

1 **A. The Certification Addresses Security Issues By Mandating The “Short**
2 **Term” Mitigation Measures From The VSTAAB Report Without Any**
3 **Public Discussion Of The Efficacy Or Feasibility Of Those Measures, Or The**
4 **Need For More Substantial Fixes.**

5 130. The terms and conditions set forth in the certification included the adoption of
6 many of the stop-gap “short term” procedural and physical safeguards recommended in the
7 VSTAAB Report, including: resetting the encryption key on the AV-TSx machines;
8 assigning each memory card used with the AV-OS or AV-TSx machines a permanent serial
9 number; programming the memory cards in a secured facility, inserting them immediately
10 into their assigned voting machines and sealing them with tamper-evident seals, verification
11 of the integrity of the seals at the start of election day; maintenance of a written log showing
12 the chain of custody for each memory card and unit; and tight control over the GEMS server.
13 Ex. 22 at 3-4. The terms and conditions did not adopt a recommendation in the VSTAAB
14 Report that the memory cards be returned intact in the TSx units to the county facility at the
15 end of election day.

16 131. In mandating these security measures, the Secretary of State apparently has not
17 considered whether they would prevent manipulation of the AV-TSx memory cards through
18 means other than those identified in the VSTAAB Report. On information and belief, the
19 code on the AV-TSx memory cards can be manipulated even when they are inserted and
20 sealed into AV-TSx terminals because those terminals have several access points.

21 132. The required safeguards were also written without regard for the reality of
22 elections in California. For example, voting machines are often minimally secured and
23 unsupervised for long periods prior to an election. Poll workers also lack the time and
24 training to perform security functions as well as their traditional functions. Moreover, there
25 is no indication that the VSTAAB panel, who are computer scientists, have any expertise in
26 devising physical and procedural security measures, or any experience of poll worker
27 behavior in actual election conditions.

28 133. In the past, even relatively simple safeguards have not been followed, with the
result that voters have been disenfranchised. For example, in 2004 San Diego was required

1 to print extra paper ballots as a back-up for its conditionally certified Diebold systems. San
2 Diego ignored this requirement. When the machines broke down, countless voters were
3 disenfranchised. *See Ex. 2 at 5.*

4 134. By requiring that counties implement new security procedures, the certification
5 created rules which apply to all Diebold AV-TSx counties and which are designed to enforce
6 the provisions of the Elections Code. These rules are mandatory in light of Diebold's
7 acknowledgement that it cannot make the long-term changes in the VSTAAB Report in time
8 for this year's California election cycle (described in Paragraph 137 *infra*).

9 135. The Secretary of State has not called for or scheduled any additional public
10 hearings on the topic of the certification of the Diebold systems, or the use procedures set
11 forth in his statement of certification.

12
13 **B. The Secretary Of State's Certification Order Does Not Require Diebold To**
14 **Remove Forbidden Interpreted Code From Its Memory Cards.**

15 136. The certification also does not require Diebold to remove interpreted code from
16 its machines even though the VSTAAB examiners noted it was explicitly forbidden by
17 federal voluntary standards (which California law makes mandatory). The certification
18 order also sets no schedule for when in the future these changes need to be made.

19 137. In a February 21, 2006 letter to the Secretary of State, Diebold promised to make
20 some of the short-term changes recommended by the VSTAAB report, but acknowledged
21 that complying with the VSTAAB Report's longer-term recommendations would require
22 significant changes to several different systems, including but not limited to the AV-TSx. A
23 true and correct copy of the February 21, 2006 letter is included in the Appendix as Exhibit
24 23. Even if Diebold in fact makes the short-term changes recommended by the VSTAAB
25 Report, that would fail to address both the System's identified security vulnerabilities and its
26 failure to satisfy state law.

