

The **STAGESAFE** guide



to on site working practices and
safe working procedures in the
Technical Production industry.

INTRODUCTION AND DISCLAIMER

This booklet has been written in good faith to help improve working practices and safety standards in the Technical Production sector of the live events industry, it is also designed to encourage and promote a positive safety culture. The booklet is for guidance only and the examples do not cover every situation, please use common sense when reading, interpreting and following the information contained here. The information contained in this document is no substitute for proper training, instruction and supervision that by law, employers are required to provide.

Stagesafe cannot accept liability for injuries to persons or damage to property or breaches of legislation by using this booklet.

Health and Safety legislation is usually up dated twice a year and everyone needs to keep up to date with these updates.

In this document the term “site” is used as a generic term to include all workplaces including venues both indoor and outdoor, offices, warehouses and workshops and the term “employee” includes the self-employed and free lancers.

We often hear of inconsistencies in health and safety standards and enforcement between one venue and the next, in our experience the only inconsistencies that exist are that some venues, promoters or employers enforce the regulations (to various degrees) and some don't.

Health and Safety law is implicit, we should not need others to “police” how we work and tell us when to use PPE etc, sadly we don't have a good track record in this department and can't be relied upon to do it correctly ourselves so now unfortunately we can't be trusted to operate safely without being monitored and “policed”. If you don't agree with me then I'd love to be proved wrong!

We often see uninformed statements in the press such as “elf and safety bans conkers” or bonfires and other activities, in truth health and safety law hardly ever bans anything with the odd exception such as asbestos, it's usually an idiot who is interpreting the law wrongly or as an excuse for not doing something they can or should have done, those to blame for making health and safety difficult are these idiots and the “no win, no fee” solicitors who make insurance companies twitch in an alarming manner and not health and safety law.

There does not need to be an accident for you to breach health and safety law, there are more than enough opportunities for things to go wrong in our industry so don't put your self and others at risk from hazards or prosecution as this attitude can get you and your employer a bad reputation, may well invalidate any insurance and may also lead to court cases, fines, imprisonment, a loss of business and money and even bankruptcy.

Under Common Law we all have a Duty of Care towards each other so we must have a positive and safe health and safety culture and not an unsafe selfish attitude.

LEGAL DUTIES OF EMPLOYERS AND EMPLOYEES

Employers are responsible for the health and safety of, and have a duty of care for everyone affected the business and its activities.

This includes:

- Employees working at your premises, from home, or at another site.
- Visitors to your premises such as customers or subcontractors
- People at other premises where you're working, such as a venue or festival site.
- Members of the public - even if they're outside your premises.
- Anyone affected by products and services you design, produce or supply.
- Employers must have a health and safety **policy** for how they look after health and safety. If you employ five or more people, this policy must be in writing.
- You also need to comply with certain specific legal requirements including:
 - Recording and reporting accidents.
 - Consulting employees or their safety representatives on health and safety matters
- Ensuring employees understand and carry out their responsibilities for health and safety, such as following the safety rules the employer has set up.
- Employers are required to conduct a thorough **assessment of the risks** the business faces. Risk is the chance, high or low, that someone or something could be harmed by a hazard. Hazard means anything that can cause harm, e.g. chemicals, electricity, a slippery floor, work at height.

Employers must provide;

- First aid and welfare facilities.
- A competent person to advise (the employer) on health and safety.
- Employers Liability Insurance.
- Effective arrangements for planning, organising, controlling and monitoring safety.
- Personal Protective Equipment free of charge (when required).
- Emergency procedures.
- A safe place of work including access and egress (they must ensure any site or venue where employees are sent to work is safe).
- Safely maintained plant and equipment.
- Safe systems of work (including risk assessments etc).
- Safe use, handling, storage and transport of articles & substances.
- Information, instruction, training and supervision.

Employees Duties

Employees MUST:

- Use any plant and equipment correctly,
 - in accordance with instructions provided.
- Inform their employer directly:
 - of anything that may be dangerous
 - of issues that may affect health and safety
 - of lost, damaged or worn out PPE
- Observe requirements of risk assessments including the use of PPE.
- Protect themselves and others who may be affected by their actions.
- Take part in the H&S process.

Self – Employed Duties

The self-employed have the duties of both an employer and an employee, this is because they employ themselves.

RISK ASSESSMENTS, METHOD STATEMENTS AND PERMITS TO WORK

Risk Assessments

A Risk Assessment is a systematic method of looking at work activities, considering what could go wrong, and deciding on suitable control measures to prevent loss, damage or injury in the workplace. The Assessment should include the controls required to eliminate, reduce or minimise the risks.

Risk Assessments are a fundamental requirement for businesses. If an employer does not know, or appreciate where the risks are, they are putting themselves, employees and customers of the organisation in danger.

Employers must look at all work activities that could cause harm in order to decide whether they are doing enough to meet their legal obligations. This is a minimum requirement. If it is reasonably practicable to do so, employers should consider doing more than the legal minimum.

The aim should always be to reduce the risks as much as is 'reasonably practicable'.

'Reasonably practicable' is a legal term that means employers must balance the cost of steps that they could take to reduce a risk against the degree of risk presented.

When reckoning costs, the time, trouble and effort required should be included and not just the financial cost.

The results of risk assessments must be communicated to employees so they know the procedures that must be followed.

The steps to risk assessment are:

- Identify the hazards
- Decide who might be harmed and how
- Evaluate the risks and decide whether existing precautions are adequate or more should be done
- Record the findings
- Review your assessment from time to time and revise if required

Method Statements

A work method statement, is a written "safe system of work", a document that details the way a work task or process is to be completed. The method statement should outline the hazards involved and include a step by step guide on how to do the job safely. The method statement must also detail which control measures have been introduced to ensure the safety of anyone who is affected by the task or process.

