THE POTENTIAL IMPACT OF THE FEC ERROR RATE STANDARDS ON HAVA AND FEDERAL ELECTIONS

The HAVA LAW Title III, section 301.a.5. (text below) sets requirements for voting machines used in elections and specifically says they must meet the accuracy requirements of section 3.2.1 of the FECs voting system standards in effect on the date of HAVA enactment (in 2002). Section 3.2.1 is quoted below. Not everything in the FEC voting standards is legally enforceable, but the sections called out by name in actual laws such as HAVA have to be. If 3.2.1 can be ignored, so can the handicapped access sections of the HAVA LAW section 301, and no one is claiming that. Conclusion:

IF A VOTING MACHINE DOES NOT SATISFY 3.2.1 ACCURACY STANDARDS, IT CAN NOT LEGALLY BE USED IN A FEDERAL ELECTION AFTER 1/1/2006

Nowhere does any law say that NASED must do the certification, but to satisfy 3.2.1 there must be some defensible accuracy certification other than say so of the state’s election officials or oral tradition. Otherwise anyone can go into a court and demand that a Federal election using these machines be overturned unless someone shows proof that section 3.2.1 is satisfied.

When one reads HAVA Title I, section 102.a.2.c and 102.b.1.C and D (eligibility to receive funds), the phrase "meets the requirements of section 301" appears several times as a precondition for getting funds. Section “D” explicitly says that certification is needed to show that 301 is satisfied. The error rates must be satisfied but not all of the FEC VVS “voluntary” provisions. Therefore

HAVA FUNDING CAN BE CHALLENGED, IN COURT IF NOT BY THE FEDS, UNLESS ELECTION MACHINES BOUGHT SATISFY HAVA 301 / FEC 3.2.1

Error rate certification has to come from a recognized engineering laboratory. Neither the Attorney General nor any other lawyer or legislator can make the certification. They must produce a report to support any claims.

If there is not PROOF that a machine meets the 3.2.1 accuracy standard, it’s purchase or use can result in a broad rescinding of HAVA reimbursements to states and localities, and also in election-time spectacles reminiscent of the 2000 Presidential election. Specifically, the November 2006 Congressional election results could and probably would be challenged by the losers in each locality. For new purchases, it is central to ask

WHERE IS THE CERTIFICATION THAT A MACHINE MEETS THE FEC 3.2.1 ERROR STANDARD?

To see the impact, note for example that New Jersey has about 6200 Sequoia Advantage voting machines, with the possibility that 1000 – 2000 more will be ordered to use up HAVA funding. What if the error certification is not available from a reputable engineering source? What if the machine can not meet the standard, since it is a very old and obsolete design?

CITATIONS

HERE IS THE TEXT OF 301, WITH IRRELEVENT STUFF DELETED:

TITLE III--UNIFORM AND NONDISCRIMINATORY ELECTION TECHNOLOGY AND ADMINISTRATION REQUIREMENTS

Subtitle A--Requirements

SEC. 301. <<NOTE: 42 USC 15481.>> VOTING SYSTEMS STANDARDS.

(a) Requirements.--Each voting system used in an election for Federal office shall meet the following requirements:

(1) ...

(2) Audit capacity.—

(A) In general.--The voting system shall produce a record with an audit capacity for such system.
(B) Manual audit capacity.--
   (i) The voting system shall produce a permanent paper record with a manual audit capacity for such system.
   (ii) The voting system shall provide the voter with an opportunity to change the ballot or correct any error before the permanent paper record is produced.
   (iii) The paper record produced under subparagraph (A) shall be available as an official record for any recount conducted with respect to any election in which the system is used.

(3) Accessibility for individuals with disabilities.--The voting system shall...

(4) Alternative language accessibility

(5) Error rates.--The error rate of the voting system in counting ballots (determined by taking into account only those errors which are attributable to the voting system and not attributable to an act of the voter) shall comply with the error rate standards established under section 3.2.1 of the voting systems standards issued by the Federal Election Commission which are in effect on the date of the enactment of this Act.

