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February 19, 2008

Ms. Ann McGeehan  
Director of Elections  
Texas Secretary of State  
Elections Division  
208 East 10<sup>th</sup> Street  
Austin, Texas 78711

Re: Inspection of Hart Intercivic Voting Systems conducted on January 17 and 18,  
2008

Dear Ms. McGeehan:

Pursuant to my appointment by the Texas Secretary of State as a voting systems examiner under TEXAS ELECTION CODE § 122.035, please allow this letter to serve as my report concerning the above referenced examination. I, along with the other statutory examiners and staff from the Secretary of State's office, examined the following Hart Intercivic voting systems on January 17 and 18, 2008, at the offices of Elections Division of the Texas Secretary of State in Austin, Texas:

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| <b>Ballot Now 3.3.11</b> program to print paper ballots and digitally image the voted ballots to extract the cast vote records                             |  |
| <b>Rally 2.3.7</b> software used with the Tally program to deliver unofficial results through the reading of MBB cards during an election event            |  |
| <b>SERVO 4.2.10</b> the election records and recount management system for the eSlate Voting System  |  |
| <b>JBC 4.3.1</b> the software used by an election judge to manage the election process and issue voter codes for use on the eSlate machines                |  |
| <b>eScan 1.3.14</b> the device used to scan and extract ballot information from ballots filled out in hand   |  |
| <b>BOSS 4.3.13</b> the software used at the outset of an election cycle to define a create the ballot style and act as a central database for the election |  |
| <b>Tally 4.3.10</b> the tabulation software to accompany the Hart system   |  |

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| <b>eCm Manager 1.1.7</b> the security software for the Hart system   |  |
| <b>eSlate/DAU 4.2.13</b> the physical machine in Hart's system that is for use of the disabled and is the Direct Electronic Recording Voting Machine ("DRE") |  |

I examined the above referenced software and equipment (collectively referred to herein as "the Hart Intercivic 6.2.1 System") for compliance with the relevant provisions of the TEXAS ELECTION CODE and Texas Administrative Code related to the requirements for election machines and software. I also reviewed the written materials submitted by Hart Intercivic about the various components of the System for compliance with the TEXAS ELECTION CODE and Texas Administrative Code requirements for voting equipment.

#### TESTING OF HARDWARE AND SOFTWARE

On the day prior to the presentation and inspection to all of the Examiners, a select number of the examiners and Secretary of State staff witnessed the loading of all the programs presented by Hart Intercivic for certification. These attempts were successful with a few noted exceptions. These included problems with the operating system that have been made the subject of a series of post-examination questions to Hart Intercivic that are to be answered on or before February 22, 2008.

On January 18, 2007, all of the appointed Examiners gathered with Hart officials for remainder of the inspection and testing of the 6.2.1 System. Officials from Hart Intercivic first made a general presentation about the new updates in the software and firmware that were being presented for certification. As the hardware devices that were being presented had no change to their physical attributes, no presentation on the previously certified hardware were made.

The Examiners and the Hart officials held a lengthy discussion concerning past published issues and issues in other states that have come up with the Hart Intercivic 6.2.1 System and its predecessors. In particular, a previous "decertification" by the California Secretary of State was discussed. Hart officials represented that California immediately recertified the system after it was decertified. As a result of other technical issues, the examiners and the Hart officials also held a conference call with technical specialists at Hart concerning the questions of the Examiners. Finally, there was a discussion regarding the "field" servicing and Hart's offered training to its customers.

After this call, the examiners cast a script of several ballots on each DRE voting machine and similar paper ballots were fed into the Hart optical scanners. Both mock votes were tabulated and sorted with the Hart Intercivic software using the updated software in the 6.2.1 System.

## **OBSERVATIONS**

1. Each of the separate pieces of hardware and the accompanying software used for actually casting a ballot met the listed requirements of § 122.001 of the TEXAS ELECTION CODE in that each:

- (a) preserved the secrecy of each ballot cast by the examiners;
- (b) was suitable for use as ballot casting device;
- (c) operated safely and accurately reflected the votes cast;
- (d) permitted voting on all offices and ballot measures;
- (e) excluded improper multiple votes in a single race by a single voter;
- (f) did not count a vote for the same office or measure more than once;
- (g) permitted write-in voting;
- (h) allowed straight party voting; and
- (i) produced adequate records of the votes cast on the machine for purposes of audits.