Permits to Work

Where proposed work is identified as having a high risk, strict controls are required. The work must be carried out against previously agreed safety procedures, a 'permit-to-work' system. Permits to work are legal documents.

The permit-to-work is a documented procedure that authorises certain people to carry out specific work within a specified time frame at a specified place. It sets out the precautions required to complete the work safely, based on a risk assessment. It describes what work will be done and how it will be done; the latter can be detailed in a 'method statement'.

The permit-to-work requires declarations from both the people authorising the work and those carrying out the work.

Permits to work are often required for hot work such as welding, disk cutting, work at height, work in confined spaces, live electrical work, use of certain chemicals etc and are often a requirement at many venues, always check.

VEHICLES AND TRANSPORT

Drivers must be aged 18 or over and hold a full and current driving license.

Drivers must be suitable insured for the vehicle they are driving for work purposes.

All vehicles must be “Taxed” and hold a current MOT certificate – fully road legal.

Drivers are not permitted to drive under the influence of drugs.

Seat belts must be worn and it is the driver’s responsibility to emphasise to all passengers that they are expected to use any seat belts provided.

Mobile phones must not be used by the driver while the vehicle is in motion.

Take adequate rest breaks and do not drive if tired and exhausted.

The speed limit for vehicles on outdoor event sites will be 5 mph. All vehicles will keep to the agreed routes / roadways. Do not park in “fire lanes” and always park where requested, this may not be always where you want to park!

In the interests of fire safety, parking is usually prohibited in camping areas on outdoor sites.

No vehicles will be moved in the public areas of an outdoor event site once the gates are open to the public without express permission.

It is the driver’s responsibility to ensure that a pre-journey safety check is carried out on the vehicle, the following list is for guidance:

- Tyres appear road worthy, free of unusual signs of wear or low/high pressure.
- Vehicle body is in safe condition and no apparent fuel, oil or other fluid leaks.
- All loads are secure and not overhanging from the vehicle.
- All lights including warning /hazard lights are in working order.
- Oil and cooling system fluid levels.
- Driving mirrors are clean and suitably adjusted for the driver.
- Windscreens are clean and in good condition
- Wipers are fully operational and wash bottles have a sufficient supply of liquid

Additional rules may be applied for drivers of Company vehicles or vehicles on hire.



ON ARRIVAL AT THE VENUE OR WORKPLACE

Ideally you will go through a short induction process where you will be made aware of the following:

- Emergency Exits and Exit Routes
- How to raise the alarm in an emergency
- The position of Fire Fighting and First Aid Equipment
- Locations of First Aiders
- The Emergency Assembly Point
- Welfare facilities (Toilets, Drinking water, catering etc)
- Accident Reporting procedures

If you are not made aware of this information, find out for yourself before it's too late!

You are expected to cooperate with this procedure. You may also be required to attend and take part in any safety meetings, updates and briefings.



Ensure you are fully rested before starting work and eat healthily.

WORKING ENVIRONMENT

1. The working environment must be kept clean and tidy.
2. Smoking is not allowed in any enclosed working area.
3. Any spillages must be cleaned up immediately according to appropriate procedures.
4. Waste materials and rubbish must be routinely removed and placed into bins or skips for disposal.
All combustible materials must be disposed of according to appropriate procedures, this will normally be disposal into sealed metal containers.
5. All open pits, trenches, holes etc must be covered when not in use and clearly marked using the appropriate warning signs.
6. Leads and cables must be laid and suitable covered in a way so as not to prevent hazard.
7. Chemical waste must not be discarded into sinks, toilets, streams or other water courses.
8. Aerosols and chemical containers must be discarded according to the appropriate procedures, not into fires.
9. Employees are advised to always wash their hands before eating and drinking.
10. All employees shall immediately report any unsafe practices or conditions to their employer or relevant authority.
11. The use of alcohol and recreational drugs is strictly prohibited, any employee found to be consuming alcohol or recreational drugs may be **LIABLE TO INSTANT DISMISSAL.**

SAFE WORKING AREA

Before starting any work operation a safe working area must be established to protect staff, other persons working on site and members of the public.

A safe working area can be established by fencing, taping or marking off an area, cones and barricades can be used in the street around the doors of vehicles being unloaded/loaded.



Hazard warning signs may need to be erected and if necessary stewards may be required to assist in keeping the area clear.

Stewards and security staff are there to assist us, they have a very difficult job to do so please help them as much as possible, be polite and courteous, make sure they can clearly see your pass (even if they have already seen it a dozen times – it's their job to check) don't abuse your position by attempting to bring unauthorised persons into hazardous working areas such as back stage.

SAFETY SIGN TYPES

You have a legal obligation to obey safety signs.

- **Warning** – advise of danger or hazard
- **Prohibition** – tell you *what not to do*
- **Mandatory** – tell you *what must be done*
- **Information** – provide safe guidance
- **Fire equipment** – where equipment is located



PERSONAL PROTECTIVE EQUIPMENT (PPE)

Employees have a legal obligation to use all personal protective equipment provided to them in accordance with the training and instruction given to them regarding its use. To not do so puts you at risk, puts your employer at risk of prosecution, breaks venue rules and may invalidate any insurance that you, your employer and the venue holds.

Employees who have been provided with personal protective equipment must immediately report any loss of, damage or obvious defect in any equipment provided to their employer.

P.P.E. is personal equipment and should not be shared to avoid the risk of infection from ear protectors, gloves, boots, helmets etc. This is particularly important with fall arrest equipment such as harnesses, they should not be loaned to truck drivers etc so they can access follow spot positions etc.

No person shall carry out a task or operation without the use of the appropriate P.P.E., to prevent ambiguity this is interpreted as meaning the following:

Safety Footwear (Steel toe capped)

These must be worn at all times.

Site Safety Helmets (Hard Hats with or with out peaks)

These must be worn by all staff at all times within designated hard hat areas and by those involved in fork-lift truck operations and plant operating.

