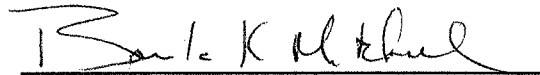


**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF STATE
EXAMINATION RESULTS OF
SEQUOIA PACIFIC CORPORATION'S
AVC ADVANTAGE (R) DIRECT RECORDING SYSTEM**

Issued by:



**Brenda K. Mitchell, DPA
Secretary of the Commonwealth
April 4, 1994**



**EXAMINATION OF SEQUOIA PACIFIC CORPORATION'S
AVC ADVANTAGE (R) DIRECT RECORDING ELECTRONIC VOTING SYSTEM
A REPORT BY THE SECRETARY
OF THE COMMONWEALTH OF PENNSYLVANIA**

I. INTRODUCTION

Act 1980-128 (25 P.S. § 3031.1 et seq) authorizes the use of electronic voting systems in Pennsylvania elections. All such systems must conform to the requirements provided for in section 1105-A of the Pennsylvania Election Code and must be examined and approved by the Secretary of the Commonwealth before being used in any election in Pennsylvania.

Three examiners were appointed and an examination of the Sequoia Pacific Corporation's AVC Advantage (R) Direct Recording Electronic Voting System was held on July 7, 1993 in accordance with the Act and in response to a request from Sequoia Pacific Corporation of Jamestown, New York. The examiners present were Kamila Blessing, Ph.D., Durham, NC, specializing in human engineering factors of computer systems; Charles J. Long, Esq., York, PA, patent attorney; and Michael I. Shamos, Ph.D., J.D., Pittsburgh, PA, specializing in the use of computer technology in a legal environment. The Secretary was represented by William P. Boehm, Commissioner of Elections, Monna J. Accurti, Director of Operations, and Matthew Hurlburt, Legal Assistant. Sequoia Pacific Corporation was represented by James Hayssen, President and Chief Executive Officer, Craig Short, Product Development Manager, and Nick Rodriguez, Customer Support.

II. THE AVC ADVANTAGE (R) DIRECT RECORDING ELECTRONIC VOTING SYSTEM

The Sequoia Pacific Corporation's AVC Advantage (R), a direct vote recording electronic system (DRE), is a self-contained unit. No paper ballots, punch cards, special pens or markers are required to operate the system. The unit is compact, folds for storage and is handicapped accessible. Secrecy panels and curtains provide privacy while voting.

The elector votes by pressing a button next to the candidate's name or by pressing the button next to the name of the political party when voting a straight party ticket. As each button is pressed, a light indicates the candidate selected; if the button is pushed again the selection is removed. The voter can select and de-select as many times as desired before the vote is recorded. The elector can write in a name on the ballot by using a special keyboard to spell the name of the write-in candidate. The name is displayed on the display panel on the bottom of the ballot face. Messages advise electors not to overvote on the AVC Advantage (R). In the event that an elector attempts to overvote, a message appears on the display panel explaining that the vote would have resulted in an overvote. The machine will not respond when a button is pushed that would result in an overvote.

In addition, flashing lights are used to indicate when an office has been undervoted. Upon completing the selections, the voter presses the "VOTE" button to register the vote and exits the voting compartment. When the "VOTE" button is depressed the machine is reset, but a poll worker must manually set the machine before the next elector can vote.

The AVC Advantage has a precinct-based tabulation system. When the polls are closed, vote totals may be printed at the precinct or the result cartridge may be sent to a central tabulation office where the results are tabulated electronically and added to other precincts.

III. EXAMINATION PROCEDURES AND RESULTS

The examination was conducted to test for the statutory requirements specified in Section 1107-A of the Election Code (25 P.S. § 3031.7). The vendor demonstrated the system and the examiners and representatives of my office examined it by conducting various tests, including the Pennsylvania Standardized Test designed to reflect the legal requirements for ballots specified in Section 1107-A of the Code. A summary description of the examination follows:

- ▶ The vendor printed a zero proof report and the examiners voted the official test ballots. The election results from the first test did not match the official election results. A review of the system's audit trail revealed that the discrepancy was not caused by a defect of the system but by human error in casting the official test ballots.

