

**TOOL BOX TALKS**

**THE  
EMERSON  
GROUP**

## USING THIS MANUAL

### Introduction

The development and maintenance of a safe working culture can only be effective if everyone is included and actively involved. The use of “toolbox talks” is an invaluable means of involving those most at risk, the employees, sub-contractors and self-employed, without incurring any significant time or financial penalty.

Thus the Construction Employers Federation have produced this “Toolbox Talks Manual” to assist companies, and in particular the likes of contracts managers, site managers, foremen, chargehands, etc, in implementing an efficient system of conducting regular toolbox talks with minimum effort, whilst hopefully achieving maximum gain.

### Format

Whilst a standard format has been adopted throughout the toolbox talks contained in the manual, there remains considerable flexibility enabling users to adapt the content to their specific requirement.

The standard format used comprises the following:

- (a) A Talk Number and Title: Purely for reference purposes.
- (b) An introduction: A few lines that can be used to introduce the particular talk, most including why it is important.
- (c) Main points: Three to five primary points that it is recommended are included in the toolbox talk.
- (d) Discussion points: A list of other points to choose from. All can be covered and the format used like a script if required, or particularly relevant points can be selected. The site scale, activities and available time may determine the best option.
- (e) A quote: Each toolbox talk ends with a quick quote by way of summary. In the main, these are deliberately “catchy” in the hope that they will be remembered.
- (f) Notes: There is a space for individual notes, which can include specific site conditions and activities, site rules, company policy points, etc, as required.
- (g) The flip side of each toolbox talk has deliberately been left blank to allow for the inclusion of pictures if required. This will depend on individual approaches and requirements, but possibilities worth considering might include photographs of the effects of industrial dermatitis, good or bad scaffold, or types of fire extinguisher (though the latter may be better demonstrated by having the actual site fire extinguishers present!).

### Frequency

Again, this will depend upon individual requirements and approaches, and also on the site conditions. On larger sites it may be necessary to give the same toolbox talk several times in order to ensure all sub-contractors etc, are addressed, or it may be more practicable to give the same toolbox talk at different locations on site, ie a different floor/level each day. On smaller sites, it may be simple enough to address all site personnel at once.

Whilst there is no set frequency or method, it is recommended that companies aim to give a toolbox talk to every employee, sub-contractor and self-employed person once a week. Ideally, where practicable, this should be implemented as a set routine, ie every Wednesday morning starts with a 10-15 minute toolbox talk.

## **The Emerson Group TOOL BOX TALKS**

### **Which talks?**

Included in the manual are toolbox talks covering most construction site activities, and there are sufficient, allowing for holidays etc, to give a different one each week for a year. Thus, if suitable, users can simply work their way through the manual for a year, and then start again! Alternatively, users can select talks based upon primary company or site activity, or maybe on areas of concern. Additional toolbox talks can also be added as and when required.

### **Summary**

Toolbox talks provide a convenient and effective method of communicating and reinforcing the safety message throughout the workforce, and, used properly, can significantly enhance the development of a safe working culture.

The cost of implementing a regular toolbox talk system is minimal, 10-15 minutes a week! The benefits will include greater awareness, with the potential to reduce accident rates, and possibly even save a life.

**The question is not “can you be bothered?” - it’s “can you afford not to be?”**

**The Emerson Group TOOL BOX TALKS**

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**NOTE**

**These toolbox talks are provided purely for use as an aid in promoting safety awareness in construction. They are not a substitute for the statutory regulations and may not address all the safety issues on a specific site.**

<b>Talk No:</b> 1	<b>Title:</b> EMPLOYEE'S DUTIES
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**Introduction:** Under Health and Safety legislation all have duties, including employees. You cannot comply with your duties unless you understand them, and a safe working environment cannot be properly maintained without employee co-operation.

**Main points:**

There are three main employee responsibilities:

- To co-operate with employers to help them comply with their legal duties, ie following safety procedures, site rules, etc
- Not to interfere with or misuse anything provided for health and safety, ie discharging fire extinguishers, wilful abuse of PPE, etc
- To safeguard your own safety and that of others, including the public, who may be affected by your actions, ie by reporting or eliminating any hazards seen.