High Visibility Tabards and Jackets

These must be worn at all times when working on site and in areas where vehicles and plant are being used, they will also be required when loading or unloading trucks on public roads.

Gloves

They are also required when handling chemicals (including diesel) and hazardous substances.

Hearing Protection

Must be used when there is a danger to the ears from high volume sound or noise such as when operating a fork lift truck or from a PA system. Sound Engineers are not required to wear ear protection when actually mixing.

Eye Protection

This must be worn when there is a danger to the eyes from chippings, spray, sparks or flying debris.

Fall Arrest Equipment and Climbers Helmets

Fall arrest harness, connectors, shock absorber, fall arrest lanyards must helmets must be used by all those involved with climbing operations.



**PEOPLE WITH BRAINES USUALLY WANT TO PROTECT THEM,
USE YOUR P.P.E.**



MANUAL HANDLING

1. Lifting and moving of objects should always be done by mechanical devices rather than manual handling wherever reasonably practicable. The equipment used should be appropriate for the task at hand.
2. The load to be lifted or moved must be inspected for labels giving weight, contents and centre of gravity as well as sharp edges, slivers and wet or greasy patches.
5. When lifting or moving a load with sharp or splintered edges gloves must be worn. Gloves should be free from oil, grease or other agents, which might impair grip.
6. Protective footwear must be used when lifting any heavy load or a load that is capable of damaging the feet if dropped.
7. The route over which the load is to be lifted or moved should be inspected to ensure that it is free of obstructions or spillage which could cause tripping or spillage.
8. Employees should not attempt to lift or move a load, which is too heavy to manage comfortably.
9. Where team lifting or moving is necessary one person should act as co-ordinator, giving commands to lift, lower etc.
10. When lifting an object off the ground employees should assume a squatting position, keeping the back straight. The load should be lifted by straightening the knees, not the back. These steps should be reversed for lowering an object to the ground.
11. When carrying bin bags (e.g, litter) half fill them and carry them away from your body to avoid cuts and jabs; the bag may contain broken glass or other sharp objects. Always use gloves when handling litter and waste and wash your hands after work.
12. Always follow the training you have been given.



ELECTRICITY

1. Electrical work must only be carried out by competent and qualified persons.
2. All portable electrical hand tools for use outdoors must be of the 110 volt (CET) type and protected with an RCD or better still, battery powered.
2. Employees shall not use their own electrical equipment unless it has been PAT Tested and permission obtained.
3. Beware of trailing leads that could be a trip hazard.
4. All electrical equipment must be given a visual inspection by the operator before use, this should include checking the plug for damage or burn/scorch marks, inspecting the lead for damage, checking that all connections are secure and that the equipment is in a good state of repair and has been Portable Appliance Tested (PAT).
5. All electrical equipment must be used with a fuse of the correct rating.
6. If a piece of equipment keeps "tripping out" (more than two or three times) an RCD or M.C.B, then that equipment should not be used until it has been checked and tested by a competent person and any fault corrected. Apart from checking that a fuse of the correct rating is fitted there is little more a non-qualified person can do. Never try to remove or short circuit the trip, it is almost certainly your appliance that is at fault.
7. Note: An M.C.B. (overload trip) is far less sensitive than an R.C.D. (earth Leakage trip). An appliance well within the rating of an M.C.B. may well "trip out" if it has a fault, when connected to a system with an R.C.D. The fault may not have shown up before if it had been used on a non-R.C.D. system, such as domestic installation that is not normally fitted with R.C.D. protection.
8. Any coiled mains lead will heat up in use, to prevent this, extension leads or reels should be fully unwound from their drums before use or they may heat up, melt together and cause a fire.
9. Multi-way blocks that allow more than one appliance to be run from one socket are a major danger. The rule is one appliance to one socket.
10. Employees should report all faults and damage immediately and that piece of equipment taken out of service until it has been repaired. Employees must be on the lookout for possible dangers such as damaged/faulty plugs and equipment, frayed cable, loose connections and poorly laid cables.
11. Checks must be made to see all connections are safe and tamper proof.

12. All electrical connections must be made with the correct connectors and the correct gauges of cable, if in doubt, ask!
13. Never turn on the power to any equipment unless you have checked that it is safe to do so.
14. Employees must not touch or tamper with such connections unless they are qualified or have been given clear instruction about connecting and disconnecting and they are certain that the system is “dead” and therefore safe.
15. Always follow the manufactures instructions.



HAND AND POWER TOOLS

1. Many venues operate a Permit to Work system for certain work activities such as disk cutting, soldering, welding and live electrical work, check before starting any of these activities.
2. Hand and power tools are only to be used by qualified and authorised personnel. It is the responsibility of your employer to determine who is authorised to use specific tools and equipment.
3. It is the responsibility of all employees to ensure that any tools or equipment they use is in a good and safe condition.
4. Any broken, damaged or faulty work equipment (including electrical equipment) must be clearly marked to indicate that it is non serviceable, taken out of service and reported to management so that it can be replaced or repaired.
5. All tools and equipment must be properly and safely stored when not in use.
6. Portable power tools for use outdoors must be of the 110 volt (CET) type and protected with an RCD or better still, battery powered.
7. No tool should be used without the manufacturers recommended shields, guards or attachments.
8. Personal protective equipment such as boots, gloves, eye, face and hearing protection must be properly used where appropriate.
9. Persons using machine tools must not wear clothing, jewellery, laminate passes, wrist bands or long hair in such a way as might pose a risk to their or anyone else's safety.
10. Always follow the manufactures instructions and the training and information you have been given.

