

EMPLOYER GUIDE TO
**OCCUPATIONAL HEALTH
AND SAFETY**



IN THE
ENTERTAINMENT INDUSTRY



AUSTRALIAN ENTERTAINMENT INDUSTRY ASSOCIATION

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Disclaimer:

This publication contains information regarding occupational health safety and welfare, injury management and workers compensation. It includes some of the obligations under legislation however, to ensure that you comply with all relevant legislative requirements, reference must be made to the relevant acts and regulations.

What are Industry Standards?

Industry Standards are developed by specific industry groups and usually provide practical advice and guidelines for controlling hazards and risks within a particular industry. This publication, *An Employers' Guide to Occupational Health and Safety in the Entertainment Industry* is an Industry Standard and has been developed to provide employers and employees in the Entertainment Industry in New South Wales with an understanding of their legal responsibilities under Occupational Health and Safety (OHS) legislation and to provide practical guidance on how to manage risks to the health and safety of persons working in the industry and to members of the public who could be affected by entertainment activities.

This *Employers' Guide to Occupational Health and Safety in the Entertainment Industry* seeks to provide guidance to those within the industry and is aimed at ensuring the health and safety of both industry employees and those associated with the industry operations. This Industry Standard is not enforceable by law, however it aims to achieve the same if not a better result than general national standards and Codes of Practice. Whilst these guidelines have predominantly been developed for employers in New South Wales, employers in other states may find them useful. It should be noted that reference to legislative requirements in the document relate to New South Wales. Employers from other states using the guidelines must check their local legislative provisions. Whilst there is some commonality in legislative provisions in Australia, there are some substantial differences.

The Industry intends, after a suitable period of assessment of the impact of this guide, to seek approval of the document as an Approved Code of Practice and to have the guidelines adopted in other Australian states and territories.

Preface

This guide has been developed to assist people in the entertainment industry achieve the highest possible standard of health and safety in the work they perform. The principal objective is to assist people in the entertainment industry in New South Wales to apply the principles of risk management and consultation contained in occupational health, safety and welfare legislation, particularly the regulations. In providing these basic standards and safety measures it is hoped to encourage a consistent approach while leaving scope for flexibility, taking into account the size and the nature of the entertainment activity. It is recognised that each event will be different and will require different configurations of different elements, management systems, and provisions.

This Industry Guide has been developed in consultation with employers and employees in the entertainment industry in New South Wales. It has been designed to be read in conjunction with the Safety Guidelines for the Entertainment Industry which were published in August 2001.

Using this guide

What is the aim of this guide?

The aim of this guide is to protect the health and safety of persons from hazards and risks arising out of entertainment activities by:

- a) eliminating, or where this is not reasonably practicable, minimising the risks to health and safety arising from the carrying out of entertainment activities
and .
- b) ensuring that hazards associated with the carrying out of entertainment activities are identified and the resultant risks to health and safety are assessed and controlled.

What are the objectives of this guide?

The objectives of this Guide are:

- a) to provide practical guidance to all parties engaged in planning, designing, preparation and conduct of work for entertainment activities;
- b) to provide information on the legal requirements applicable to persons engaged in entertainment activities;
and
- c) to provide information on the resources available to persons engaged in entertainment activities.

Who is this guide for?

This guide has been developed mainly for employers, but also for employees and other parties involved in entertainment activities. While the definition of an employer under the NSW Occupational Health and Safety Act means a person who employs persons under contracts of employment or apprenticeship, for the purposes of this guide, employers include but are not limited to production companies, theatrical producers, cinema operators, set designers and manufacturers, venue operators, venue hirers, dance, theatre and opera companies, orchestras, ensembles, musicians and bands, circus performers and companies, crewing services, touring services, equipment hire contractors as well as those who occupy or control premises used as a place of work but these guidelines do not cover sporting activities or recorded media (film, television, radio, news and current affairs).

When to use this information

This guide can be used to assess the effectiveness of existing systems or arrangements for occupational health safety and welfare and to check that all sources of risk have been identified and ideally eliminated or where that is not possible, adequately controlled. If you are setting up a new business, the guide can be used to assist you in addressing OHS legal responsibilities associated with entertainment activities.

How to use this information?

The guide distinguishes between legal requirements and advice on good practice by the use of the following expressions:

Legal requirements - Words such as “must”, “require” and “mandatory” indicate statutory requirements with which the relevant person, usually the employer, has a legal obligation to comply.

Recommended practices - Words such as “should”, “may” and “consider” indicate courses of action which while not prescribed by legislation, the guide is recommending to the duty holder. That person may choose an alternative method of achieving a safe system of work, but needs to justify this choice as achieving the same or better standard of health, safety or welfare.

This guide addresses issues that are common to Entertainment Industry employers and does not purport to provide information of all areas covered by legislative requirements in New South Wales nor the rest of Australia. All parties using the guide should ensure that reference is made to specific legislative requirements.

What do the symbols in this guide mean?

The following symbols are used in the text to highlight things you need to take into account and assist you to determine what you need to do and the resources or tools you require to carry out a task or function.



Assess the risks and implement effective control mechanisms



Consult and communicate



Legal obligations that must be followed



Tools that can assist implementation



The process of hazard identification, risk assessment and implementation of control mechanisms



Considerations for out-door events

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1 OHS Legislation

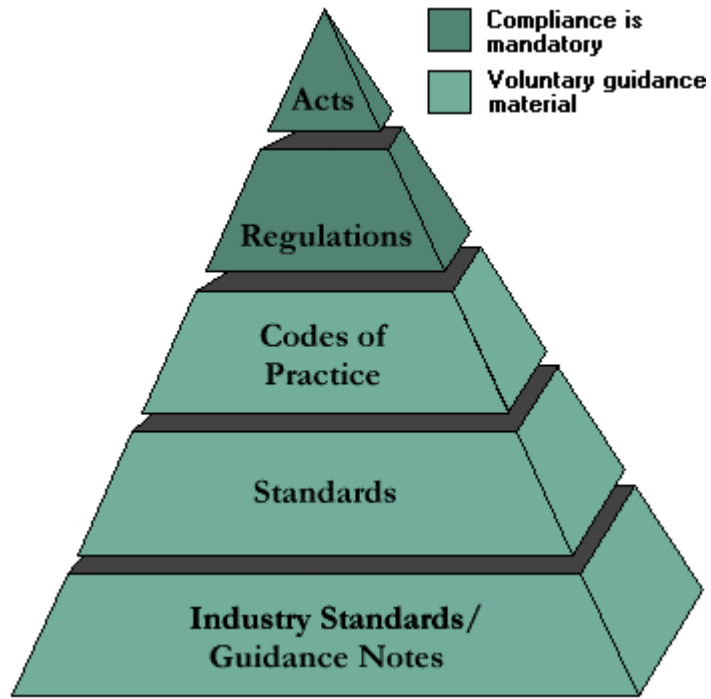
1.1 Legislative framework

The legal requirements for occupational health and safety in most Australian jurisdictions, including NSW comprise:

