

12.30.12

To: Deputy Secretary Suzanne Staiert  
CC: Stefanie Mann, Mike Lyons, Al Kolwicz  
From: Marilyn Marks, Citizen Center  
Re: HAVA Complaint SOS-HAVA-07-12-0001 Kolwicz—Public Comments

Thank you for providing the public an opportunity to comment on the HAVA Complaint and hearing.

I have read Boulder County's December 26th comments and Mr. Kolwicz's complaint and supporting documents regarding the need for certification of the entire Mail Ballot Component of Colorado's election system.

The importance of the functioning of the B&H machine as a subcomponent of the Mail Ballot Component should not be minimized. Less than 50% of 800+ Boulder County mail ballots that were initially rejected because of signature problems in November's election were cured. This low cure rate means that thousands of votes on hundreds of potentially eligible voters' ballots did not count.

An unknown, and potentially even larger, number of ballots were accepted because of ineffective signature verification procedures. This number is unknown because adequate oversight was prohibited – there were no procedures used to verify that accepted ballots were correctly accepted. Therefore any performance issues that improperly affected the acceptance or rejection of ballots may have had significant impact on contest results by disenfranchising eligible voters and counting ineligible votes.

It seems clear that despite Boulder County's attempted hyper-literal parsing of the state's and HAVA's definition of a "voting system," the significant impacts of the B&H machine—and its associated new pollbook, casting, and signature verification procedures—require that mail ballot processing be considered a major component of Boulder County's voting system. The matter is about far more than a "mail sorter." The data collected and displayed by the integrated system for signature verification has a significant impact on pollbook record keeping and contest results and is not related to "mail sorting."

The SOS Election Rules, Conditions for Use, and FEC and EAC voting standards require extensive security protocols and testing to guard against a myriad of security threats. Even vendor-supplied software is prohibited. Only "trusted build" is permitted. Yet B&H supplied hardware and software have been used in the Boulder County 2012 elections without required testing or approved security protocols.

## **Obvious Threats Indicate Voting System Requires Certification and Testing**

Rather than debate the Boulder-parsed words of HAVA and the statutes taken out of context, consider how the B&H-powered Mail Ballot Component of the voting system could improperly impact election results. In doing so it becomes obvious that this component must be rigorously tested and certified before use in future elections. For example:

- If the system were programmed to subsequently “accept” 50% of all ballots “rejected” by the signature judges, how would it be detected?
- If the system were programmed to accept all ballots submitted by say, Libertarian voters, how would it be detected?
- If the system were programmed to accept multiple ballots from certain classes of voters, when and how would it be detected?
- If the system were programmed to indicate rejection by two judges with instructions to be sent for signature cure, how would it be detected?
- If the signatures being compared on the screens were, through the B&H-related software, digitally altered or sourced from unauthorized files and then acceptances or rejections were influenced by such substitutions, how would such an error be detected?
- If the signatures from a certain ballot style were programmed for 100% acceptance or alternatively for a high rejection rate (after judge review), how would this be caught? (Inappropriately accepting or rejecting signatures can be a great benefit for a local special district measure.)
- If the electronic pollbook update feature from the B&H equipment were altered for nefarious purposes to credit the wrong voters, how would it be detected?
- How would any unauthorized software or hardware changes to the B&H machine be detected?
- What security protocols prevent unauthorized direct or remote access to computerized controls and software of the B&H subcomponent?
- How does the B&H subcomponent interface with SCORE and prevent alteration of SCORE records?
- How are signatures newly captured by the B&H subcomponent uploaded into SCORE and with what hardware, software, and quality controls?

- Can the B&H subcomponent distinguish photocopy from hand-written signatures?
- What inks and intensity can be read/not read?
- How does the B&H subcomponent handle envelopes where no signature ink is detected? (Is there manual inspection to determine whether ink is present and undected?)
- What is the anticipated reject rate based on Colorado's years of experience with mail ballots? When reject rates fall outside of expected numbers, is this information developed and investigated?