TOOL AND EQUIPMENT MAINTENANCE

1. Company vehicles, machinery and tools are only to be used by qualified and authorised personnel. It is the responsibility of the supervisor to determine who is authorised to use specific tools, vehicles and equipment.
2. It is the responsibility of all employees to ensure that any tools, vehicles or equipment they use are in a good and safe condition.
3. Any broken, damaged or faulty work equipment (including electrical equipment) must be clearly marked to indicate that it is non serviceable, taken out of service and reported to management so that it can be replaced or repaired.
4. All tools and equipment must be properly and safely stored when not in use.
7. No tool should be used without the manufacturers recommended shields, guards or attachments.
8. Approved personal protective equipment must be properly used where appropriate.
9. Persons using machine tools must not wear clothing, jewellery, laminate passes, wrist bands or long hair in such a way as might pose a risk to their or anyone else's safety.
8. Employees are prohibited from using any tool, vehicles or piece of equipment for any purpose other than its intended purpose.

WALKWAYS, STEPS AND STAGES

1. Walkways, passageways steps and stages must be kept clear from obstructions at all times.
2. If a walkway, passageway, steps or stage becomes wet it should be clearly marked with warning signs and / or covered with non-slip material.
3. Trailing cables are a trip hazard and should not be left in any walk or passageway.
4. The down stage edge of all stages must be clearly marked with a of two inch wide white strip of paint or white Gaffa tape, the Stage Manager should ensure this has been done.
5. In areas of low lighting (stage and backstage areas) any change in the floor elevation of any walkway or passageway must be clearly marked (white paint or Gaffa tape), the Stage Manager will ensure this has been done.
6. Where objects are stored in or around a passageway, care must be taken to ensure that no long or sharp edges jut out into the passageway or walkway in such a way as to constitute a safety hazard.
7. Where a passageway is being used by any vehicles or other moving machinery an alternative route should be used by pedestrians wherever possible. If no alternative route is possible the area should be clearly marked with warning signs and any additional precautions as may be required must be taken to ensure safety.



PLANT

The basic categories of lift truck in normal use are:

- Rough Terrain Counterbalance Lift Truck
- Telescopic Materials Handlers
- Industrial Counterbalance Lift Truck

The basic categories of Mobile Elevating Work Platform in normal use are:

- a) Boom type or Cherry Picker
- b) Scissor type or Flying Carpet

- Forklift trucks and other items of plant must only be used by authorised company personnel who are a minimum of 18 years old and hold the relevant national accredited and recognised certificate.
- Only authorised operators will be issued with keys. Keys must be removed and machines immobilised when left unattended.
- Under no circumstances will unauthorised persons operate lift trucks or plant.
- Operators will ensure capabilities of the machine are not exceeded.
- The plant ***must*** be inspected each day before use and the operator's inspection form must be filled in, any faults and defects must be reported immediately, the machine must not be used until all faults and defects have been rectified.
- Plant operators and any staff working in proximity to plant operations must use safety helmets, safety footwear and high visibility jackets.
- A "Safe Working Area" must always be established before work commences. Safety signage for plant workings must be erected and a speed limit of 5 mph must be in force; areas where plant is reversing should must taped off if practicable and be clear of all unnecessary personnel.
- Passengers must never be carried on vehicles or plant not designed to carry passengers nor shall forklift trucks be used to lift people unless a correct and suitable "man cage platform" is fitted.
- All relevant plant must be inspected and tested on a regular basis by the approved contractor and must meet the requirements of the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) where applicable, the current LOLER test/inspection certificate must be provided with the machine when it is hired, the certificate must remain with the machine. Operators must check this certificate is present together with the operators manual before use.
- All overhead obstructions including power cables must be identified before work starts and clearly marked, where necessary they must be fenced or shrouded.
- Loading is only be permitted onto structures or vehicles designed to accept such loads.

- Access to all loading/off-loading points must be level, suitable and clear of obstructions.
- Mobile plant such as forklift trucks must not be used in public areas once the public have been admitted to the site/venue.
- Attention must be given to terrain, load requirements, reach etc, when selecting lift trucks and plant for use.
- “Banksmen” must be used when and where required.
- During refuelling and maintenance operations you must wear any required protective clothing or equipment such gloves.
- The “flashing beacon” on lift trucks and plant must be used when the plant is in use.
- MEWPS must only be operated on firm level ground and any stabilisers fitted must be correctly used.
- Fall Arrest equipment will be used by operators of Boom Type (Cherry Picker) MEWPS.
- Do not climb out of a MEWP or attempt to over reach from the cage.
- At the end of the working day plant must be refuelled and left secure (forks flat on the ground, hand brake on and plant securely locked and immobilised). Keys must be handed in to the approved point.

Each category requires a separate operator’s certificate.

Only nationally approved certificates issued by the following organisations are accepted:

- Construction Skills (formally Construction Industry Training Board – CITB)
- Construction Plant Certification Scheme
- LANTRA National Training Organisation
- The Independent Training Standards Scheme and Register (ITSSAR) (the administrative arm of the Association of Industrial Truck Trainers)
- National Plant Operators Registration Scheme
- RTITB (formally Road Traffic Industry Training Board)
- International Powered Access Federation (IPAF)



NOISE

PA systems are not the only source of noise you will come across at work, power tools, plant (it is over 100dB (A) inside the cab of a rough terrain fork lift truck), vehicles etc. all produce high volumes that can permanently damage your hearing.

Where ever possible, keep away from noisy environments with high sound pressure levels, rotate your work if possible.

If this is not possible use ear protection, this must be used following the manufactures instructions and any information and training you may have been given.

Disposable Ear Plug fitting instructions.

Before fitting any ear plugs, make sure your hands are clean.

Hold the ear plug between your thumb and forefinger. Roll and compress the entire ear plug to a small, crease-free cylinder.



While still rolling, use your other hand to reach over your head and pull up and back on your outer ear. This straightens the ear canal, making way for a snug fit. Insert the ear plug and hold for 20 to 30 seconds. This allows the ear plug to expand and fill your ear canal.



Test the fit. In a noisy environment, and with earplugs inserted, cup both hands over your ears and release. You should not notice a significant difference in the noise level. If the noise seems to lessen when your hands are cupped over your ears, your ear plugs are probably not fitted properly. Remove and refit following instructions.