2. The voting of mock ballots by the examiners showed that DRE systems for the HART INTERCIVIC 6.2.1 System: (1) allowed a voter to review and change their selections before casting a ballot; (2) notified voters if more selection are made in a race than are allowed; (3) provided an on site paper record of the voting done on the machine; (4) provided access and voting capabilities for persons with physical disabilities; and (5) allowed for use of languages other than English in casting ballots.

3. The DRE's and optical scan ballots counters met the requirements of TEXAS ELECTION CODE § 122.033 in that each contained adequate physical security devices to guard against tampering; protected registering counters; a public counter; and a protective counter.

4. The required audit logs for the central tabulators and related software in the HART INTERCIVIC 6.2.1 System had adequate audit log capabilities as required by § 81.62 of the Texas Administrative Code.

5. The examiners cast provisional ballots, blank ballots and incomplete ballots during the examination on each piece of equipment and the tabulation and accumulator software eventually correctly counted and accounted for these differing types of ballots.

6. The level of training for election officials includes "optional" training that may be purchased for an additional fee. Hart does not contend this optional training is an absolute necessity; however, it appears to be beneficial. Rather than have levels of training that are optional, it would be a better practice to simply have the training be part of the purchase of the particular component of a system so the various election officials are not operating across the state on different levels of training.

7. Similarly, the ongoing support after the purchase of a Hart system is a separate cost item. The level of support depends on the costs an end user is willing to spend. Again, this system seems to lead to different levels of customer support that may adversely impact an election process when a problem arises. It appears that the better practice would be to include the same level of support as a portion of the purchase of a system or one of its components to ensure a consistent level of support exists for all users.

8. As a procedural matter, it became clear in this examination that the Hart representatives in attendance lacked certain levels of technical expertise to answer some of the examiners' questions. For future exams, I think it would be beneficial if the vendor provided an advance notice of the officials from their company that will be in attendance along with a description of those attendees role in the company and level of technical, operational or sales expertise to allow the Examiners the opportunity to comment in advance of the examination if they believe additional officials are needed to answer potential questions.

## **RECOMMENDATION**

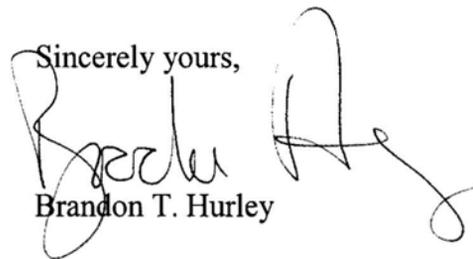
Based on the foregoing observations and my examination of the Hart Intercivic 6.2.1 System, its accompanying literature and the representations made by Hart Intercivic officials both in its literature and at the examination, I recommend that the components of Hart Intercivic 6.2.1 System listed above be certified as compliant with the requirements of the TEXAS ELECTION CODE and the Texas Administrative Code. This recommendation is conditioned on satisfactory answers being provided by Hart to the Secretary of State's office in response to the list provided to Hart on February 6, 2006. The answers to these questions are due from Hart on February 22, 2008. If any of the answers to those questions are not satisfactory to the Secretary's office or any of the examiners, or raise questions or additional issues, then I would suspend this recommendation pending the resolution of such issues.

This report should not be construed as a tacit or implied comment on any of the technical aspects of the Hart Intercivic 6.2.1 System as except expressly stated herein. In the event any of the equipment, software or security devices examined are altered, changed or decertified by any

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accrediting agency (other than a “minor modification qualified for administrative certification process” as that term is defined in § 81.65 of the Texas Administrative Code), this report should be considered withdrawn and not relied upon from that point forward.

To avoid any confusion, this letter is also to certify that my current law firm and Hart Intercivic are in no way related. Neither Mark Hart, one of the name partners in our firm, nor any of his family members own or have any connection with the Hart Intercivic company. Thank you for the opportunity to serve as an examiner and participate in this important process that protects the integrity of Texas’ voting systems.

Sincerely yours,  
  
Brandon T. Hurley