HERE IS THE RELEVANT TEXT OF TITLE I SECTION 102:

SEC. 102. REPLACEMENT OF PUNCH CARD OR LEVER VOTING MACHINES.

(a) Establishment of Program.--
   (1) ......

   (2) Use of funds.--A State shall use the funds provided under a payment under this section (either directly or as reimbursement, including as reimbursement for costs incurred on or after January 1, 2001, under multiyear contracts) to replace punch card voting systems or lever voting systems (as the case may be) in qualifying precincts within that State with a voting system (by purchase, lease, or such other arrangement as may be appropriate) that--
      (A) does not use punch cards or levers;
      (B) is not inconsistent with the requirements of the laws described in section 906; and
      (C) meets the requirements of section 301....

(b) Eligibility.--
   (1) In general.--A State is eligible to receive a payment under the program under this section if it submits to the Administrator a notice not later than the date that is 6 months after the date of the enactment of this Act (in such form as the Administrator may require) that contains--
      (A) ... 
      (B) ...
      (C) certifications that the replacement voting systems will meet the requirements of section 301; and
      (D) such other information and certifications as the Administrator may require which are necessary for the administration of the program.

ACCURACY SPECIFICATION FROM the FEC VOLUNTARY VOTING SYSTEM GUIDELINES SECTION 3 (SEE BOLDED PARAGRAPHS) http://www.epic.org/privacy/voting/eac_foia/

3.2.1 Accuracy Requirements

Voting system accuracy addresses the accuracy of data for each of the individual ballot positions that could be selected by a voter, including the positions that are not selected. For a voting system, accuracy is defined as the ability of the system to capture, record, store, consolidate and report the specific selections and absence of selections, made by the voter for each ballot position without error. Required accuracy is defined in terms of an error rate that for testing purposes represents the maximum number of errors allowed while processing a specified
volume of data. This rate is set at a sufficiently stringent level such that the likelihood of voting system errors affecting the outcome of an election is exceptionally remote even in the closest of elections.

The error rate is defined using a convention that recognizes differences in how vote data is processed by different types of voting systems. Paper-based and DRE systems have different processing steps. Some differences also exist between precinct count and central count systems. Therefore, the acceptable error rate applies separately and distinctly to each of the following functions:

a. For all paper-based systems:
   1) Scanning ballot positions on paper ballots to detect selections for individual candidates and contests;
   2) Conversion of selections detected on paper ballots into digital data;

b. For all DRE systems:
   1) Recording the voter selections of candidates and contests into voting data storage; and
   2) Independently from voting data storage, recording voter selections of candidates and contests into ballot image storage.

c. For precinct-count systems (paper-based and DRE): Consolidation of vote selection data from multiple precinct-based systems to generate jurisdiction-wide vote counts, including storage and reporting of the consolidated vote data; and

d. For central-count systems (paper-based and DRE): Consolidation of vote selection data from multiple counting devices to generate jurisdiction-wide vote counts, including storage and reporting of the consolidated vote data.

For testing purposes, the acceptable error rate is defined using two parameters: the desired error rate to be achieved, and the maximum error rate that should be accepted by the test process.

For each processing function indicated above, the system shall achieve a target error rate of no more than one in 10,000,000 ballot positions, with a maximum acceptable error rate in the test process of one in 500,000 ballot positions.

ANOTHER SECTION FROM FEC VVS

3.2.4.3.3 Recording Accuracy

DRE systems shall meet the following requirements for recording accurately each vote and ballot cast:

a. Detect every selection made by the voter;

b. Correctly add permissible selections to the memory components of the device;

c. Verify the correctness of the detection of the voter selections and the addition of the selections to memory;

d. Achieve an error rate not to exceed the requirement indicated in Section 3.2.1;

e. Preserve the integrity of voting data and ballot images (for DRE machines) stored in memory for the official vote count and audit trail purposes against corruption by stray electromagnetic emissions, and internally generated spurious electrical signals; and

f. Maintain a log of corrected data.

Rich Janow, Ph.D. Physics
514 North Wyoming Avenue South Orange, N. J.
janow@att.net (973) 762-4987