- **A *Mandatory Principal Act*** – made by parliament and enforced by the relevant government department (WorkCover NSW), the *NSW Occupational Health and Safety Act 2000* sets out legal rules that govern workplaces with the principal objective of ensuring persons in workplaces do not suffer injury or illness. (Refer to Appendix 3 – Section **10.3**)
- ***Mandatory Regulations*** - made under the principal Acts governing occupational health and safety legislation. Regulations support a principal Act by outlining how the general obligations of the Act will be applied in the workplace. Regulations are usually made in relation to a particular type of health and safety issue. In NSW the relevant Regulation is the *Occupational Health and Safety Regulation 2001* (Refer to Appendix 3 – Section **10.3**)
- **Evidentiary Approved Codes of Practice** - State and Territory governments are able to approve Codes of Practice through the powers of the principal Act. Some of the most relevant Approved Codes of Practice applicable to the Entertainment Industry are listed in Appendix 1 (Section **10.1**)
- ***Standards*** – There are two main types of standards applicable to occupational, health, safety and welfare. These are:
 - **National Standards** produced by the National Occupational Health and Safety Commission (NOHSC). These standards usually deal with workplace hazards. A list of some of the applicable National Standards is included in Appendix 2 (Section **10.2**) and
 - **Australian or Australian and New Zealand Standards** produced by Standards Australia in consultation with overseas standards bodies and Australian working parties. These standards provide technical and design guidance information. Standards are only enforceable by law if they are specifically included in State Acts and or Regulations.
- ***National Guidance Notes***

The National Occupational Health and Safety Commission (NOHSC) develops Guidance Notes which provide practical advice and guidelines for controlling hazards and risks. A list of some of the applicable Guidance Notes is included in Appendix 3. (Section **10.3**)

The following diagram from the National Occupational Health and Safety Commission shows the status of the legal framework in Australia.



(Source: National Occupational Health and Safety Commission)

1.2 Duty of Care

Under the NSW Occupational Health and Safety Act, all employers owe a duty of care to all people at the workplace including those people who are not employees. This duty encompasses the welfare of employees.

Duty of care requires everything reasonably practicable to be done to protect the health and safety of people at a workplace.

The NOHSC explains: “Reasonably practicable”

“This allows the duty holder to choose the most efficient means of controlling risk from a range of possibilities. The duty holder must show that it was not reasonably practicable to do more than what was done and that they had taken reasonable precautions.

A number of factors are taken into account to determine what would be reasonable and practical. These factors include the:

- Nature and severity of the hazard;
- Knowledge of severity of the hazard;
- Knowledge of solutions;
- Availability of solutions;
- Common standards of practice;
- Cost of solutions.

Codes of practice are an example of 'common standards of practice' that could be used in court to illustrate what the employer, manufacturer etc should have been doing in order to prevent or control a hazard.

In summary, employers, manufacturers, designers, suppliers, persons in control of workplaces and persons who erect or install plant and equipment must ensure:

- Safe property, which includes premises (safe access and exit), safe plant and equipment, materials and substances (raw materials, chemicals, products, stock etc).
- Safe systems of work, which includes work practices, manufacturing processes, standard operating procedures and administration procedures.
- Safe people, which includes providing them with suitable information, instruction, training and supervision. For example the safe use of plant and equipment, materials and chemicals and information about the working environment and health and safety generally”

This duty of care extends to:

- ensuring that any plant (Refer to Section 9.1) or substance (Refer to Section 9.7) provided for use by the employees at work is safe and without risks to health when properly used,

- ensuring that systems of work and the working environment of the employees are safe and without risks to health,
- providing such information, instruction, training and supervision as may be necessary to ensure the employees' health and safety at work, (Refer Section 5)
- providing adequate facilities for the welfare of the employees at work

and

- in relation to persons who are not employees, ensuring that any premises controlled by the employer where the employees work (and the means of access to or exit from the premises) are safe and without risks to health.
- Others who may have a duty of care:
Directors and others with controlling influences on an organisation or event, managers and supervisors, product designers, manufacturers, suppliers, persons who erect or install plant and equipment, venue owners, venue controllers, hirers, employees and contractors.

1.3 Employee duty of care

In addition to the responsibilities placed on employers under OHS legislation, employees also have specific responsibilities. Employers should be aware of and understand these responsibilities that include:

- taking reasonable care for the health and safety of people who are at the employee's place of work and who may be affected by the employee's acts or omissions at work.
- co-operating with his or her employer or other person so far as is necessary to enable compliance with any requirement under the legislation that is imposed in the interests of health, safety and welfare.
- not, intentionally or recklessly, interfere with or misuse anything provided in the interests of health, safety and welfare under occupational health and safety legislation.

2 Management of OHS

2.1 Due diligence

Due diligence in the workplace means that employers, supervisors and others understand and carry out their legal duties, assess the risks and hazards in the workplace on an on going basis and take all reasonable precautions with respect to those risks and hazards. Application of due diligence principles requires a proactive approach. It will assist in a careful and systematic identification and assessment of specific workplace hazards and the establishment of control measures to prevent injuries and illness at work.

It is important to remember that what may constitute due diligence in one case may not constitute the same level of due diligence in another case. Whether a person has acted diligently depends on the actions taken in the circumstances for that particular case.