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1 **C. The Secretary Of State’s Certification Order Improperly Delegates**
2 **Responsibility For Ensuring That The Diebold System Complies With State**
3 **And Federal Law To Diebold And County Elections Officials.**

4 138. The Secretary of State’s certification acknowledges that all voting systems
5 certified for use in California must comply with all applicable state and federal statutes, rules
6 and requirements. However, the Secretary of State’s “conditional certification” improperly
7 delegates to Diebold and to County Elections Officials responsibility for the legality of the
8 Diebold Voting System. This is especially problematic given the evidence generated by the
9 Secretary of State’s own office and expert panel that the Diebold Voting System does not in
10 fact comply with these requirements.

11 139. With respect to Diebold, the certification states that voting system manufacturers
12 “shall assume full responsibility for any representation that a voting system complies with
13 all applicable state and federal requirements.” In the event that such a representation is false
14 or misleading, the Secretary’s “conditional certification” directs that the manufacturer “shall
15 be responsible for the cost of any upgrade, retrofit or replacement, of any voting system or
16 its component parts, found to be necessary for certification or to otherwise be in
17 compliance.” Ex. 22 at 5.

18 140. The attempt to delegate responsibility (and *liability*) to County Elections Officials
19 in the Secretary’s certification is even more egregious. The certification states that “[a]ny
20 voting system purchased with funds allocated by the Secretary of State’s Office shall meet
21 all applicable state and federal standards, regulations and requirements.” *Id.* at 6.

22 141. The Secretary of State is responsible for allocating state voting system
23 modernization funds and HAVA funds from the federal government. The Secretary of State
24 is also responsible for guaranteeing that voting systems comply with federal and state law.
25 The Secretary of State’s “conditional certification” abdicates that responsibility by
26 encouraging County Elections Officials to squander their limited funding on certified, but
27 nonetheless non-compliant, systems while purporting to shift liability onto those same
28 county officials for the systems’ non-compliance.

1 in California elections denies Petitioners' rights under Article I, Section 7 of the California
2 Constitution to equal protection of the laws. By delegating to County Elections Officials the
3 power to choose to use the Diebold AV-TSx, the Secretary of State has uniquely burdened
4 the fundamental rights of Petitioners, and other voters who vote in those California counties
5 who use the Diebold Voting System, to vote and to have their votes counted correctly.

6 147. Use of the Diebold AV-TSx by Defendants/Respondents County Elections
7 Officials also denies Petitioners' rights under Article I, Section 7 of the California
8 Constitution to equal protection of the laws. Use of the AV-TSx uniquely burdens the
9 fundamental rights of Petitioners, and other voters who vote in those California counties who
10 use the Diebold Voting Systems, to vote and to have their votes counted correctly.

11
12 **B. Certification Of The Diebold AV-TSx And Any Use Of That System By
13 County Elections Officials Violates The "Federal Qualification"
14 Requirement Under Elections Code Sections 19250(a-b) And 19251(d).**

15 148. Elections Code Section 19251(d) defines "federal qualification" to mean that a
16 voting system (1) has been certified by means of qualification testing by a Nationally
17 Recognized Test Laboratory *and* (2) has met or exceeded the minimum requirements set
18 forth in the federal voluntary standards.

19 149. Section 4.2.2 of the 2002 Standards addresses software integrity and strictly
20 limits the use of interpreted code. It reads in part: "Self-modifying, dynamically loaded, or
21 interpreted code is prohibited, except under the security provisions outlined in section 6.4.e.
22 *This prohibition is to ensure that the software tested and approved during the qualification
23 process remains unchanged and retains integrity.* External modification of code during
24 execution shall be prohibited." Ex. 1 at 4-4 (emphasis added). It is generally understood
25 that the reference to section 6.4.e is actually a reference to section 6.4.1.e, because there is
26 no section 6.4.e. Under section 6.4.1.e of the 2002, "[a]fter initiation of Election Day
27 testing, no source code or compilers or assemblers shall be resident or accessible." *Id.* at 6-
28 7. The interpreted code used in the Diebold Voting System's memory card does not qualify
for section 6.4.1.e exemption, because its compiler and interpreter are resident and

1 accessible after initiation of Election Day testing. Thus, as the VSTAAB Report recognized,
2 the presence of interpreted code in the Diebold Voting System’s memory card violates the
3 2002 Standards. Ex. 16 at 35 (“To be in compliance [with federal rules restricting interpreted
4 code] it would seem that AccuBasic would have to be eliminated, or the standard would
5 have to be changed”).