**Discussion points:**

- Importantly these duties are not confined to your specific activity or area, but to all site activities.
- Do not hesitate to tackle colleagues, or report to line management, wherever any unsafe activity, procedure or equipment is seen or suspected.
- Employ the "buddy buddy" system and look after your workmates as well as yourself.
- Site managers/foremen can only cover a limited area – employee awareness and assistance is vital if site health and safety is to be effectively maintained.
- Employees are the most likeliest to be injured.
- These duties include the wearing of provided PPE.

**SAFETY IS EVERYONE'S BUSINESS – ESPECIALLY YOURS!**

**Notes:**

## The Emerson Group TOOL BOX TALKS

<b>Talk No:</b> 2	<b>Title:</b> SITE HOUSEKEEPING
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**Introduction:** The Construction (Health, Safety & Welfare) Regulations require that sites be maintained in good order. Poor housekeeping is a common, but easily preventable, cause of accidents.

### **Main points:**

There should be a place for everything, and everything should be in its place.

Do not rely on others to clean up – they won't.

Put tools away when not in use, as well as reducing a trip hazard it will keep them safe.

If working with oils/lubricants then have some means of cleaning up any spillages at hand.

Suspend power/light cables where practicable. Where not practicable avoid trailing them across walkways if possible.

### **Discussion points:**

Remove all nails from dismantled/unused timber – where not possible then hammer flat.

Stack both stores and waste neatly – ensure that walkways/escape routes are not obstructed.

Clean up waste as it is created; small waste can be bagged, larger waste stacked and then skipped as soon as is practicable.

Use racks when storing lengths of pipe or timber. Where pallets are used then do not stack too high.

If working at height then loose objects must not be left on walkways, platforms, etc, where they could fall and injure persons below.

Beware muddy sites - these will greatly increase risk of slips. Keep footwear as clean as is reasonably practicable; ensure loose mud is removed prior to climbing ladders, etc.

Try and allocate a set period each day to general housekeeping (possibly at the end of the day?)

**IF YOU THINK AND ACT SAFELY,  
THE NEXT LIFE YOU SAVE COULD BE YOURS!**

### **Notes:**

<b>Talk No:</b> 3	<b>Title:</b> CLOTHING
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**Introduction:** Suitable and sensible clothing is a pre-requisite of site safety and can provide effective protection against a wide range of hazards.

**Main points:**

- Wear head protection – it can save your life!
- Wear safety shoes/boots that provide protection to your toes and to the soles of your feet.
- Wear gloves where there is any risk to your hands.
- Wear hi-visibility clothing/vests – be seen.
- Keep clothing reasonably clean to protect against dermatitis, fire, etc.
- Avoid loose clothing – especially loose ends that can get in machinery, etc.

**Discussion points:**

- Skin cancer is deadly – keep skin covered when working in sunny conditions.
- Avoid exposed skin when working with substances such as cement, tar, insulation, etc.
- If clothing you are wearing becomes contaminated then remove it and get it washed.
- If working with hazardous substances consider use of suitable coveralls.
- Wear any PPE provided, and look after it so that it can look after you.
- Consider fire hazards: cotton burns easier than wool; is fire retardant clothing required?
- Jewellery, including rings, chains, etc, can be hazardous near machinery and when working on plant – consider taking off or taping up (also reduces wear and tear).
- Always dress properly, even for short jobs, and be prepared to swap or add clothing as required for specific tasks.

**DRESSING SAFELY ISN'T BEING SILLY – IT'S BEING SENSIBLE**

**Notes:**

<b>Talk No:</b> 4	<b>Title:</b> EYE PROTECTION
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**Introduction:** It only takes a small fragment or splinter to cause irreparable damage to the eye, but most risks can be significantly reduced, if not eliminated, by simply wearing suitable eye protection.

**Main points:**

You have a legal obligation to use eye protection provided in accordance with the regulations, and you should never enter an area where eye protection is required unless wearing such.  
Ensure eye protection provided fits you comfortably and is suitable for the job.  
Look after any eye protection provided. Keep them clean and report any damaged, lost or unserviceable eye protection immediately.

**Discussion points:**

Even if not carrying out a task with an obvious eye hazard, you may be at risk from others nearby. Always have your eye protection with you and if any doubt – wear it!  
Eye protection only works when worn over the eyes – it is useless worn over the head or around the neck.  
Never watch any welding processes unless wearing suitable eye protection.  
Should you get something in your eye, or receive any sort of eye injury, then get a trained first aider to look at it.  
Always consider eye protection when compressed air, hazardous substances, cartridge-fired tools, power tools, power washers, hand tools such as chisels, etc, are in use.

