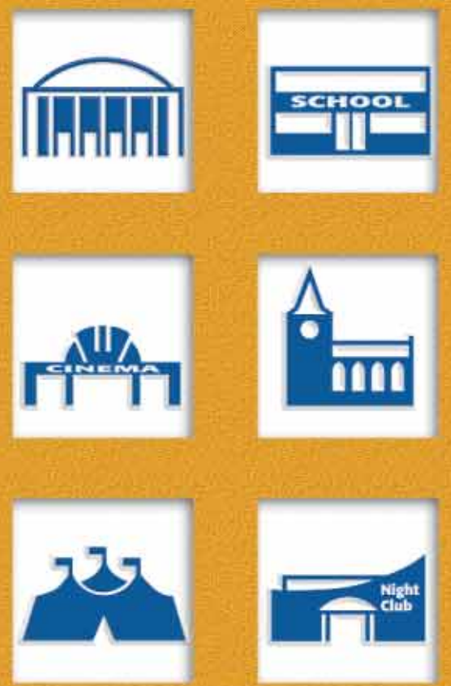
Guidelines on the Application of the Health(Public Buildings) Regulations 1992



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INTRODUCTION

The *Health (Public Buildings) Amendment Regulations 2002*, which were *Gazetted* and came into operation on 7 June 2002, introduced substantial amendments.

These guidelines have been prepared to assist local government administer the *Health (Public Buildings) Regulations 1992*, as amended. They supersede the "Information Booklet to Local Government on Health (Public Buildings) Regulations 1992" and the supplement to those guidelines, the "Guidelines To determine Public Buildings". They provide advice on areas where uncertainty has been raised with the application of some regulations.

Part 1 of these guidelines contains specific comment on the definition of a public building and the Health (Public Buildings) Amendment Regulations 2002.

Part 2 of these guidelines contains specific comment on regulations that are not contained in Part 1 and issues where clarification has been sought since 1992.

Where *italics* are used it indicates the words used in the regulations. The exact words of the regulation may not be quoted. Therefore it is important to check the regulation for correct wording. The text following the italics provides an explanation of or guidance on the application of the regulation.

LOCAL GOVERNMENT'S ROLE IN RELATION TO PUBLIC BUILDINGS

In April 1992 the Health Act 1911 was amended to require local government to administer public buildings legislation.

As far as public buildings are concerned it is accepted that local government will ensure that plans of public building constructions and alterations are received and approved prior to construction commencing. At the completion of construction it is usual for the building to be inspected prior to a certificate of approval being issued. In accordance with the relevant local government health plan premises will be subject to routine inspection to ensure ongoing compliance with the regulations and to ascertain that no hazards are introduced by inappropriate operating procedures.

RELATIONSHIP WITH BUILDING REGULATIONS

There has been confusion about the alignment of the Health (Public Buildings) Regulations 1992 and the Building Regulations / Building Code of Australia BCA. The regulations are intended to address operational matters or those where the BCA is considered inadequate for the protection of public health or safety in and about a public building. Buildings must comply with the BCA and the Health (Public Buildings) Regulations 1992. However where there is conflict between the two the Health (Public Buildings) Regulations 1992 prevail.

Building Classification

Although public buildings are places of assembly and BCA classifies assembly buildings as 9b, public buildings can also be of another classification. However the specific regulation requirements must be complied with.

ROUTINE SURVEILLANCE

Routine inspections must ensure that the building remains compliant with the regulations and also consider any other operational characteristics that may impinge upon the safety and health of the public in and about the public building.

For high risk buildings such as those defined by *Division 2* of the Regulations, high risk entertainment venues, it is anticipated that they will be inspected at least four times per year with at least two inspections undertaken during peak operating times.

For a low risk church one inspection per annum is probably adequate.

PART 1 – DEFINITION AND AMENDED REGULATIONS (2002)

Definition – Public Building

The definition of a "public building" as set out in Part VI section 173 of the Health Act 1911 (the Act), is sufficiently wide as to capture a large variety of buildings:-

(a) A building or place or part of a building or place where persons may assemble for –
- *(i) civic, theatrical, social, political or religious purposes;*
- *(ii) educational purposes;*
- *(iii) entertainment, recreational or sporting purposes; and*
- *(iv) business purposes; and*

(b) any building, structure, tent, gallery, enclosure, platform or other place or any part of a building, structure, tent, gallery, enclosure, platform or other place in or on which numbers of persons are usually or occasionally assembled, but does not include a hospital;

In the past this definition was held to only apply to gatherings or assemblies of people acting in concert or by some pre-arrangement. That position has been shown to have been too narrower an interpretation to apply to the definition of "public building".

The interpretation is in fact much broader and captures most buildings and places where numbers of people assemble or gather for any one or more of the purposes specified in paragraph (a) of the definition. The list of buildings set out in the Table to regulation 7 of the *Health (Public Buildings) Regulations 1992* (the Regulations) is therefore not a definitive list of "public buildings" to which Part VI of the Act applies.

The Table to regulation 7 of the Regulations is merely there to apply density ratios to various classes of "public buildings" and where such buildings are not specified in the Table the provisions set out in regulation 7(3) apply.

The general intent of Part VI of the Act is to assist in the protection of the health, safety and amenity of persons in and about buildings and places where, generally, large numbers of the public gather for the purposes set out in the definition.

From a 'public health' perspective there is no reason to distinguish between an assembly of persons gathered to watch, for example, an orchestral concert in a concert hall to a similar assembly of persons at a fair on an oval where each person may be attracted to attend for their own individual reasons (eg for the food, sideshows, cake judging or purely for the social interaction).

Definition Transitional Process

Due to the broader interpretation placed on the definition of "public building" many buildings previously considered not to fall within this category of building such as "licensed premises" without entertainment and restaurants are now captured. It is anticipated that the inspection and issuing of the required "certificates of approval" of buildings captured by this change will be addressed in accordance with local governments public buildings inspection programs.

As this process does not require an application being made under regulation 9 of the Regulations the initial issue of these 'certificates of approval' will not attract a fee.

Any issues arising that require clarification should be referred to the EDPH for advice.

Examples of Public Buildings

Since 1992 some local governments have had difficulty establishing the status of the following types of buildings–

- Hotel beer gardens and courtyards (ie parts of "licensed premises")
- Pool/billiard areas
- Timezones
- Mini Golf
- Go Kart tracks
- Open air concert venues

All these premises or places fall within the definition of a "public building" and are therefore subject to the provisions of Part VI of the Act and the *Health (Public Buildings) Regulations 1992*.

Early Childhood Centres

Early childhood centres by definition include; childcare centres, pre-primary and pre-schools.

There has been some confusion in the past as to whether these facilities are "public buildings" given that the activity of childcare is somewhat different from traditional schools ie. where persons gather for "educational purposes".

Given that position the Department is of the view that **early childhood centres are not public buildings.**

Persons assemble at pre-primary schools and kindergartens for "educational purposes" and therefore they fall within the definition of a "public building". Kindergartens are the earliest child educational facility captured by the definition.

Note: see Crown Exemption below

Temporary Structures

Several enquires have been made as to whether temporary structures such as spectator seating stands, stages, tents, marquees used at "one-off" events eg. open air concerts, shows, golf tournaments, etc, are "public buildings".

These types of one off events are "public buildings" and an essential part of the approval process is to ensure that they are adequately constructed and erected and suitable crowd control measures are in place.

Information about various types of temporary public buildings is included at Appendices 2,4 and 6 and in the "Operational Guidelines for Rave Parties, Concerts and Other Large Events".

Crown Exemption

The Crown is not bound by Part VI of the Health Act. Examples of public buildings that fall into this category are:-

Family Centres

Family centres are multi purpose community buildings that are used as public buildings because they cater for a range of community and recreational activities.

These are generally Crown owned but operated by volunteer groups or associations, under special Crown agreement.

The Department has been advised that these centres are exempt from Part VI of the Act as they are both owned and controlled by the Crown

Government Schools

Primary, secondary or special schools that are either owned or fall within the jurisdiction of the Crown are exempt from Part VI of the Act.

Health (Public Buildings) Amendment Regulations 2002

General

Various regulations have been amended to reflect minor name changes ie.

- *AS/NZS 2293 replacing Australian Standard 2293 – Emergency Evacuation Lighting in Buildings Parts 1 and 2,*
- *Licensed premises replacing nightclubs.*
- *Local government replacing local authority.*

Regulation 3 – Interpretations

The following definitions have been inserted -

- *AS/NZS 2293 – Has been defined to include Parts 1,2 and 3 and a general reference to AS/NZS 2293 in the Regulations refers to the applicable part.*

- *AS/NZS 4360 is defined as AS/NZS Risk Management Standard.*

- *Licensed premises means premises that are licensed to sell alcohol that operate as a cabaret, hotel or tavern even if they have "special facility licenses".* It does not apply to other premises that may be licensed to sell or serve alcohol.

- *Large Licensed Premises is a new definition and means a licensed premises with an assessed patron floor area of more than 850 m ^{2}.*

When the regulations were introduced in 1992 Crown Law opinion suggested that the ratio at the Regulation 7 table could be applied broadly to the gross room area and include bars and associated staff areas. This was in line with practices adopted by the Executive Director Public Health and the Director of Liquor Licensing prior to the introduction of the Health (Public Buildings) Regulations 1992.

Subsequent opinion has ruled that only the areas available for public assembly could be included in the area calculation.

A straw poll of random licensed premises was conducted to ascertain the effect that this had. All premises suffered reductions in numbers and the amount varied between approximately 5 to 25%.

The definition of nightclub has been deleted.

Regulation 4 – Construction Applications

*A new Regulation 4(2) requires a risk management plan in compliance with AS/NZS 4360 to be submitted for **all** places and events expected to accommodate more than 5000 people.*

It is recommended that copies of risk management plans be forwarded to the Environmental Health Directorate for comment to establish Statewide uniformity.

Information on risk management is at Appendix 10.

Regulation 6 (2) – Certificate of Approval

A new regulation 6 (2) has been inserted to replace regulation 7(5). It requires building capacities to be determined in compliance with BCA in respect to toilets, exits and ventilation.

A Certificate of Approval is not to be issued unless the provision of sanitary facilities, exits and ventilation complies with the BCA.

It should be noted that the BCA generally does not apply to outdoor events. Therefore local government has discretion to allow alternative requirements after considering the necessary health and safety implications. Recommendations for events are at Appendix 7A.

The BCA performance based solutions may also be considered in determining the adequacy of facilities. These are particularly important when assessing toilet facilities in licensed premises that pre date the BCA. In these instances for capacities up to 700 people the BCA requirements are more stringent. Therefore, unless it has been demonstrated that there are insufficient facilities then the previous 1969 Public Buildings Regulations requirements should apply provided the type of use has not changed and the premises has not been altered.

The previous 1969 regulation 28 (1) toilet requirements are shown below for information.

Buildings Having Accommodation	Females		Males		
	WCs	Basins	WCs	Basins	Urinals
For –					
Up to 100 people	1	1	1	1	
100 to 150 people	2	1	1	1	1
150 to 200 people	2	1	1	1	2
200 to 300 people	3	1	1	1	3
300 to 400 people	4	1	1	1	4
400 to 500 people	5	2	2	2	5
500 to 600 people	6	2	2	2	6
600 to 700 people	7	2	2	2	7
700 to 800 people	8	2	2	2	8
800 to 900 people	9	2	2	2	9
900 to 1000 people	10	2	2	2	10
1000 to 1200 people	11	3	2	3	11
1200 to 1400 people	12	3	2	3	13
1400 to 1600 people	14	3	2	3	14
1600 to 1800 people	16	3	2	3	16
1800 to 2000 people	18	4	4	4	18

Previous exit and ventilation requirements are compatible with the BCA requirements.

Regulation 7 – Maximum Numbers

Regulation 7(1)

Regulation 7(1) has been amended to delete the reference to "bar" and provide an alternative method to assess capacities of large licensed premises.

Capacities for large licensed premises are determined by regulation 7A.

A working example of a maximum numbers calculation is at Appendix 1.

Table of Ratios

The Table to Regulation 7 has been amended to –

1. *Delete the reference to a bar and provide a ratio for licensed premises with*

assessed patron floor areas less than 850 m² of 0.85 m²/person. The area is specified as the area available to patrons.

Previous legal opinion suggested that the areas across and behind bars of licensed premises could be included in floor area calculations. This provided an average density of the area available to patrons at approximately 0.85 m²/person. Subsequent opinion showed that this was incorrect. The regulation has been adjusted to maintain the previous densities permitted in licensed premises.

2. *Specify standing spectator areas to 0.5 m²/person.*

Previously there was an inconsistency whereby the table allowed local government to approve 0.3 m²/person but regulation 7(2) also allowed the **EDPH** discretion to vary densities to 0.3 m²/person. This anomaly has been removed and the **EDPH** must approve ratios between 0.5 m²/person and 0.3 m²/person.

Licensed Premises Transition to 0.85 m² per person

This is an administrative change that should be initiated by local government without cost or a Form 2 request by the operator. In most cases this should only be a relatively simple calculation and should not require a remeasure of the entire premises.

It is important for local government to identify bars that are now defined *as "licensed premises*" or "*large licensed premises*". The maximum accommodation for licensed premises need to be recalculated using the 0.85 m² ratio and appropriate Certificates of Approval issued. This should be done in conjunction with routine inspections. All licensed premises should be issued with new Certificates of Approval to identity their new use.

Although most "licensed premises" will be able to increase their maximum accommodation there are some that will be disadvantaged. **Where the maximum accommodation results in a reduction regulation 7(4) allows these premises to maintain their previous numbers.**

When reassessing premises consideration must also be given to ensuring that there are adequate toilets, ventilation and exits available because the floor area may not be the limiting factor.

Regulation 7 (3)

This regulation has been amended by deleting its application to large licensed premises, these are specifically addressed at regulation 9A.

Regulation 7 (4)(c) – Area Calculations

The requirements of this regulation have been repealed and addressed by regulation 7B.

The amended requirements for regulation 7(4) allows licensed premises with calculated areas less than 850 m² (1000 people) to retain their previous capacity if the amended method would result in a diminished capacity.

Regulation 7(5) – BCA Compliance

The requirements of this regulation have been repealed and addressed by regulation 6(2).

Amended requirements specify that when administering regulation 7(4) the "New maximum number" is the number as assessed by the prescribed method in the 2002 amendment regulations.

Regulation 7A – Maximum Numbers: Large Licensed Premises

Regulation 7A(1) - Large Licensed Premises Capacity

This regulation restricts the capacity of large licensed premises to 1000 people ie. Floor area greater than 850m^2. However, this number may be exceeded subject to compliance with the additional requirements of regulation 9 (3) or (4).

Regulation 7A(2) – Large Licensed Premises – Transitional Requirements

If a large licensed premises had a Certificate of Approval that allowed more than 1000 people prior to the Gazettal of the Health (Public Buildings) Amendment Regulations 2002 then that number continues to be the capacity until the premises is altered to the extent that a Certificate of Approval would cease to be valid as specified in the Act Section 178(2).

Regulation 7B – Assessment of Floor Area

This new regulation sets out how to assess the applicable floor area to be used for the area component of the capacity calculation. It effectively replaces regulation 7(4).

