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CERTIFICATION OF A CENTRAL COUNT OPTICAL SCAN SYSTEM AND DIRECT RECORDING ELECTRONIC VOTE TALLYING SYSTEM

In July 2004 Sequoia Pacific Voting Equipment of Jamestown, New York requested the review and examination of an optical scan electronic vote tallying system and a direct recording electronic system under RCW 29A.12.020, 29A.12.080 and WAC 434-333-107. The hardware and software for this system is marketed under the name Sequoia Pacific AVC Edge DRE and Optech 400-C.

On August 18, 2004, the Secretary of State provisionally certified the system, pending documentation that the pick-a-party feature had been reviewed and tested by a federal independent testing authority. Sequoia Pacific has provided all documentation required to instate a full certification of the system tested by this office and installed in Snohomish County in July 2004. The pick-a-party feature was tested under NASED number N-1-07-22-11-004 (1990).

On this date, under the provisions of RCW 29A.12.020 and WAC 434-333-107, the Office of the Secretary of State hereby certifies the *"WinEDS Election System"*, submitted by Sequoia Pacific, and approves it for use as a direct recording electronic vote tabulation system and central count optical scan system by County Governments of the State of Washington when used in compliance with the procedures contained in this certification, accompanying Report and Findings, and Washington State law.

This version of the system consists of:

- *Hardware*. comprised of:
  - Optech 400-C,
  - AVC Edge, Precinct Voting Machine (DRE),
  - AVC Edge Card Activator device;

- *Software*. comprised of:
  - WinETP; software version 1.10.2,
  - WinEDS; software version 3.0.132,
  - Card Activator device; firmware version 4.3.302,
  - AVC Edge device; firmware version 4.3.302.

Certified on this February 2, 2005

SAM REED
Secretary of State

REPORT OF THE SECRETARY OF STATE ON THE EXAMINATION AND EVALUATION OF AN OPTICAL SCAN ELECTRONIC VOTE TALLYING SYSTEM AND DIRECT RECORDING ELECTRONIC EQUIPMENT

The Secretary of State was informed by Snohomish County and Sequoia Pacific that their voting system must be modified prior to use in the upcoming partisan primary in order to use their voting systems to meet the requirements of the partisan primary passed in the 2004 Legislative session. In July 2004 Sequoia Pacific Voting Equipment of Jamestown, New York requested the review and examination of an optical scan electronic vote tallying system and a direct recording electronic system under RCW 29A.12.020, 29A.12.080 and WAC 434-333-107. The hardware and software for this system is marketed under the name Sequoia Pacific AVC Edge DRE and Optech 400-C. In addition to the AVC Edge DRE Voting Machine Hardware, Firmware Release 4.3.302, the Hardware component includes the Card Activator, Firmware Release 4.3.302. The Software that administrates the election definition and election results components of the system is called WinEDS Election Data System (Version 3.0.132).

Hardware Description

The Optech 400-C (WinETP firmware v1.10.2) is a centralized, automatic feed, high volume optical scan ballot reader. The reader interprets ballots and records precinct batch vote totals onto a personal computer. The personal computer is an IBM-compatible computer which is part of the Optech 400-C and interacts with a central server that runs WinEDS. The vote totals are accumulated and reported from the central server

The AVC Edge (firmware v4.3.302) is a poll-site based, direct recording electronic (DRE) voting device with a touch screen interface which interprets touch in specified locations to interact with the voter. An optional click button interface allows independent voting for those with sight limitations when used in conjunction with audio playback and headphones. Sequoia Pacific also demonstrated an optional stand for the AVC Edge that allows wheel chair access to the device.

At a poll site, a Card Activator device (firmware, v4.3.302) is used by the poll workers to program a smart card with the precinct code for each voter. The smart card will activate the correct ballot type for the voter when inserted into an AVC Edge device. As part of the vote processing and ballot saving the flash card is deactivated when the voter casts his or her ballot. The card is then returned to the poll worker for the next voter.

The Results Cartridge, a Flash ROM memory cartridge based upon the PCMCIA interface, is used to store the polling-place specific election definition, ballot types and the primary copy of the election results for that device. In addition to the removable Results Cartridge, the AVC stores all vote data and audit log data redundantly to an internal Audit Trail device, also based upon Flash ROM technology.

Software Description
The WinEDS software (v3.0.132) is menu driven and allows the user to describe all aspects of an election. In preparation for ballot counting, the user enters office descriptions, positions, precinct combinations, ballot types, and any statistical information such as registered voter totals. The WinEDS software is used to produce and download the precinct specific programming onto the AVC Edge Results Cartridge. A personal computer running the WinEDS Election System serves as the central accumulator for countywide results. WinEDS can accumulate results via reading the AVC Edge Results Cartridge. There is no telephonic communication feature at this time.