**EYE PROTECTION IS REPLACEABLE – EYES ARE NOT!**

**Notes:**

<b>Talk No:</b> 5	<b>Title:</b> EAR PROTECTION
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**Introduction:** Noise induced hearing loss is the most common occupational health hazard there is, and it is incurable. Once you're deaf, you stay deaf.

**Main points:**

Compressors, concrete mixers, circular saws, breakers, etc, can all damage your hearing. You do not have to be using noisy equipment to be affected by it, just be in the vicinity. If you have to shout to be heard then the noise level can be regarded as high enough to warrant the wearing of ear protection.

**Discussion points:**

Wear ear protection at all times when exposed to a noise hazard (obey noise hazard warning signs).  
Wear proper ear protection and wear it properly (ie cotton wool is no good for ear protection and ear muffs are no good worn over a balaclava).  
If ear plugs are used ensure they are a good fit, are fitted properly, and are kept clean.  
Use disposable ear plugs only the once.  
Keep reusable ear plugs clean.  
Ear muffs must be a good fit, particularly where the seal fits the head, and must be worn the correct way around.  
Ensure hands are clean when handling all types of ear protection, and store ear protection in a clean environment.  
Do not alter pressure of ear defenders by bending the band.  
Report any damaged, lost or unserviceable ear protection immediately.  
Consider options for reducing noise in the workplace, ie turn off unused machinery, keep cement mixer and compressor covers closed, ensure air lines do not leak, fit mufflers to tools where applicable, move noise source away, shield noise source, etc.

**YOU COULD PAY THE PRICE FOR GETTING IT WRONG  
FOR THE REST OF YOUR LIFE!**

**Notes:**

<b>Talk No:</b> 6	<b>Title:</b> SKIN PROTECTION
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**Introduction:** Occupational dermatitis is a common health problem within the construction industry. Potential causes include cement, pitch, tar, paints, varnishes, brick, stone and plaster dust, mineral oils, organic solvents, thinners, petrol, and white spirit, to name but a few.

It most commonly affects the hands, forearms and legs, but in dust, mist and/or fume form it can also affect the face, neck or chest, etc, (any exposed area of the body). Some types of dermatitis, if untreated, can result in cancer.

**Main points:**

- Look for the hazard warning signs on substance containers.
- Avoid contact with potential causes so far as is reasonably practicable, where contact is unavoidable wear suitable PPE.
- Report any rashes, warts and/or skin complaints to the site manager, nurse or family doctor as soon as possible.

**Discussion points:**

- Get first aid for any cuts and grazes and keep them covered.
- Keep your workplace clean.
- Keep your skin clean and use after wash cream.
- Use barrier creams where appropriate.
- Don't use abrasives or solvents to clean your skin.
- Don't wear oil contaminated clothes next to your skin.
- Don't let synthetic resins or glue harden on your skin.
- Don't work with irritant/allergic substances if you suffer from eczema or allergic rashes.
- Regularly inspect your skin for any possible signs – if in any doubt seek advice from a professional.

**THE PURPOSE OF THE SKIN IS TO  
KEEP THE OUTSIDE OUT AND THE INSIDE IN**

**Notes:**

<b>Talk No:</b> 7	<b>Title:</b> SUBSTANCE ABUSE
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**Introduction:** Substance abuse includes alcohol and/or drugs. In a high risk industry such as ours, drink/drugs and work don't mix; both impact on brain function reducing levels of awareness and alertness, and slowing down reaction times.

**Main points:**

If you are suspected of being under the influence of drink or drugs at work you will sent off site and face the possibility of disciplinary action.  
Ultimately you could lose your job, and a reputation of having a drink/drug problem could make finding other employment difficult.  
Those under the influence of drink or drugs are not only a risk to themselves but to every employee on site – do not let them put you at risk.

