



SAFETY INSTITUTE OF AUSTRALIA
(Incorporated)
ABN 96 109 531 809

Standards and Accreditation Study
Productivity Commission
PO Box 80
Belconnen, ACT, 2616
Australia

Wednesday, April 19, 2006

Dear Ms. Holmes,

Re: Submission from the Safety Institute of Australia on the “Productivity Commission review on Australia’s Standards and Laboratory Accreditation Bodies”

The Safety Institute of Australia (SIA) is the peak organisation of safety professionals in Australia with over 2,000 members. The SIA will only be making comments on issues regarding Standards Australia and not NATA. A considerable percentage of Standards Australia publications are of direct relevance to safety professionals.

Safety professionals require clear consistent practical national standards and regrettably these have not always been available to the extent and of the quality that gives one confidence. It is strongly suggested that Standards Australia is under funded for the task of developing standards, a task of national interest that it is expected to achieve with excellence. This leads to a number of severe problems for the users of Australian Standards and problems which exist in many standards include:

1. A significant number of committees are dominated by parties with vested interests and do not include sufficient representatives of the end users who are usually the ones directly affected. There are possible conflicts of interests issue here.

The outcomes often fail to achieve the greatest common good. We, the SIA, believe that there is a major reason for this. There are many very knowledgeable technical experts that are not being utilised because they would to be significantly out of pocket to fly to Sydney for meetings. Standards Australia does not pay the expenses of standards committee members and neither will their employers unless they have “vested interest” in the outcome. I know this because I am the person currently appointing SIA members to Standards Australia Committees.

I recently found out that Standards Australia does not even have video conference facilities and this is one way in which consultation issues could be overcome.

Too often hopelessly out of date references occur in drafts. A likely reason for this is that many committee members need to rely on their own literature resources. Ten years ago the situation was quite different as many very experienced safety professionals were employed within corporations and up-to-date references were more often available. The trends to outsourcing and leaner management have meant that many of these experts are now in outside consultancy roles and simply cannot afford time and transport costs. Hence the standards working committees lack balance of expertise.

I do not know of anywhere else in the developed world where technical standards of national interest and possible legal ramifications are put together by unpaid volunteers.

Under the safety legislation applicable in Commonwealth and States' laws there is a clear requirement for proper consultation in safety matters. Surely the development of safety standards should abide by the same principles.

2. The push by the Federal Government to adopt ISO standards can be counter-productive. The ISO way means that Australia has one vote and that Australian Representatives on these committees are most likely funded for travel etc. by vested interest groups. This again raises issues of conflict of interest.
3. There are simply too many mistakes occurring in draft standards and final documents. I will use examples from laboratory and biological safety standards to elaborate. This area is chosen because of its rapidly increasing and huge economic importance to Australia in the fields of biotechnology. However, the errors outside of these examples are considerable.
 - a. AS/NZS 2982.1 Laboratory design and construction. This standard, although now being reviewed, has some unacceptable omissions such as the recommended ceiling height for a laboratory. This is absolutely fundamental in the early design stage as it affects floor separation distances which in turn affect the ventilation ducting and other services in the ceiling spaces. I know of an overseas university that used this standard and it noted that the only ceiling height in the publication was 2.4 meters in an example of air change calculations. They set their ceiling height at 2.4 meters and now have massive problems. Bio safety cabinets in most medical and biological research laboratories require a 3 meter ceiling for efficient operation and for maintenance. Yes, this standard does refer to AS/NZS 2647 Biological Safety Cabinets-Installation and Use, but does not say why. I will come back to this issue in point (b).

AS/NZS 2982 Part 2 has never been issued. This part, I understand, was to cover fire protection. The earlier equivalent standard included fire protection but this was not put in AS/NZS 2982 in 1997. It seemed to disappear. The only 'law' covering structural fire protection in laboratories can be found under a Class 8 building in the Building Code of Australia (BCA). The BCA class 8 building requirements simply do not cover the special circumstances required for potential

hazards in laboratory buildings. Class 8 is too broad as it states “: a laboratory, or a building in which a handicraft or process for the production, assembling, altering, repairing, packing, finishing or cleaning of goods or produce is carried on for trade, sale or gain (BCA 2006).

There is thus insufficient guidance for such high tech construction, coping with the hazards, detailing needs for fire compartments, detailing fire safety requirements for intensive ventilation systems, emergency ventilation rather than smoke exhaust and special lifts or systems to move chemicals up and down buildings. The list is almost endless as technology rapidly evolves.

As an example, the BCA states that the corridor is to be one meter in width for 100 people on that floor. That, if adhered to, is an appalling omission for where there may be chemistry laboratories etc. The BCA (2006) calls up over 80 Australian Standards some of which are 10-15 years old, and another 20 or so documents. Please see the comments on this in the following paragraph re cost and accessibility.

- b AS/NZS 2243.1:2005, Safety in Laboratories - Planning and operational aspects, refers to over 65 other standards, and to about 25 other documents. This is a key issue; the average user, small business or a small consultancy cannot afford to buy or have access to such a large library. It would be economically crippling.
- c AS/NZS 2243.6 Safety in Laboratories - Mechanical aspects was last published in 1990, AS/NZS 2243.7 Safety in Laboratories - Electrical aspects was last published in 1991 and AS1319 Safety signs in the occupational environment, was last published in 1994. The problem is that recent standards refer to very old standards because there is nothing else; and
- d AS/NZS 2243.2:2004 Biological safety cabinets class II. This is a potentially inhibiting standard for academic biological research because Australian Standards for biological safety cabinets are not allowed to be ducted out due to the theory that strong winds can reverse the airflow. Thus the air goes back into the room and is diluted. There are some mechanisms to cope with lower level pollutants but for biological safety work, with strong radioisotopes or highly toxic volatile compounds it is often a silent problem. The Australian design is relatively unique while the American design is successfully used with procedures in areas of hurricanes and typhoons (from personal experience). Again with better funding and wider input this sort of situation should not have occurred.

To summarise: the problems regarding these Standards of national interest seem to go back to a lack of adequate funding. There are many dedicated people on committees working very hard for long hours with no financial reward. They do not even receive out of pocket expenses for travelling etc. It is the SIA's view that Standards Australia is unable to get the best positive result due to this lack of adequate funding for such an important task.

The lack of funding means that necessary consultation is not as extensive as it should be as available experts can be significantly out of pocket and not therefore give of their services. This lack of funding can lead to vested interests having more influence on standards development committees because experts from other organisations have to effectively pay to actively take part in committees.

In addition, the costs of the Standards themselves are prohibitive for many smaller users, and particularly so because of the extensive use of cross referencing.

A small delegation from the Safety Institute of Australia is looking forward to meeting with your group and the Commissioner on 28th April 2006. Should you have any questions on the above please feel free to contact me in the meantime.

Yours sincerely,

Jonathan Amies CFSIA RSP(AUST)
National Technical Chair