Always remove ear plugs slowly, twisting them to break the seal. If you remove them too quickly, you could damage your ear drum. Use plugs once only.



Ear defenders or muffs

If damaged or not fitted/worn correctly they should not be relied upon to protect hearing to the level required. Ensure a snug fit and seal with no hair that will break the seal.



CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH

No employee should use chemicals without the knowledge required to work with those chemicals safely.

CONTROLS

- Do not mix substances.
- Store in original labelled containers – away from children and food stuffs – in a cool dry ventilated locked cabinet.
- Do not swallow or inhale and avoid contact with skin or eyes.
- Do not dispose of substances, containers or aerosols into fires.
- Do not pour substances into drains or water courses.
- Avoid contact with heat, naked flame or sources of ignition.
- In case of contact with skin or eyes flush with copious amounts of water, remove contaminated clothing, rinse mouth with water – do not allow patient to drink – do not induce vomiting.
- Use in a well ventilated area.
- Clean up spillages immediately.
- Use PPE – rubber or latex gloves and eye protection.
- Only transport the minimum amount you really need of any substance.
- Always follow manufactures instructions.
- Wash your hands after using any substances.
- Do not eat, drink or smoke when handling substances.



WORK AT HEIGHT

All work at height must be properly planned, supervised and risk assessed.

Only those who are trained, fully equipped and authorised are permitted to climb and / or use access equipment. Permission to work at height must first be given by the person in charge (such as the Stage Manager) who will also ensure a safe working area and hard hat zones are established before work at height commences.

A safe place of work must be established and suitable PPE must be used including climbing helmets for all work at height. Suitable PPE will generally consist of a fall arrest harness, connectors, shock absorber and fall arrest lanyards.

Areas below aerial work activities to be cleared of all personnel as appropriate, those working below (out of necessity such as ground riggers) must not walk or stand below a climber working over head, they must also be equipped with helmets etc.

Stillages, flight cases and equipment must not be left under a climber in case of a fall.

A written rescue plan and rescue system must in place before work at height using fall arrest or rope access systems start.

No work at height will be carried out if environmental hazards jeopardise health and safety.

Do not borrow, loan or share fall arrest or rope access equipment.

Truck drivers etc must not be allowed to climb using truss ladders or use fall arrest equipment to access follow spot positions, they are not trained, insured or equipped for such activities and this may infringe on the permitted working hours for a driver.

You **MUST** inspect your fall arrest equipment each day before use.

Avoid mud, dirt, sharp edges and chemicals (such as battery acid) that can easily damage rope or webbing and other equipment. Store your equipment out of direct sun light that can damage ropes and webbing.

Before climbing, tie back long hair, remove any jewellery and empty your pockets.

Ensure any tools and equipment that you carry while climbing are on a lanyard so they can't fall if dropped.

During the climb, always maintain three points of contact i.e. one foot, two hands etc.

Work at height must be avoided if possible, working from the ground is preferable.



Access systems should be chosen following this hierarchy;

- 1) access stairs and protected gantry or walk ways;
- 2) access platform, MEWP (Mobile Elevating Work Platform) or Tallescope
- 3) rope access systems
- 4) ladders or steps;
- 5) climbing using fall arrest systems

Fall arrest is the “last resort” as the system is only protective and not preventative.

Ladders and Steps

- Only Class 1 Industrial Heavy Duty Ladders that are free from defect must be used.
- All ladders will be inspected by a competent person on at least an annual basis, “ladder tags” will be used to identify all ladders and record inspection information.
- Ladders must be secured at the top at each stile by lashing or proper clamps. If not practicable they can be staked at the base, footed or weighed down.
- Ladders must be pitched out to a 75° angle and must rise as least five rungs above a place of landing or secured alongside an upright handhold.
- Ladders and steps should be free from obstruction at the base area and should be pitched plumb, either with a levelling device or prepared base.
- Only one person at a time should be allowed on a ladder.
- Heavy materials or tools must not be carried – either ascending or descending ladders or steps.
- Ladders should be used only for access or light work of short duration.

LIFTING APPLIANCES, EQUIPMENT AND RIGGING

- All lifting operations must be planned and supervised by a competent person in accordance with the Lifting Operations Lifting Equipment Regulations 1998 and the Provision and Use of Work Equipment Regulations 1998.
- Lifting appliances will only be operated by competent and authorised personnel.
- Appropriate evidence of thorough examinations and or testing having been carried out in respect of all Lifting Appliances and Lifting Equipment must be available for inspection before use.
- Structures and ground surfaces from which Lifting Appliances will operate will be adequately constructed and prepared to ensure as far as practicable the stability of the appliance during use and monitored accordingly.
- Practical steps will be taken to prevent falling and spillages of materials.
- Where necessary barriers and fencing will be erected to protect operatives and other persons who may be affected by the rigging and lifting operations.
- Safe working loads and working load limits of appliances or equipment must not be exceeded.
- A competent person must be responsible to carry out inspections, through examinations and compilation of records as necessary.
- The venue must be provided with the “rigging plot” well in advance so it can be assessed to ensure the venue can support the proposed loadings.
- Sites must be checked for proximity hazards before use of any Lifting Appliances and necessary precautions taken in respect of signs, barriers etc.
- Risk Assessments will be prepared for all Rigging Operations.
- Where necessary a Method Statement will be prepared before any lifting operations are commenced.
- Where required, all points of rigging must have a secondary back up. Safety chains must be used on lamps and wherever else required.
- The *Lifting Operations and Lifting Equipment Regulations 1998* will be complied with in all respects.
- A written completion certificate must be completed for all rigging operations.

SPECIAL EFFECTS

Strobes

Strobe lighting can induce epilepsy in some extreme cases so to reduce the risk strobes must be operated in accordance with the guidance set out in the Event Safety Guide, A Guide to Health, Safety and Welfare at Music and Similar Events,

When strobe lights are used at venues, flicker rates should be kept at or below 4 flashes per second.