6 150. In other words, the AV-TSx is not “federally qualified” within the meaning of
7 Elections Code Section 19251(d) because it contains interpreted code in violation of the
8 2002 Standards.

9 151. Moreover, the federal qualification process itself is suspect. As described in
10 paragraphs 84 through 86 above, the AV-TSx system with firmware version 4.6.3 was
11 qualified by the ITA and the NASED but was later found to be unstable and plagued by
12 printing problems. Later, the federal ITA that qualified the AV-TSx system failed to test for
13 the presence of interpreted code and failed to identify the other serious security issues noted
14 in the VSTAAB Report.

15
16 **C. Certification Of The Diebold AV-TSx Violates The Help America Vote Act.**

17 152. HAVA created several new requirements for voting systems. For example,
18 HAVA provides that voting systems shall

19 (a) notify a voter of any “overvotes”—*i.e.* votes for more than one candidate
20 for a single office (HAVA §301(a)(1)(A)(iii));

21 (b) produce a record with a “manual audit capacity” (HAVA §301(a)(2)(B));

22 (c) be accessible for individuals with disabilities, including visual, mobility,
23 dexterity and hearing disabilities, in a manner that provides the same opportunity for access
24 and participation (including privacy and independence) as for other voters (HAVA
25 §301(a)(3)(A));

26 (d) provide at least one system at each polling place which satisfies the
27 accessibility requirements in HAVA Section 301(a)(3)(A); and

28 (e) allow “provisional voting” when an individual declares that he is eligible to

1 vote but the official list of voters does not list his name (*e.g.* because the voter is attempting
2 to vote at the wrong polling place). HAVA §302.

3 153. The Secretary of State's November 11, 2005, consultant's report noted that the
4 AV-TSx "does not provide a blind voter with the opportunity to verify the vote using the
5 paper audit record." Ex. 13 at 8. The report noted that this problem, among others, made it
6 impossible to determine if the AV-TSx complied with HAVA. *Id.*

7 154. The California Association of Clerks and Election Officials has also questioned
8 whether the HAVA's required provisional balloting is compatible with the paper records
9 generated by DREs. In its September 1, 2005, letter to the governor, the association noted
10 that provisional ballots by eligible voters would be "indistinguishable from the ineligible
11 ballots due to the inability to identify which records represent the eligible and/or ineligible
12 images." Ex. 20.

13 155. The November 11, 2005, consultant's report on the AV-TSx acknowledges that it
14 "does not provide support for assistive devices for the physically disabled such as sip and
15 puff or jelly buttons." Ex. 13 at 12. The inaccessibility of the AV-TSx for voters with
16 dexterity disabilities also violates HAVA. Accommodation of such voters is mandated by
17 HAVA §301(a)(3) and its implementing regulations.

18
19 **D. Certification Of The Diebold AV-TSx And Any Use Of That System By**
20 **County Elections Officials Violates The "Accessible Voter Verified Paper**
Audit Trail" Requirements Of The California Elections Code.

21 156. The Elections Code requires that DRE systems produce an "accessible voter
22 verified paper audit trail." Elec. Code §19250(a-b).

23 157. "Voter verified paper audit trail" is defined as "a component of a direct recording
24 electronic voting system that prints a contemporaneous paper record copy of each electronic
25 ballot and allows each voter to confirm his or her selections before the voter casts his or her
26 ballot." Elec. Code §19251(c).