It effectively calculates the areas available for patrons to assemble. It does not allow areas required to be maintained for patron safety or amenity such as lobbies, corridors, bars or areas used by staff etc to be utilised.

Regulation 7B(b) is new and provides guidance on measurements of external areas.

Stages

The regulation excludes stages because these are assumed to be areas traditionally unavailable to patrons. However, some nightclub stages are often used as dance floors. In these instances it is necessary to issue separate Certificates of Approval to allow for instances when the stages are available to the public.

Pool Tables and Moveable Furniture

Areas occupied by moveable items such as pool tables, planters, electronic games, vending machines and the like can not be deducted from the area calculations.

Regulation 8 – Certificate of Approval To be Displayed

Certificates of Approval must be displayed in a conspicuous location near the main entrance. Care needs to be taken when designing certificates that the critical information about the type of use and maximum accommodation can be clearly viewed under the normal lighting conditions. A large plain font such as Arial 18 point or similar is recommended.

Regulation 8(2) – Certificates Varied by Regulation 9A

Where a Certificate of Approval has been varied under regulation 9A then the certificate incorporating the variation must be displayed.

Regulation 9 – Certificate of Approval Variations – Form 3

The previous regulation 9 has been replaced.

Regulation 9(1) Application to Vary Use and Capacity

Subregulations (a) and (b) allow a person to apply to local government to vary the type of use and capacity of any public building except a licensed premises.

Regulation 9(2) Applications and Fees

Subregulations (a) and (b) require an application to vary to be made on a Form 3 and to be accompanied by a fee.

A Form 3 certificate is used where there are no structural alterations or extensions, etc made to a building. It is typically used for a change in use to a building. These applications are now able to attract a fee (up to $500) in accordance with Schedule 1.

For example – a basketball stadium arena may be used for a function. In this case the building would need to be checked to ensure that exits, sanitary facilities and ventilation are adequate for the new use.

The regulation 7 Table indicates that for a basketball stadium arena the ratio is 10.0m^2 per person. As a hall for a function, the ratio is 1m^2 per person.

9(3) Variations for Large Licensed Premises

An application may be made to vary the maximum number of large licensed premises to 0.85 m^2 per person subject to the requirements set out in regulation 9(4).

9(4) Variation Requirements for Large Licensed Premises

This regulation sets out mandatory requirements for large licensed premises wishing to vary the floor ratio to 0.85 m^2 per person. They must have;

- *A risk management plan in accordance with AS/NZS 4360 compiled by a competent person.*
- *A number counting system that has been approved by the **EDPH**. The system must automatically calculate the number of patrons on the premises at any time the premises are open.*
- *Any other information required by local government to ensure that public health to both patrons and neighbours is not compromised.*

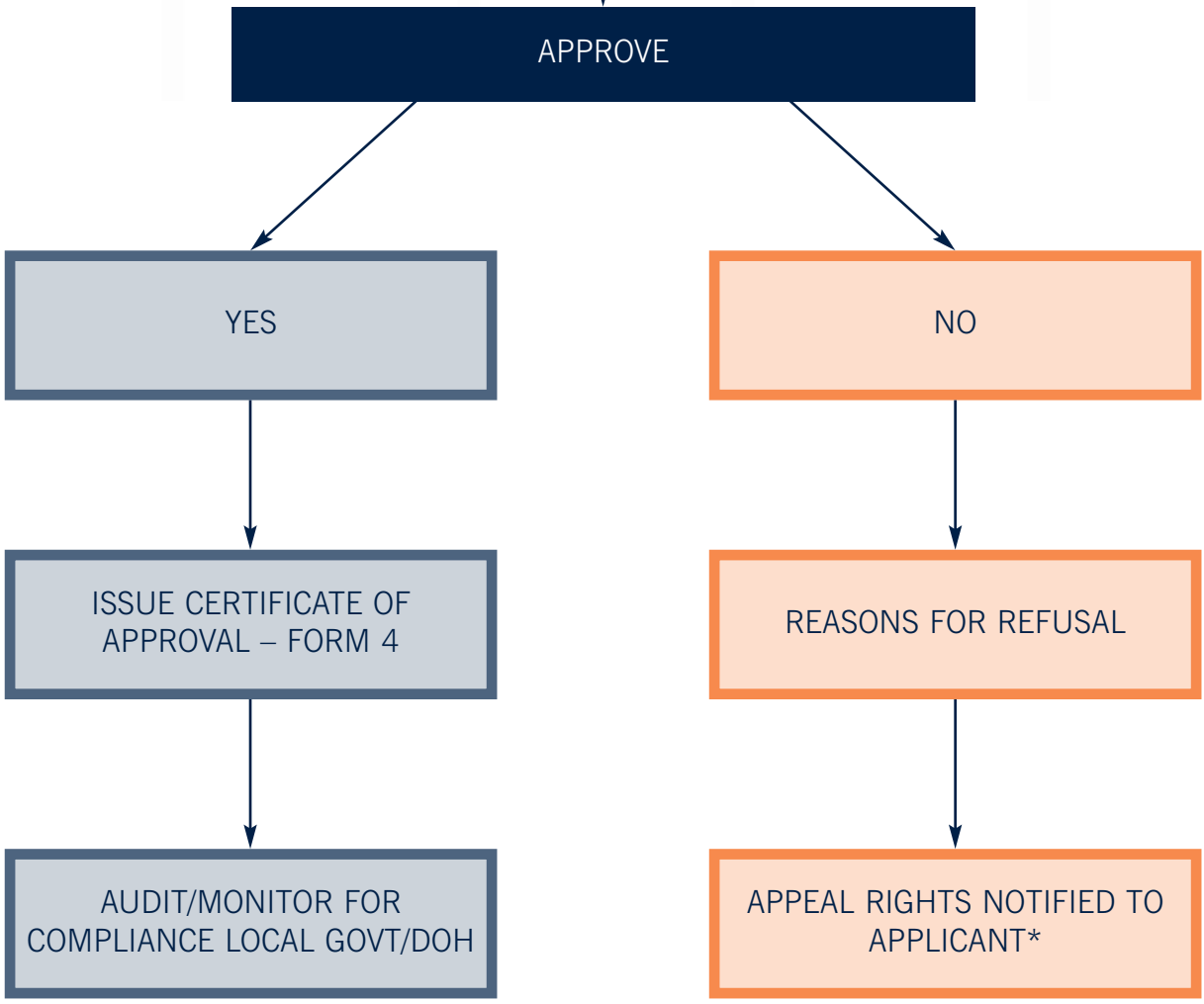
FIGURE 1: APPROVAL FLOW CHART FOR INCREASE IN NUMBERS – LARGE LICENSED PREMISES

APPLICATION TO LOCAL GOVERNMENT:
- FEE PRESCRIBED IN SCHEDULE 1
- RISK MANAGEMENT PLAN – Refer to DOH for assessment/comment
- EDPH APPROVED COUNTING SYSTEM
- OTHER INFORMATION eg REPORTS FROM:

– Liquor Licensing
– Police

- APPLICATION FOR VARIATION OF CERTIFICATE OF APPROVAL FORM 3
- APPLICATION FEE

A fee up to $500 as prescribed in Schedule 1 of the regulations is applicable for a variation of numbers.



* An appeal to the EDPH is only applicable on public health issues

Additional Information (Large Licensed Premises)

Regulation 9(4)(c) enables local government to request additional information to accompany the application.

Local government may require reports from the Police and Office of Racing Gaming and Liquor as to their support or otherwise for the increase in numbers. It is recommended local government should ask for this from every applicant and have it submitted before local government deals with the application.

The flow chart shown as figure 1 details the application process.

An application to increase numbers in a licensed premises must show that the building complies in all respects with the BCA particularly in regard to toilet facilities, ventilation, egress, smoke hazard management and flammability indexes.

Risk Management Plan

The risk management plan is critical to the application and must address all health and safety issues within the premises, impact of noise, parking etc. A person competent in the development of risk management plans should prepare the plan.

An outline for a risk management plan is shown at appendix 10.

Essential Requirements

The following minimum standards are regarded as essential for large premises with increased numbers.

1. Buildings must comply with BCA 1996 requirements for exits, toilets and smoke hazard management.
2. Staff numbers must be identified so that they are not included in the patron numbers.
3. The impact of the additional numbers to the neighbourhood must be assessed and addressed.
4. Operators must demonstrate that they can operate their ventilation systems effectively. (Many operators do not know how to run evaporative cooling systems in the “dry” mode to reduce the amount of moisture).
5. Plans of evacuation routes /procedures must be posted where they can be read by the patrons.
6. Evacuation procedures must be practised quarterly.
7. Within two weeks of commencing duty staff must be advised in writing and verbally on their role in an emergency.
8. Designated fire wardens must undergo formal training.
9. The amount of moveable furniture must be carefully considered as this can have a substantial detrimental effect on egress.
10. Install a voice amplification system that will override the entertainment system.

Counters
*The Regulation requires **EDPH** approved counting systems in large licensed premises with an approved density ratio of 0.85 m^2/person.*

A counting system must –
- Remain fully operative in the event of a power failure.
- Monitor all entry and exit points from the building.
- Be able to display the public building current population.
- The display must be located at the main entrance, have a minimum 50 mm plain font and be easily read under the working light conditions normally experienced.

Compliance Audits
Once a large licensed premises is approved to operate at increased numbers it is essential for regular audits to be carried out to ensure premises are operating in accordance to the approval and in compliance with the risk management plan. DOH officers will assist local government with audits.

Regulation 9A Variation of a Certificate of approval

This regulation does not permit a Certificate of Approval to be varied if there are structural alterations or the number may exceed the BCA toilet, exit or ventilation requirements. It also allows local government to impose conditions or vary or revoke a previously set condition.

When assessing BCA compliance, approving officers must have regards to the performance based allowances that may apply to the building under consideration.

Regulation 9B – Requirements for Large Licensed Premises Using an Approved Measurement Unit

This requires large licensed premises with approved floor ratios of 0.85 m^2 per person to install and maintain an approved counting system as soon as is practicable after the Certificate of Approval has been varied.

Regulation 9B(3) – Person Equivalent Numbers PEN

In large licensed premises with ratios approved at 0.85 m^2 per person moveable items except seats / chairs must be assigned a Person Equivalent Number (PEN).

A PEN is defined as the floor area occupied by a moveable item divided by 0.7. It allows the premises flexibility to change moveable items without remeasuring the building.

Each moveable item must be clearly identified with a PEN, these are added and the total number rounded up and deducted from the permitted maximum accommodation.

Regulation 9B(4) – PEN Assigned

Allows an authorised officer to assign a PEN if equipment does not have a legible PEN.

Regulation 9B(5) – Application of PENS

Specifies the maximum accommodation permitted and shown on the Certificate of Approval as the maximum calculated minus the number of PENS for each occasion that the premise is open.

This establishes a relationship between numbers of people and moveable items.

Obviously a venues capacity will be reduced if additional moveables are introduced. The management of this relationship must be clearly addressed within the risk management plan.

Regulation 10 – Certificate of Electrical Compliance

Regulation 10 has been amended to correct the legislation name "Electricity Act 1947" to "Electricity Act 1945".

The regulation requires electrical installations to be certified by a qualified person prior to the issue of a Certificate of Approval.

Regulation 11 – Seating

Regulation 11(1) amends the seating arrangements.
The effect is to require seats to be fixed in groups of 4 rather than 2.7 metres; this aligns with industry standards.

A new Regulation 11(2) effectively limits the number of seats in a dead end aisle to 10 seats. Previously they were limited to 3.5 metres

Notes on Seating Arrangements

For formal rows of seats the actual requirements are a combination of the Health (Public Buildings) Regulations 1992 which determine the row lengths and BCA which determines the distance between rows.

Unfixed seats may become scattered and obstruct egress during emergency evacuations.

Where seats are set out in formal rows it is recommended that they be fixed to the floor or if this is not possible then they should at least be fixed together. To facilitate storage and setting out time it is acceptable for seats to be rigidly fixed in groups of no less than four and then the groups should be fixed together.

It is essential to have all seats fixed to the floor, in theatres or grandstands with tiers or in any other location with an uneven surface

Discretion is given to local government to vary the fixing requirements but the discretion is intended for specific needs such as:

- Disabled people in wheelchairs.
- Seating at tables, benches or desks.

Regulation 14 – Exit doors

Regulation 14(5) Buildings with more than 50 people

Buildings or enclosed areas that accommodate more than 50 people are required to have more than 1 exit unless the local government approves otherwise.

This regulation is self explanatory and is intended to clarify the intent of similar BCA requirements. Local government has discretion to allow low risk facilities to have only one exit. The requirement should not be applied to places that have been previously approved.

This was a 1972 Public Building Regulation requirement and it was considered that BCA also contained similar requirements. Subsequent application of the BCA has shown that this is not the case and therefore this requirement has been reintroduced into the regulations.

Regulation 15 – Exits to be Unobstructed

This regulation is self-explanatory. In areas outside exit doors there is a tendency to park vehicles, store rubbish or place waste skips or other obstructions. It is suggested that bollards be installed or signs indicating **'EMERGENCY EXIT'** and **'NO OBSTRUCTION'** be provided.

Regulation 15(1)(b) – Exit Obstructions

Amended by specifying that a gate in an exit path can not be locked whilst a public building is being used.

Gates have different requirements to exit doors and may have alternative types of locks; it is imperative therefore that they are unlocked whilst the building is in use. However when the building is not in use it may be appropriate for gates etc. to be locked.

Regulation 16(1) – Exit Signs

Exit signs are required in accordance with the BCA.

When signs are required they must comply with AS 2293.

Previously this regulation required every exit in a public building to be identified with an exit sign. This was more onerous than both BCA and previous legislation.

Now except for *Division 2 Buildings Used for Entertainment* (high-risk buildings) they are only required in accordance with BCA. However, required signs must comply with AS 2293. The BCA requires exit signs when a building story exceeds 300 square metres in area.

The quantity and actual location of signs is sometimes unclear. AS 2293 details the size of signs, mounting height and requires enough signs to direct people from anywhere within a building to a final exit.

Since 1992 there have been considerable information requests about exit sign requirements for churches and other low risk buildings which were previously exempt or permitted to have alternative type exit signs.

The repealed 1969 regulation is included for your information.

Regulation 23(1)
Every doorway used as an exit and every staircase or passage leading to an exit shall be provided with an approved illuminated exit sign placed conspicuously over the doorway, passage or staircase and the word "exit" shall be in capital letters not less than 4 inches in height.

Regulation 23(2)
Notwithstanding the provisions of sub regulation (1) of this regulation, the Commissioner may, in the case of churches, clubs, schools or similar buildings –
(a) dispense with the need for the sign referred to in that sub regulation: or
(b) require a similar sign or signs approved by him, to be otherwise erected to his satisfaction.

The **EDPH** discretion stands unless the premises is altered or the building use changes. However, in situations where signs have deteriorated and become ineffective they must be replaced with electrically operated signs complying with AS 2293.

The following information has been compiled to advise the requirements of the types of signs available and suitable for public buildings, and to briefly explain how they should be connected. This information applies to exit signs but AS/NZS 2293 does not differentiate between exit signs and emergency lights. The same principles apply.

