components: Service level objectives, Remediation policies, and penalties/incentives related to NIST compliance, exclusions, and caveats.</p> <p>4. The connection via VPN must be FIPS 140-2 v1 certified, whether it is a dedicated SSLVPN or just a dedicated connection. If there is a dedicated connection, thorough documentation must be provided.</p> <p>5. If the EPB Vendor supplies the mobile devices, ensure compliance with NIST 800-53 in relation to these devices, as is done with the infrastructure.</p> <p>6. Storage, processing, migration, access control, and detection to and from the cloud must be NIST 800-53 compliant.</p> <p>7. Ensure the CSP is NIST certified by validating their credentials through their third-party certification provider. Ask for internal vulnerability/penetration testing reports, audit reports, incident reports, and evidence of remedial actions for any issues raised. Also, verify tracking of mitigating action-tracking mechanisms (POA&amp;M tracking).</p> <p>All vendors must comply with the policies, guidelines, and directives regarding early voting connection requirements as adopted and modified by the SBE from time to time.</p>		



# Virginia Electronic Pollbook Certification Standard

Department of Elections



# Agenda

- Overview of Electronic Pollbook Certification
- Purpose of Certification Testing
- State Certification Testing
- Virginia Certification Process
- Virginia Decertification and Re-Certification



## Overview of Electronic Pollbook (EPB) Certification

- 48% increase in use since 2016 election
- EPBs facilitate voter check-in and verification
  - Polling Places on Election Day
  - Early Voting at Election Office and/or Satellite Offices
  - Allow poll workers to redirect voters to the correct polling place
  - Notifies poll worker if voter has already voted absentee or during the early voting period



## Purpose of Certification Testing

- To establish baseline functionality, accessibility, and security of systems
- To ensure conformity with Virginia election laws



# State Certification Testing





# State Certification Testing

- States take a variety of approaches to certification
  - As of October 2019, EPBs have been authorized or are being used without statutory authorization in at least 41 states plus the District of Columbia
    - 13 states certify EPBs
    - 12 states provide statewide procedures for use but no formal certification program
    - 15 states have statutes that authorize the use of EPBs
    - 8 states do not prohibit the use, but are not using EPBs
- Virginia is one of 13 states that requires State Certification of all EPBs



# Virginia Certification Process



## Six Phases of Virginia Certification Review Process

1. Certification Request and Checklist received from vendor.
2. Preliminary Review conducted by ELECT to ensure all documentation from the vendor has been provided.
3. Technical Data Package (TDP) is provided to ELECT and forwarded to contracted Voting Systems Test Laboratory (VSTL).
4. Testing by VSTL is conducted with ELECT personnel supervising and a Certification Test Report is provided.
5. On-site Testing of electronic pollbook in a Virginia locality and a letter submitted from the locality of the poll books' performance.
6. The State Board of Elections, upon evaluation of all the information presented, approves or denies the certification of the poll book.



## What's Changed?

- Eliminated reciprocity based on another state's usage
- Included a review of all hardware, firmware, infrastructure, or component elements of an EPB
- Expanded the TDP requirements to include the Election Security Best Practices, Operations, Maintenance, User Guide and Manuals
- Removed Technical Requirements Evaluation and Virginia Functional Configuration Audit



## What's Changed?

- Sets forth additional election security requirements
- Requires additional corporate information to improve evaluation of vendor financial stability, majority stakeholders, etc.
- Includes third party vendor(s) to ensure quality assurance
- Added and updated test assertions
- Includes early voting connection requirements
- Requires testing at Voting Systems Test Laboratory (VSTL)



# Virginia Decertification and Re-Certification



## Decertification

- ELECT can reexamine and reevaluate any previously certified EPB systems for any reason, at any time.
- The SBE reserves the right to decertify the EPB systems if the vendor does not comply with the following requirements:



## Decertification - Requirements

1. Notify ELECT of any security-related breach, incident or anomaly experienced in a jurisdiction, within 24 hours of knowledge
2. Report to ELECT specific changes to Corporate information within 30 calendar days
3. Submit any modifications within 30 days from Last Modified Date
4. Send an upgrade plan if the operating system or any component will reach Last Date of Mainstream Support within 18 months
5. Update all software with the latest patching or vulnerability updates to alignment with future policies adopted by the SBE