RCW Requirements
An electronic vote tallying system must meet the following requirements (as set forth in RCW 29A.12.100) in order to be approved for use in Washington State:

1. It must correctly count votes marked on the ballot for any office or ballot proposition;

2. It must recognize and not count overvoted ballots;

3. It must accumulate a count of a specific number of ballots tallied for a precinct;

4. It must accommodate the rotation of candidates' names;

5. It must automatically produce precinct totals in either printed, marked, or punched forms; and

6. It must add precinct totals and produce a cumulative total.

Provisional Certification Requirements
Under provisions of WAC 434-333-107, the vendor must receive federal certification from the independent testing authorities for a version of their software that incorporates the modifications covered under this certification as early as possible in 2005 but no later than July 15th, 2005. The vendor must successfully complete an application for a new certification with the Secretary of State before this system may be used in federal elections in Washington State after the 2004 elections.

The county using this system under the provisions of WAC 434-333-107 must also conduct a post election logic and accuracy test of this system under this provisional certification.

Public Hearing
On July 23, 2004 a public hearing was held to test the Sequoia Pacific's optical scan electronic vote tallying system and a direct recording electronic system. Representing the Office of the Secretary of State was Pam Floyd, Voter Services Manager and Paul Miller, Elections Information Manager. The meeting was also attended by the

Honorable Bob Terwilliger, Snohomish County Auditor, staff members of the Snohomish County Auditor office, a Democratic Party observer, members of the media, and representatives from Sequoia Pacific. A series of functional and volume/stress tests were performed using mock elections simulating the Washington partisan primary and general election. The mock elections were conducted using a large volume of defined ballots simulating the conditions of this fall's elections prepared at the direction of the Office of the Secretary of State.

The testing was suspended at 6:00pm on August 23rd and resumed and completed on August 28th.

FINDINGS OF THE SECRETARY OF STATE

Upon review of the staff evaluation of the Sequoia Pacific's WinEDS Election System using the AVC Edge 2000 DRE Voting Machine and OPTECH 400-C, the presentation by the vendor, the evaluation of the system conducted by Ciber laboratories in 2004 and the results of the tests performed on this system, the Secretary of State finds that the system satisfies the requirements of RCW 29A.12.080 and WAC 434-333-107 when used in the manner described in the Report and the special procedures below.

Provisional Voting
At this time the system's provisional voting features are not certified for use in Washington state and counties using this system will continue to provide a paper ballot to voters in situations that call for a special ballot. Special ballots are part of a 'fail-safe' process that allows an individual to cast a ballot in situations where poll-workers are unable to determine the individual's eligibility. The ballot is only counted after election staff is able to determine that the individual is in fact eligible to vote on the ballot contests. At the time of certification the provisional balloting process was not able to function in a manner consistent with Washington State law and elections practice.

Special Early Voting Procedure:
The design of the AVC Edge, and the requirements of Washington State law, necessitate the use of the following procedures on the part of the user county to use the AVC Edge as an 'early voting' system. 'Early voting' refers to voters who cast a ballot on the AVC Edge prior to the election date. Conceptually this is the same as a voter picking up and casting an absentee paper ballot at the county elections office prior to an election.

The procedures are:

The system may be used as an 'early voting' system if the security safeguards applied to the AVC Edge are consistent with those used to protect returned absentee ballots. Access to the AVC Edge must be controlled. The device must remain in plain view of the office at all times during working hours and under lock and seal after business hours. The AVC Edge voter must sign the same oath an absentee voter does and the user county must maintain a log of all 'early' voters with the voters' signatures. The poll books must be marked with an indicator that warns the poll worker not to issue a ballot to a voter who has voted early. It is also recommended that the user county keep a record of the number of votes cast each evening when they close the AVC Edge and confirm the number of votes on the device when opening the device the next morning. It is further recommended that the Card Activator be kept separate from the AVC Edge after hours.

Post-Election Logic And Accuracy Test
Due to the provisional nature of this certification, the county using this system will be required to conduct a special logic and accuracy test or audit of their system after

election day but before certification of the election. (ref. WAC 434-333-107).

Absentee Ballot Procedures

Due to the reading characteristics of optical scan readers, the county must manually inspect each absentee ballot for any markings that the reader won't "see". This includes the ballots where the voter used marking devices in the designated marking area that don't conform to the manufacturer's specifications. The county will also inspect for consistent indications of voter intent where the markings do not conform to the marking areas defined by the ballot.