Basic Requirements
- Must comply with AS 2293.
- Be electrically operated.
- Be illuminated whenever the venue is open.
- Remain illuminated in the event of a power failure.
- Be maintained in accordance with AS 2293 Part 2.
- Be electrically maintained or sustained.

Maintained Type
These can be switched on when the building is open to the public and will remain illuminated on failure of the normal supply. The connections comprise an unswitched active conductor and a switched active conductor in addition to neutral and earth cables. The active conductors must originate from the same final sub circuit.

The final sub-circuit can be either a separate or an internal lighting circuit.

Sustained Type

– These are illuminated 24 hours per day.
– The connections comprise an unswitched active, neutral and earth cables.
– The final sub-circuit can be either a separate or an internal lighting circuit.

Advantages of this type are:

– They are cheaper to install because they do not require a switched active conductor.
– They provide some light to assist in securing the building.
– If the light is not working then maintenance is required.
– They are ideal for replacing old signs that do not have an unswitched active and additional wiring is not required although the switching arrangements need to be amended.

Disadvantages are:

– They attract insects.

NOTES:

The running costs of all types are similar and should not be a factor in determining which type to use.

Testing

They need to be tested every six months in accordance with AS 2293.

In addition to the standard momentary test button fitted to fittings AS 2293 requires another facility that will –

1. Allow emergency lights and exits signs to be tested without disruption to any other lights or circuits.
2. Be simple to operate.
3. Automatically reset to normal at the expiration of the designated test time (2 hours)
4 Allow the test sequence to be interrupted and reset at any time.

The test results must be logged. Logbooks are available from most electrical wholesalers. Typical log requirements and test sequences are at appendix 5.

For exit signs and emergency lights it is essential that an electrical supply be maintained to continuously maintain the battery charge. Therefore main switches of buildings must not be switched off as has often been common practice in many community halls and the like.

Exit signs are available from any electrical wholesaler.

Non-Maintained Type

These are only illuminated in the event of a power failure. They are unsuitable for exit signs but most emergency luminaires are non-maintained.

Regulation 20 – Toilet Facilities

Two new subregulations have been inserted 20(5) and 20(6).

20(5) Specifies that public building toilets must be illuminated to 80 lux.

20(6) Allows temporary facilities such as chemical closets to have a lower light level, 40 lux.

The 80 lux level is designed to provide good lighting for the users and cleaners. A lower level has been specified for temporary facilities because they are cleaned during day when lighting levels are better. 40 lux sufficient is to enable instructions to be read and the cleanliness to be ascertained.

At large gatherings where banks of toilets are provided it is acceptable to install a central light source that will transmit light through the translucent toilet roofs to ensure all receive 40 lux. There must be sufficient light to ascertain the cleanliness and enable instructions to be read.

Regulation 22(1) – Fires

Local government to approve all fires or open heating apparatus in public buildings.

Previously approval only applied to high-risk premises, theatres, nightclubs and dance halls.

Regulation 23 – Stage Curtains/Decorative Treatments

Amended by requiring decorative treatments to be non-toxic fire retardant.

Previously they were only required to be non toxic.

BCA specification clause C1.10 specifies smoke and flame indexes for lining materials. Decorative treatments such as curtains or drapes are not captured. Consequently regulation 23 was established to address these treatments.

Decorative treatment in public buildings must be non-toxic and non-flammable or rendered non-flammable by a method approved by the **EDPH**. However, local government has discretion to vary the toxicity and flammability requirements for materials that are not captured by the BCA. The discretion is intended to preclude small drapes and decorative treatments.

New drapes should be inherently fire retardant rather than treated. Certificates to verify the fire indexes should be provided by the supplier and tags/labels to verify the indexes should also be fixed to a corner of the drape that will be accessible in the installed location, usually a bottom corner.

Vertical blinds are often used, these too, can be manufactured from fire retardant materials.

Birchall Textile Dyers, 116 Richmond Street, Leederville, WA 6007 telephone No 9444 2507, method of retarding materials is approved. Another product "Bio Fax 2000"has also been approved but this product is no longer available in WA.

For small low risk premises it is acceptable to use a previously approved method; dip or spray fabrics with a mixture of 2 Kg borax, 2 Kg boric acid and 50 litres of water and then test to ensure that the fabric will not support a flame.

It should be noted that some synthetic materials can not be treated effectively and after curtains have been dry-cleaned or washed there is no guarantee that the fire retarding treatment is still effective.

Fabrics that have been treated should be identified by a tag to show the date and method used to treat the fabric.

It is recommended that the local government ensure that curtains are examined during routine public building inspections to ensure that they are non-flammable.

The inspecting officer should arrange for the owner/operator to demonstrate the fabric is non-flammable and if it burns it should be treated. The most practised procedures for testing flammability is for the operator to take a small sample of the fabric (usually the hem) and try to ignite it in a safe place. If a flame is not supported then it may be deemed acceptable.

Regulation 25(2) – Fire Precautions

Repealed because this is adequately addressed in BCA.

Regulation 26(1)(2) – Evacuation Plans

The occupier of any cinema, licensed premises or other premises required by the local government must submit and maintain an approved emergency evacuation plan.

A new subregulation 26(1)(a) has been added.

Emergency plans must satisfy AS 3745 – Emergency Control Organization and Procedures for Buildings and requires a risk management plan assessment in accordance with AS 4360.

Buildings other than cinemas or licensed premises may also require plans to be prepared.

The need for this should be based on the following criteria:

- Number of occupants.
- Occupants' familiarity with the premises.
- Is the premises used at night.
- Alcohol consumption.
- Size and layout of the building – distance of travel to and from escape route.
- Single or multi-storey building.

It is recommended that evacuation plans should be considered for other premises such as:

- Large outdoor events
- Large sporting events and facilities
- Function centres
- Circuses.

Regulation 26A – Risk Management Plans

Requires risk management plans for large licensed premises with a ratio of 0.85 m^2/ person to be maintained and complied with.

Regulation 37 – Public Buildings Used for Entertainment

Nightclubs have been deleted from the Application clause.

They have been deleted because they are now defined as licensed premises. Licensed premises have not been included specifically because many licensed premises do not have entertainment and therefore they are not intended to comply with the requirements of Division 2 of the Health (Public Buildings) Regulations 1992. However, places used for entertainment are captured and therefore entertainment places within licensed premises are still captured by the requirements of this division.

Regulation 63 – Offences

Regulation 63(2) has been amended to provide penalty provisions to be applied where conditions imposed are not addressed.

Commencement Date

The amendments are effective from 7 June 2002.

PART 2 – HEALTH (PUBLIC BUILDINGS) REGULATIONS 1992

This part addresses issues that were in the previous guidelines or have been the subject of advice to local government since April 1992.

Regulation 4 – Application to Construct/Extend/Alter – Form 1

Section 176 of the Act requires an application to be made if a public building is to be constructed, altered or extended. Applications must be in writing on a Form 1 "Application to Construct, Alter or Extend a Public Building" and be accompanied by documents and the prescribed fee (up to$500).

Section 176(5) of the Act exempts structures that require a building licence from a separate Form 1 application. These facilities still require a public building assessment and approval.

Form 1 applications generally relate to temporary structures such as circus tents, spectator stands, outdoor concerts, etc that are not subject to a building licence issued under the Local Government Act – Building Regulations 1989.

For places or events for more than 5000 people a risk management plan in accordance with AS/NZS 4360 and AS 3745 must be included.

Guidelines on Temporary Structures are included as Appendix 2.

Regulation 5 – Application for Certificate of Approval – Form 2.

An Application for Certificate of Approval, Form 2 is required before a new public building and or alteration or extension to an existing public building is opened for use.

It signifies that the construction is compliant with any conditions placed upon the initial plan approval or building license. It is particularly pertinent to temporary structures where it provides a clear indication that marquees or temporary stands/stages have been erected correctly in accordance with any design criteria.

Regulation 6 – Certificate of Approval – Form 4

A Certificate of Approval must be issued before a public building can be occupied.

The issuing officer must ensure that:

1. A Certificate of Classification is issued under the Local Government Act – Building Regulations 1989.
2. The building complies with the Health (Public Buildings) Regulations 1992.
3. A Certificate of Electrical Compliance has been received from the Electrical Contractor.
4. Copies of certificates issued as part of the approval process have been received, eg: structural certificates, certificates of fire retardant treatment etc.

5. Emergency evacuation and risk management plans required by Regulation 26 are supplied.

The Certificate of Approval must contain the following information.

1. Identification of Public Building area – the name that the area is known as, eg: 'Lounge Bar, 'Green Room', etc.
2. Purpose – The purpose or purposes for which the building will be used. Purposes are described in the Act section 173(a). For example, civic, theatrical, social, political, religious, entertaiment, recreational, sporting or business purposes.
3. Type of use – relates to the proposed use and must align with one of the uses in the regulation 7 Table. If a particular type of use is not nominated then it should be referred to the **EDPH** for a determination in accordance with subregulation 7.3.
4. Maximum Accommodation – The maximum accommodation determined in accordance with the Health (Public Buildings) Regulations 1992.

Regulation 7 – Maximum Number of Persons

The maximum number of persons permitted in a public building is determined by assessing the floor area and applying the relevant ratio per person from the Table in regulation 7, exits, toilets and ventilation. The maximum is the lowest of the limiting factors considered previously.

Refer to Appendix 1 for a typical example of a calculation of maximum accommodation.

Regulation 7(3) – EDPH concession to increase numbers

*Subregulation 7(3) allows operators to apply to the **EDPH** to determine maximum accommodation if the type of use is not accommodated in the regulation 7 Table.*

To date this provision has been used primarily at premises used by children for Blue Light Discos, children's entertainment such as Wiggles concerts and school halls.

They have been approved by the **EDPH** under certain conditions such as: -

- The venue is situated at ground floor level.
- Multiple exits are provided.
- Each Exit to be attended continuously.
- Admission is restricted to adolescents.
- No alcoholic beverages permitted.
- No smoking.
- Admission by ticket issue only.
- Function to be held between specific hours.
- Type of use is stipulated on the Certificate of Approval, ie: Blue Light Disco purpose only.
- Strict supervision to be maintained.
- Adequate toilets, ventilation and exits.
- Only limited or no furniture.

Regulation 10 – Certificate of Electrical Compliance – Form 5

Prior to issuing a Certificate of Approval for a building that has an electrical installation, certification that the electrical installation complies with the Health (Public Buildings) Regulations 1992 must be submitted by the electrical contractor. Builders should be advised of this requirement when building licences are issued.

Many electrical contractors, particularly those in country areas are not aware of the additional requirements of the Health (Public Buildings) Regulations 1992.

It is recommended that submitted copies for high risk buildings, licensed premises, theatres, cinemas concert and venues, be forwarded to the DOH to be included in their audit programme.

Regulation 12 – Aisles

Both the BCA and regulations specify requirements for seating rows and aisles. The following notes provide a comprehensive guide to the requirements.

1. Aisles are required on both sides of every row of seats that is between 10 and 42 seats in length.
2. Dead end aisles can be no more than 10 seats in length.
3. The maximum distance between aisles is 42 seats.
4. The minimum width of an aisle is 1 metre and is determined by the BCA.
5. Steps within aisles must:
   - Be the full width of the aisle.
   - Be uniform in size (both the riser and going).
   - Going shall be between 280mm and 355mm.
   - Risers shall be between 115mm and 180mm.

Clearance between rows

The clearance between rows of seats is a BCA requirement and must be:
300mm if the distance to an aisle is less than 3.5 metres.
500mm if the distance to an aisle is more than 3.5 metres.
BCA does not provide a pro rata distance. It should be either one or the other unless a performance-based option is utilised.

Calculating seating distances

Traditionally when calculating distances to aisles the seat that a person seeking egress from is not included in the count.

For example – to calculate the maximum number of seats that could be used with the 350 mm spacing.

- The Table at Regulation 7 prescribes that the minimum width for a seat is 450 mm.
- Calculate the number of 450 mm spaces and round to the nearest whole number = 8.
- The maximum number of seats in a dead end row would be 9.
- The maximum number of seats would be 17 between aisles.

NOTE: The above calculation is based upon the minimum width and would be varied if wider seats are used.

Regulation 13 – Steps and Landings

Regulation 13(1) requires tiered seating and changes of level that may present a hazard to have an enclosing wall or guardrail. Statistics have shown that many children have been either injured or killed because of inadequate balustrades and recent experience has shown that local government has not strictly administered this area.

The critical part is to determine what represents a hazard.

It depends upon a number of factors. For example, for tiered seating a change in level of 150 mm may be a hazard if excessive crowd pressures may be present at say a sporting or concert event. The same tier may not be a hazard if crowd pressure can be effectively controlled. Generally changes in level of 500 mm are regarded as a hazard.

In tiered seating stands for example, it is not uncommon for patrons to stand on seats to obtain better sight. In these instances the backs and sides of stands must have high protective rails extending to a minimum 1100 mm above the seat to ensure that patrons standing on the seats are protected.

Regulation 13(2) has been retained from previous Public Buildings Regulations and requires hand rails on both sides of steps and landings. However, local government has some discretion to waive this requirement.

The discretion should only be reserved for low risk premises with minimum width stairs or where there are no more than 3 steps. High risk or high use buildings should always have two handrails.

Experience has shown that in high risk venues such as nightclubs, hotels, spectator stands etc there have been occasions where travel rates have been slowed considerably and patrons have fallen down steps due to not having two handrails. There are many people who do not have full use of both hands and arms. The Australian Disability Discrimination Act indicates that all stairs should have two handrails.

Following the death at a Subiaco nightclub the Coroner has recommended that hand rail heights be reviewed and suggested that local government be particularly vigilant during final and routine inspections to ensure that hand rails are the correct height and in good repair.

The following information is a summary of the Health (Public Buildings) Regulations 1992 and BCA requirements.

They have been prepared as a guide for use during routine inspections.

Handrails
Public Building Regulations require steps to have two handrails.

For wide stairs BCA requires hand rails at no more than 2 metre intervals.

Balustrades
A continuous balustrade is required along the side of any – stairway, ramp, floor, corridor, hallway, balcony, verandah, mezzanine, bridge or the like if it is not bounded by a wall and it is more than 1 metre above the surrounding ground/area.

Balustrades are also required if it is possible to fall 4 metres through an openable window.

Balustrade Heights
Stairs – 865 mm above the nosings of stair treads.
Other areas – 1 metre

Balustrade Openings
A 125 mm sphere should not be permitted to pass through any openings.
Where floors are more than 4 metres above the ground there should be no horizontal components to aid climbing between 150 and 760 mm above the floor.

For internal fire isolated stairs / ramps and other areas used primarily for emergency purposes, balusters may be 300 mm apart or if rails are used, there must be one at 150 and others at no more than 460 mm spacings.

Regulation 13(3) – Steps
The Health (Public Buildings) Regulations 1992 require treads to be not less than 280 mm wide and risers not to exceed 180 mm in height.

Regulation 14 – Exit Doors

Regulation 14(1) – Automatic sliding doors

All doors except automatic sliding doors must swing in the direction of egress but local government has discretion to allow alternatives.