## Re-Certification Process

- EPB systems vendors are required to recertify their EPB system in alignment with future policies adopted by the SBE and ELECT
- The SBE reserves the right to require recertification when new guidelines or changes to regulations and/or standards occur



# Questions



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STATE BOARD *of* ELECTIONS

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# SBYA

# Anonymous Complaints & Penalties

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BOARD WORKING PAPERS  
Arielle A. Schneider  
Policy Analyst



★ VIRGINIA ★  
DEPARTMENT *of* ELECTIONS

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## Memorandum

**To:** State Board of Elections  
**From:** Arielle A. Schneider, Policy Analyst  
**Date:** January 28, 2020  
**Re:** Stand By Your Ad – Removal of Anonymous Complaints

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### Background

During the May 14, 2019 and August 6, 2019 State Board of Elections (Board) meetings, the Board asked the Department of Elections to provide information to assist the Board in evaluating whether Virginia should continue to accept Stand By Your Ad (SBYA) complaints submitted anonymously.

The Department has now updated its procedures to instruct staff to require the name of the complainant.

### Standard Operating Procedure

#### **ELECT reviews complaints for completeness and sufficiency**

- a. Anyone may file a complaint with the State Board of Elections regarding possible violations of Virginia's campaign finance laws.
- b. To allege a violation of Chapter 9.5 (SBYA), a complaint must contain all of the following:
  1. The name of both the person bringing the complaint and the sponsor (person or party against whom allegations are made) *discussed 9/1/2015 SBE meeting.*
  2. Statement of the alleged violation, related to SBYA *discussed 10/6/2015 meeting.*
  3. Evidence, typically photographic *"in the case of print media, we typically require photographic evidence; in the case of radio or TV should identify the station and time aired"*
  4. Criteria identified and proposed to the SBE 10/6/2015 include *"related to advertisement disclosure (phone calls, broadcast media: radio, TV, print media: newspaper, internet, yard signs, etc.), allegation is accompanied by evidence."*
- c. If the complaint is **complete**, ELECT staff will review for **sufficiency**. The disputed conduct must allege a violation of Chapter 9.5 (SBYA).
- d. If the disputed conduct does not allege a violation of Chapter 9.5 (SBYA), ELECT staff will provide notice of receipt but will recommend the Board takes no action. "The disclosure requirements of [Chapter 9.5] ... apply to any sponsor of an advertisement in the print media or on radio or television the cost of value of which constitutes an expenditure or contribution required to be disclosed" except for an individual who makes independent expenditures under certain amounts or to an individual incurring expenses related to a referendum. (The Code §**24.2-955, introduction to SBYA and scope of disclosure requirements.**)
- e. For violations of Chapter 9.3, the Code §24.2-946.3 requires that the Board (delegated to ELECT on 12/7/04) report any violations to the appropriate attorney for the Commonwealth.



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DEPARTMENT *of* ELECTIONS

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## Memorandum

**To:** State Board of Elections  
**From:** Arielle A. Schneider, Policy Analyst  
**Date:** January 28, 2020  
**Re:** Stand By Your Ad – Proposed Schedule of Penalties (statewide, General Assembly)

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### **Background**

The State Board of Elections asked the Department to re-examine the Schedule of Penalties for violations of Stand By Your Ad included in the campaign finance summaries required by the Code of Virginia §24.2-946(A). At this time, ELECT would like to present proposed alterations to the existing Schedule of Penalties for the Board to consider, evaluate and provide feedback.

### **Schedule of Penalties (statewide, General Assembly and certain committees)**

#### SCHEDULE OF PENALTIES

The following penalties will apply only to statewide and General Assembly candidates, their campaign committees, and any other committee that sponsors advertisements regarding candidates for statewide office or the General Assembly.

#### **Print Media**

Violators shall be assessed a penalty as follows:

- \$100 for a first time violation, except that multiple copies of certain advertisements (handcards, flyers, or business cards) shall result in the assessment of penalties for no more than five violations per printing;
- \$300 for a violation found of an advertisement sponsored by a candidate or committee which has previously received a penalty under Virginia's Stand By Your Ad law, except that multiple copies of certain advertisements (handcards, flyers, or business cards) shall result in the assessment of penalties for no more than five violations per printing;

If the advertisement is disseminated or on display in the 14 days prior to or on the Election Day for which the advertisement pertains, the penalty will be doubled and the maximum penalty would be \$2,500.