The following elements of a Safety Management Plan will contribute in establishing that an employer has acted with due diligence:

- Establishing an effective Occupational Health and Safety Management System which includes:
 - Establishing an OHS Policy and supporting policies where relevant, and the management commitment to ensure its effectiveness.
Policies should commit the organisation to legal compliance, allocate responsibilities and be endorsed by senior management. Effectiveness will depend on the supporting procedures and work systems, planning and monitoring and the time and resources allocated to them.
- Carrying out all activities under the Act and ensuring that the organisation complies with the Act and associated legislation;
- Setting up a well documented risk management system for identifying, reporting and responding to all hazards in the workplace;
- Consulting with employees on all matters which could affect their health and safety, including the identification of hazards and assessment of risks.
- Establishing safe practices, procedures and controls that are specific to the hazards in the workplace, that either meet or exceed the requirements of the legislation;
- Providing instruction and training on an on-going basis to all employees;
- Communicating regularly with employees about foreseeable health and safety hazards;
- Allocating adequate time and resources for the health and safety program to be established and followed by all in the workplace;
- Monitoring, auditing, evaluation and review of the Safety Management Plan on a regular basis.

3 Risk Management



Employers must identify any foreseeable hazards, assess the risks associated with the hazards and take action to eliminate or control the risks. Employees must be consulted as part of this process.

3.1 Managing risks in the workplace

Risk management is defined by Standards Australia and Standards New Zealand as a term applied to a logical and systematic method of identifying, analysing, assessing, treating, monitoring and communicating risks associated with any activity, function or process in a way that will enable organisations to minimise losses and maximise opportunities. Risk Management is as much about identifying opportunities as avoiding or mitigating losses and is an integral part of any management process.

An employer is required to:

- Consult with employees
- Identify the hazards
- Assess the risks to the health and safety of persons arising from the hazards
- Use appropriate control measures to eliminate or control the risk.
- Monitor, evaluate and review the control measures to ensure the effectiveness of the controls.

The outcomes, decisions or actions arising out of the process should be documented, particularly if there is a moderate to high level of risk involved. Documentation may be anything from a file or diary note for a self employed person, to an action plan, risk register or handbook for a large organisation. Documentation of hazard identification, risk assessment and control methods conducted in relation to touring sets should accompany the set and be provided to the person in control of the venue prior to installation of the set in that venue. Reference can be made to AS/NZS 4360 for additional advice on steps in the risk management process. A simple guide to this process can be located in Section [6.2](#)



Consultation is an important part of this process. Refer to Section [4.3](#) for information on when employees must be consulted.

3.2 Identifying the Hazards

All employers must identify any foreseeable health or safety hazards that could cause harm to their employees and others within the workplace. “Other people” includes patrons, performers, artists, contractors and visitors to the workplace. The hazards may arise from a production or an event, the

equipment, substances or materials in use for the production or event, the environment (particularly in outdoor events or performances) and the people involved.

The hazards may be present in a venue or may be introduced into the venue with a production.

Some ways to identify hazards include:

- A walkthrough of the workplace – a simple visual check by persons experienced in identifying hazards and by employees working in the area.
- A review of the type of work being performed, the way the work is done and the work practices in use at the time.
- A review of administrative issues such as scheduling, to ensure sufficient time for:
 - consultation,
 - safe planning and implementation
 - fatigue management,
 - security issues, management of violence, harassment
 - other possible causative factors in both physical and psychological injuries.
- Looking at technical information provided by the manufacturer of equipment and/or the set builder, set components manufacturer, costume designer and manufacturer.
- Researching information regarding substances being used in a production or event to determine whether they are hazardous.
- Development of check lists that are relevant to the type of event or production.
- Examining records of incidents of similar types of event or productions or the same event or production in a different venue.
- Checking to ensure that engineering specifications have been followed and are suitable for the intended purpose.

Each hazard should be listed with information on:

- Where the hazard occurs;
- Factors that contribute to the hazard or compound it;
- Persons likely to be exposed to the hazard;
- The frequency of exposure to that hazard.

3.3 Assessing the Risks



Each hazard identified has the potential to cause harm to people in the workplace. Risk assessment is a process to determine the level of risk associated with the hazard and enables a priority for action to be determined.

It involves consideration of the likelihood of an injury or illness occurring and the consequences – or the severity of any illness or injury that may occur. A combination of these two factors produces an estimated level of risk.

The assessment should include the following:

- Identification of factors that may be contributing to the risk; including
 - the work premises and the working environment; - such as raked stages, working at heights, crowd control, communication, show deck operation and fly floors, moving scenery and stage platforms, handling electrical equipment, power tools and chemicals, crowd control issues, communication methods, barriers, restricted lighting and the general working environment.
 - the capability, skill, experience, qualifications, mobility and age of the people undertaking the work;
 - the systems of work being used;
 - the number of people who might be affected eg by the collapse of a temporary stage or rigging system;
 - the range of reasonably foreseeable conditions.
- A review of health and safety information that is reasonably available from an authoritative source and is relevant to the particular hazard; including:
 - any health and safety information provided by the supplier of any plant or substance (including a person who hires or leases out the plant);
 - Material Safety Data Sheets for any substance being used;
 - the label of any substance being used in a production or event.

The outcome of a risk assessment is a prioritised list of risks which then provides a basis for planning preventative measures. There are a number of established tools to assist in assessing risks. The matrix below can be used to assist in this process or reference can be made to AS 4360 *Risk Management* where a different matrix is used. The list should be ranked from most to least severe – for example “death from falling from a lighting bridge” to “soft tissue injury from bumping into set pieces”.



ASSESSING THE RISK

For each identified hazard, a ranking should be applied according to the likelihood that it will occur and how serious the result could be. Using the following matrix, a potential outcome from a hazard could be very likely to kill or seriously injure a worker or a member of the public, would be a top level (1) and should be addressed first. If an outcome is very unlikely, in that it could happen but probably never will and if it did occur, the injured person would only require first aid treatment, it would be classified under the matrix at the lowest level (6). This hazard would be addressed after all higher risks had been eliminated or effectively controlled.

How likely is it to hurt someone?	How severely could it hurt someone			
	Kill or disable	Serious injury or long term illness	Medical treatment and several days off work	Minor first aid treatment
Very likely – could happen any time	1	1	2	3
Likely – could happen sometime	1	2	3	4
Unlikely – could happen, but rarely	2	3	4	5
Very unlikely – could happen, but probably never will	3	4	5	6

Source: Professor Jean Cross


Additional information on assessing risks can be found in WorkCover's *Code of Practice: Risk Assessment*.

3.4 Eliminate or control the risks



This step involves determining methods to eliminate the risk and if this is not possible, methods of controlling the risks. For example, eliminating the risk by discontinuing an unsafe activity (such as choreographing a performance to take place near an unprotected fall risk); eliminate a manual handling risk (such as manually moving large flats) by the use of mechanical lifting mechanisms (such as chain motors or crown lifters).