Below this rate it is estimated that only 5% of the flicker-sensitive population will be at risk of an attack. This flicker rate only applies to the overall output of any group of lights in direct view, but where more than one strobe light is used the flashes should be synchronised.

Everyone must be informed if strobes are to be used and warning signs must erected if necessary.

Ultraviolet light

Powerful ultraviolet light can sensitise exposed areas of the skin in very rare cases, if any member of staff experiences skin sensitisation they should remove themselves from the area of the ultraviolet light and seek medical aid.

Ultra violet lighting must be rigged at a minimum of 16ft. away from any person who may come into contact with it during use and only used when following manufacturers instructions and with a very high standard of safety and maintenance.

Ensure that lamps are used correctly to restrict exposure to ultraviolet radiation and in particular to UVB radiation. To remove UVB radiation, some lamps have a double skin whereas other manufacturers provide lamp housings, which have separate filters. Lamps should not be used if the outer skin is broken or if the housing filter is not in place.

Lasers

Lasers come into a special category, do not touch or tamper with laser equipment and do not look straight into the beam of the laser to avoid possible damage to eyes, keep a safe distance to avoid burns.



Xenon Lamps and HMI Lamp Systems

Gauntlets covering wrist arteries, and a full face visor covering neck arteries should be worn while handling the lamps. Xenon and HMI lamps of 5 kW and 7 kW are pressurised to about 8 bar when cold and around 30 bar when hot and so a lamp burst is possible with the resultant danger from flying glass. When the lamp is being installed, people should vacate the vicinity until the projector housing is closed. It is not advisable to carry out this operation with the audience present.

The arc of xenon and HMI lamps are very bright and housings are designed so that the arc cannot be viewed directly by the operator.

Care should be taken that people are not put at risk by 'blinding' them with the light, especially if they are moving around in otherwise dark environments (e.g. while entering or leaving a venue).

Smoke, Vapour and Fog Effects

Employees must follow the same basic safety rules that apply to all types of smoke machine;

- The machine must be in a fixed position and adequately protected from interference, some machines can get very hot during use.
- A competent operator should be with the machine.
- All machines must be used in accordance with the manufactures instructions
- Fans may be used to direct the smoke or vapour but care must be taken to prevent the spread of smoke or vapour into public areas, this may cause an audience to panic.
- Smoke and vapour must not be discharged or allowed to drift into exits, stairways, escape routes, or be allowed to obscure exit signs or fire protection equipment. Some fluids, cracked oil in particular, leave a deposit on stage which can prove a dangerous slip hazard.

If fire or smoke detection equipment is fitted within a venue special care must be taken, some venues and Entertainment Licence conditions do not allow the use of smoke or fog machines because of these detectors. If they are in use the amount of smoke or fog must be restricted to prevent these detectors operating. On no account must employees try to prevent smoke detectors operating by covering them, over riding or switching them off.

Some smoke fluids are known to cause discomfort to those who suffer from smoke allergy or asthma, avoid the use of such fluids where possible.

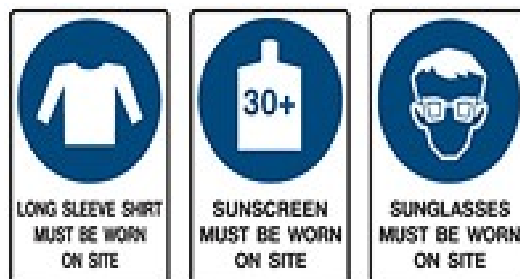
WEATHER

Bad weather can make conditions on site and on roads very dangerous, rain, wind and mud being the three worst factors.

The temptation to rush jobs or skimp on safety matters must be resisted and even more care must be taken with electrical safety. Vehicles and equipment may get stuck in mud and need to be towed out, if this is the case stewards must be used to keep onlookers at a safe distance and only chains or tow ropes used that are well with in the safe working loads, the use of temporary road way should be considered. Forklift trucks must never be used for towing other vehicles.

Extra care must be taken with vehicles, plant and machinery to prevent slipping and skidding in wet and muddy conditions. Staff must attend for work with suitable warm and waterproof clothing and footwear in cold and/or wet weather and suitable sun block (Factor 15 or above) and covering for the skin to prevent burning or sun stroke in hot sunny weather.

Long term exposure to the sun will speed up ageing of the skin and increases the chance of skin cancer in later life, staff are advised to keep there tops on and wear a wide brimmed hat to protect the head, face and neck from the suns harmful ultraviolet rays. In hot weather staff should drink plenty of liquid but not alcohol. Try to avoid working in the sun, rotate work operations to avoid the sun. Working in the sun can be very stressful and judgement can be impaired with the onset of even minor heat exhaustion. Seek prompt medical advice if you think you have a skin problem.



GREEN FIELD SITES

Green field sites contain a number of additional hazards not encountered elsewhere, these include Lime Disease, Ring Worm, Tetanus and Leptospirosis (also known as Weils Disease).

Where ever possible employees should keep away from hedges and fences to avoid cuts, scratches, thorns, brambles and barbed wire.

Any person who suffers a wound from one these sources should seek medical assistance and advice as these wounds can be contaminated by Tetanus.

The soil on outdoor sites is likely to be contaminated by animals with Tetanus.

Employees should cover all broken skin with waterproof plasters before starting work and wear P.P.E. such as gloves. Wash your hands after work and always before eating, drinking or smoking.

Employees are advised to keep up to date with anti-tetanus vaccinations from there G.P. and to have all cuts obtained on outdoor sites examined by a Doctor.

Employees must not climb trees, walls or other objects and structures on outdoor sites unless the structure has been specifically installed and designed to be climbed and all safety precautions and procedures are strictly followed.

