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June 26, 2006

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

Re: Inspection and Review of Hart Intercivic System 6.1 conducted on May 25, 2006

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 Election Systems voting systems on May 25, 2006, at the offices of Elections Division of the Texas Secretary of State in Austin, Texas:

- (1) Ballot Origination Software System: BOSS 4.2.13
- (2) Ballot Now: Paper Ballots 3.2.4
- (3) Tally: Vote Tabulation System 4.2.8
- (4) Rally: Vote Transfer System to Tally 2.2.4
- (5) SERVO: Warehouse Management System 4.1.6
- (6) eCM Manager 1.1.7
- (7) JBC: Judges Booth Controller 4.1.3

- (8) eSlate: Electronic Voting Device 4.1.3
- (9) eScan: Precinct Based Ballot Scanner 1.2.0

** It should be noted that Hart Intercivic also was prepared to present information on Verified Ballot Option (a printer to create a verified voter paper audit trail); however, the Secretary of State and Examiners concluded that since no requirement exists in Texas law or administrative rule requiring such a voter verified paper trail, it is not an option that is subject to certification by the Secretary of State. Accordingly, nothing in this report relates to Hart Intercivic's VBO 1.7.5

I examined the above referenced software and equipment (collectively referred to herein as "the Hart Intercivic 6.1 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. Prior to the date of the inspection, officials from the Secretary of Sate's office ran 30 sample ballots through the optical scanner (eScan), the Direct Recording Electronic voting machine (eSlate), and the software system used to tally the votes from both such machines. The staff of the Secretary of State reported that these ballot tests all were successful using various markings in blue, black and pencil and accurately caught a human error on a write-in spot on a ballot that was easily corrected.

On the day of the inspection, officials from Hart first addressed recent issues that have arisen in the press related to various problems experienced in different counties around Texas with Hart Intercivic equipment and programs. With each reported problem, as detailed in Scott Flom's letter to you of May 16, 2006, it appears that the problems were correctable and handled by local election officials or field representatives of Hart such that there was no material impact on the election process. It does appear that many of the problems relate to operator error that is encountered on-site on election day.

Also on the day of the inspection, Hart officials gave an overview of each piece of equipment and detailed the software being reviewed. A physical inspection and testing of each piece of equipment was also completed by the examiners and the Secretary of State staff. In so doing, the examiners cast ballots on both the Direct Recording Electronic ("DRE") voting machines ("DRE") and paper ballots were fed into the optical scanner. Both mock votes were tabulated and sorted with the Hart software.

OBSERVATIONS

- 1. Each of the separate pieces of hardware examined that were used for actually casting a ballot (eSlate and eScan) 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 printer module used to create a verified voter paper audit trail ("VBO") was easily detached from the eSlate hardware and the operation of the eSlate machine was not materially effected once the printer was removed.
- 3. The Hart Intercivic 6.1 DRE System met the requirements of §81.57 of Title 1 of the Texas Administrative Code because it could be accessed from a variety of positions and the various manners in which votes could be cast assured that it would provide assistance for the visually impaired, hearing impaired, and be reachable by those confined to a wheelchair.
- 4. The voting of mock ballots by the examiners showed that DRE systems for the Hart Intercivic 6.1 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.

- 5. The transmission of voting data over phone lines to Hart Intercivic 6.1 System software is SSL encrypted such that it provides a measure of security since the transmission may not occur over a dedicated phone line. This level of security should be closely monitored as technological advances occur that make SSL encryption less secure in the future.
- 6. 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. Both the eSlate and the eScan had a publicly viewable counter added to each piece of equipment in the reviewed version that is stored in the device.
- 7. The audit logs for each piece of the voting equipment in the Hart Intercivic 6.1 System had adequate audit log capabilities as required by § 81.62 of the Texas Administrative Code. An audit log was run with the Hart Intercivic 6.1 System and was reviewed by the examiners.
- 8. The examiners cast provisional ballots, blank ballots and incomplete ballots during the examination and each piece of equipment in the Hart Intercivic 6.1 System correctly counted and accounted for these differing types of ballots.

RECOMMENDATION

Based on the foregoing observations and my examination of the Hart Intercivic 6.1 System, its accompanying literature and the representations made by Hart officials both in its literature and at the examination, I recommend that the Hart Intercivic 6.1 System be certified as compliant with the requirements of the TEXAS ELECTION CODE and the Texas Administrative Code.

This report should not be construed as a tacit or implied comment on any of the technical aspects of the Hart Intercivic 6.1 System as except expressly stated herein. In the event any of the equipment, software or security devices examined is altered, changed or decertified by any 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.

Thank you for the opportunity to serve as an examiner and participate in this important process that protects the integrity of Texas' voting systems.