#### **Television**

The penalty for violating required television disclosures will be \$2,500 per occurrence unless the advertisement is disseminated or on display in the 14 days prior to or on the Election Day for which the advertisement pertains. In this case, the penalty will be \$10,000 per occurrence.



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### **Radio**

The penalty for violating required radio disclosures will be \$2,500 per occurrence unless the advertisement is disseminated or on display in the 14 days prior to or on the Election Day for which the advertisement pertains. In this case, the penalty will be \$10,000 per occurrence.

### **Campaign Telephone Calls**

The penalty for violating required campaign telephone call disclosures will be \$2,500.

### **Next Steps**

Direct the Department of Elections to compose a proposed Schedule of Penalties to be brought before the Board for a formal vote to change the Schedule of Penalties and all campaign finance summaries.



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DEPARTMENT *of* ELECTIONS

## Memorandum

**To:** State Board of Elections  
**From:** Arielle A. Schneider, Policy Analyst  
**Date:** January 28, 2020  
**Re:** Stand By Your Ad – Proposed Schedule of Penalties (local and constitutional)

### Background

The State Board of Elections asked the Department to re-examine the Schedule of Penalties for violations of Stand By Your Ad included in the campaign finance summaries required by the Code of Virginia §24.2-946(A). At this time, ELECT would like to present proposed alterations to the existing Schedule of Penalties for the Board to consider, evaluate and provide feedback.

### Schedule of Penalties (local, constitutional office, their committees and any other committee)

#### SCHEDULE OF PENALTIES

The following penalties will apply only to candidates for local and constitutional office and their committees that sponsor political advertisements, in addition to any committee sponsoring an advertisement

#### **Print Media**

Violators shall be assessed a penalty as follows:

- \$50 for a first time violation, except that multiple copies of certain advertisements (handcards, flyers, or business cards) shall result in the assessment of penalties for no more than five violations per printing;
- \$100 for a violation found of an advertisement sponsored by a candidate or committee which has previously received a penalty under Virginia's Stand By Your Ad law, except that multiple copies of certain advertisements (handcards, flyers, or business cards) shall result in the assessment of penalties for no more than five violations per printing;
- Furthermore, if the Board agrees by unanimous vote that both the seriousness of the offense and harm to the public are low, it may issue a \$25 fee for a first time violation in place of any other fee under this schedule.

If the advertisement is disseminated or on display in the 14 days prior to or on the Election Day for which the advertisement pertains, the penalty will be doubled and the maximum penalty would be \$2,500.



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### **Television**

The penalty for violating required television disclosures will be \$2,500 per occurrence unless the advertisement is disseminated or on display in the 14 days prior to or on the Election Day for which the advertisement pertains. In this case, the penalty will be \$10,000 per occurrence.

### **Radio**

The penalty for violating required radio disclosures will be \$2,500 per occurrence unless the advertisement is disseminated or on display in the 14 days prior to or on the Election Day for which the advertisement pertains. In this case, the penalty will be \$10,000 per occurrence.

### **Campaign Telephone Calls**

The penalty for violating required campaign telephone call disclosures will be \$2,500.

### **Next Steps**

Direct the Department of Elections to compose a proposed Schedule of Penalties to be brought before the Board for a formal vote to change the Schedule of Penalties and all campaign finance summaries.





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STATE BOARD *of* ELECTIONS

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# GREB Workgroup Final Report

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BOARD WORKING PAPERS  
The Hon. John Hager  
GREB Co- Chair



# 2019 FINAL REPORT

from

The General Registrar/Electoral Board  
(GREB) WorkGroup

January 2020

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## INTRODUCTION

The GREB WorkGroup met eight times during 2019, and addressed four Charges identified in our original Work Plan. We also studied and discussed many additional elections topics, which did not rise to the level of Charges for a variety of reasons.

In May, we presented a summary of our Annual Reports to the newly-appointed members of the State Board of Elections and resubmitted our 2017 Recommendations which had not been addressed by the previous board membership.