Wherever possible employees should stay clear of ponds, lakes, streams, rivers, ditches, pools and puddles and never wash hands in such bodies of water as they may contain a bacteria infection known as Leptospirosis. This disease is carried by rats and cattle in their urine.

This is a serious and sometimes fatal infection that can enter the body through small cuts and scratches and through the lining of the mouth throat and eyes after contact with infected water and urine, it may also contaminate cattle feed stuffs on farms. All sightings of rats should be reported.

Employees should cover all broken skin with waterproof plasters before starting work and wear P.P.E. such as gloves, Wellington boots and barrier cream, this is especially important when collecting in equipment (particularly cables) after a show that may have become contaminated with sewage, vomit or urine (Human or animal). Wash your hands after work (with soap, water and antiseptic) and always before eating, drinking or smoking. Try to avoid involuntarily actions such as rubbing the face, nose, mouth or eyes.

If any employee suspects they may have been in contact with Leptospirosis, especially if they develop a flu -like illness and severe headache they should report to a Doctor as soon as possible and state that you suspect you may have contacted Leptospirosis. If treated promptly, Leptospirosis is much less severe.

EMERGENCY EVACUATION PROCEDURES

In the event of the fire alarm being activated, or in any other emergency situation (such as a bomb scare or gas leak), all employees must leave the building or venue by the nearest available exit and assemble at the designated assembly point.

Upon arrival at a new or unfamiliar work place staff should make themselves familiar with the position of all emergency exit doors/routes, fire fighting equipment such as extinguishers, fire blankets, the means of raising the alarm and the designated assembly point.

Fire Procedures

1) If you discover a fire, however small, call the fire brigade by: -

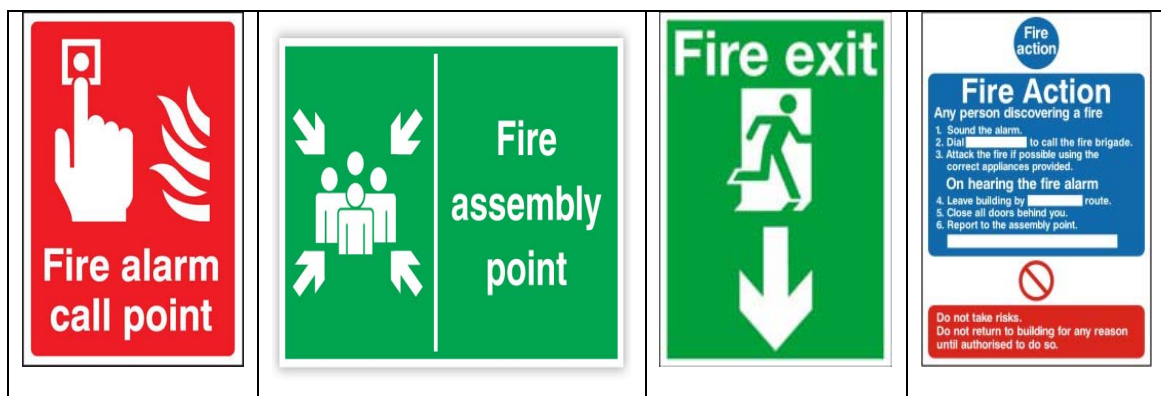
- Telephone – Dial 999 or 112
- give the operator your telephone number and ask for the fire brigade.
- When the brigade replies give the call distinctly;
- **“FIRE AT (GIVE NAME AND ADDRESS OF VENUE OR PREMISES)”**

2) The premises will be evacuated by stewards or members of staff.

Act calmly and leave the building or venue by using the nearest available exit. Do not wait to collect personal belongings. If it is safe to do so, close windows and doors and turn off equipment.

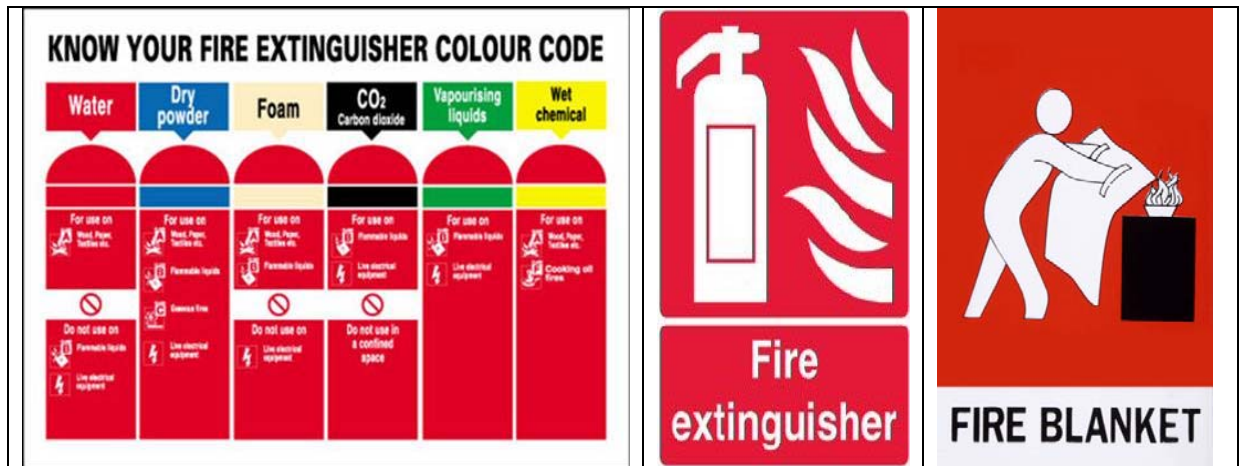
Go to the Fire Assembly Point if there is one designated, if not remain outside at a safe distance.

3) NO ONE SHOULD RE-ENTER THE PREMISES UNTIL TOLD BY A FIRE BRIGADE OFFICER THAT IT IS SAFE TO DO SO.