The discretion is only intended for low risk situations such as classrooms and small meeting rooms where maximum accommodation is less than 50 persons. In school classrooms for example exit doors may be allowed to open inwards because the students are under supervision and teachers are able to open the exit door and direct children in an emergency.

This provision must not be permitted in entertainment areas (high risk). Automatic sliding doors must open in the event of a power failure. They therefore require a mechanical lock that can be operated by a person seeking egress without the use of a key.

Regulation 14(2) – Sliding Doors

BCA allows sliding doors if they can be operated manually with a force less than 110N. 110 Newtons equates to approximately 11 KG.

The Regulations only permit manually operated sliding doors for areas with no more than 50 people.

A power operated door may be used as an exit in any public building providing the door complies with BCA section D2.19(d)(i) and (ii). Keyed locking devices are not permitted and electrically operated latches must disengage on power failure.

Regulation 14 – Door Latches

Regulation 14(3)(a)(i) requires cinemas, theatres or any other public building able to accommodate more than 400 people to have exits fitted with panic bars.

Generally this has not been well administered because it has been interpreted that it only applied to cinemas, theatres or licensed premises with more than 400 people. All cinemas and theatres must be fitted with panic bars.

Regulation 14(3)(a)(ii) requires that with double leaf doors, the doors must be rebated or otherwise constructed so that a single latch (panic bar) secures them. Both leaves must open freely when the panic bar is operated.

Subregulation 14(3)(b) specifies the types of latches that can be fitted to public buildings other than theatres, cinemas and other places for more than 400 people.

The regulations specify that espagnolettes, panic bars and strap bolts are suitable latches but allows local government discretion to approve other types. The intent of the regulation is to permit exit doors to be operated at any time by a person, possibly under duress, seeking egress without the use of a key or prior preparation.

The discretion should be exercised carefully to insure that this basic intent is achieved.

A typical alternative arrangement has been to allow premises not exceeding 50 people with a sole exit to have an external keyed lock on the basis that it is the only entry point and the lock had to be locked fully open to gain entry.

Recent developments have seen the introduction of magnetic locks; these provide good security. For public buildings they must –

- Be connected to a fire /smoke detection system so that if an alarm is recorded the locks are automatically released. This is also a BCA requirement.
- Release on power failure.
- Have a local operating switch such as a break glass alarm that is clearly labelled that will release the locks in the event of an emergency.
- Have an operating switch in a location that is always attended such as a bar in line of sight of the relevant door or emergency operational centre.

Refer to Figure 2 for prohibited door latch devices and figure 3 for permitted latch devices.

Regulation 14(4) – Barrel Bolts

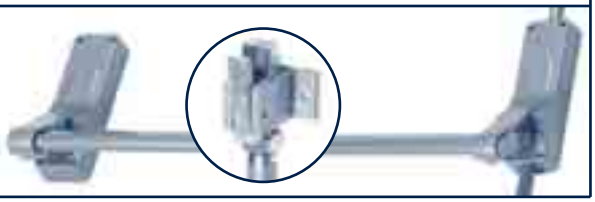
Barrel bolts are prohibited.

Experience has shown that they are normally difficult to operate. The difficulty is increased under duress and if they become bent and buckled.

Figure 2 – Prohibited Door Latch Devices

Cabin Hook	
Barrel Bolt	
Hasp and Staple	
Dead Lock	

Figure 3 – Permitted Door Latch Devices

Strap Bolt	
Panic Bar	

Photos courtesy of Parker Black Forrest Pty Ltd

Espagnolette	
Automatic dead latch with lever escape	
Snib lock	

Regulation 17 – Ventilation

The regulations have similar requirements to BCA except that regulations 17(4) and 17(5) specify comfort conditions for air conditioning systems that can "condition" the air eg refrigerated air conditioners. Evaporative coolers are not captured by these regulations.

Temperatures must be maintained between 19 – 27 degrees C with a dew point no more than 17degrees C.

Regulation 18 – Electric Fans

This regulation specifies heights for both ceiling and wall-mounted fans and is self explanatory.

Regulation 19 – Heaters

This regulation specifies minimum distances between radiant heating elements and combustible materials and requires over temperature protection to be fitted.

Regulation 20 – Sanitary Facilities

Sanitary facilities should be water carriage systems.

Local government has discretion to allow other systems. The discretion should be used primarily for temporary events where chemical closets are often used. It also requires gender signs and lighting.

Toilet numbers are determined by BCA. However for places that were approved prior to April 1992, provided the premises are not altered or the use changed, then the previous requirements should stand.

Tables of toilet requirements have been included at Appendix 7 to assist local government determine requirements for most circumstances.

Regulation 21 – Maintenance

Requires premises to be maintained in a fit and proper state.

Regulation 24 – Smoking

Prevents people from smoking in any roofed theatre, concert hall or cinema.

Regulation 25 – Fire Precautions

The regulation is self-explanatory and requires fire appliances and equipment to be maintained.

Details of routine maintenance and testing regimes are prescribed in the AS 1851 Maintenance of Fire Protection Equipment suite of standards.

Important aspects to consider is that equipment tests must be logged and the individual components identified with the respective test dates.

The following equipment requires weekly inspection/maintenance
Automatic fire sprinkler systems
Automatic fire alarm systems

The following equipment requires six monthly inspections
Fire extinguishers
Fire blankets
Fire hose reels

Automatic smoke/heat venting systems require annual inspections

ELECTRICAL REQUIREMENTS

There are three key aspects that are addressed in the Public Building Regulations pertaining to electrical installations. Installations must be safe and not present electrocution or fire hazards and they must also be designed to provide adequate illumination for general movement in the event of an emergency.

The essential requirements for safety from fire and electric shock are outlined in AS/NZS3000:2000 Wiring Rules

The Health (Public Buildings) Regulations 1992 require lighting systems to provide illumination under normal or emergency conditions to reduce the risk of panic and injury to the public if a total blackout occurs.

The regulations have been developed to address matters not covered in AS/NZS 3000:2000 and the BCA.

Electrical contractors engaged by the owner, builder, developer or other authority to carry out electrical work in a public building must certify that the completed installation complies with the regulations by completing a Certificate of Electrical Compliance – Form 5.

This certification makes the contractor responsible for that installation. If a Certificate of Approval is issued without the required certification then the issuing officer may be responsible for the installation in so far as the Health (Public Buildings) Regulations 1992 are concerned.

The submission of electrical drawings is not required under these regulations. If they are submitted the local government is not obliged to approve them.

The Environmental Health Directorate is available to advise on regulations and carry out random inspections on electrical installations throughout the state by way of an auditing role.

Under the Electricity Act, licensed personnel can only undertake technical inspections of electrical installations. This does not preclude minor visual inspections of electrical equipment being used in association with electrical installations by unlicensed local government personnel.

General

All electrical safety aspects of electrical installations and generators come under the relevant supply authority. Western Power is the supply authority in most instances. If local government officers have any doubts abut the safety of an installation then they should contact their local Western Power inspector or the Office of Energy if a local inspector is not available. For any information on electrical regulations or safety matters contact the Environmental Health Directorate.

LOCAL GOVERNMENT'S ROLE IN RELATION TO ELECTRICAL INSTALLATIONS

Local governments officers will have limited involvement with the electrical installation in public buildings. Their role is seen as follows:

- To assist owners, builders, developers and electrical contractors in obtaining information about the *Health (Public Buildings) Regulations 1992* by referring them to the EHB.
- Attach notification of the requirement to provide electrical certification to approved building licenses.
- Advise electrical contractors where copies of the Regulations can be obtained. They can be purchased from the State Law Publisher, 10 William Street, Perth, Tel: (08) 9321 7688.
- Ensure that electrical contractors submit Certificates of Electrical Compliance before issuing Certificates of Approval.
- Forward copies of completed certificates for high risk buildings to the Environmental Health Directorate so that they can be audited.

Regulation 28 – General Lighting

Public buildings must be illuminated to 40 lux by a general lighting system that is segregated from stage or effects lighting.

Stage and effects systems are prone to faults and failure. The integrity of general lighting for egress and escape therefore can not be compromised because of a fault from theatrical or effects lighting or in any other part of the installation.

Regulation 29 – Luminaire Locations

Luminaires below 2.4 metres must have protective diffusers to prevent accidental contact with potentially hot, live and exposed fragile lamps.

Regulation 30 – Switches

Light switches should be located so that they are inaccessible to the general public either by their location or by a lockable enclosure. Local government has discretion to vary the requirement.

Discretion should only be applied for low risk premises.

Where automatic controls are used then a separate manual ON switch must be provided.

Automatic lighting controls require a manual switch to override the automatic function because past experience has shown that automatic systems have not been reliable enough, and in emergency situations the automatic function may need to be overridden.

Regulation 31 – External Lighting

External areas of public buildings must be illuminated to at least 1 lux, the circuits must be separate to any internal circuits and if there are more than 2 lights they must be distributed over 2 final subcircuits.

Regulation 32 - Emergency Lighting

Emergency lighting must be provided in accordance with the BCA and AS 2293.

Regulation 32(4) has been deleted as a result of BCA amendments. Regulation 16 and appendix 5 contain additional requirements and information about exit signs and emergency lighting.

Regulation 33 – Batteries

Due to the prominence of single point emergency lights and exit signs battery rooms are seldom used these days.

The requirements are retained to cover those that remain and possible future developments.

Regulation 34 – Generating equipment

As for batteries, generators are seldom installed in public buildings these days and there is a trend to replace existing units with single point systems. However, they are used extensively for large events.

One of the most critical issues is that the exhausts must not contaminate ventilation system supply air.

Regulation 36 – Temporary Wiring

Temporary wiring (leads and portable outlet devices) may only be used for periods less than 90 days.

They can not be laid on the floor or be accessible to the public and must not present a hazard.

Regulation 38 – Auditorium Lighting

General lighting in auditoria must have a manual override that will bypass any dimmers or automatic controls and be distributed over at least 2 final subcircuits.

These requirements are particularly important for cinemas and theatres and are an important part of their building emergency facilities.

Generally in most modern cinemas separate systems are installed and generally designated as “Cleaning Lighting”.

Regulation 39 – Safety Lighting

Foyers, passages, ramps, aisles and stair tread in areas where the general lighting is normally dimmed or extinguished must have safety lighting.

Safety lighting must not be dimmed or modulated but it must be interconnected with the emergency lighting so that if the safety lighting fails, the emergency lighting will be automatically energised. Recent audits indicate a very poor performance with this requirement.

Regulation 40 – Luminaire Construction

Theatrical luminaires must be suitable constructed and placed so that they do not present a hazard.

Regulation 41 – Emergency Lighting

All entertainment venues must have emergency lighting and exit signs regardless of whether it is a BCA requirement.

Regulation 42 – Stage Equipment

Specifies safety requirements for theatrical lighting on stages.

Issues that are often not addressed adequately are –

- Effects suspended above the public must be fitted with safety chains.
- Luminaires suspended above the public must be fitted with safety chains.

Regulation 43 – Cinematograph Equipment

Although the equipment referred to in this regulation has been outdated some units remain in use and therefore this regulation remains applicable.

Regulation 44 – Switchboards

Specifies basic switchboard design for cinemas and theatres. It is intended to ensure that the integrity of general, safety and emergency lighting circuits is not compromised by faulty stage or projection equipment.

Regulations 45 to 49 – Drive-ins

Although drive-ins are in decline they still exist and therefore these regulations remain pertinent.

Regulations 50 to 52 – Schools and Places of Tuition

Specify basic requirements for classroom lighting and safety in workrooms. Power outlets must have residual current device, RCD, protection.

The specified requirements are essential to maintain basic standards and safety that are not addressed by other legislation.

Regulations 53 to 57 – Circuses, Shows, Tents, Temporary Structures

These regulations specify specific lighting standards for these facilities. Detailed requirements are included at appendix 4.

Regulation 59 – Power Supplies

This regulation requires electrical submains and rising mains overcurrent protective devices to discriminate so that a fault in one section of an installation will be isolated and not affect another section.

Regulation 60 – Switchboards

This regulation is intended to prescribe basic requirements that will ensure that switchboards can be maintained efficiently and accessed at all times.

- *Each building shall have its own switchboard and a single supply.*
- *Switchboards must be located in areas that are adequately illuminated and will remain accessible whilst the premises is in use.*
- *No live parts shall be exposed.*
- *The functions of switchboard components must be identified.*
- *3 Spare fuse elements of each size and type in use must be provided at each switchboard.*

Regulation 61 – Testing and Maintenance

Electrical installations and RCD's must be tested in accordance with AS 3760.

Specific details are at appendix 9.

Regulation 62 – Emergency Lighting Maintenance

Refer to appendix 5 for specific requirements for single point systems.

Periodic testing of emergency lighting systems and residual current devices is necessary. Test results must be recorded in a log book, in turn local government officers should sight the log during routine inspections.

APPENDIX 1 – CALCULATING MAXIMUM ACCOMMODATION

Floor Area

Identify the use or types of use of the premises. For each use apply the appropriate occupancy ratio per person from the table at regulation 7.
Eg: type of use – Hall, m^2 per person = 1

The public building accommodation numbers for each specific room must be stipulated, eg: 'Green Room' 250, 'Lounge Room' 50.

On some occasions a large room may be divided into 2 or 3 smaller rooms by closing off the rooms with concertina doors. In this case the accommodation number can vary for the specific layout, eg: one large room 200 persons or 3 small rooms 66 persons each depending on the size of the small rooms.

Please note that all public building requirements need to be met in respect to ***each room when they are divided***, (eg: exit doors, exit signs, ventilation etc.)

It is recommended that a record of the approved floor plan be filed to demonstrate specifically how the public building area was measured. Highlight the perimeter of the measured area and use a different colour to highlight deductions for toilets, etc. Show all dimensions and calculations on this plan.

To ensure you have the correct measurements, whenever practicable physically measure the areas, rather than scale plans.

It is recommended that the owner or authority for the premises assist. They can then be called in future as a witness if required in case of disputes, etc. (eg: overcrowding in entertainment areas.)

This is particularly pertinent in overcrowding prosecutions or disputes in how the maximum accommodation was calculated.

When a Certificate of Approval is issued for places such as licensed premises it is recommended for evidentiary purposes to have:

- a copy of the certificate signed by the person to whom the notice was served;
- the officer serving the notice sign the copy and note the time and date the notice was served: and
- the copy placed on the appropriate file for record purposes.

Exits

Exit requirements for traditional buildings are detailed in the Building Code of Australia (BCA) Part D, and the Health (Public Buildings) Regulations 14 –16. The aggregate exit width has a direct relationship with maximum accommodation.

For places where the BCA is not appropriate such as outdoor venues there are various methods that can be used to determine exit requirements. Contact the Environmental Health Directorate for specific information about these methods. Appendix 3 is a table of exit widths extracted from BCA.

NOTE: Aggregate exit width is only one of many exit width requirements of BCA. All must be complied with.

Sanitary Facilities

Sanitary facilities are calculated under BCA Table F2.3. The BCA is not applicable to some temporary events and sporting facilities.