Where it is not possible to eliminate a risk the employer must minimise the risk to the lowest reasonably practical level. The occupational health and safety legislation requires employers to use a hierarchy of controls to address risks to health and safety. In the hierarchy, the higher levels of control mechanisms are preferred over the lower level control mechanisms because they provide a greater certainty of reducing risk.

	HIERARCHY OF CONTROLS
<p>The first responsibility of employers is to eliminate risk. Where this is not achievable, the employer must minimise the risk to the lowest reasonably practical level by applying control mechanisms in the following order of preference:</p> <ul style="list-style-type: none">• <u>Substitute the hazard causing the risk, with a hazard that causes a lower level of risk.</u> For example: redesigning the work process so that less hazardous equipment, material or quantities are used; modifying the rake of a stage to ensure that it is not too steep; using less hazardous or less flammable materials.	
<ul style="list-style-type: none">• <u>Isolate the hazard from the person put at risk</u> For example: introducing an exclusion zone or restricted work area; providing caging around moving staging components; reducing emissions and noise from machinery through venting or containment barriers	
<ul style="list-style-type: none">• <u>Minimise the risk by engineering means</u> For example: Ensuring that exposed moving parts on machinery are adequately guarded and lockout devices are fitted (eg orchestra pits); fitting counterweight stops to flying systems; use of mechanical lifting devices such as chain motors.	

- Minimise the risk by administrative means

For example: Organising the ways tasks are to be done can sometimes reduce exposure to risks; rotation of shifts for bump in and bump out can minimise the risk of fatigue and the adverse effects of fatigue; development of standard operating procedures; provision of induction and safety training, instruction and information, adequate supervision to ensure controls are effectively implemented and to assess ongoing requirements, maintenance schedules for equipment such as flying systems, lifts and hoists and signage. (Refer to Appendix 4 (Section 10.4)

- Use personal protective equipment (PPE)

For example using safety glasses, hearing protection, safety helmets and fall arrest devices; provision of hearing protection to musicians and audience members for loud concerts; fall arrest devices for working at heights. PPE is the least preferred solution to OHS problems because it does not address the risk it merely shields the worker.

Following the risk management process provides a base for ensuring that risks associated with a production or event can be minimised. It will provide information for you to include in your production or event profile and will provide guidance on what steps to take when touring with a production. While all risks associated with a production or event should be eliminated or control mechanisms set in place at the design stage, others, such as those associated with the layout, building structure, rigging points, total load capacity of the venue need to be reassessed, preferably prior to arriving at the venue. Communication with venue operators or managers is essential in this process, as is the provision of risk information to each venue on the tour.



Controlling risks

The control measures at the top of the hierarchy provide the best outcome and should be implemented wherever possible. The measures at lower levels are less effective and require more supervision, instruction and training. Currently, in the entertainment industry, time to implement lower order controls is not always readily available, however if higher order controls cannot be implemented adequate time for implementation of administrative controls must be included in the production schedule. It is much better to ensure that risks to health and safety are eliminated or minimised at the design stage of the production or event. In some situations, a combination of controls will be needed to effectively minimise the risk.

The following are some considerations to assist in determining appropriate control mechanisms:

- the nature and complexity of the performance;
- the construction and operation of scenic elements;
- the nature and environment of the venue where the production is to take place;
- the structural capacity of the venue;
- the nature and severity of any potential injury or disease;
- information available in the industry about methods of preventing injury or disease associated with a particular hazard or risk;

- the availability and suitability of methods to prevent, remove or control causes of injuries or diseases associated with a particular hazard or risk;
- the effectiveness of the control mechanism, (or combination of the control mechanisms);
- an assessment of the control mechanisms to ensure that they do not introduce new risks into the process;
- the acceptability of the control mechanism to the employees who will be exposed to the hazard (consultation is required);
- once the residual risk has been assessed, plans should be made to ensure appropriate first-aid facilities, first aid personnel and other contingency plans are in place.

3.5 Monitoring and review

Monitoring is essential to maintain and improve health and safety performance. There are two main ways of ensuring that the methods chosen to control a particular risk are working effectively. These are:



- Consultation with employees and others who could be affected by relevant decisions;
- The elimination of incidents (or near misses) injury or illness.

The risk management process should be reapplied when:

- the residual risk has been assessed as intolerable;
- there is evidence that the risk assessment is no longer applicable;
- an injury, incident or illness occurs as a result of the hazard that the process had been deemed to address;
- there is a change in the place of work (eg a move to another venue), work practices (eg a change in the performance elements);
- there is a change to the legislative requirements relating to a particular hazard or risk;
- Whenever new information regarding work processes or products within the workplace becomes available.

3.6 Provision of Risk Identification Assessment and Control Information

In order to ensure that risks associated with any entertainment activities are identified at the design stage, especially in major productions, it is recommended that expert assistance is obtained to provide advice at the following stages of design:

- Preliminary design/conceptual stage
- Design presentation
- Manufacturing stage
- Construction stage – in the venue (Bump in)
- Production period (Technical period, rehearsal and performance)
- Disassembly – bump out and waste management

It is recognised that some sets are stored for use in later production runs. It is important that the same process is carried out on these sets and that modifications are made to minimise the risk to the end users.

An example of a risk assessment template for productions or events is included in Appendix 5 (Section 5)

4 Consultation

4.1 An Introduction to Consultation



Consultation is a basic requirement for the effective management of OHS. It acknowledges that everyone in the workplace has a role to play in ensuring workplaces are both healthy and safe. It involves management and the employees' representatives working together to achieve this aim. People doing the work are often the best source of OHS solutions.

Consultation with those people who are required to carry out work is not only an important and effective mechanism for identifying hazards and assessing risks within a workplace, it is also a legislative requirement under the Occupational Health and Safety Act. It is important that all aspects of a production or event that could affect employees' health, safety and welfare are discussed with relevant employees and their views taken into account when establishing risk control mechanisms.

WorkCover's *Code of Practice: Occupational Health and Safety Consultation* provides detailed information on how to establish workplace OHS consultative arrangements.



Employers are required to consult with employees when taking steps to assess and control workplace risks and to document consultation mechanisms. In addition, each workplace is required to establish a formal consultative process.