As the WorkGroup was preparing a comprehensive survey of Elections Costs the State Board of Elections adopted a resolution to terminate our work and institute a new Advisory Workgroup.

In preparing this final Annual Report the members of the GREB WorkGroup recommend a thoughtful review of its recommendations and a formal response by the State Board of Elections. The work undertaken over the past five years has been conducted in a non-partisan, independent, enquiring spirit with the intention of rendering valuable service to all the voters of the Commonwealth and — when necessary — speaking truth to power. [See communication to the Governor, April 15, 2019, included as Appendix 3.]

We have advocated for an Independent Commissioner of Elections, not subject to partisan appointment. We have supported the concept of a State Board of Elections which is supervisory rather than advisory. We have urged the restructuring of the compensation model for Directors of Election/General Registrars to make it commensurate with the complex responsibilities now entailed. We have challenged the elections community to pursue reforms that will make elections more efficient, more transparent, and ensure integrity at every step of the process.

Democracy will continue to flourish when we reduce impediments to participation.

## **GREB Work Plan 2019**

**Charge 1:**

A review of VERIS in consultation with ELECT and VITA to develop a Products Requirements Document in accord with the language adopted in the Appropriations Act.

**Charge 2:**

A review of USPS policy for mailing on election days.

**Charge 3:**

A review of Sealing Registration Records after issuing an Absentee Ballot.

**Charge 4:**

Review of resources required to provide efficient election administration at the precinct level, including, but not limited to, ballot tabulators, electronic poll books, number of voters and officers of election and ballot content and style.

## **The 2019 Recommendations**

The GREB WorkGroup recommends

Charge 1: A review of VERIS — ELECT to continue its RFP process

Charge 2: A review of mailing policy — ELECT to conduct a survey, with the United States Postal Service, coordinated with our US Senators and Representatives, to determine what remedies can be adopted to ensure timely delivery of Absentee Ballots.

Charge 3: Sealing Registration Records After Absentee Ballot application — a review of administrative remedy within VERIS to prevent abuse

Charge 4: Review of resources — ELECT to survey all jurisdictions to determine local costs of elections administration and recommend resources that might help fund mandated costs

## 2019 Membership

Co-Chair, **The Honorable John Hager**, former Lt. Governor, former VEBA President

Co-Chair, **The Honorable Kate Hanley**, former Secretary of The Commonwealth, Secretary, Fairfax County Electoral Board

**Al Ablowich**, Chair, Virginia Beach City Electoral Board

**Renee Andrews**, Secretary, Falls Church City Electoral Board, former VEBA President

**Bill Bell**, Secretary, Isle of Wight County Electoral Board, former VEBA President

**Barbara Gunter**, General Registrar/Director of Elections, Bedford County, former VRAV President

**Tracy Howard\***, General Registrar/Director of Elections, Radford City, former VRAV President Elections [Resigned, August 2019.]

**Lisa Jeffers**, General Registrar/Director of Elections, Waynesboro City, former VRAV President

**Walt Latham**, General Registrar/Director of Elections, York County, VRAV President

**Robin Lind**, Secretary, Goochland County Electoral Board, former VEBA President

**Barbara Tabb**, Chair, Prince George County Electoral Board, VEBA President\* [Elected February, 2019]

**Cris Watkins**, General Registrar/Director of Elections, Louisa County \*[Elected February, 2019]

**The Honorable Dr. Clara Belle Wheeler**, Vice Chair, State Board of Elections, former Secretary, Albemarle County Electoral Board

**Michele White\***, General Registrar/Director of Elections, Prince William County Elections [Resigned October 2019.]

*\* Denotes membership changes during the year*

*On October 29, 2019, by unanimous vote, the State Board of Elections adopted a resolution to terminate the GREB WorkGroup effective January 15, 2020 through February 1, 2023, establishing in the interim a new group to be styled "Advisory Review Workgroup."*

**Charge 1:**

A review of VERIS in consultation with ELECT and VITA to develop a Products Requirements Document in accord with the language adopted in the Appropriations Act.