**Discussion points:**

Don't get drunk the night before and expect to work safely on site the next day. Alcohol takes time to work its way out of the system. As a rough guide a single unit of alcohol (a single spirit or glass of wine, or ½ a pint of beer) will take one hour to leave your body.  
Be aware of the signs of drug use which include watery eyes, pin-point or dilated pupils, running nose, constant sniffing, tight lips, sores, ulcers, trembling, fatigue and irritability. If you see such signs then report it and help eliminate a serious risk – ignore it and it could be you that gets hurt!  
Be aware of prescribed drugs as well as illegal drugs. Some prescribed drugs can cause drowsiness, etc – be responsible. If you are on prescribed drugs advise your site manager.  
Confine your drinking to social occasions where there is suitable recovery time, and if offered drugs just say "no!". As well as creating a risk in the workplace, drink and drug abuse will damage your body.

**35% OF ALL FATAL ACCIDENTS ARE RELATED TO DRINK/DRUG ABUSE  
– DON'T BECOME A STATISTIC!**

**Notes:**

<b>Talk No:</b> 8	<b>Title:</b> WORKING AT HEIGHTS
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**Introduction:** Falling from height is the major cause of fatalities in the construction industry. More than half of falls from a height of over 2 metres result in death or serious injury. All such deaths and serious injuries are preventable.

**Main points:**

Can work at height be avoided and the risk eliminated?  
Plan work at height to include safe access/egress, edge protection (for people and materials), PPE and suitable training as applicable.  
Any work above 2m requires guard-rails, intermediate guard-rails and toe-boards to be fitted.  
Where impracticable to fit guard-rails, intermediate guard-rails and toe-boards (short duration) then personal suspension equipment/fall arrest equipment must be utilised as required.

**Discussion points:**

If roof work is involved identify any fragile areas and/or openings and implement suitable protective precautions.  
Access ladders must be secured and extend sufficiently beyond working platforms to allow for safe access/egress.  
Where access ladders run for more than 9m then suitable intermediate platforms must be provided.  
Consider weather conditions – wet, windy and/or icy conditions can have a serious impact on safety at height.  
Ensure operatives are suitably trained and physically capable for tasks being undertaken.  
If guard-rails, fragile surface covers, void protections, etc, are removed for any reason then they must be replaced as soon as possible, and in the interim should be physically guarded.  
Use crawling boards/roof ladders where applicable.

**IT'S NOT THE FALLING THAT HURTS – IT'S THE LANDING!**

**Notes:**

<b>Talk No:</b> 9	<b>Title:</b> SCAFFOLDING
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**Introduction:** Falls of both persons and objects from scaffolding are a major cause of accidents in the construction industry, and in some cases the scaffold itself falls! All are preventable.

**Main points:**

Scaffolding must be planned according to requirements including loads, platforms, safe passage, access/egress, etc.  
 Scaffolding should only be erected, adjusted and dismantled by, or under the supervision of, a competent (properly trained) person.  
 Scaffolding must be maintained and this is the responsibility of all employees. Do not tamper with scaffolding and report any faults or concerns immediately.

**Discussion points:**

Safe access/egress must be provided, which will normally comprise ladders. These must be secured and extend sufficiently beyond platforms for safe mounting/dismounting. On no account should employees be climbing scaffold.  
 Scaffold platforms must be fully planked out where practicable, and should provide a passage for people of at least 600mm in width.  
 Where stores are stacked on scaffold platforms then consider load weights, ensure 600mm passage is maintained, do not stack materials too high, and stack near standards as opposed to centre of bays.  
 Over 2m in height then guard-rails, intermediate guard-rails and toe-boards are required. Where guard-rails are removed to facilitate loading they must be replaced immediately – consider purpose built loading bays.  
 Scaffolding must be suitably tied to structures. On no account remove ties – get a scaffolder to do it.  
 Do not use incomplete or unsafe scaffolding – report it and get it signposted prohibiting use.  
 Scaffolding should be formally inspected after initial erection, after significant alteration, after any destabilising event, and at least once every 7 days. The findings should be recorded.

**A HANGMANS NOOSE IS SUPPORTED BY A SCAFFOLD  
 – ENSURE YOUR SCAFFOLDING ISN'T AS LETHAL!**

**Notes:**

<b>Talk No:</b> 10	<b>Title:</b> MOBILE TOWER SCAFFOLDS
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**Introduction:** Mobile tower scaffolds provide a very useful and efficient working platform for numerous tasks when used properly. When misused, they provide a means of serious injury to both users and other employees.

**Main points:**

Plan use of mobile tower scaffolds. Ensure SWL's are sufficient, that manufacturers guidelines are complied with, and that a competent person is available to erect, adjust and dismantle.