4.2 What is meant by Consultation?

Consultation involves sharing of relevant information about occupational health, safety and welfare with employees, employees being given the opportunity to express their views and to contribute in a timely fashion to the resolution of occupational health, safety and welfare issues at their place of work, and that the views of employees are valued and taken into account by the employer.

4.3 When must employees be consulted?

Consultation with employees must occur in the following situations:

- when risks to health and safety arising from work are assessed or when the assessment of those risks is reviewed;
- when decisions are made about the measures to be taken to eliminate or control those risks;
- when introducing or altering the procedures for monitoring those risks (including health surveillance procedures);
- when decisions are made about the adequacy of facilities for the welfare of employees;
- when changes that may affect health, safety or welfare are proposed to the premises where persons work, to the systems or methods of work or to the plant or substances used for work.

4.4 Benefits of an effective consultation mechanism.

The benefits of consultation are broad and varied. Some of the benefits include:

- improved communication between management and employees;
- timely employer awareness of problems or issues;
- more effective and timely problem-solving;
- improved employee compliance in implementing OHS controls:
- utilisation of employees' skills and knowledge;
- enhancing employee satisfaction through recognised contribution to the decision-making process (while not necessarily making the decision);
- employee understanding of the reasons for the choice of particular risk management options (allowing recognition of financial limitations and avoiding perceptions of employer irresponsibility or lack of care);
- developing interim risk management measures supported by proper management and employee behaviour;
- promoting a team, rather than a "them and us", approach to OHS.

4.5 How to manage consultation in the Entertainment Industry

All employers are required to establish a mechanism for consultation for occupational health and safety issues. Employees must be consulted on what those mechanisms will be. The legislation allows for the election of health and safety representatives and occupational health and safety committees. The consultation mechanisms must be documented and promoted within the workplace.

The transient nature of employment in the Entertainment Industry requires employers to establish consultative mechanisms that will take into account contract and casual employees. It is essential that these strategies are communicated to all company members on commencement of the production period. Venue owners and operators have a responsibility to establish ongoing consultation mechanisms; OHSW committees are an effective means for the process.

Some mechanisms for consultation for production companies and touring companies include:

- Induction on first day, outlining consultative mechanisms and legislative responsibilities.
- Information on consultation mechanisms is provided at the contracting stage.
- Regular meetings to provide an opportunity for feedback from employees.
- De briefing after production period is completed to assess the effectiveness of the consultation mechanisms and to ensure all work groups are adequately represented.

4.6 What consultation should address

The consultation process can be used to address the following types of issues:

- the identification of hazards and assessment of risks associated with set building, external event management, bumping in a production to a venue, technical runs, performances, bumping out productions and the operation of venues;
- how to select and implement control measures, to monitor their effectiveness and ensure ongoing maintenance of controls for either the length of the production run or event or the life of the venue;
- planning the introduction of new equipment, such as automated equipment, a new work method or process or the modification of existing processes;
- the introduction of the use of new substances that may be hazardous to health;
- the provision of adequate facilities for the welfare of employees;
- safe access and egress to the performance area for the performers and crew;
- emergency procedures including the provision of adequate first aid and medical services;
- administrative procedures adopted in the workplace – such as hazard and incident reporting;
- procedures for the safety of visitors to and patrons of a venue or event;
- consultative mechanisms for employees, contractors, self employed persons;
- how to use this *Employers' Guide to OHS in the Entertainment Industry* together with implementation of the provisions included in the *Safety Guidelines for the Entertainment Industry*.

5 Training



The OHS Act requires employers to provide such information, instruction, training and supervision as may be necessary to ensure the health, safety and welfare of their employees while at work.

5.1 Training requirements

Training is one of the most effective ways of making sure that workers are competent and effective in maintaining a safe working environment.

The OHS Act and Regulation set out specific requirements for training in OHS and training related record keeping that employers must comply with. For example, employers are required to provide induction training for all new employees. They must also ensure that members of OHS committees and OHS representative receive OHS consultation training.

Workers should be trained to apply systems of work and work practices that are safe and without risks to health. An employer must make sure that all employees have been adequately trained and instructed to perform their work safely before allowing any of them to work in the Entertainment Industry. Workers must be aware of any risks involved with their work and of any safety precautions that should be taken to avoid injuries or illnesses.

It is important that employers make sure that every worker who uses any plant, machinery, equipment or appliances, (such as flying systems, automated set components) engages in rigging, or erecting and dismantling screen frames is provided with adequate information and training in the operation of that item of plant.

Workers must also be provided with competent supervision while they use this equipment unless they have attained a level of competency in operating it safely without supervision. It is important to document workers' certification and accreditation, as well as any training provided to them, including the nature of the training, the date it was provided and the names of the people who have been trained.

NOTE: The various chapters of the OHS Regulation identify specific training obligations employers must meet. The table below identifies the primary requirements, and is not intended to be an exhaustive listing. Employers should refer to the Regulation itself to ensure they are familiar with all the requirements.

5.2 Training required by the OHS Regulation



Subject of Training	Who requires Training	Examples of training
<p>Induction training for new employees, covering:</p> <ul style="list-style-type: none"> • Workplace arrangements for managing OHS and reporting hazards to management • Health and safety procedures, including the use and maintenance of risk control measures • How employees can access any health and safety information that the employer is required by the OHS Regulation to provide • Any other matters relevant to the workplace, given the competence, experience and age of the employee <p><i>(OHS Reg Clause 13(1),)</i></p>	<p>All new employees</p>	<ul style="list-style-type: none"> • Agreed means for consultation to identify hazards and assess and eliminate or control risks. Identify to whom hazards are reported. • Systems of work, safe work procedures, communication methods, emergency and first aid responsibilities and procedures. Effective use and maintenance of personal protective equipment (PPE) • Where to find material safety data sheets, emergency procedures related to plant • Understanding of the OHS legal framework and responsibilities of individuals within it. • Incident and injury reporting • Premises layout, amenities. • A higher level of OHS training for supervisors and managers.
<p>Any information, training and instruction about risks at the place of work, necessary to ensure their safety <i>(OHS Reg, Clause 20,)</i></p>	<p>All persons who may be exposed to a risk</p>	<ul style="list-style-type: none"> • Identified hazards and agreed methods of control; communication requirements • Standard operating procedures developed to control risks.
<p>At a minimum, trained first aid personnel are required where more than 25 people are at a place of work. However employers must take into account the location of the workplace, number of workers, and the type of work undertaken to determine the number of trained first aid personnel required <i>(OHS Reg Clause 20)</i></p>	<p>Relevant workers</p>	<ul style="list-style-type: none"> • First aid certificate from an WorkCover approved first aid course • Occupational first aid certificate from an approved WorkCover course • Specific training to deal with medical emergencies that may arise in the workplace
<p>Training to oversee arrangements for evacuation, emergency procedures <i>(OHS Reg 17.3)</i></p>	<p>Relevant workers Emergency Control Organisation Wardens</p>	<ul style="list-style-type: none"> • Evacuation concepts and principles, Operation of emergency control organisations, • First Line Attack Fire Fighting • Evacuation procedures • Other emergency training – CRB training
<p>Training for OHS committee</p>	<p>OHS committee members and OHS</p>	<ul style="list-style-type: none"> • Importance of OHS consultation