*H. No funds available within this appropriation shall be expended to substantially rebuild the Virginia Election & Registration Information System (VERIS) until such time as the Department of Elections, in consultation with the Virginia Information Technology Agency (VITA), has (i) solicited feedback from the GR/EB Duties Workgroup, (ii) developed a product requirements document, and (iii) developed a draft request for proposals document for a potential replacement to the VERIS system.*

Following a presentation by Commissioner Chris Piper and VERIS Project manager Dan Burns on August 22, outlining the plan, scope and goal of the RFP project being conducted by the Department of Elections, the WorkGroup concurred with the process as described.



**Charge 2:**

A review of USPS policy for mailing on election days.

Continuing reports of Absentee Ballots delivered by the US Postal Service after election day prompted wide-ranging discussion on potential solutions.

A survey conducted by a small sample of Directors of Election showed a broad range of delivery times in different parts of the Commonwealth but identified a specific variable: the day of the week on which Absentee Ballot applications were mailed out from the General Registrar's office, and the day returned to the postal service for delivery to the General Registrar's office.

It appears that different USPS Sectional Sorting Centers achieve different rates of return; several jurisdictions have election day mail which goes out of state for sorting before being returned for delivery; some reports indicate that USPS handling of election-day mail is not uniform across the Commonwealth.

**The WorkGroup recommends:**

A much broader survey of all 133 jurisdictions, conducted by the Department of Elections, in conjunction with the United States Postal Service and coordinated with our US Senators and Representatives, would provide data for remedial action.

Such remedies might embrace a proposal for third day post-election absentee ballot acceptance, an earlier deadline for receipt of an absentee ballot application from seven to 11 days before election day, or local absentee ballot drop boxes in local government buildings.

**Charge 3:**

A review of Sealing Registration Records after issuing an Absentee Ballot.

Initial discussion revealed a potential threat to the integrity of balloting when a voter casts an absentee ballot at an existing address and subsequently re-registers at a new address, potentially able to cast another ballot in the same election.

Legislation was introduced by Sen. Bryce Reeves (SB 1250) to address this issue by delaying the entry of the new change of address registration data in VERIS until after the election in which the absentee ballot was presented.

However, although the bill passed the Senate, it was struck from the docket in a House subcommittee after consultation with the patron and Department of Elections which indicated the issue could be resolved administratively.

The administrative remedy should be closely watched in view of the substantial increase in Absentee balloting anticipated in the new session.

**Charge 4:**

Review of resources required to provide efficient election administration at the precinct level, including, but not limited to, ballot tabulators, electronic poll books, number of voters and officers of election and ballot content and style.

Considerable time and effort was devoted to the question of local resources devoted to elections. A survey, created by Prince William County Director of Elections/General registrar Michele White illustrating expenses for the November, 2018 General Election was in preparation when the WorkGroup was notified of its termination.

The template for that survey is included as Appendix 1; figures for the much smaller Goochland County are included as Appendix 2. They show, in detail, the often overlooked expenses that are incurred by localities. Those expenses include wages for Assistant Registrars and Officers of Election, training, paper ballots, equipment programming, cage delivery, computer equipment and software, office space and much more.

**The WorkGroup recommends:**

This survey be conducted by the Department of Elections to determine the full cost of elections at the local level. Further, when the data has been collected, verified and analyzed, we recommend that the Commonwealth consider whether adequate resources are being provided to the localities to comply with the election administration mandates imposed upon them.