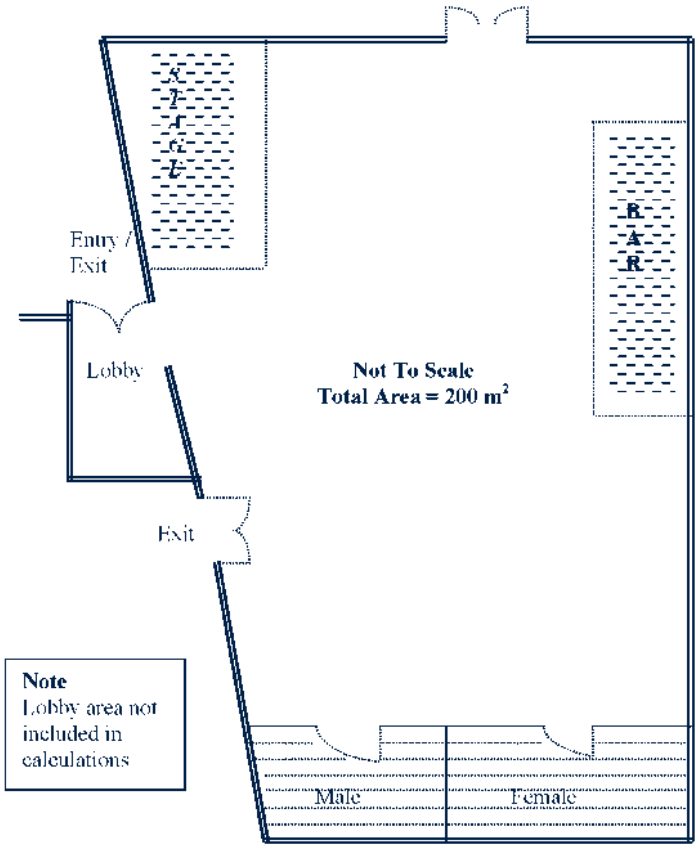
Appendix 7 contains tables extracted from BCA for permanent buildings and a table of recommended requirements for events where the BCA is inappropriate. This table considers the duration, and type of event. This table has bean shown to be quite effective.

Ventilation

BCA section F4 and Health (Public Buildings) Regulations 1992, regulation 17 requires ventilation to comply with AS/NZS 1668.2. This has a direct bearing on maximum accommodation and ventilation therefore becomes another limiting factor.

LICENSED PREMISES

Example



Floor	Area Total Area =	200m²
	Deduction – Toilets + bar + stage =	70 m²
	Net floor area available for patrons =	130
	From regulation 7 Table the applicable ratio is 0.85	
	Maximum number	
	Area divided by ratio at the Regulation 7 table is = **153 persons**	
Toilet facilities	Females - 2 wc, 2 hand basins Males - 2 wc, 2 urinals 2 hand basins	
	BCA Table F2.3 – facilities are adequate for 200 persons	
Exit width	2 double doors at 1.7m = 3.4 aggregate exit width	
	BCA D1.6 - adequate for up to 300 persons	
Ventilation	Natural/Mechanical	
	BCA F4.6; Mechanical	
	Ventilation see BCA F4.5 and	
	Public Buildings Reg 17	

The limiting factor is floor area and the maximum accommodation= 153 persons

APPENDIX 2 – TEMPORARY STRUCTURES – TENTS AND MARQUEES

In Western Australia every time a tent or marquee facility is erected it requires local government approval either as a public building under the Act or as a temporary building under the Building Regulations. Local government often has limited expertise to assess and approve these types of structures and many are not approved at all or else inappropriate conditions are set.

The following guidelines have been prepared to assist the approval process and to establish uniform Statewide conditions for tents and marquees used as public buildings.

Where practical the Environmental Health Directorate is prepared to assess typical facilities and issue a letter of compliance to suppliers and local government but this does not diminish local government's responsibility to approve erected facilities.

The approval process has three distinct parts but in most instances where operators erect identical facilities within the same local government boundaries approval procedures are simplified.

Application

The person erecting the facility must make application to local government by submitting a Health (Public Buildings) Regulations 1992, Form 1, Application to Construct, Alter or Extend a Public Building well in advance of the proposed date; at least four weeks, more for large structures. The application must be accompanied by sufficient information; these guidelines are intended to indicate to local government and the erectors the critical criteria that need to be assessed.

Approval to Construct or Erect

Local government assess and either reject or approve the application. Conditional approvals are often granted.

Final Approval

When the structure is completed local government need to be advised so that they can inspect and issue an approval to allow the facility to be used. A Health (Public Buildings) Regulations 1992, Form 2, Application for a Certificate of Approval is used for this purpose.

Often tents or marquees are a small component of a major event; the same approval principles still apply.

Applications

Applications must provide enough information to allow local government to understand:-

- the purpose for which the facility is to be used
- the number of people expected to use the facility
- The integrity of the design and manufacture of the component parts
- Environmental factors – weather and ground conditions
- Erector's competence to erect the facility correctly

Manufacturers Information

Facility design and construction details are required to address the following.

- Manufacturer details
  - Name
  - Contact details, address, phone number, fax etc.
- Description of the structure
  - Dimensions
  - Type of material
  - Intended uses
- Codes to which it complies
- Structural adequacy
- Fabric fire indices – Test certificates for fabrics used in the construction
- Design parameters
  - wind limitations
  - ground density
  - footing loads
- Instruction booklet complete with drawings and bracing diagrams and a checklist
- Correct erection methods
- Training necessary to correctly erect the structure.

Structural Adequacy

A practicing structural engineer should certify the designs. Structural design calculations should be available within the Perth Metropolitan area if required by the approving authority to validate the engineer's certification.

For older structures where manufacturer information is not available then certification from a practicing structural engineer and a documented service history may suffice.

Manufacturer's data may not be required for structures less than 55 m^2 if there is a substantial service record.

Wind limitations must specify a speed and clearly indicate the suitability for varying configurations and include where applicable.

- Structure fully enclosed.
- Structure with 3 walls enclosed
- Structure with 2 sides closed and front and back open.
- Open gable fronts, closed rear and sides.

- Open gable front and back with closed sides.
- Details of any other variations that will lower any of the above safe operating parameters.

Referring the structural adequacy to AS 1170 terrain categories is not appropriate as these structures are erected for short duration and can be dismantled if excessive conditions are forecast.

The certification must clearly detail what holding down capacity has been used to determine the limits.

Where holding capacity will rely on ballast then wind loads and ballast weights must be specified.

Fire Indices

Details of the flammability of materials used to construct and decorate the facility must be provided. Whenever possible test results from a NATA approved laboratory should be provided. The test certificates must have sufficient information to enable them to be identified with the particular material being assessed.

In the case of decorative lining materials they should be inherently fire retardant and have an identifying label. In the absence of such identification local government may require a demonstration to show that the material will not support a flame.

Except for circus big tops or similar facilities walls, roofs, drapes or decorative treatments must have a flammability index no more than 6.

Big top walls and roofs more than four metres from the ground may have a flammability index up to 25.

Design Parameters

Wind limitations

The applicant must clearly identify the maximum safe wind speed that the structure can withstand in the proposed operational mode or modes of the structure. They must also identify what measures will be put in place to ensure that the safe wind speed is not exceeded and what actions will be undertaken if excessive winds are predicted.

Ground Density

The ground density is perhaps the most important criteria as it is the area most likely to cause structures to fail. It is very unusual for modern fabrics to fail even when they are subjected to high winds.

The ground holding requirements must be ascertained and for high risk facilities or for those that will be used for more than a day actual "holding down" tests should be performed using a tension gauge or other approved method to ascertain the actual ground holding capacity. Bear in mind of course that this may alter subject to environmental conditions.

As a guide to the holding requirements of various soil types the following figures are appropriate.
Loose sand – 35 kpa
Stiff/very stiff clay – 80 kpa
Moderately compacted sand and gravel – 180 kpa

The soil type, anticipated holding capacity and any criteria that may effect that capacity should be noted on the check list and erection certification.

Ballast

Where structures rely on ballast for stability the required weights and footing details must be clearly identified.

Erection Manual

Manufacturers should provide documented information on erection procedures, bracing diagrams and a check list to ensure that all the critical criteria have been complied with. This documentation should also outline competencies required to enable the facility to be erected safely and undertake to train new operators.

Typical Check List

The following check list identifies the elements requiring checking prior to the facility being used.

1. Anchorages are adequate and holding fast
2. Describe the soil type and identify ground-holding parameters.
3. Wall and roof bracing is installed and adequately tensioned.
4. All ropes or tensioned straps are in good order and correctly fastened.
5. Fabric is tensioned and not prone to ponding.
6. Exits are correctly identified and not obstructed.
7. Exposed ropes and stakes are identified and will not be a hazard to the public.
8. All locking pins and bolts are in place and correctly tensioned.
9. All structural supports are sound.
10. Fabric has no un-repaired tears.
11. Flooring is even and there are no tripping hazards
12. Walls are adequately secured.
13. Rope and Pole tent has its full compliment of side uprights, anchor stakes, pulley blocks and guy ropes.
14. Rope and Pole tent hoists are secure and can only be released by an authorised person.

Final Approval

When the facility is complete, and by prior arrangement, local government should be advised and a Health (Public Buildings) Regulations 1992, Form 2, Application for a Certificate of Approval lodged. This signifies that the facility is complete and any conditions set at the approval stage have been addressed.

Information required at this stage will include;
Certification from the erector that the facility has been erected in accordance with the manufacturer's or structural engineer's recommendations.

A copy of a completed checklist signed by a competent person.

If an engineer has inspected the facility then copies of reports must be provided at this stage.

If an electrical contractor is responsible for any electrical installations associated with the facility then a Health (Public Buildings) Regulation 1992, Form 5, Certificate of Electrical Compliance is required. If a system of leads and portable outlet devices has been used then certification is not required if the leads and equipment has been tested and tagged within six months by an electrical contractor. Additional information on electrical requirements is addressed separately.

Ancillary Equipment

The following additional information is provided to address options that are not applicable to every tent or marquee.

Seating Specifications

The minimum distance between rows of seats is 300mm.
There shall be no more than 10 seats in dead end aisle and no more than 17 seats in rows between aisles.

If the distance between rows is increased to more than 500 mm then the length of rows between aisles can be increased.

Aisles must be no less than 1 metre wide.

The sides and rear of raised seating areas must be bounded by guard rails.

Guardrails must extend 1000 mm above any surface where a person can stand and not allow a 150 mm diameter sphere to pass through any section. If there is more than a 4 metre drop then there must be no hand holds. Rails and balustrades that comply with BCA comply with this requirement.

Guardrails must be securely fixed. Guardrails that are loose and wobble are not acceptable.

Loose seats on flat ground must be secured in groups of no less than four. Seats forming rows on tiered stands must be secured to the floor.

For bench seating 450 mm must be allowed for each person. And each space shall be clearly identified.

Steps and Risers

The risers of aisle steps shall be no less than 120 mm and no more than 180 mm and the going shall be no less than 280 mm.

Other stairways etc risers shall not exceed 180 mm and the going shall be no less than 280 mm. They shall be uniform.

Risers shall be constructed so that there are no gaps between seating levels.

Exits

There must be more than 1 exit if more than 50 people are to be accommodated.

There must be no more than 20 metres of travel to any exit or to a point where there is access to two exits, the furthest shall be no more than 40 metres from the starting point.

Exits shall open in the direction of egress and be able to be operated with a single hand action.

Side walls through tents are suitable if they utilise “Velcro” type fastenings.
Traditional ties can be used for security purposes whilst the public is not in attendance.

Sliding doors can not be used as exits for places with more than 50 people.

Exit Signs

Each exit shall be identified by an electrically operated sign that complies to AS 2293. Whenever possible these signs should be connected to a “Town” supply and not a generator. It is strongly recommended that signs be supplied from a central battery supply.

Exit Width

The aggregate width of exits should comply with the BCA Section D1.6. (Refer to Appendix 2).

Fire Extinguishers

Subject to additional requirements from the WA Fire and Emergency Service.

One 4.5 kg B (E) dry chemical powder extinguisher must be located adjacent to

- Any electrical generator or switchboard.
- Any flammable liquid or gas containers.
- Any food preparation/cooking area.

Pressured water type extinguishers or 4.5 kg AB (E) dry chemical extinguishers must be provided -

- Within 10 metres of each exit (one).
- Backstage – (Two).

All extinguishers must be kept fully charged and maintained in accordance with AS 1851.1 This requires extinguishers to be tested regularly and the test details clearly identified on each extinguisher.

Each extinguisher should be positioned on a hook or bracket located no more than 1200mm above the adjacent floor and the extinguisher base should be more than 100 mm above the floor.

Prior to a final approval being granted the operator or person responsible for erecting the structure may be required to submit a statement to the effect that the following items have been complied with.

- Manufacturers requirements
- Structural requirements
- Exit signs
- Fire extinguishers

Separation Distances

For fire separation purposes there should be no less than 6 metres separation between facilities and access for fire fighting vehicles and appliances must be maintained to all erected structures.

Evacuation Plan

An evacuation plan needs to be in place. A minimum requirement is that the staff has set responsibilities to assist in the evacuation of the public.

Details of the evacuation plan should accompany the initial application.

Lighting Requirements

Lighting should be connected to two separate sources so that in the event of one supply failing there will be sufficient light to allow an orderly evacuation of the tent. The sources may be two generators or a generator and supply authorities mains.

If only one source is used then emergency lighting equivalent to AS 2293 must be provided.

The installations supplied from each source must be completely segregated so that a fault on one source will not affect the other. It is also an electrical safety requirement.

Electrical

RCD's must protect electrical outlets and apparatus in areas available to the public.

The installation and any generators must comply with all relevant Australian standards.

The tent installations must comply with AS/NZS 3000 Wiring rules and AS 3002 Electrical Installations Shows and Carnivals.

Switchboards

1. Must be in weatherproof enclosures.
2. Must have no access to live parts.
3. Must have doors that can be fully closed and locked with all cables connected or be located so that they are only accessible to authorised persons.
4. Must have a main switch.
5. Must have overcurrent circuit breakers to protect outlets for submains.
6. Must have RCD protection to protect final sub circuits.
7. Must have all components and their functions clearly identified.
8. Must have a non-conducting tie bar for the anchorage of cables and flexible cords.

Residual Current Devices – RCDs

Preferred leakage-tripping current – 30 milli amps.

Electrical Cables

Because cables are continually being rolled up and moved they must be flexible. Standard multicore cables used in static installations are not appropriate.

Electrical cables shall not be accessible to members of the public. Where cables are required in trafficable areas they must be either buried or suspended so that they are out of reach by members of the public.
Submains cables must have integral earth and neutral conductors.

Testing

All electrical cables and RCD's must be examined tested and tagged at six month intervals by an electrical contractor in compliance with the tests required by AS 3012 Electrical Installations – Construction and Demolition Sites. Since 1992 AS 3012 has been amended and the clause quoted in the regulations is no longer relevant.

The intent of the Regulation is to have all portable electrical equipment tested and tagged at six monthly intervals. The standard for building sites is 3 monthly intervals which is considered too onerous.

Exit Signs

Each exit must be provided with an exit sign. Signs should be connected to town supplies whenever possible.

The Health (Public Buildings) Regulations 1992 requires exit signs in temporary structures to be connected to a central battery supply and this is the preferred method.