Subject of Training	Who requires Training	Examples of training
members and representative, provided by a WorkCover accredited trainer or appropriate registered provider (OHS Reg Clause 31)	representatives	<ul style="list-style-type: none"> and systematically managing OHS • Consultation requirements under the OHS Act • Effective communication techniques • Requirements for OHS Management Systems • Practical application of risk management • Continuous improvement of OHS systems
Training in manual handling techniques, correct use of mechanical aids and team lifting for work activities where it is not reasonably practicable to eliminate the risks arising from manual handling OHS Reg, Clause 80	All workers whose activities expose them to any manual handling risk – in the Entertainment Industry this section relates to most workers	<ul style="list-style-type: none"> • All scenic elements, trusses, road cases, programs, tickets, cash
Training in the use of plant and supervision to the extent necessary to minimise the risks to health and safety (OHS Reg, Clause 136)	All users of plant	<ul style="list-style-type: none"> • Traps, revolves, PLC operated scenic elements, fire effects, • Forklift, Self Elevating work platforms, scaffolding • All operators should provide evidence of competency attainment.
Site specific induction training	All supervisors and workers when entering a new venue or workplace or prior to a production rehearsal.	<ul style="list-style-type: none"> • Site specific hazards • OHS Policies and Procedures • Emergency procedures
Job specific training (eg. Child care, HR, electrician)	Those persons required to carry out specific classes of work	<ul style="list-style-type: none"> • Training should be provided in accordance with National Training Standards

Traffic Management

5.3 Other Essential Training



Subject of Training	Who requires Training	Examples of training
Training in performance related Standard Operating Procedures	Performers and crew	<ul style="list-style-type: none"> • Use of equipment • Movement of set pieces and trucks • Movement of set components and props by performers


Subject of Training	Who requires Training	Examples of training
Training in the safe use and storage of hazardous substances	All workers who may use or be exposed to hazardous substance	<ul style="list-style-type: none"> • Interpretation of MSDS • Reading and following first aid advice on labels and MSDS. • Use of PPE
Working at Heights	All workers who may be required to work at heights	<ul style="list-style-type: none"> • Hazards associated with working at heights and how they are controlled • Use of fall arrest devices and fall restraint protection • Rescue arrangements
Pyrotechnicians	All persons using pyrotechnics	<ul style="list-style-type: none"> • Licence is required
Dogging and Rigging	All persons engaged in construction of entertainment industry sets	<ul style="list-style-type: none"> • All persons undertaking rigging activities must provide evidence of competency attainment
Confined spaces management	All those who supervise confined space work and those who work in confined spaces	<ul style="list-style-type: none"> • Buddy system • Atmospheric testing (where applicable) • Rescue arrangements
Prevention of Occupational Overuse Syndrome	All persons engaged in repetitive tasks, including musicians, administrative staff and dancers	<ul style="list-style-type: none"> • Importance of warm up • Positioning • Breaks
Cash handling prevention and specific procedures	All persons involved in handling cash in venues or at external events	<ul style="list-style-type: none"> • Prevention of armed holdup, reaction and post holdup procedures • Organisational policy on no resistance • Security arrangements • Emergency Procedures including armed holdup response • Critical Incident Briefing
Crowd Control	Front of House staff, Outdoor event staff	<ul style="list-style-type: none"> • Training should be provided in accordance with National Training Standards

An example of a checklist for new employees is attached at Appendix 6 (Section [10.6](#))

6 A Risk Management Approach to Hazards in the Entertainment Industry

6.1 Introduction

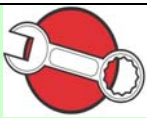
Safety in the Entertainment Industry can be affected by many factors including the nature and complexity of the event, the design and manufacture of sets, environmental factors for outdoor entertainment activities, the skill and experience of set designers, technical directors, and technicians and scheduling of performances.

	<p>This means that all activities in the entertainment industry should be considered very carefully; the people involved, their actions during performances or events, the equipment being used, the sets being designed and manufactured, the choreography of the performance.</p>
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6.2 Five Simple steps to Risk Management

These five steps can be applied to each hazard:



	<ol style="list-style-type: none"> 1 The Hazard: Look for hazards that you could reasonably expect to result in harm in the working environment. 2 Who might be harmed? Consider people or groups of people who could be affected by the activity. Eg: <ul style="list-style-type: none"> • Performers • Technical and Staging Crew • Patrons • Members of the public • Volunteers • Contractors • Cleaners. <p>More attention should be paid to:</p> <ul style="list-style-type: none"> • New and inexperienced workers • Young workers eg: child performers • Workers with disabilities • Visitors
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	<ul style="list-style-type: none"> • People working on their own
	<p>3 Is more needed to control the risk?</p> <p>Check the effectiveness of any controls that may already be in place. Consultation with employees exposed to the hazard is required. Consider the following:</p> <ul style="list-style-type: none"> • Do they meet legislative requirements • Do they meet industry standards? • Do they reduce the risk to the lowest reasonably practicable level? <p>If the answer to any of the above questions is no, in consultation with employees, determine more appropriate controls and implement them in accordance with the hierarchy of controls. (Refer Section 3.4)</p>
	<p>4 Record your findings</p> <p>The assessment must be suitable for the hazard and be extensive enough to cover all aspects. Documentation should show:</p> <ul style="list-style-type: none"> • That a proper check was made • You considered all who may be affected • You dealt with all the obvious hazards • That the precautions are reasonable and the remaining risk level is low.
	<p>5 Monitor and review</p> <p>The effectiveness of the controls should be monitored. A new assessment should be conducted if:</p> <ul style="list-style-type: none"> • The equipment or set or staging pieces are modified. • New equipment or substances are introduced into the environment • Procedures change • An incident occurs but no-one is injured • Someone is hurt

7 Managing Specific Hazards

7.1 Smoke and Vapour Effects - A Risk Management Approach

There are many different types of atmospheric effects using fogs and smokes. The most commonly used are:

Heated fogs are effects produced using fog or smoke machines that use a variety of mainly glycol based substances. There are two methods of generating fogs.

