Submission to
The Joint Standing Committee on Electoral Matters,
Parliament of New South Wales.

From: Peter Brun

This submission is relevant to Elections for the Legislative Council of New South Wales, and is based on the writer's experience and observations as a scrutineer for the NSW Local Government Elections at 86 Biloela Rd. Villawood, on Wednesday March 31,2004.

Conclusion and Recommendations

The important questions about the process at Villawood are as follows:

1. **Travel to, and attendance at a single counting centre** like Villawood for several days put a considerable burden on scrutineers many of who come from far away. (This is particularly so for local elections; less so for state elections).

2. **Scrutineering in the normal sense is impossible** - see below in detail

3. **Scrutineers cannot verify the security of ballot papers** (BP) during transportation, storage and processing. Undetected substitution of BPs by corrupt officials is possible.

4. **Scrutineers and supervisors are not properly informed about the rules for scrutineering.** A copy of these rules should be given to all scrutineers and supervisors, and operator training should cover scrutineering so far as it is relevant to them.

5. Some observations point to **inadequate training of supervisors and operators.**

6. **Much time is wasted** entering ballot papers that are clearly informal.

7. Nowadays computer fraud exists on an epidemic scale. Every computer must safeguard its integrity. The electronic processing of votes is no different, so there must be a **physical check of the counting process.** Scrutineers see only a small fraction of BPs and cannot see the physical counting process inside the computer. There should at least be a random physical count of a small percentage of BP bundles, and a total physical count of bundle totals.

8. **Is the system really quicker than a manual count?** According to one very experienced scrutineer, based on the resources employed, **the answer is NO .**

Detail

1. Most **scrutineers** come from far away, and may have to stay away from home for several nights. As scrutineers are vital to the integrity of the counting process, both the AEC and candidates must ensure that scrutineers get the right information and that there is a **timetable** which is adhered to as much as possible. Without a proper timetable scrutineers have to attend all day and maybe several days.

2. **Physical security**. The computerized count was conducted in a warehouse, in one large open area. There were offices on 2 levels on the road side. There were two goods entrances on one side, and an emergency door exit on the other and at the back. I did not check other aspects of the physical security of the building.

3. The count was being conducted in the back (approx) one third of the building. **The computers, numbering about 220**, were arranged in double rows of 10 per row, with a supervisor per double row supervising 20 operators. There were 2 shifts, 7am to 3pm and 3pm to 10pm. I was told to attend at 9am as were others; we should have been there at 7am.

4. At 9am there were **no signs as to which wards were being counted in which row** so I walked down the rows and looked at the ballot papers. I was told some time later that I should have asked the supervisor what was being counted in a row. This was a peculiar instruction as supervisors were often dealing with matters further down the row, and were not easily distinguished at a distance from other operators or indeed other scrutineers. In the early afternoon this information was put up on a whiteboard located outside one of the offices. There were often 2 and occasionally 3 wards being counted at the same time in one double row. **There should have been a board or sign at the start of each double row showing which wards were being counted**.

5. **Watching operators entering the information from the ballot paper (BP) is NOT "scrutineering"** in the accepted sense. I counted anywhere from 2 to 12 operators entering data for one ward at the same time. Therefore all I could do was a random check on a few operators for a fraction of the number of votes. Watching an operator required intense concentration and good eye-sight, because the operators become very quick. I had to scan each BP quickly and then transfer my eyes to the computer screen. Observing smallish numbers on the screen standing behind an operator is difficult. It was rendered more difficult by the fact that the list of candidates is often 2 screens deep and the operators tended to move quickly to the second screen, giving no time for a second glance. If a candidate wanted one hundred percent scrutiny there would have be a scrutineer for each candidate for every computer operator and the operators would have to have worked much slower. In view of the number of candidates this is clearly impossible.

6. I soon realized that **spot checking was of very limited value**. However as every ballot paper is entered twice, and the two entries subject to a computerized verification check, errors in the entry process should be picked up. More on this below. Many operators, but not all, **counted the bundles** before starting the entry process, attaching a sticker at every 25th BP. I questioned why some did not. Some supervisors then ordered those operators to do so, but one said they did not have to. I had this checked and was advised that they did not have to. This practice does however provide an important cross-check for the operator every 25 BPs. I noted one operator who had got confused and she was able to go back to the previous sticker and check where she was. I noted another operator, who when he reached the 75 sticker, was, according to the computer, at number 76. He merely moved the sticker back a BP. I called in the supervisor who made him recheck the BP count.