TACKLING A FIRE

Your first priority is to raise the alarm before attempting to tackle a fire. Only tackle a fire if it is safe to do so, ensure that you always have a clear escape route, if you can't put the fire out with one extinguisher then **do not** make a further attempt with another extinguisher – leave it to the professionals.



Make sure you know the correct extinguisher to use!

FIRST AID, ACCIDENTS AND ACCIDENT REPORTING

Ensure you know the location of first aiders and first aid equipment where you are working. Learn first aid.

All accidents and “near hits” no matter how trivial must be reported in your employers Accident Book, you may also be required to fill in the venue, promoters or production company accident book.

If you are making a report but did not see the incident only state what you actually saw, for instance if a work mate falls off a chair when changing a light bulb but you did not see him or her fall you will report as follows: “Fred **said** he fell off a chair when changing a light bulb”.

Major Injuries

If there is an accident connected with work and a member of staff or self-employed person working sustains a major injury, or a member of the public suffers an injury and is taken to hospital from the site of the accident, you must notify your employer who will make a report under the Reporting of Incidents, Diseases and Dangerous Occurrence Regulations 1995.

All accidents must be immediately be notified to your employer. You may also be required to fill in the Promoters or Venues Accident Book if asked as well as your employers Accident Book.

Reportable Major Injuries are:

- Fracture, other than to fingers, thumbs and toes;
- Amputation;
- Dislocation of the shoulder, hip, knee or spine;
- Loss of sight (temporary or permanent);
- Chemical or hot metal burn to the eye or any penetrating injury to the eye;
- Injury resulting from an electric shock or electrical burn leading to unconsciousness, or requiring resuscitation or admittance to hospital for more than 24 hours;
- Any other injury: leading to hypothermia, heat-induced illness or unconsciousness; or requiring resuscitation; or requiring admittance to hospital for more than 24 hours;
- Unconsciousness caused by asphyxia or exposure to harmful substance or biological agent;
- Acute illness requiring medical treatment, or loss of consciousness arising from absorption of any substance by inhalation, ingestion or through the skin;
- Acute illness requiring medical treatment where there is reason to believe that this resulted from exposure to a biological agent or its toxins or infected material.

Reportable Over Three Day Injuries

If there is an accident connected with work (including an act of physical violence) and an employee, or a self-employed person suffers an over-three-day injury then it must be reported by the employer to the enforcing authority within ten days. An over-3-day injury is one which is not "major" but results in the injured person being away from work OR unable to do the full range of their normal duties for more than three days.



STAGESAFE

Health and Safety Consultants and Training Services to the Live Music and Events Industries

WE PROVIDE

- **Safety Consultancy**
- **Licence Application and Coordination**
- **Event Safety Officers**
- **PSA Safety Passport Training**
- **Risk Assessments**
- **Safety Documentation**
(Policies, Safe Systems of Work etc)
- **Fire Safety Training**
- **Induction Training**
- **Customised Training**
- **Office Safety Training**
- **Major Incident & Contingency Planning**
- **ELT Coordination and Liaison**
- **Work at Height Awareness Training**
- **Contractor Assessment and Management**

For further details please visit our web site

www.stagesafe.co.uk

info@stagesafe.co.uk

TEL: 01458 445186 MOBILE: 07831 437062

STAGESAFE

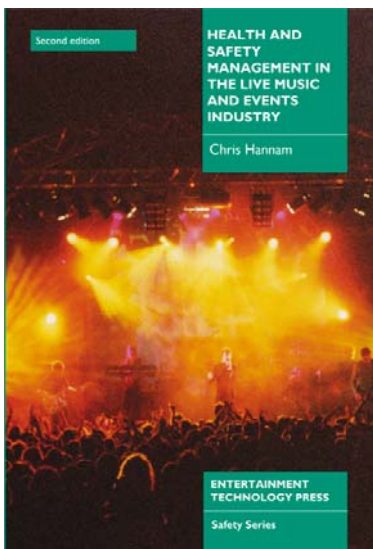
For all your health and safety needs!

©STAGESAFE 2011,
www.stagesafe.co.uk 07831 437062

Health and Safety Management in the Live Music and Events Industry

By Chris Hannam of **STAGESAFE**

Now available from **Entertainment Technology Press Ltd**
The Studio, High Green, Great Shelford, Cambridge, CB22 5EG UK
Telephone: 01223 550805 Fax: 01223 550806
www.etbooks.co.uk



First published in October 2004, Chris Hannam's major work on Health and Safety Management in the live music and events sector has been substantially revised. The title covers applications regarding all aspects of staging live entertainment events, and is an invaluable manual for managers and event organisers.

The book includes well thought-out and easy to understand sections on Risk Assessment and Safety Method Statements, Effective Health and Safety Policy, Selection of Personnel, Crowd Management, Communications, Performance Management, Environmental Safety to name but a few, as well as comprehensive chapters on all of the legal frameworks for Machinery, Fire Safety, Work Equipment, Employers Liability, Occupiers Liability, Accident Reporting and RIDDOR, PPE, Working at Height, LOLER, Special Effects, Temporary

Structures, First Aid, Traffic Management, COSHH, Working Time Regulations and many more, this text covers all of the HSE and non-HSE publications in a well-managed and logical handbook.

Reviewing the second edition for Entertainment Technology magazine, John-Paul Greenock says: "Chris Hannam's book is an essential text for anyone who works within the Live Production Industry and should be the standard guide for promotion via our trade bodies. It dovetails effortlessly with the Event Safety Guide (Purple Guide) and sits effectively alongside the long awaited Safety Passport Scheme run under the Production Services Association.

Chris, a leading provider of the scheme in the UK, initially introduced the idea of Safety Passports to the PSA, and subsequently developed the course as part of a safety passport working group.

"I am pleased to have re-discovered, and thoroughly recommend Health and Safety Management in the Live Music and Events Industry, by one of the world's leading industry experts."