Submission No

ECELWE 1 1 FEB 2009 BY: LACA

9 February 2009

The Committee Secretary House of Representatives PO Box 6021 Parliament House Canberra ACT 2600

Dear Sir



ENGINEERS AUSTRALIA SOCIETY OF FIRE SAFETY

# Re: Draft Disability (Access to Premises – Buildings) Standards

It is understood from advice given by Building Codes Queensland that the technical requirements of the Building Code of Australia (BCA) relating to access for people with disabilities may not satisfy the requirements of the Commonwealth's Disability Discrimination Act 1992 (DDA). These differences can give rise to potential inconsistencies and uncertainty and the Premises Standards are intended to provide technical solutions that will satisfy the DDA.

The Society of Fire Safety wishes to raise the following concerns in respect of the Draft Disability (Access to Premises – Buildings) Standards:

### **Egress Provisions**

The Standards Guidelines Part 7 Emergency egress states:

"The Access Code refers to the BCA fire safety provisions relating to the construction of buildings. These fire safety provisions include emergency egress for all building occupants. Therefore compliance with the BCA fire safety provisions is deemed to be compliance with the Premises Standard in respect of egress for people with a disability."

It is the experience of Engineers Australia: Society of Fire Safety that community expectations with respect to safe egress of buildings for people with a disability are may not be adequately represented in the BCA fire safety provisions. The Society of Fire Safety believes that the Draft Disability (Access to Premises – Buildings) Standards should reflect community expectations by incorporating both performance requirements and deemed to satisfy provisions for safe egress of buildings for people with a disability.

This action would have the likely effect of motivating the Australian construction industry to develop suitable design solutions, if it considered by ABCB that deficiencies exist. Fire safety engineers, building certifiers and other fire industry professionals (e.g. CSIRO) are those in the community that possess the necessary skills and experience to develop suitable design solutions for new buildings, as demonstrated on numerous projects to date.

New design approaches are available and new technology and equipment can facilitate the fire safety of disabled persons. In addition the Society of Fire Safety has produced a Code of Practice for use by fire safety engineers incorporating recommendations for design for disabled egress, pending changes to the BCA.

#### Use of Lifts for Evacuation

Fire safety engineering studies by the National Institute for Standards and Technology (NIST) in the USA prompted by the 1993 World Trade Centre bombing and the 2001 aerial attack have shown that the traditional "do not use the lift in case of fire" approach may need to be changed.

The Society of Fire Safety is concerned BCA does not include performance requirements to allow performance based Alternative Solutions using lifts to provide self evacuation for people with a disability.

#### Legal Liability

As noted by Lex Orange of the Construction Lawyers, Doyles, at the Building Fire Safety Conference held at Queensland University of Technology in 1998, there are legal liability issues to be considered. Under the Disability Discrimination Act 1992 (DDA) it is unlawful to discriminate against people with a disability in premises that are used by the public. A few simple examples serve to illustrate discrimination which may result in liability:

- Travel paths for emergency escape routes are obstructed with office furniture or waste receptacles
- There are insufficient alert systems and evacuation procedures such as to prejudice the safe escape of disabled persons.
- There are inadequate evacuation procedures and procedures and insufficient or no trained evacuation personnel.

Solutions devised by industry participants include:

- 1. Move commonly used services to the Ground Floor or where there are satisfactory escape routes.
- 2. Provide a range of fire alert systems such as visual signs, audio alerts for visually / hearing impaired.
- 3. Provide trained personnel to be aware of special requirements of evacuating disabled persons.
- 4. Provide a place of safe refuge or protection for disable persons to go until they can be evacuated.

## Class 7 and 8 Buildings

The Standard requires access to the upper level of over 200 m<sup>2</sup> in area would require a lift. The Standards apply to new parts of buildings and any affected part. The affected part is defined as the new part and:

- Entrance to the building
- Path of access to the new part

The Society of Fire Safety considers that effectively the above provisions would require all fit-out designs of existing commercial and industrial building tenancies that do not include a lift, to require lift access through the main entrance for persons with a disability.