Conversion Tables

Speed Conversions – metres/second; kilometres/hour; miles/hour; knots

M/sec	Kms/hr	Miles/Hr	Knots
2	7.2	4.5	3.8
4	14.4	9	7.8
6	21.6	13.5	11.5
8	28.8	18	15.5
10	36	22	19.5
12	43.2	27	23.5
14	50.4	31	27
16	57.6	35.5	31
18	64.8	40	35
20	72	44.5	38.8
22	79.2	49	42.7
24	86.4	53.5	46.6
26	93.6	58	50.5
28	100.8	62.5	54.4
30	108	67	58.2
32	115.2	71.5	62.1
34	122.4	76	66
36	129.6	80.5	69.9
38	136.8	85	73.8
40	144	89	77.7

Force Conversions

Kilograms	Newtons	Pounds
10	98.0	22.0
12	117.6	26.4
14	137.2	30.8
16	156.8	35.2
18	176.4	39.6
20	196.0	44.0
22	215.6	48.4
24	235.2	52.8
26	254.8	57.2
28	274.4	61.6
30	294.0	66.0
32	313.6	70.4
34	333.2	74.8
36	352.8	79.2
38	372.4	83.6
40	392.0	88.0
100	980.0	220.0
200	1960.0	440.0
300	2940.0	660.0
400	3920.0	880.0
500	4900.0	1100.0
600	5880.0	1320.0
700	6860.0	1540.0
800	7840.0	1760.0
900	8820.0	1980.0
1000	9800.0	2200.0
1100	10780.0	2420.0
1200	11760.0	2640.0
1300	12740.0	2860.0
1400	13720.0	3080.0
1500	14700.0	3300.0
1600	15680.0	3520.0
1700	16660.0	3740.0
1800	18620.0	4180.0
1900	17640.0	3960.0
2000	19600.0	4400.0

Conversion Factors
Metres/second to Km/hour multiply by 3.6
Km/hr to miles/hour multiply by 0.62
Km/hr to knots multiply by 0.5396
Kilograms to newtons multiply by 9.8
Kilograms to pounds multiply by 2.2
I kilo-newton KN = 1000 newtons

APPENDIX 3 – EXIT WIDTHS EXTRACTED FROM BCA – SECTION D 1.6

Aggregate exit width in metres	No. of people – gradient less than 1:12	No. of people – gradient more than 1:12
1x 1000	0 – 50	0 – 50
2x 1000	50 – 200	50 – 200
2.5	200 – 275	200 – 260
3	275 – 350	260 – 320
3.5	350 – 425	320 – 380
4	425 – 500	380 – 440
4.5	500 – 575	440 – 450
5	575 – 650	500 – 560
5.5	650 – 725	560 – 620
6	725 – 800	620 – 680
6.5	800 – 875	680 – 740
7	875 – 950	740 – 800
7.5	950 – 1025	800 – 860
8	1025 – 1100	860 – 920
8.5	1100 – 1175	920 – 980
9	1175 – 1250	980 – 1040
9.5	1250 – 1325	1040 – 1100
10	1325 – 1400	1100 – 1160
10.5	1400 – 1475	1160 – 1220
11	1475 – 1550	1220 – 1280
11.5	1550 – 1625	1280 – 1340
12	1625 – 1700	1340 – 1400
12.5	1700 – 1775	1400 – 1460
13	1775 – 1850	1460 – 1520
13.5	1850 – 1925	1520 – 1580
14	1925 – 2000	1580 – 1640
14.5	2000 – 2075	1640 – 1700
15	2075 – 2150	1700 – 1760
15.5	2150 – 2225	1760 – 1820
16	2225 – 2300	1820 – 1880
16.5	2300 – 2375	1880 – 1940

APPENDIX 4 – CIRCUS APPROVALS

In Western Australia the Act defines circuses as public buildings. They are required to comply with the Health (Public Buildings) Regulations 1992.

Local government administers the Regulations. Therefore, each time a circus is erected in a new locality a local government approval will be required. Each approval may attract a fee up to $500.

To assist both circus operators and local government and to give some uniformity of standards the Environmental Health Directorate is willing to assist with the inspection of circuses when practical and provide a letter of compliance to the circus operator and local government. It is preferred that this inspection is conducted as soon as the circus enters the state. Therefore the Environmental Health Branch should be advised well in advance of the circus entering the state so that the inspection can be programmed.

The following requirements will apply to circuses entering WA after 30 June 2002. They are based upon the BCA and Health (Public Buildings) Regulations 1992 and previously accepted practices.

Application – Preliminary Advice

A person wishing to set up a circus in any location in WA shall submit at least four weeks prior to the first performance to the local government an application that provides relevant details on:

Structural Adequacy

Certificates from practicing structural engineers to show that the tent and seating is structurally adequate.

Tent Details

- Manufacturer
- Fabric details - manufacturer, trade name and weight, flammability.
- Supporting structure, king poles, cupola truss details must also be provided.
- Design calculations are not required but must be available on request.
- Maximum operating wind strength.

Seating

An accurate description and drawings of the seating support structure.
Drawings showing the seating layout, types of seats, aisle widths and locations. Specific information on seating stands is contained at appendix 6 Requirements for Spectator Stands.

Structure and seating stands should be inspected and structurally certified annually.

Specific Requirements

Seating Specifications

The minimum distance between rows of seats is 300mm.
There shall be no more than 10 seats in dead end aisles and no more than 17 seats in rows between aisles.

If the distance between rows is increased to 500 mm then the length of rows between aisles can be increased.

Aisles must be no less than 1 metre wide.

The sides and rear of raised seating areas must be bounded by guard rails.

Guardrails must extend 1100mm above any surface where a person can stand and not allow a 150 mm diameter sphere to pass through any section. If there is more than a 4 metre drop then there shall also be no hand holds. Rails and balustrades that comply with BCA meet this requirement.

Guardrails must be securely fixed. Guardrails that are loose and wobble are not acceptable.

Loose seats on flat ground must be secured in groups of no less than four. Seats on tiered stands must be secured to the floor or supporting structure.

For bench seating 450 mm must be allowed for each person. And each space shall be clearly identified.

Steps and Risers

The risers of aisle steps shall be no less than 120 mm and no more than 180 mm and the going shall be no less than 280 mm.

Other stairway risers shall not exceed 180 mm and the going shall be no less than 280 mm. They shall be uniform.

Risers shall be constructed so that there are no gaps between seating levels.

Flammability

The structure roof and walls and internal drapes must not be flammable.

Flammability tests certificates must clearly specify the spread of flame and flammability indexes applicable. These certificates must be able to be related directly to the fabrics used.

Drapes used for the entertainment production must also be non flammable and have a flammability index no more than 6.

Walls and roofs between 0 to 4 metres – Flammability index no more than 6.

Walls and roofs above 4 metres – Flammability index no more than 25.

Exits

There must be more than 1 exit where more than 50 people are to be accommodated.

There must be no more than 20 metres of travel to any exit or to a point where there is access to two exits, the furthest shall be no more than 40 metres from the starting point.

Exits shall open in the direction of egress and be able to be operated with a single hand action.

Side walls through tents are suitable if they utilise "Velcro" type fastenings.
Traditional ties can be used for security purposes whilst the public is not in attendance.

Exit Signs

Each exit shall be identified by an electrically operated sign that complies to AS 2293. Whenever possible these signs should be connected to a "Town" supply and not a generator. It is strongly recommended that signs be supplied from a central battery supply.

Exit Width

The aggregate width of exits should comply with the BCA Section D1.6. (Refer to Appendix 3).

In some circumstances the width may be varied. Alternative arrangements may be approved if it can be shown that there is sufficient aggregate exit width to allow a facility to be evacuated within three minutes.

Fire Extinguishers

Subject to additional requirements from the WA Fire and Emergency Service.

One 4.5 kg B (E) dry chemical powder extinguisher must be located adjacent to

- Any electrical generator or switchboard.
- Any flammable liquid or gas containers.
- Any food preparation / cooking area.

Two 9 litre stored pressured water type extinguishers or 4.5 kg AB (E) dry chemical extinguishers must be provided.

- Backstage
- Within 10 metres of each exit.

All extinguishers must be kept fully charged and maintained in accordance with AS 1851.1 This requires extinguishers to be tested regularly and the test details clearly identified on each extinguisher.

Each extinguisher should be positioned on a hook or bracket located no more than 1200 mm above the adjacent floor. The extinguisher base should be more than 100 mm above the floor.

Final Approval

Prior to a final approval being granted the operator or person responsible for erecting the structure may be required to submit a statement to the effect that the following items have been complied with.

- Manufacturers requirements
- Structural requirements
- Exit signs
- Fire extinguishers

Evacuation Plan

An evacuation plan needs to be in place. A minimum requirement is that the staff has set responsibilities to assist in the evacuation of the public.

Details of the evacuation plan should accompany the initial application.

Lighting Requirements

Lighting should be connected to two separate sources so that in the event of one supply failing there will be sufficient light to allow an orderly evacuation of the tent. The sources may be two generators or a generator and a town supply.

If only one source is used then emergency lighting equivalent to AS 2293 must be provided.

The installations supplied from each source must be completely segregated so that a fault on one source will not affect the other. It is also an electrical safety requirement.

Electrical

RCD's must protect electrical outlets and apparatus in areas available to the public.

The installation and generators must comply with all relevant Australian standards. The tent installations must comply with AS/NZS 3000 Wiring rules and AS 3002 Electrical Installations Shows and Carnivals

What Is Required to Achieve the Basic Principles

For RCD's to be effective the neutral and earth conductors must be bonded together at the point of supply. All town supplies are connected this way but generators may not be. AS 3010.1 Electricity Generating Sets requires neutral connections to be earthed at the generator frame, it is recommended that this connection be made via a removable link.

Each generator must be connected to its own earth electrode driven into the ground.

All electrical outlets and supplies must have circuit breakers to protect against overload.

All final subcircuits must have RCD protection.

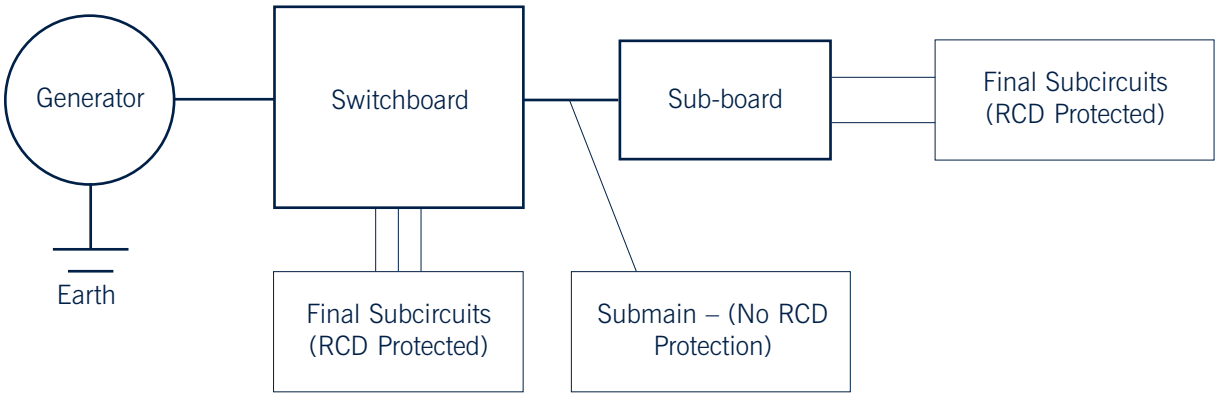
Typical circus installation consists of a series of electrical leads, sub boards and cord extension sets.

It is recommended that for a typical installation –

- Outlets at generators that are specifically required for the use of tools etc. have RCD protection.
- Outlets that are solely for connection of submain cables supplying a distribution board should only have overcurrent protection.
- RCD protection of final sub circuits should only be provided at the switchboard where those final sub circuits originate.

This type of protection will minimise the disruption to major sections of the lighting installations in the event of a current leakage to earth.

Typical Electrical Installation For Circuses



Switchboards

1. Must be in weatherproof enclosures.
2. Must have no access to live parts.
3. Must have doors that are able to be fully closed and locked with all cables connected or be located so that they are only accessible to authorised persons.
4. Must have a main switch.
5. Must have overcurrent circuit breakers to protect outlets for submains.
6. Must have RCD protection to protect final sub circuits.
7. Must have all components and their functions clearly identified.
8. Must have a non-conducting tie bar for the anchorage of cables and flexible cords.

RCD's – Residual Current Devices

Preferred leakage tripping current – 30 milli amps.

Electrical Cables

Because cables are continually being rolled up and moved they must be flexible. Standard multicore cables used in static installations are not appropriate.

Electrical cables shall not be accessible to members of the public. Where cables are required in trafficable areas they must be either buried or suspended so that they are out of reach by members of the public.
Submains cables must have integral earth and neutral conductors.

Testing

All electrical cables and RCD's must be examined tested and tagged at six month intervals by an electrical contractor in compliance with the tests required by AS 3012 Electrical Installations – Construction and Demolition Sites. Since 1992 AS 3012 has been amended and the clause quoted in the regulations is no longer relevant.

The intent of the Regulation is to have all portable electrical equipment tested and tagged at six monthly intervals. The standard for building sites is 3 monthly intervals which is considered too onerous.

Exit Signs

Each exit must be provided with an exit sign. Signs should be connected to town supplies whenever possible.

The Health (Public Buildings) Regulations 1992 requires exit signs in temporary structures to be connected to a central battery supply and this is the preferred method.

Generator Basic Requirements – Refer AS 3010.1

There must be no access to live parts.
The Neutral must be bonded to earth via removable link Refer AS 3010.1

Interconnecting Cables – Submains

Minimum PVC/PVC circular cables
Protected from mechanical damage.
Have integral earth and neutral conductors
Buried or placed so that they are not in trafficable areas.

Outlets

- To comply with AS 3002, three phase outlets must be 5 pin 30-amp outlets.
- Double adaptors and rewireable piggyback plugs are not permitted. Portable outlet devices must be used.
- Extension cord connections are not permitted in exposed external areas.

APPENDIX 5 – TYPICAL EMERGENCY LIGHTING/ EXIT SIGN LOG SHEET

OWNER: .....

ADDRESS: ..... **PHONE:** .....

MAINTENANCE OPERATOR: .....

ADDRESS: ..... **PHONE:** .....

LUMINAIRE DETAILS

Location	ID No	Model	Type of Fitting	Wiring Circuit No.	Battery Type & Capacity

PERIODIC CHECKS

6 MONTHLY				12 MONTHLY				
Lamp ID No	Date	Lamp Duration Hrs-Mins	Check Charge Indicator	Date	Lamp Duration Hrs – Mins	Check Charge Indicator	Clean Reflectors & Diffusers	Comments/ Battery Replacement Date Tester Signature

EMERGENCY LIGHTING/EXIT SIGNS INSPECTION AND MAINTENANCE

The following information has been extracted from AS 2293.2 and pertains to single point units.

Fittings that fail to operate satisfactorily must be either repaired or replaced.

Six-Monthly Procedures

1. Ensure that the normal supply has not been interrupted for at least 16 hours prior to conducting a discharge test.
2. For fluorescent lamps, it is recommended that the lamps be replaced if they exhibit excessive end-blackening, even when the lamps still operate.