### **Boulder County's acknowledgment of violations of voting systems requirements**

Boulder County states that the machine **does not create or maintain an audit trail**. This claimed lack of data is especially concerning given the many vulnerabilities to improper acceptance or rejection of signatures, independent of the human instruction. If there is no audit trail, installing one is critical and a further indication of the importance of robust testing and certification. **If there is indeed no audit trail, that is a prima facie violation of HAVA and Title 1 and must be addressed.**

Boulder County also states that the operation of the machine was believed necessary to meet Rule 10.8 regarding anonymity of voters. Given Boulder County officials' stance, the proper and accurate operation of the equipment is inarguably an essential element in complying with HAVA, the Colorado Constitution, SOS Rules, and Title 1. **Such admittedly essential functions are, without question, elements of the voting system under HAVA and Title 1.**

### **Mail Ballot Component protocols are not uniform, creating unequal treatment of voters.**

What metrics are used to monitor the actual performance of the operation? What pre- and postelection testing and audit are required? Where are the standards? What tolerance level is required to accept or reject a signature? Is it consistent among counties, election judges, precincts?

The following estimates for several large counties show the mail ballot rejections due to signature deficiencies compared to total ballots cast. Although mail ballot data was not readily available, if one assumes that mail ballot percentage was roughly equal throughout the state, the following estimates highlight that rejection statistics vary greatly by county. Therefore, the county-by-county results of the signature verification process are far from uniform, indicating inconsistent standards, conditions, and/or

procedures. It is clear that voters' signatures are being accepted or rejected at wildly differing rates, creating disparate treatment of voters.

Machine verification or machine-assisted verification:

<u>County</u>	<u>Rejections</u>	<u>Total Ballots</u>
Adams	1023	177945
Boulder	801	181724
Douglas	343	169475
Jeffco	1498	315996
Larimer	463	182504 (mail 135000)

No machine verification:

<u>County</u>	<u>Rejections</u>	<u>Total Ballots</u>
Arapahoe	1729	290257
Denver	3716	313248 (mail 212375)
El Paso	456	294186

Further investigation is required to prepare a meaningful analysis of the reject rates and the causes of the variations. This element is important for analyzing the mail ballot component of the voting system.

Just as a voting system cannot legally count votes differently from county to county, the mail ballot component of the system should not enfranchise or disenfranchise voters in a disparate fashion county to county.

**Mail-In Ballot Component Appears Subject to Fraudulently Cast Ballots.**

A review of limited data (again without access to the entire state's data or the underlying details) indicates that hundreds of mail ballots are being cast fraudulently, although some of them are being caught and not counted. Note, for example, the provisional ballots cast that were rejected because the voter attempted to vote both at the precinct polling place and vote a mail ballot. I have only a small sample of data:

<u>County</u>	<u>Rejections</u> <u>Double voting</u>	Ballots Mailed to Provisional voters
El Paso	59	4318
Boulder	34	1406
Saguache	1	49

Given the large variation in rejected signature rates, it is logical to conclude that some fraudulent mail ballots are getting through the system and being counted. It is important that the data be analyzed to determine where vulnerabilities exist in the mail ballot component as it operates today.

**Mail-In Ballot Component allows duplicate and stray ballots to be cast.**

Tens of thousands of mail ballots are being mailed to voters but not received by the addressed voters, leaving these stray ballots subject to fraudulent activity.

For example, the following numbers of voters voted provisionally because they did not receive the mail ballot sent to them:

<u>County</u>	<u>Provisional ballots cast because mail ballot not received</u>
El Paso	4318
Boulder	1406
Saguache	49

This table does not include all the mail ballot replacement ballots issued.

Additionally, numerous reports have been received of duplicate mail ballots being mailed to certain voters. It is only logical to assume that some of these duplicate ballots were improperly cast and counted. It is not difficult to cast extra ballots at the polling place.

In evaluating the Mail Ballot Component as well as its subcomponent, the B&H signature verification machine, the impact of duplicate ballots being mailed and supplied should be evaluated. The evaluation should also include what enforcement procedures have been initiated for fraudulent voting and mishandling of mail ballots.

### **Integration of B&H Verification Equipment**

The problems with the Mail Ballot Component noted above in the illustrative, though not exhaustive, list are exacerbated by integration of the uncertified, untested B&H equipment and software. The already-questionable mail ballot process becomes even less transparent, less open to independent detection and isolation of errors, and less trustworthy.

### **Recommended Action**

Citizen Center respectfully requests that the CDOS make a determination that the Mail Ballot Component including the B&H equipment has not been properly certified as required. That determination should be followed by a robust and public analysis and certification process to be undertaken as soon as possible, for implementation by Spring 2014.

Please feel free to contact us for further information. You may reach me at 970 404 2225.