- ▶ A second test indicated that the system performed correctly. However, the machine was programmed in a manner inconsistent with Section 1107-A(3) of the Pennsylvania Election Code. In the event that a straight party button is depressed and an individual candidate's button is depressed from the same party for an office for which more than one candidate may be selected, the machine should reflect the selection of only that candidate and should deselect all other candidates of that party. The AVC Advantage was programmed to deselect a candidate when his/her button is depressed after his/her party has been selected as a straight party vote. Because it was a programming error and not a defect of the AVC Advantage, the examiners indicated that the problem did not warrant an additional examination. However, the examiners and the representatives of my office requested that Sequoia Pacific demonstrate that this programming flaw has been corrected.

On September 2, 1993, Craig Short, Product Development Manager, and Vicky Duba, Product Manager, of Sequoia Pacific Corporation, demonstrated to the satisfaction of my staff, including William P. Boehm, Commissioner of Elections, Monna J. Accurti, Director of Operations, and Matthew Hurlburt, Legal Assistant, that sufficient modifications had been made to the system to correct the programming flaw in the straight party vote with

an individual candidate selection.

▶ The official test was conducted and demonstrated that the system produced the election results correctly.

▶ In addition, my staff tested the straight party selection with an individual selection within the same party. The AVC Advantage correctly deselected the other candidates of the same party and the selected individual remained lit. Therefore, it was demonstrated that the system was in compliance with Section 1107-A(3) of the Pennsylvania Election Code.

IV. INDEMNIFICATION

The Commonwealth of Pennsylvania disclaims any opinion as to whether the Sequoia Pacific AVC Advantage (R) voting system does or does not infringe any valid United States patents or copyright of third parties.

The Secretary of the Commonwealth recommends that all counties utilizing the AVC Advantage (R) system obtain from Sequoia Pacific a written patent indemnity and save-harmless warrant, including the obligation of Sequoia Pacific to defend any patent infringement suit, in substantially the same form as provided to the Commonwealth of Pennsylvania.

V. CONCLUSIONS

Based on the results of the examination conducted on July 7, 1993 and the demonstration held on September 2, 1993, it is our opinion that the Sequoia Pacific AVC Advantage (R) meets the minimum requirements of Act 1980-128 and is, therefore, approved for use in the Commonwealth of Pennsylvania.

The AVC Advantage must contain a no-vote feature prior to its use in any election in the Commonwealth of Pennsylvania. A no-vote button is a feature which provides that a voter may, once entering the voting booth, exit without casting a vote. In many situations, a voter would not be able to exit a voting booth unless a vote is cast. The no-vote feature provides the voter with the option of not voting if he so desires. This requirement may be satisfied by programming one voting position on the AVC Advantage to represent a no-vote.

The AVC Advantage will accommodate a minimum of 350 voters. Considering their similar characteristics of operation, the provisions pertaining to apportionment of voting machines contained in Section 1104 of the Election Code [25 P.S. § 3004(a)] may be used

to apportion the AVC Advantage.

With regard to the structure of election boards and pursuant to Section 404 of the Election Code (25 P.S. § 2674), one clerk should be appointed by the minority inspector in each district in which the AVC Advantage is used; in each district in which more than one AVC Advantage is used, the county board of elections should, prior to each election, appoint one qualified registered elector of the county to serve as a machine inspector for each additional machine.



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF STATE
HARRISBURG, PENNSYLVANIA
17120

SECRETARY OF THE COMMONWEALTH

January 25, 1999

Mr. Jack Gerbel, President
UniLect Corporation
7060 Donlon Way
Suite 220
Dublin, CA 94568

Dear Mr. Gerbel:

In response to a request from UniLect Corporation, a demonstration of the Patriot Voting System was held on October 6, 1998. Representing the Secretary of the Commonwealth at the demonstration were Brian P. Gottlieb, Deputy Chief Counsel, Dick Filling, Commissioner, and Monna J. Accurti, Director of Operations. You represented the UniLect Corporation.

Pursuant to the demonstration and your affidavit certifying that the UniLect Patriot Precinct Control Unit accommodates a maximum number of sixteen units, the Patriot is approved for use in Pennsylvania.

If you have any questions, please do not hesitate to contact Dick Filling, Commissioner, at (717) 787-5280.

Sincerely,

A handwritten signature in cursive script that reads "Kim Pizzingrilli".

Kim Pizzingrilli
Acting Secretary of the Commonwealth

KP/MA

cc: Beaver County Board of Elections
Greene County Board of Elections