# APPENDIX 1: Large Jurisdiction Election Costs

FY2019 Beginning July 1 2018 Ending June 30, 2019								
Staff Type	Example PWC November 2018 General	YOUR Locality November 2018 General	June 2019 Primary	Town	Special Election	Presidential	Presidential Primary	Recount
Election Day Officers	\$86,799							
AB Vote Center Staffing	\$29,525							
Office Temporary Staffing	\$27,015							
Pre-Processing Staffing	\$3,120							
Central Absentee Precinct	\$1,500							
Ascertainment Staffing	\$2,424							
Full Time Staff Overtime	\$49,171							
Ballots	\$17,160							
Equipment Programming	\$2,968							
ENT Reporting Costs	\$4,280							
Cage Delivery	\$13,657							
Polling Place Payment	\$200							
Sheriff Security	\$1,040							
DMV Security	\$390							
Other ED Supplies	\$73,729							
<b>TOTAL ELECTION COST</b>	<b>\$312,978</b>	\$0	\$0					
Number of Absentee Vote Centers	3							
# of Absentee Voters	26,592							
Registered Voters Qualified for Election	284,097							
% Turnout	58%							
Number of Precincts (used in election)	92							
<b>Stats for Calendar Year 2018 Beginning January 1, 2018 through December 31, 2018</b>								<b>YOUR County's Year to Date Stats</b>
Total # of Voter Registration Transactions Conducted by Year in 2018*	Localities: In VERIS run NVRA Statistics report for Calendar Year 2018. Add all columns to get total number of NVRA transactions. Put your city/county's total here: -->							
Total # of DENIED Voter Registration Transactions Conducted by Year in 2018	Localities: In VERIS run Error and Validation Statistics under Voter Reports. Add to get total number of Denied transactions. Put your city/county's total here: -->							
NCOAS - OOS Conducted Transactions by Year in 2018	Localities: In VERIS run Error and Validation Statistics under Voter Reports. Add to get total number of Confirmations. Put your city/county's total here: -->							
Net New Voters since Jan 1, 2018	Localities: In VERIS run Stats - Net New Registrants by Locality under Statistics. Run by Calendar Year 2018. Put your locality/city/county's Net New Voter gain here for 2018. -->							
Third Party VRs intake	Localities: Tally your third voter registration intake list for total for 2018. -->							

November 5, 2019 Local election falls in FY20. (Fiscal Year 2020)  
 Redistricting in VERIS begins May/June of 2021 (FY21), additional new precincts online November 2021 in FY22

APPENDIX 2: Small Jurisdiction Election Costs

FY2019 Beginning July 1 2018 Ending June 30, 2019								
Staff Type	Example PWC November 2018 General	GOOCHLAND November 2018 General	June 2019 Primary	Town	Special Election	Presidential	Presidential Primary	Recount
Election Day Officers	\$86,799	\$15,605	n/a					
AB Vote Center Staffing	\$29,525	n/a	n/a					
Office Temporary Staffing	\$27,015	\$2,030	n/a					
Pre-Processing Staffing	\$3,120	n/a	n/a					
Central Absentee Precinct	\$1,500	n/a	n/a					
Ascertainment Staffing	\$2,424	n/a	n/a					
Full Time Staff Overtime	\$49,171		n/a					
Ballots	\$17,160	\$4,598	n/a					
Equipment Programming	\$2,968	\$2,203	n/a					
ENT Reporting Costs	\$4,280	n/a	n/a					
Cage Delivery	\$13,657	n/a	n/a					
Polling Place Payment	\$200	\$0	n/a					
Sheriff Security	\$1,040	n/a	n/a					
DMV Security	\$390	n/a	n/a					
Other ED Supplies	\$73,729		n/a					
<b>TOTAL ELECTION COST</b>	<b>\$312,978</b>	<b>\$24,436</b>	<b>\$0</b>					
Number of Absentee Vote Centers	3	1	0					
# of Absentee Voters	26,592		0					
Registered Voters Qualified for Election	284,097		0					
% Turnout	58%	75%	0%					
Number of Precincts (used in election)	92	11	0					
								<b>YOUR County's Year to Date Stats</b>
<b>Stats for Calendar Year 2018 Beginning January 1, 2018 through December 31, 2018</b>								
Total # of Voter Registration Transactions Conducted by Year in 2018*				Localities: In VERIS run NVRA Statistics report for Calendar Year 2018. Add all columns to get total number of NVRA transactions. Put your city/county's total here. -->				8,662
Total # of DENIED Voter Registration Transactions Conducted by Year in 2018				Localities: In VERIS run Error and Validation Statistics under Voter Reports. Add to get total number of Denied transactions. Put your city/county's total here. -->				77
NCOAS - OOS Conducted Transactions by Year in 2018				Localities: In VERIS run Error and Validation Statistics under Voter Reports. Add to get total number of Confirmations. Put your city/county's total here. -->				123
Net New Voters since Jan 1, 2018				Localities: In VERIS run Stats - Net New Registrants by Locality under Statistics. Run by Calendar Year 2018. Put your locality's city/county's Net New Voter gain here for 2018. -->				744
Third Party VRs intake				Localities: Tally your third voter registration intake list for total for 2018. -->				

November 5, 2019 Local election falls in FY20. (Fiscal Year 2020)  
 Redistricting in VERIS begins May/June of 2021 (FY21), additional new precincts online November 2021 in FY22

APPENDIX 3: Communication to the Governor

## GREB WorkGroup

April 15, 2019

The Honorable Ralph S. Northam  
Patrick Henry Building  
1111 East Broad Street  
Richmond, Virginia 23219

**RE: HB 1620 & SB 1455**

Dear Governor Northam,

We write to you in support of legislation of immense importance to the voters of the Commonwealth: reform of the State Board of Elections.