- Fog is generated by propelling a water/glycol mixture into a heating element, then forcing the fog through a nozzle to the area where it is required. The element is heated to temperature in accordance with the manufacturer's recommendations, normally in the range of 218° to 370°C. The heated solution becomes airborne as a vapour and the operator controls the amount released.
- Gas propelled systems use a non-flammable gas such as carbon dioxide or nitrogen as the propellant for mineral oils or a fluid composed of glycols and water. The mixture is propelled into a heat exchanger, which is preheated to the boiling temperature of the fluid. The expansion of the fluid forces it out of the machine as a vapour. The resultant fog contains droplets that range between 0.5 and 4 microns.
- **Cryogenic fogs** include dry ice (solid carbon dioxide), liquid nitrogen and cryogenically created water based fogs.
- **Mechanically Generated Fogs** using pressurised water, oil crackers and ultrasonic production.
 - **Oil crackers** create fog by bubbling air through a drum of high grade mineral oil. The air bubbles reaching the surface contain "cracked" oil particles normally between 1 and 50 microns in size. The oil is physically broken down in size, but not chemically altered. The use of oil crackers can result in an oily residue building up on building surfaces, drapes and floors, not only creating a slip and fall risk but it also can create a fire risk due to the collection of dust in the oil and a build up of oily dust in air conditioning ducts. It is therefore recommended that oil crackers are not used.
 - **Pressurised water** at over 1,000 psi is sprayed through a tiny nozzle designed so that it strikes the sharp end of a small rod. The water's impact on the rod beaks the stream into tiny droplets. The droplet size can be controlled by varying the size of the nozzle and therefore the way the fog hangs in the air.
 - **Ultrasonic fog** production uses ultrasonic transducers at very high frequencies (2MHz) to throw tiny droplets of glycol and water mix. Small – 1 to 10 micron droplets are formed which drift in the air above the fluid. The droplets are moved by the use of a fan to direct them to the required area.

Ammonium chloride is also sometimes used to generate smoke on stage and at outdoor venues. The smoke is created by heating ammonium chloride and propelling it across a stage area using a fan. Air sampling studies have also shown that some decomposition of the ammonium chloride to hydrogen


chloride can occur during heating. The more heat that is applied, the more potential there is to increase the level of hydrogen chloride. The hydrogen chloride dissolves in water in the respiratory system to produce hydrochloric acid, a respiratory irritant.



MANAGEMENT OF RISKS ASSOCIATED WITH SMOKES AND VAPOURS


THE HAZARD	FACTORS TO CONSIDER IN ASSESSING RISK	EXAMPLES OF CONTROL MEASURES
Smoke and vapour effects	<ul style="list-style-type: none"> The type of smoke or vapours required and the nature of the substance. 	<ul style="list-style-type: none"> A Material Safety Data Sheet (MSDS) is obtained, an assessment conducted in relation to exposure levels and potential adverse health effects. All personnel to be in the area at the time of smoke or fog effects are advised of the intention to use the substance, the potential effects and the control measures put in place to minimise exposure. Oil crackers are not used.
	<ul style="list-style-type: none"> Confined spaces – such as orchestra pits and under stage areas. 	<ul style="list-style-type: none"> Good ventilation is necessary in all areas when using dry ice or nitrogen fogs, but particularly in orchestra pits and under stage work areas as the vapour may flow into these areas through openings and crevices and displace oxygen in the air. If a confined area is to be occupied during the effect, a competent person is assigned to monitor the CO₂ and O₂ levels.
	<ul style="list-style-type: none"> Spill of smoke and vapour into other areas. 	<ul style="list-style-type: none"> Smokes and vapours are directed away from exits, egress paths, stairwells or emergency exit routes. Exit signs and fire response equipment is not obscured.
	<ul style="list-style-type: none"> Injuries to employees exposed to the hazardous substances. 	<ul style="list-style-type: none"> Minimise the exposure time of those concerned. Consideration is given to the activity levels of performers as inhalation of smokes and vapours will increase during periods of high physical activities, especially rigorous dance routines. Keep people away from the front of all machines as this is where concentrations are at their highest. Age of persons exposed (particularly children) is taken into consideration. History of asthma, bronchitis or other lung complications– affect susceptibility to adverse affects

THE HAZARD	FACTORS TO CONSIDER IN ASSESSING RISK	EXAMPLES OF CONTROL MEASURES
		<ul style="list-style-type: none"> The use of PPE – as described in the MSDS should be used as a last resort. PPE for cryogenic fogs could include impervious gloves with good thermal insulation and a face mask or goggles. Tongs can be used.
	<ul style="list-style-type: none"> Visibility and moisture – do these increase the potential for slips and falls for crew and performers? 	<ul style="list-style-type: none"> Standard Operating Procedures are developed to address specific risks
	<ul style="list-style-type: none"> Effect on members of the public 	<ul style="list-style-type: none"> The amount of smoke and vapour effects is limited to the minimum necessary of the desired effect. Fans are used to direct smoke and vapours away from the audience. There are some people who may be sensitive to some of the substances used; therefore consideration should be given to providing advice to the audience on the use of the substances, preferably at the point of ticket sales. Warning notices place on the premises (reinforced by verbal warnings before the performance if the risk assessment indicates that this is necessary. These warnings should indicate the type of people that may be at risk).
	<ul style="list-style-type: none"> Storage 	<ul style="list-style-type: none"> Liquid nitrogen should remain stored in the container in which it was delivered. All smoke and vapour effects are stored in well-ventilated areas. All substances are retained in their original container.
	<ul style="list-style-type: none"> Access to equipment 	<ul style="list-style-type: none"> The smoke or vapour machine is located in a fixed position, adequately protected from unauthorised interference and in the control of a competent person at all times.
	<ul style="list-style-type: none"> Maintenance of equipment 	<ul style="list-style-type: none"> All machinery should be operated in accordance with the manufacturers recommendations. Only substances recommended by manufacturer to be used (using incorrect substances can result in them being burnt at an inappropriate temperature and hence become toxic or increase toxicity).