7. **Operator time is wasted entering BPs that are clearly informal.** Every BP has to be entered in its entirity if this is at all possible. Some BPs for example had a tick in every box, which is clearly informal. However the operator was required to key in every tick.

8. **Computer verification** checks that both data entries for a BP agree. Correction of errors is done by a single operator (verifier), occasionally watched by the supervisor. As the verifier can change both entries, this part of the process needs an independent check.

9. I saw one verifier correct an entry where there was a **significant difference between the 2 entries,** not just a single typo. She corrected the data so that the entries agreed. The next BP was also substantially different and she started correcting that too. I called in the supervisor and suggested that she checked the BP numbers. It transpired that one of the primary operators had made an extra entry, so that there were errors, some 15, from that BP on all the way to the end of the bundle. If this had happened earlier in the bundle there would have been many more errors. After a correction was made for the extra entry, all the remaining errors disappeared. How much further the verifier would have gone before realizing the cause is impossible to say, but it appeared that this operator had not been properly trained to pick up that kind of error.

10. The **rules for scrutineers apparently forbid talking to the operators.** Any problems have to be referred to the supervisor. Supervisors seem to have had different ideas about what scrutineers should do if they found an error. With some it was acceptable to stop the operator and call the supervisor. Others said that the scrutineer should not stop the operator, but note the bundle number and the ballot paper number and call the supervisor. This is not be possible as the bundle number is on a schedule bound to the top bundle and it becomes hidden as each BP is entered is turned over after entry. Furthermore the supervisor may be attending another problem and therefore not immediately available. As to the ballot paper number, this was hard to read on the computer screen, because it was small and feint. One supervisor told me I should put a challenge sticker on the ballot paper. I asked the next senior level of supervisors about this, and they knew nothing about it. The same supervisor accused me later when I stopped an operator, but I told her that others did not object and she immediately accepted it too. I noted other scrutineers talking to operators. **This type of thing raises questions about the effectiveness of the training of supervisors and operators.**

11. BPs with a single "1" above the line were counted on election night and not sent to Villawood, the rest were sent unsorted to Villawood. However those with a single "1 " from Randwick South were sent, because there was a problem at Randwick but no-one I spoke to knew what it was.

12. I spoke to senior supervisors about **the flow and security of BPs to and at Villawood.** None of those I spoke to knew about the security measures in the transportation, but I was told that once at Villawood, a computer-based schedule of all bundles is maintained, so that their location and stage of processing can be checked at all times. The bundles of BPs are stored on pallets in the middle of the warehouse, from where they are being picked up and moved around for processing. As there are many people wandering around the warehouse, I questioned whether an operator (or more than one acting together) could remove or substitute BP~. Obviously it seemed unlikely, but certainly not impossible especially if there were corrupt officials working together.

13. I also discussed the **overall tally of BPs,** and was informed that the verification of total numbers from before the start of polling, through counting on polling night and up to the completion at Villawood, is considered very important. However candidates rarely paid attention to this, except in cases of very close contests. I asked whether candidates asked for access to the source code of the counting software and was told none had. (In the 2001 ACT elections, where there was partial electronic voting, the source code was offered to candidates and/or their parties).

14. I returned to Villawood for a recount of votes for Randwick South. All BPs were re- examined for formality by an operator, and then all bundles were checked by 2 operators against computer printouts of the data entry, with scrutineers in attendance at nearly all points. The degree of correctness of the printouts was high and raised my confidence in the quality of the data entry, however a very few errors were picked up. There were also many challenges to BPs by one party, which were then adjudicated by a senior official and mostly over-ruled.

15. **Does the computerized count give a result that is SEEN by scrutineers to be fair and honest?** The **normal** scrutineering process of a manual count does this. **Every ballot paper** is observed for formality, sorting by candidate and counting. Every doubtful BP can be perused by scrutineers for the candidates contesting the election. **At Villawood scrutineers see only a small fraction of BPs and cannot see the counting process inside a computer.** The incredible sophistication of computer fraud makes this an area of significant concern. After the computer count has been completed, there should be a physical count of a small percentage of BP bundles, selected at random by the scrutineers. Scrutineers should also be given printouts of all bundle counts so that they can tally the full count for their satisfaction.