27 158. "Accessible" means "the information provided on the paper record copy from the
28 voter verified paper audit trail mechanism is provided or conveyed to voters via both a visual

1 and a nonvisual method, such as through an audio component.” Elec. Code §19251(b).

2 159. The voter verified paper audit trail is the “official paper audit record and shall be
3 used for the required 1-percent manual tally described in Section 15360 and any full
4 recount.” Elec. Code §19253(b)(1). “During the official canvass of every election in which
5 a voting system is used, the official conducting the election shall conduct a public manual
6 tally of the ballots tabulated by those devices cast in 1 percent of the precincts chosen at
7 random by the elections official.” Elec. Code §19253(b)(1).

8 160. The voter verified paper audit trail is the official record of the vote; it “shall
9 govern if there is any difference between it and the electronic record during a 1-percent
10 manual tally or full recount.”

11 161. The AV-TSx’s paper audit trail fails to meet the accessibility standards of
12 Elections Code Section 19251 because it does not have a non-visual method for conveying
13 to a voter the contents of the contemporaneous paper record of his vote.

14 162. There are also substantial doubts as to whether the AV-TSx’s paper audit trail
15 could be used to meet the audit requirements of Elections Code Section 19253. Because the
16 auditability of the AV-TSx has never been proven in actual, or even simulated, election
17 conditions, and because of the substantial evidence of failures both of the AV-TSx’s printer
18 mechanism and of the paper rolls used by the AV-TSx, the Secretary of State’s certification
19 of the AV-TSx without additional testing is a violation of the Elections Code.

20 163. As was shown after a Diebold memory card malfunctioned during the 2000
21 presidential election, resulting in thousands of miscounted votes, manual recounts are vital
22 for protecting the accuracy and legitimacy of elections.

23
24 **E. The Secretary Of State’s “Conditional” Certification Of The Diebold AV-**
25 **TSx Violates The California Elections Code And Administrative Procedures**
26 **Act By Imposing New Regulations On Voting Without Public Hearing Or**
Comment.

27 164. Elections Code Section 19204 requires the Secretary of State to “hold a public
28 hearing to give persons interested an opportunity to express their views for or against the

1 machine or device” before “giving its decision approving or withholding approval of any
2 voting machine, voting device, or vote tabulating device.”

3 165. The Administrative Practices Act (“APA”), Government Code Section 11340 *et*
4 *seq.*, also requires that public agencies and officers satisfy certain requirements, including
5 filing a notice of the proposed regulation (Gov’t Code §11346.2(a)), analyzing possible
6 alternatives and providing reasons for rejecting those alternatives (Gov’t Code
7 §11346.2(b)(3)(A)), and holding a public hearing if any “interested person” requests it
8 (Gov’t Code §11346.8). A regulation that is subject to the APA is void if it fails to satisfy
9 the APA’s requirements. *See* Gov. Code §11340.5(a).

10 166. The Secretary of State’s new rules for use of the AV-TSx did not satisfy the
11 public notice and alternatives analysis requirements of the APA. The Secretary did not file a
12 notice of the proposed regulations (Gov’t Code §11346.2(a)), analyze possible alternatives,
13 or provide reasons for rejecting those alternatives (Gov’t Code §11346.2(b)(3)(A)).

14 167. The Secretary of State’s decision to impose untested conditions of use in order to
15 address known security problems with the Voting System, violates the public notice
16 requirement of Elections Code Section 19204 and the California Administrative Procedures
17 Act, Government Code Section 11340 *et seq.* In particular, the Secretary of State’s
18 certification of the Voting System only on condition that its users implement untested
19 security recommendations from the VSTAAB Report is not valid because it was not publicly
20 debated, especially given that there is no indication that the VSTAAB panel, made of
21 computer scientists with no demonstrated experience with the actual behavior of poll
22 workers during elections, was qualified to make recommendations on physical and
23 procedural, as opposed to programming, elections safeguards. Moreover, even if the
24 VSTAAB was qualified, the Secretary of State’s failure to have a debate on its
25 recommendations violates the Elections Code because his choice of which VSTAAB
26 recommendations to mandate was both highly selective and arguably inconsistent with the
27 VSTAAB examiners’ intentions.