Discharge test

3. Operate the emergency luminaires and exit signs from their battery supply by simulating failure of the monitored supply. The luminaires and exit signs shall remain illuminated for not less than 2 hours when batteries are new and no less than 90 minutes at subsequent tests.
   Test may be extended until the automatic battery cut-off device terminates lamp operation. (Only recommended for qualified operators)
4. Restore the emergency luminaires and exit signs to normal condition and check that the battery charger operation indicator functions correctly.

Twelve-Monthly Procedures

5. Carry out all the checks listed 1 – 4 above.
6. Clean all light-emitting and reflecting surfaces of emergency luminaires and exit signs.
7. Visually check to ensure that the emergency luminaires and exit signs operate in correct relationship to the normal lighting in the designated area.

Battery Replacement

Whenever the batteries of emergency luminaires and exit signs are replaced for any reason, such replacements shall be made in accordance with the following:

(a) Where more than one cell is utilised, the complete battery pack shall be replaced.
(b) Replacement batteries shall be of the same type and ampere-hour capacity.
(c) A 2 hour discharge test shall be conducted.

Cleaning Of Emergency Luminaires And Exit Signs

NOTE: The information in Table B1 has been based on recommendations for the maintenance of interior lighting systems in Section 12 of AS 1680.1.

Table B - Cleaning Solutions And Their Use

Material to be cleaned	Most suitable cleaner	Alternative cleaners	Remarks
Aluminium	Soap and water	–	Acidic or alkaline cleaners may cause chalking of the oxide surfaces. Aluminium should be rinsed thoroughly after cleaning.
Glass	Detergents and water	Proprietary glazing cleaners	Polishing pastes and fluids are not recommended as these may leave a film on the glass surface which affects its characteristics in relation to moisture and dirt adhesion. Kerosene should not be used.
Plastic	Non-ionic detergents and water	Ordinary detergents and water	Dust accumulates from a static charge developing on the plastic. It should not be wiped but allowed to drip-dry after cleaning. Anti-static treatments are available either as a polish, spray or solution in a rinse bath. Petroleum-based solvents should not be used.
Vitreous enamel	Detergents and water	Proprietary glazing cleaners	See above remarks for Glass.
Stoved enamel	Detergents and water	–	Abrasive cleaners will damage finishes.

APPENDIX 6 – REQUIREMENTS FOR SPECTATOR STANDS

There are no specific regulatory requirements for spectator stands. Standards Australia have now established a working group to develop an Australian Standard. It is most likely that the proposed Australian Standard will be adopted once it is published.

When they are erected at entertainment and sporting venues they require approval as part of a public building.

Set out below are guidelines for seating and stages that may be erected at public building venues.

When they are not subject to a building licence, they must be approved in accordance with Section 176 of the The Act which authorises local government to request anything that it may require to ensure that facilities will be safe.

Application

An application to erect a spectator stand must be made to the local government. The application must be accompanied by:

- full structural details, including size and spacing of all materials, method of jointing, sole plate dimensions etc;
- a block plan showing the position of the stand in relation to surrounding structures, toilets etc;
- seating layout showing the relationship between seats and aisles and the total number of seats.

Structural

Certification from a practising structural engineer should be provided to certify that the structure is suitable for the proposed use. It should be constructed in accordance with industry standards and methods.

Footings

Most temporary structures do not have deep footings and merely sit on the ground. Unless otherwise authorised by a practicing structural engineer they should bear on a substantial hardwood base, recommended size 300mm x 200mm by 40mm thick. Smaller and/or soft wood types or bricks are not acceptable.

Stairs / Steps:

- Going should be between 280mm and 355mm
- Risers should be between 115mm and 180mm.

Steps within aisles must be the full width of the aisle and uniform in size (both the riser and going).

There shall be no more than 18 risers in a flight and no more than two flights without a change in direction of at least 30 degrees.

In some instances, because of sight lines it may be necessary to increase aisle risers to 200mm. If this occurs additional guardrails will be required. Risers in stairways must never exceed 180mm.

Treads must be of solid construction (not mesh or perforated) and have a non-skid finish.

Guard Rails and Balustrades

Every raised area of seating and any change in level which may present a hazard (e.g. drops of one metre of more) shall be provided with a balustrade. Where aisle risers are more than 180mm high, hand rails are required at each row of seats.

Balustrades and /or hand rails must be:

- 1000mm above floor level;
- installed on both sides of stairways;
- installed on raised areas and landings which present a hazard. There are mandatory for areas more than 1000mm above the surrounding floor or ground;

Balusters must not present hand or toe holds between 150mm and 760mm above floor level or permit a 125mm diameter sphere to pass through.

Aisles

Minimum width of an aisle shall be 1000mm.

Aisles are required on both sides of every row of seats that is more than nine seats long.

No seat should be more than four metres from an aisle.

Seating

The clearance between rows of seats shall be:

- 300mm if the distance to an aisle is less than nine seats.
- 500mm if the distance to an aisle is more than nine seats.

All seats shall be securely fixed to the floor unless fastened together in lengths of no less than six seats.

Lighting

Aisles and the tread of each step shall be illuminated whenever the venue is open to the public after sunset. Generally this will only apply to indoor stands used for theatrical applications.

Width of plats

The minimum width of a plat for seated patrons is 950mm.
The minimum width of a plat for standing patrons is 600mm.

Kick boards

Kick boards and infills are required for stair risers and between levels of plats.

Fire hazards

Flammable material must not be installed or stored on or under any stand. Stage curtains or fabric screens must be non-flammable. Materials that have a spread of flame index of no more than six and a smoke developed index of no more than five are regarded as being suitable.

Exit widths

Exits shall be designed to allow the stand to be evacuated within 2.5 minutes in an emergency.

There must be alternate means of egress from each stand e.g. in large stands at least two exits from the front and two towards the rear. The rear exit must be at least mid-way from the front of the stand and the stairs should discharge toward the rear.

Exit Requirements For Stands

Subject to satisfactory performance calculations exits should be no less than indicated on the following table.

NO. OF PEOPLE	NO OF EXITS	AGGREGATE WIDTH
0 – 1000	2	4 Metres
1001 – 1500	3	6 Metres
1501 – 2000	3	8 Metres
2001 – 2500	4	10 Metres
2501 – 3000	4	12 Metres
3001 – 3500	5	14 Metres
3501 – 4000	5	16 Metres

Number of exits increase at the rate of 1/1000 or part thereof.
Aggregate width of exits increases at the rate of 1000mm/500 people.

APPENDIX 7 – TOILET REQUIREMENTS

Building Requirements extracted from BCA Table F2.3

Wheelchair accessible facilities are based on the number of standard WCs.
Up to 100 WCs - 1 unisex facility
Between 100 and 200 WCs - 2 unisex or 1 unisex plus 1 for each sex.
Thereafter - 2 unisex or 1 plus 1 for each sex and one additional unisex or 1 per each sex for each 100 WCs. Each facility must be accompanied by a hand wash basin.

Public Halls, Function Rooms, Bars or the Like

Total Attendance	Male		Female	Hand Basins M & F
1 – 50	WC 1	U 1	WC 1	1
50 – 100	WC 1	U 1	WC2	1
100 – 200	WC 1	U 2	WC 3	2
200 – 300	WC 2	U 3	WC 4	2
300 – 400	WC 2	U 4	WC 5	3
400 –500	WC 2	U 5	WC 6	3
500 – 600	WC 2	U 6	WC 7	3
600 – 700	WC 3	U 6	WC 8	3
700 – 800	WC 3	U 7	WC 9	4
800 – 900	WC 3	U 8	WC 10	4
900 – 1000	WC 3	U 8	WC 11	4

Thereafter additional facilities at the rate of:

Males – WC 1/200	Urinals – 1/50	Hand Basins 1/200
Females – WC 1/50	Hand Basins – 1/200	

Sporting Venues Theatres, Cinemas or the Like

Total Attendance	Male		Female		Hand Basins M & F
1 – 150	WC 1	U 1	WC 1	*WC 3	1
150 – 200	WC 1	U 1	WC2	*WC 3	1
200 – 300	WC 1	U 2	WC 2	*WC 4	1
300 – 400	WC 1	U 2	WC 2	*WC 5	1
400 – 450	WC 1	U 3	WC 3	*WC 5	2
450 – 500	WC 1	U 3	WC 4	*WC 6	2
500 – 600	WC 2	U 3	WC 4	*WC 7	2
600 – 750	WC 2	U 4	WC 5	*WC 7	3
750 – 800	WC 2	U 4	WC 6	*WC 8	3
800 – 900	WC 2	U 5	WC 6	*WC 8	3
900 – 1000	WC 3	U 5	WC 7	*WC 9	4
1000 – 1050	WC 3	U 6	WC 7	*WC 10	4

Thereafter additional facilities at the rate of:

Males – WC 1/500 Urinals – 1/100 Hand Basins 1/150

Females – WC 1/75 Hand Basins – 1/150

*For Single auditorium facilities:

First 10 females require 1WC; From 10 – 50 require 2 WC's; Thereafter 1 WC for every additional 60 up to 250 then 1 / 80 or part thereafter.

APPENDIX 7A – RECOMMENDED TOILET FACILITIES FOR TEMPORARY EVENTS

Total Attendance	Male Facilities			Female WC's	Hand Basins	
	WC's	Urinals Trough or wall hung			Male	Female
Up to 1000	2	1.5 Metres	3	5	1	1
1000 – 2000	3	3 Metres	6	10	2	2
2000 – 3000	4	4.5 Metres	9	15	3	3
3000 – 4000	5	6 Metres	12	20	4	4
4000 – 5000	6	7.5 Metres	15	25	5	5
5000 – 6000	7	9 Metres	18	30	5	6
6000 – 7000	8	10.5 Metres	21	35	6	7
7000 – 8000	9	12 Metres	24	40	7	8
8000 – 9000	10	13.5 Metres	27	45	8	9
9000 – 10000	11	15 Metres	30	50	9	10
10000 – 11000	12	16.5 Metres	33	55	9	11
11000 – 12000	13	18 Metres	36	60	10	12
12000 – 13000	14	19.5 Metres	39	65	11	13
13000 – 14000	15	21 Metres	42	70	12	14
14000 – 15000	16	22.5 Metres	45	75	13	15
15000 – 16000	17	24 Metres	48	80	13	16
16000 – 17000	18	25.5 Metres	51	85	14	17
17000 – 18000	19	27 Metres	54	90	15	18
18000 – 19000	20	28.5 Metres	57	95	16	19
19000 – 20000	21	30 Metres	60	100	17	20
20000 – 21000	22	31.5 Metres	63	105	17	21
21000 – 22000	23	33 Metres	66	110	18	22
22000 – 23000	24	34.5 Metres	69	115	19	23
23000 – 24000	25	36 Metres	72	120	20	24
24000 – 25000	26	37.5 Metres	75	125	21	25
25000 – 26000	27	39 Metres	78	130	21	26
26000 – 27000	28	40.5 Metres	81	135	22	27
27000 – 28000	29	42 Metres	84	140	23	28
28000 – 29000	30	43.5 Metres	87	145	24	29
29000 – 30000	31	45 Metres	90	150	25	30

Females increase at the rate of 1 WC per 100 Females.
Males increase at the rate of 1 WC per 500 males plus 1.5 metres urinal or 3 urinals
Per 500 males. (This table uses 500mm as 1 urinal space – BCA uses 600 mm).
Hand wash basins 1 per 5 WC's or urinals.
These figures are for events where alcohol is available.

Duration of event	**Percentage of the table values**
More than 8 hours	100%
6 hours but less than 8 hours	80%
4 hours but less than 6 hours	75%
Less than 4 hours	70%
If no alcohol then reduce the above table by	50%

Be flexible – Utilise experience to ascertain the relevance of this table to your events.

APPENDIX 8 – PUBLIC BUILDINGS – ROUTINE MAINTENANCE CHECK LIST

Routine checks of public buildings are very important. The following list has been compiled to give an indication of some of the things that should be checked.

1. A Certificate of Approval has been issued and is displayed in a prominent place.

2. All exit ways and doors are unobstructed.

3. All exit doors are only equipped with approved locking devices

4. All exit doors and locking devices are easily operated.

5. Exits are identified with illuminated signs (except for buildings previously exempted by Regulation 23(2) of the Health (Public Buildings) Regulations 1972).

6. Exit signs and emergency lights have been tested in accordance with AS 2293 Part 2 (refer to Appendix 5) and the results logged.

7. Toilets are clean and in working order.

8. Seats are installed in accordance with the Regulations.

9. Drapes and decorative treatments are not flammable.

10. The electrical installation is in reasonable condition - ie no wires draped across the room, no loose outlets or no broken fittings.

11. Where applicable; an evacuation plan is in place and practised regularly.

Because of the different types of uses for public buildings this list can only be used as a guide; it is not an exhaustive list.

The City of Gosnells have consented to publication of their Public Buildings Assessment Report

PUBLIC BUILDING RISK ASSESSMENT REPORT

PUBLIC BUILDING NAME:

PUBLIC BUILDING ADDRESS: **POSTAL ADDRESS:**

PUBLIC BUILDING TYPE/USE: **MAXIMUM NO. OF PERSONS PERMITTED:**

RESPONSIBLE PERSON: **PHONE NUMBER:**

LICENSED PREMISES: Y/N (Type)

	Certification and Documentation	A	B	C	D
1.01	Certificate of Approval prominently displayed				
1.02	No. of persons at time of inspection:				
1.03	Exit Sign log book				
1.04	Emergency lighting log book				
1.05	Air handling system maintenance (AS 1668.2)				
1.06	Evacuation Plan – Current				
	General Provisions and Maintenance				
1.07	Modification of building since last assessment				
1.08	Change of use from approval				
1.09	Stage Curtains fire retardant (if applicable)				
1.10	Handrails and balustrades compliance				
1.11	Exterior building condition satisfactory				
1.12	Interior building condition satisfactory				
1.13	Equipment storage satisfactory				
1.14	Refuse disposal/storage adequate				
	Exit and Egress				
1.15	Exit doors easily opened				
1.16	Approved latches/locks				
1.17	Exit paths unobstructed				
1.18	Exit to open space				
1.19	Exit signs provided on all designated exits				
1.20	Exits signs clearly visible				
1.21	No Escape signs where required				
1.22	Exit Signs illuminated				
	Seating				
1.23	Fixed seating secured to floor or fastened in groups (=< 4 seats)				
1.24	Rows of 10 – 42 seats				
1.25	Aisles on both sides and of seat rows				
1.26	Aisles clear to exits/uniform width				
	Steps and Landings				
1.27	Raised areas/tiered seating(enclosing wall/guard)				
1.28	Hand rails and balustrades compliance				
1.29	Step treads (280mm W x 180mm H)				

	Large Licensed Premises	A	B	C	D
1.30	No. counting system (installation/operation)				
1.31	Moveable items (other than chairs) "**PEN**" identification				
	Lighting/Electrical				
1.32	Adequate illumination				
1.33	Switch protection from public (if applicable)				
1.34	Emergency lighting				
1.35	Switch board correctly labeled				
1.36	Power cables/ cords inaccessible to public				
	Fire Prevention and Control				
1.37	Fire extinguishers in service				
1.38	Fire hose reels in service				
1.39	Fire blanket available in kitchen (if applicable)				
1.40	Smoke control devices				
	Ventilation/Heating				
1.41	Fans – Fixed/ Guarded				
1.42	Fans – Ceiling 2.4m above floor				
1.43	Heaters – 2.1m off floor				
1.44	Heaters – 600mm from combustible roof				
1.45	Temperature protection (oil/fuel/electrical fan type) **Sanitary Facilities/General**				
	Facilities in good repair/clean				
1.46	Gender Signage provided				
1.47	Adequate lighting/illumination				
1.48	Sanitary Disposal avail to female facilities				
1.49	All facilities accessible				
1.50	Kitchen (construction/cleanliness) compliance				
1.51	**Temporary Public Buildings**				
	Approval obtained/fees paid				
1.52	Tents/marquees/temporary structures compliance				
1.53	Structural Engineers/Electrical Compliance				
1.54	Certificate **Other**				
1.55					
1.56					

Item #	Works Request/Comments Date	Due

Your co-operation in attending to the above items by the due date will be appreciated. Failure to comply may result in legal action being instigated against you. Should any of these matters require clarification or should you require any further assistance, please contact the Environmental Health Officer named below on the telephone number provided.