The majority of existing commercial and industrial buildings erected prior to 1990, would not have such facilities. The Society of Fire Safety believes that for the

Society of Fire Safety, Queensland Chapter C/- Engineers Australia – Queensland Division 447 Upper Edward Street, Brisbane Qld 4000 Tel: 07 3023 6000 Fax: Qld Chairman 07 3023 6023 Email: chris.gildersleeve@arup.com Standards to require such buildings to upgrade their facility is unreasonable, on a cost versus benefit basis.

This requirement in the draft Standard is in direct conflict with Clause 61 and Clause 68 of the Building Act 1975 which allow the owner of an existing building not to upgrade their facility where alterations are proposed to that building.

### Warning for the hearing impaired

The proposed incorporation of the D.D.A. in the B.C.A. appears to have inadvertently dropped an essential element of warning for the hearing impaired, i.e. visual and other warning systems.

As the Draft Standard doesn't mention these, it may be inferred that the committee believes that they are specified in AS1670.4 – 2004 'Fire Detection, Warning, Control, and Intercommunication Systems – System Design, Installation and Commissioning. Part 4: Sound Systems and Intercom Systems for Emergency Purposes'.

While this Standard is referenced in the B.C.A., references are not adequate to direct installers to add supplementary systems because:-

(A) Note 2 in Clause 4.3 functioning requirements is –

Consideration should be given to the need for the distribution of warning signals for the hearing impaired via means other than loudspeakers. Such as:-

- (a) visual warning devices (see AS 1603.11);
- (b) induction loop systems (see AS 1428.2) where it augments a sound re-enforcement system: and
- (c) other sensory systems.

The note is not a mandatory requirement.

(B) The list of capabilities of systems in the forward of As 1670.4 includes:-(c) audible, and where required, visual emergency signals.

"Where required" does not adequately cover the D.D.A. application since AS1670.4 Clause 4.3.7 states-:

Visual warning devices and tactile warning devices – In areas having high ambient noise levels, the audible warning system shall be reinforced by a system of visual warning devices or other devices, to provide sensory stimulation adequate for the needs of the person at risk. The temporal pattern described in ISO 8201 shall be imposed on the visual and tactile evacuation signals.

Visual warning devices shall be installed in areas where the background A-weighted ambient noise level exceeds 95 dB(A) or where the wearing of hearing protection devices is required (see AS1269), or where required by the BCA for hearing impaired persons.

The last part of the Clause is meaningless since it is not mentioned in the B.C.A.

Society of Fire Safety, Queensland Chapter C/- Engineers Australia – Queensland Division 447 Upper Edward Street, Brisbane Qld 4000 Tel: 07 3023 6000 Fax: Qld Chairman 07 3023 6023 Email: chris.gildersleeve@arup.com (C) So while there are several other references to visual signals in clauses 4.2 (d), 1.41, 1.4.3, and other references as to A.S.1603.11 "Visual Warning Devices" (which refers to A.S. Handbook 123), there needs to be a definitive requirement added to AS1670.4, or the B.C.A. to clarify the issue.

Otherwise normal commercial pressures will ensure minimal provision of these supplementary systems at best. As it stands they are virtually ignored and certainly need legislation before they are provided as intended.

## Conclusion

The Society of Fire Safety understands that a fresh approach is needed, as is occurring in overseas building codes (eg NFPA101, NZ Building Code). New design approaches are available and new technology and equipment can facilitate the fire safety of disabled persons. However, it would appear that the BCA and the Draft Standard in their present forms do not encourage the use of these approaches.

The Society of Fire Safety is concerned that unless the Draft Disability (Access to Premises – Buildings) Standard is researched and expanded in scope by incorporating both performance requirements and deemed to satisfy provisions for safe egress of buildings for people with a disability, the standard of new building construction may fall behind community expectations for fire safety of all occupants.

If it considered by the ABCB that deficiencies exist in the BCA, the Society of Fire Safety would be available to assist in development of suitable provisions in respect of fire safety of buildings for people with a disability.

If you have any questions concerning this submission, please contact the undersigned.

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