Establishing an independent, non-partisan, professional Commissioner of Elections whose performance is not subject to political pressure or instruction is essential to our democracy.

It matters not which party is in the majority. The integrity of the electoral process is always paramount. The reform proposed by these bills establishes the independence of the Commissioner of Elections and that should be a guiding principle of all administrations.

All 133 jurisdictions of the Commonwealth have Electoral Boards comprised of political appointees, and independent Directors of Elections/General Registrars who are sworn to conduct non-partisan administration of elections. The reform proposed by these bills creates a similar independence for the Commissioner of Elections.

This reform had its genesis in the GREB WorkGroup, a bi-partisan committee of General Registrars and Electoral Board members who represent the leadership of the elections community. It is the product of thorough analysis, review and debate.

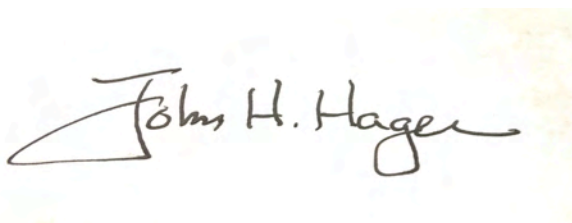
However, it incorporates a proposal from a decade ago, HB 527, introduced by then-Del. Sam Nixon, (subsequently carried by then-Del. Bill Janis after Del. Nixon's resignation) which passed the House 96-3. That bill was defeated when caught up in an unrelated partisan retaliation in the Senate Privileges and Elections Committee by a vote of 8-7. At that time, you declined to be caught up in that partisan retribution and were one of the seven Senators who voted in favor of the reform in 2010.

In this session of the General Assembly it was the Senate that voted overwhelmingly in favor of reform: 38-2 on HB 1620, and 39-1 on SB 1455. Regrettably, these two bills became vehicles for partisan division in the House where they passed almost strictly along party lines: 53-45 on HB 1620 and 51-47 on SB 1455, after a member of the administration declared opposition.

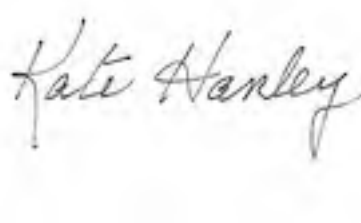
It takes strength of character, courage and confidence to break with past practice and support meaningful reform. We believe you have all three.

We urge you to sign this reform into law.

Sincerely,



The Honorable John Hager  
Co-Chair, GREB WorkGroup  
804-355-6210  
[johnhager1@comcast.net](mailto:johnhager1@comcast.net)



The Honorable Kate Hanley,  
Co-Chair, GREB WorkGroup  
703-593-4980  
[katehanley@aol.com](mailto:katehanley@aol.com)

On behalf of GREB WorkGroup members:

Al Ablowich, Chair, Virginia Beach City Electoral Board  
Renee Andrews, Secretary, Falls Church City Electoral Board, former VEBA President  
Bill Bell, Secretary, Isle of Wight County Electoral Board, former VEBA President  
Barbara Gunter, General Registrar/Director of Elections, Bedford County, former VRAV President  
Tracy Howard, General Registrar/Director of Elections, Radford City, former VRAV President  
Lisa Jeffers, General Registrar/Director of Elections, Waynesboro City, former VRAV President  
Walt Latham, General Registrar/Director of Elections, York County, VRAV President  
Robin Lind, Secretary, Goochland County Electoral Board, former VEBA President  
Barbara Tabb, Secretary, Prince George County Electoral Board, VEBA President  
The Honorable Dr. Clara Belle Wheeler, Vice Chair, State Board of Elections, former Secretary, Albemarle County Electoral Board  
Cris Watkins, General Registrar/Director of Elections, Louisa County  
Michele White, General Registrar/Director of Elections, Prince William County