I have read the above mentioned explained and agree to complete any outstanding matter within the times specified

Issued to: ..... Received by:

.....

RISK and COMPLIANCE ASSESSMENT SCORES

A	**HIGH RISK HAZARD** – A high risk hazard has been identified. Urgent action is necessary. Immediate follow-up required until hazard removed. (Immediate closure and/or legal action will be taken unless hazard removed immediately).
B	**MEDIUM RISK HAZARD** – A medium risk hazard has been identified. Does not comply with Health/Building legislation or requirements. Immediate attention is requested. Frequent monitoring required until hazard is removed. (Health Notice may be issued or legal action taken).
C	**LOW RISK HAZARD** – A low risk hazard has been identified. Does not comply with Health/Building legislation or requirements. Greater attention to detail is required. Works request on assessment form is to be completed by Due Date.
D	**NO HAZARDS OR NON- COMPLIANCE NOTED.**
N/O	**Not Observed during inspection.**
N/A	**Not Applicable to this Public Building at the time of inspection.**

ASSESSMENT/ APPROVAL GUIDELINES

(Refer to the Health Act 1911 (as amended) and Health (Public Building) Regulations 1992 for further information)

Certificate of Approval

- Certificate of Approval to be displayed in a conspicuous place at all times.
- Ascertain that the floor area is not significantly reduced by pool tables, vending machines and similar large objects as far as practicable.

Seating, Aisles, Steps and Landings

- Audience seating to be fixed to the floor or in rows at least four seats long.
- Aisles to be in place on both sides for every row of seats of 10 – 42 in number.
- Number of seats in a row should not exceed 42.
- All aisles to have access to an exit.

Exits and Exit Doors

- No point on the floor may be more than 20m from any exit. If two, or more exits, maximum distance may be 40m (BCA).
- All allocated exit doors must open in direction of egress, unless the floor area is less than 200m^2, and only one exit is required.
- In cinemas, theatres, night clubs, or buildings accommodating more than 400 persons, all doors should have panic bolts.
- All other doors should have either espagnolete handle bolts, strap bolts, or snib lock handles capable of being unlocked from the inside at all times when the building is in use.
- Allocated exits are to be identified with exit signs and illuminated at all times with a back up power supply (AS2293).
- All exit lighting must be tested at least six monthly and test results stored in a log book (AS2293).
- Width of Exit doors shall be a minimum of 800mm.
- Sliding doors may only be permitted if they can be opened manually (max 110N pressure) and less than 50 persons may congregate in the area in compliance with BCA D2.19.
- Exit doors must remain accessible (no blockage) at all times.

Heaters

- Elements should be no more than 2.1m from the floor and 0.6m from the ceiling.

Electrical Installation

- Switches controlling lighting in public areas should be inaccessible to the public.
- Switchboards should be properly labelled indicating function of items on the panel.

Evacuation

- Evacuation plans must be provided and approved for cinemas, night clubs, licensed premises and for any public building as required by the City of Gosnells. (Risk factors include: Number of persons, night time use, alcohol use, layout of building –multi-storey).

Fire Equipment/ Control

- Occupier should ensure all fire alarms, hydrants etc are maintained in efficient, working order and regularly tested (6 months).
- Smoke control devices required in compliance with the BCA E2 unless otherwise approved by the City of Gosnells.

Electric Fans

- Must be installed in a permanent position, with all blades at least 2m off ground and suitably guarded (other than ceiling fans).

Sanitary Conveniences

- To comply in all respects with the provisions of the Health Act 1911 (as amended) and the BCA.

Kitchen Facilities

- To comply in all respects with the provisions of the Health Act 1911 (as amended) and Food Safety Standards.

Other

- All materials, fittings, seating, appliances and other things installed, or used in the building are to be maintained in a proper state of repair and in a fit and sanitary condition.

APPENDIX 9 – TESTING CORDS & RCD'S (SAFETY SWITCHES)

The testing of electrical extension cords and RCD's used in circuses, travelling shows and other temporary installations is a requirement of the Health (Public Buildings) Regulations 1992, it is also a requirement for building and construction sites.
NOTE: RCD's are also known as safety switches or ELCB's.

The specific tests were initially set out in clause 13 of A.S. 3012 – Electrical Installations – Construction and Demolition Sites. This has been amended and is now not longer relevant.

The intent of the Regulation is to have portable electrical equipment tested and tagged at six months intervals. The construction site requirements are too onerous.

Once a test has been carried out a tag should be fixed to the device.

The tag should identify who carried out the tests and when they were done.

Details of the required tests are:

Extension Cords (single and three phase)

*check that the insulation is in good order
*check that the plug sockets and plug tops attached to the cord are the correct rating.
*check the continuity of each conductor.
*check that the conductors are correctly connected (correct polarity).

Residual Current Devices

Test 1: Residual non operating current -

A current between 40% to 50% of the rated tripping current should be passed between active and earth for 5 seconds. The R.C.D. should not trip.

Test 2: Tripping current and time test -

A current equal to the rated tripping current of the R.C.D. should be passed between active and earth. The R.C.D. should trip within its specified time - usually 30 milli seconds.

NOTE:
The recommended tripping current is 30 milli amps.
Instruments are readily available from electrical wholesalers.
In addition to the above R.C.D. tests the inbuilt test facility should be operated each time that the unit is in use.

Portable outlet devices require a combination of all of these tests.

APPENDIX 10 – RISK MANAGEMENT

Risk management is the term applied to a logical and systematic method of establishing the context, identifying, analysing, evaluating, treating, monitoring and communicating risks.

Effective risk management is essential for the success of any public event. Risk management involves three distinct steps, recognition, evaluation and control. AS 4360 sets out the process very well and provides a generic guide for the establishment and implementation of risk management.

Initially maximum benefit is obtained by applying the process as if no treatments have been implemented. The regulations are regarded as treatments for this purpose.

Prior to commencing the process the objectives must be clearly defined. For public building purposes the principle objective is to ensure the health and safety of people in and about public buildings. This process should not be confused with risk management procedures required by other legislation or purposes.

Responsibility and Authority

The responsibility, authority and relationship of personnel who perform and verify work affecting risk management must be defined and documented. It is important to identify and maintain a close working relationship with all of the stakeholders.

The risk management process requires review. For public buildings applications this should be at least prior to the beginning of seasonal events, after significant changes or annually in the case of permanent facilities.

Tools and Techniques

The initial identifying process is critical to a successful plan; care is required to ensure that the process is conducted in a suitable environment and sufficient time is allowed to permit all avenues to be exhausted. For large events it may be necessary to have more than one session to establish all of the risks.

For public building issues the process will rely heavily upon relevant specialists and experts, past experience, industry practice and relevant published literature.

Once risks have been identified they must be analysed to ascertain if they are acceptable, require treatment or they may cause the event to be cancelled.

Risk is analysed by combining the consequence and likelihood. Initially this should be done on the basis that no treatments have been provided. This may allow some low impact risks to be discarded at this stage. For the remainder, identify existing treatments and establish the new level of risk.

Once risks have been identified then they must be documented and treated in an appropriate manner and subsequently presented to local government.

Risk Definition and Classification

The following information is based upon AS/NZS 4360

Consequence or Impact Measure of Likelihood

Level	Description	Examples
1	Insignificant	No Injuries/Low Financial Loss
2	Minor	First aid/Medium Financial Loss On-site release immediately contained
3	Moderate	Medical treatment/High Financial loss. On-site release contained on site with external resources
4	Major	Extensive injuries/major Financial loss – On-site release with no detrimental effects
5	Catastrophic	Death/Huge Financial loss – Toxic release with detrimental effects

"Likelihood"

Level	Description	Examples
A	Almost certain	Expected to occur in most circumstamces
B	Likely	Will probably occur in most circumstances
C	Possible	Might occur at some time
D	Unlikely	Could occur at some time
E	Rare	May occur only in exceptional circumstances

Level of Risk

Likelihood	*Consequences/Impact*				
	Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
A – Almost Certain	H	H	E	E	E
B – Likely	M	H	H	E	E
C – Possible	L	M	H	E	E
D – Unlikely	L	L	M	H	E
E – Rare	L	L	M	H	H

Legend

E	Extreme Risk – Immediate action required
H	High risk – senior management attention needed
M	Moderate Risk – Management responsibility musty be specified
L	Low Risk – Manage by routine procedures

NOTE:
The risks have been assessed on the basis that nothing has been done to alleviate any potential risk.
Once initial risks have been addressed a second assessment should be done to ensure that it has been reduced to an acceptable level.

Typical Risk Management Assessment for Large Licensed Premises

	Description of risk	Consequenc	Likelihood	Risk Level	Effect	Suggested Minimum Acceptable Resolution
1.	Additional Numbers will contravene planning legislation or other building approval	4	C	Extreme	Community	Reject application
2.	Additional numbers contravene Liquor Licensing Conditions	4	C	Extreme	Community /Patrons	Liquor Licensing approval to accompany application to vary numbers. No approval – reject application
3.	Additional numbers may present a specific risk to district policing	4	C	Extreme	Community /Police	Obtain District Police comment on proposed numbers increase Refer to Director Liquor Licensing
4.	Noise affecting neighbours	4	A	Extreme	Community	Limit internal entertainment noise/modify venue acoustics
5.	Noise affecting patrons health	3	C	High	Patrons	Limit noise to 90 db
6.	Noisy patrons external to venue affecting neighbours	4	A	Extreme	Community	Introduce plan to limit inappropriate behaviour/not an issue for this location
7.	Inadequate parking	3	B	High	Community	Arrange additional parking/Not an issue for this location
8.	Amenity of area affected due to rubbish build up	3	B	High	Community	Arrange clean up before 6 AM / Not an issue for this location
9.	Amenity of area affected by inappropriate behaviour	3	B	High	Community	Introduce plan to limit inappropriate behaviour/Not an issue for this location

Typical Risk Management Assessment for Large Licensed Premises (cont.)

	Description of risk	Consequenc	Likelihood	Risk Level	Effect	Suggested Minimum Acceptable Resolution
10.	Inadequate public Transport for Additional Patrons	3	D	Moderate	Patrons/ Community	Arrange alternative transport/Not an issue for this location
11.	Overcrowding – venue general	4	A	Extreme	Patrons	Install EDPH approved automated counter system
12.	Overcrowding – areas	4	A	Extreme	Patrons	Individual areas to have separate counters
13.	Overcrowding smaller areas	4	A	Extreme	Patrons	Where there are multiple areas - attractions are in the larger area
14.	Insufficient Exits	4	C	Extreme	Patrons	Exits comply with BCA 2000 and assessed in units of exit width - 500mm
15.	Insufficient Exits	4	C	Extreme	Patrons	No exit to exceed 3 metres without segregating rails
16.	Exits not identified	3	B	High	Patrons	Refer emergency lighting –
17.	Exits not identified	4	B	Extreme	Patrons	All exits and signs checked prior to opening every day and recorded
18.	Insufficient Toilets	3	A	Extreme	Patrons	Toilets comply with provisions of BCA 2000
19.	Unruly Patrons	3	A	Extreme	Patrons/ crowd control	Provide 2 crowd controllers up to 200 patrons then 1/150 thereafter
20.	Furniture Obstructing Egress Routes	3	B	High	Patrons/ crowd control	No loose chairs allowed/loose furniture limited to submitted plan. No loose furniture in egress paths.
21.	Insufficient Lighting	3	C	High	Patrons/ crowd control	Lighting to be maintained at 40 lux

Typical Risk Management Assessment for Large Licensed Premises (cont.)

	Description of risk	Consequenc	Likelihood	Risk Level	Effect	Suggested Minimum Acceptable Resolution
22.	Insufficient Lighting	3	C	High	Patrons/ Emergency Services	Dimmed lighting can be over ridden by switch in manned secure area
23.	Inadequate Ventilation	3	C	High	Patrons	Ventilation complies with AS 1668.2 - Maintained in accordance with attached schedule Maintenance log maintained
24.	Patrons Intoxicated	4	A	Extreme	Patrons/ Crowd control	Responsible service only - staff trained accordingly
25.	Fire Hazards	4	B	Extreme	Crowd control	Fire requirements to BCA 1996, equipment maintained in accordance with AS 1851 no flammable decorative treatments or stage equipment
26.	Need to evacuate the premises quickly	5	C	Extreme	Patrons/ Emergency Services	Refer to attached evacuation plan - evacuation plan practised 4 time per annum, all staff briefed on their responsibilities prior to commencing work.
27.	Need to evacuate the premises quickly	5	C	Extreme	Patrons	Evacuation plans displayed in public and staff areas
28.	Need to evacuate the premises quickly	5	C	Extreme	Patrons	Accredited fire wardens in attendance at all times the venue is open
29.	Patrons can not hear instructions from staff or crowd controllers	4	B	Extreme	Patrons	Emergency evacuation system to BCA 1996 installed / battery backed PA system that overrides entertainment used.
30.	Structural Collapse	5	C	Extreme	Patrons/ Community	Constructed to BCA 1996 - Temp facilities engineer certified
31.	Lighting Failure	4	B	Extreme	Patrons/ Crowd control	Emergency lighting installed and maintained to AS 2293

Typical Risk Management Assessment for Large Licensed Premises (cont.)

	Description of risk	Consequenc	Likelihood	Risk Level	Effect	Suggested Minimum Acceptable Resolution
32.	Fire hazards by inappropriate heating devices	4	C	Extreme	Patrons/ Emergency Services	Only heating apparatus approved by local government
33.	Inadequate egress	4	C	Extreme	Patrons/ Emergency Services	Doors or gates fitted with panic bars

OTHER GUIDELINES

Specific guidelines have also been prepared for:

Rave parties concerts and other large events
Speedways
Go-Karting
Round the Houses motoring events
Use of Patio Heaters with integral LPG Cylinders in Public Buildings

For further information advice or guidance on the regulations contact your local government or –

Department of Health
PO Box 8172
Perth Business Centre
Perth WA 6849

Phone 9388 4999