28

1 **F. Certification Of The Diebold AV-TSx And Any Use Of That System By**
2 **County Elections Officials Violates Elections Code Section 19205.**

3 168. Elections Code Section 19205 provides that the Secretary of State's voting
4 system specifications and regulations "shall include" the following: (a) the machine or
5 device and its software shall be suitable for the purpose for which it is intended, (b) the
6 system shall preserve the secrecy of the ballot, and (c) the system shall be safe from fraud or
7 manipulation.

8 169. The Secretary of State's certification of the Voting System despite the VSTAAB
9 Report's identification of a large number of security flaws in the Voting System's memory
10 card software and the Report's suggestion that there were additional flaws in other
11 components of the Voting System that it had not examined violates Elections Code Section
12 19205.

13 170. The Secretary of State's decision to impose conditions of use on the Voting
14 System for statewide elections drawn primarily from the VSTAAB Report's
15 recommendations for short-term security solutions suitable for local elections, while failing
16 to require the bug fixes and other modifications the VSTAAB Report recommended as long-
17 term security solutions for statewide and/or for high-stakes elections, violates Elections
18 Code Section 19205.

19 171. The Secretary of State's imposition of conditions of use drawn from the
20 VSTAAB Report also violates Elections Code Section 19205 because there is no evidence
21 that the authors of that report had any special expertise in the areas of physical and
22 procedural, as opposed to programming, safeguards on voting or that they, or the Secretary
23 of State, made any effort to test the feasibility or efficacy of the recommended safeguards.

24 172. The Secretary of State's certification of the AV-TSx also violates Elections Code
25 Section 19205 because the AV-TSx memory cards may be accessible and programmable
26 even when they are inserted and sealed into AV-TSx terminals, nullifying any benefit from
27 the short-term security measures.

28 173. The Secretary of State's certification of the AV-TSx also violates Elections Code

1 Section 19205 because there has been no testing to determine if the paper audit trail created
2 by the AV-TSx's attached printer will be suitable for use in California's mandatory one
3 percent recount or, more importantly, a full manual recount in the event of a disputed
4 election.

5
6 **G. The Secretary Of State's "Conditional" Certification Is An Improper**
7 **Delegation Of Authority.**

8 174. The Elections Code mandates that the Secretary of State "shall not approve any
9 voting system, or part of a voting system, unless it fulfills the requirements of this code and
10 the regulations of the Secretary of State." Elec. Code §19200. The Secretary of State's own
11 staff and experts have already confirmed the AV-TSx does not satisfy the FEC's 2002
12 Standards, made mandatory by the Elections Code, or the Help America Vote Act.

13 175. When the Secretary of State certified the AV-TSx, it was "conditional" on several
14 points. One of the conditions, contained in paragraph "j" of the Certification, was that
15 "[p]ursuant to this certification and by order of the Secretary of State, voting systems
16 certified for use in California shall comply with all applicable state and federal statutes,
17 regulations, rules and requirements." Ex. 22 at 5. The paragraph provided that applicable
18 regulations include the Help America Vote Act and the FEC's 2002 Voting System
19 Standards/Guidelines. *Id.* Paragraph "k" of the Certification also provided that "[v]oting
20 system manufacturers and/or their agents shall assume full responsibility for any
21 representation that a voting system complies with all applicable state and federal
22 requirements as referenced above." *Id.*

23 176. By approving the system nonetheless, but simultaneously proclaiming that
24 certified systems must meet federal and state law and that vendors are liable for "any
25 representation that a voting system complies with all applicable state and federal
26 requirements," the Secretary of State has improperly delegated his authority to enforce the
27 voting standards contained in the Elections Code.

28 177. In fact, the Secretary of State's Certification assumes that the AV-TSx, despite