THE HAZARD	FACTORS TO CONSIDER IN ASSESSING RISK	EXAMPLES OF CONTROL MEASURES
		<ul style="list-style-type: none"> All machinery used for producing fogs and smokes are well maintained and kept clean. Reference to the operating manual will provide advice on maintenance requirements
	<ul style="list-style-type: none"> Activation of fire detection systems 	<ul style="list-style-type: none"> In order to minimise isolation of smoke detectors, CO detectors should be used in performance areas. (As these detectors sense the products of combustion, they do not activate with most smoke and vapour effects.) The approval of the relevant authority is a mandatory requirement prior to the isolation of automatic fire detection or suppression systems. Standard Operating procedures are developed and implemented to manage the isolation.
	<ul style="list-style-type: none"> External events – effects of weather. 	<ul style="list-style-type: none"> An assessment of the risks associated with external events is conducted and adequate controls put into place. In particular, if crackers or other machines are used outside there is the potential to start fires, therefore appropriate assessment and controls are required.


7.2 Pyrotechnics




7.2.1 Legislative Requirements

	<p>The WorkCover OHS Licensing Unit governs the use of Pyrotechnics. A Pyrotechnic licence is known as a “General Permit to Use Display Fireworks”. It is issued to a person for one to three years and allows an individual to hold any number of displays while the permit is valid. The permit holder must notify WorkCover prior to holding a display. The notification must be in writing and include details of the venue, time and date of every display.</p>
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Only licensed operators are allowed to use pyrotechnics. It is also important to ensure that pyrotechnics are purchased only from licensed suppliers.

7.2.2 Managing the Risks Associated with the Use of Pyrotechnics


 THE HAZARD	FACTORS TO CONSIDER IN ASSESSING RISK	EXAMPLES OF CONTROL MEASURES
Firing devices	<ul style="list-style-type: none"> • Design and construction of firing boxes • Maintenance 	<ul style="list-style-type: none"> • The firing device should be electrically and mechanically safe and maintained in good condition.
	<ul style="list-style-type: none"> • Security of firing mechanisms 	<ul style="list-style-type: none"> • Pyrotechnic devices should always be fired using a properly designed and constructed firing box. This may be powered from mains electricity or from a suitable battery and should be capable of being isolated by means of a key operated isolation switch. • The key should be in the possession of the operator firing the device. Electrically operated devices should be capable of being isolated from their firing supply by the complete disconnection of the supply cable.
Electrical supply	<ul style="list-style-type: none"> • Voltage • Protection • Security 	<ul style="list-style-type: none"> • The electrical supply for firing boxes should be constant and not subject to fluctuation, eg reduced voltage through the use of dimmers.

 THE HAZARD	FACTORS TO CONSIDER IN ASSESSING RISK	EXAMPLES OF CONTROL MEASURES
Inappropriate storage 	<ul style="list-style-type: none"> • Public access • Access for staff • Construction of storage • Compatibility with other stored items 	<ul style="list-style-type: none"> • Storage receptacles for pyrotechnic devices should be of substantial construction with a notice bearing the words – “Danger – No Smoking – No Naked Flame” displayed on the lid of the container. • All receptacles and enclosures used for storing pyrotechnics should be kept locked except when access is required. • Enclosures should have a “No Smoking” notice fixed on the external face of the door. • The person responsible for security, keeping of records and for storing the materials safety should maintain control of the keys. • A secure area for storage of pyrotechnics and firing mechanisms must be maintained at external events.
Timing of effect	<ul style="list-style-type: none"> • Sight lines • Access of others to firing area 	<ul style="list-style-type: none"> • Always ensure that each pyrotechnic effect can be clearly seen from the control position and the operator can clearly see that the area is clear of cast and crew.
	<ul style="list-style-type: none"> • Environmental conditions which may affect the operation (eg wind speed, rain, thunder storms). 	<ul style="list-style-type: none"> • An assessment of risk associated with the use of pyrotechnics on stage, outdoors or in confined areas should be conducted prior to any performance.
Incorrect disposal	<ul style="list-style-type: none"> • Legislative requirements • Age of product 	<ul style="list-style-type: none"> • Ensure that out of date and used pyrotechnics are disposed of correctly
Communications	<ul style="list-style-type: none"> • Emergency situations 	<ul style="list-style-type: none"> • Communications (possibility of radio and mobile phone blackouts), fire control, emergency procedures

7.3 Firearms and other weapons in productions


7.3.1 General information

Firearms and weapons in live theatre performances are usually props and do not present a risk to performers, crew or members of the public if managed correctly. However, from time to time, real weapons are used with blank ammunition. Hazards associated with firearms are accidental shooting or a malfunction of the firearm causing it to explode. Another consideration is the sound pressure level from the operation of the firearm together with when and how it is used. Sudden single sounds can have an impact on members of the audience, cast and crew if sound pressure levels are high enough to create damage. Sudden sounds can also create a “shock” reaction in some members of the audience and consideration should be given to negative impacts of this aspect, during the development of the production.

	<p>The NSW Police Commissioner governs the use of firearms in entertainment. A Permit from the Commissioners Office, issued under the NSW Firearms Act and Regulations must be obtained for each production that incorporates the use of firearms. Unloaded weapons also fall under the provisions of the legislation and if they are to be used, they must be under the control of a licensed person.</p>
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7.3.2 Managing the Risk associated with the use of firearms and weapons

The following points are a summary of considerations for the use of firearms and weapons during performances.

 THE HAZARD	FACTORS TO CONSIDER IN ASSESSING RISK	EXAMPLES OF CONTROL MEASURES
Firearms	<ul style="list-style-type: none"> Firing capacity 	<ul style="list-style-type: none"> The firearm should be deactivated, modified or repaired only by qualified gunsmiths with the approval of the manufacturer. Live ammunition should never be used.
Firearms	<ul style="list-style-type: none"> Storage 	<ul style="list-style-type: none"> When not in use, the firearms must be in control of the armourer or certified person and locked up with sign in and sign out procedures in place. No smoking signs must be posted wherever blank ammunition is stored.
Firearms	<ul style="list-style-type: none"> Proximity to audience, crew and performers 	<ul style="list-style-type: none"> Scenes involving firearms and weapons should be carefully choreographed to