Check all mobile tower scaffolds prior to use; check general condition, check brakes/locking devices are working, check free rotation of wheels, check all bracings are in place, check for suitable access/egress and for suitable platform.

Where height exceeds 2m then guard-rails, intermediate guard-rails and toe-boards must be fitted (note this is a minimum requirement – recommended that they be fitted regardless of height).

**Discussion points:**

Check manufacturers guide for base to height ratio. General rule is that the height should not exceed 3 times the narrowest base width, ie where narrowest base width equals 1.5m, height should not exceed 4.5m. (Note: this can be extended by use of outriggers.)

Mobile tower scaffolds should only be used on level, firm surfaces. If surface is soft or not level then should only be used where adequate support is provided.

Wheels should be locked whenever the tower is in use.

Only integral ladders should be used – on no account rest ladders against outside, or use ladders off of mobile tower platforms.

Ensure all persons and materials are removed from mobile tower scaffolds prior to moving, move by pushing at the base, avoid potholes/uneven surfaces, and beware of overhead obstructions – especially power lines!

Mobile tower platforms should be fully boarded out where practicable - must be a minimum of 600mm wide.

Consider tying the tower to structures where applicable.

**MOBILE TOWER SCAFFOLDS ARE AN ASSET – NOT A SHORTCUT.  
NO JOB IS SO URGENT THAT IT CAN'T BE DONE SAFELY!**

**Notes:**

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<b>Talk No:</b> 11	<b>Title:</b> LADDER USE
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**Introduction:** Ladders are one of the most used, and abused, pieces of equipment on a construction site. When abused and misused, they have enormous potential to cause accidents and injuries.

**Main points:**

Ladders are essentially a means of access/egress and should only be used as working platforms for very short duration tasks, where alternative platforms would be impracticable, and where such tasks can be carried out safely using a ladder. Only industrial class ladders should be used, which are in good condition (no missing/broken rungs, split stiles, etc). Ladders must be suitable angled (1 unit out for every 4 units up) and suitably secured (preferably tied off at the top using both stiles to prevent both sideways slip and rotation).

**Discussion points:**

Ladders must extend sufficiently beyond working platforms to allow for safe access/egress.  
Ladders must not be painted (this hides defects), should be stored correctly, and be subject to regular inspection.  
Never take serviceability for granted, always carry out a visual check prior to use. Report any defects immediately.  
Never carry out home made repairs on a ladder, and never use a ladder with existing home made repairs, and never use a home made ladder!  
Always stand ladders on a firm base. Never use milk crates, oil drums, etc., to gain extra height, and if ground is soft use suitable support. Consider staking at bottom.  
Never use rungs as a support for planks, or rest rungs on planks.  
Remove excessive mud, grease, etc., from footwear prior to climbing/descending a ladder.  
Always use both hands to climb/descend, and face the ladder.  
Do not carry loads up ladders – use hoists or alternatives.  
Never over reach from ladders – get down and move them.  
Avoid using metal ladders against metal surfaces – the reduced friction makes them more liable to slipping.  
Beware of overhead obstructions, especially overhead power lines (metal ladders/metal reinforcements).

**SILLY PEOPLE TAKE CHANCES – SENSIBLE PEOPLE TAKE PRECAUTIONS**

**Notes:**

<b>Talk No:</b> 12	<b>Title:</b> WORKING PLATFORMS
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**Introduction:** Working platforms can comprise of almost anything used to achieve your task. Primary examples include trestle platforms and stepladders, both of which are potentially hazardous if not used properly and safely.

**Main points:**

Trestle platforms, stepladders, etc, should generally only be used for light, short-term work. Consider alternatives if this description doesn't apply.  
Only equipment designed for use as working platforms should be used as such. Makeshift platforms are generally unsafe and unnecessary.  
The minimum width of any working platform should be 600mm.  
Where 2m in height is reached then guard-rails, intermediate guard-rails and toe-boards must be fitted.

**Discussion points:**

Ensure the surface upon which a working platform is to be erected is suitable, ie level and firm.  
Consider access to the working platform.  
Never "piggy back" trestle platforms.  
Only case hardened pins should be used in trestle bearers – not nails, brick ties, etc.  
Never balance trestles, stepladders etc, on breeze blocks, oil drums etc, to gain extra height.  
Do not use trestles, stepladders etc, on scaffolding, tower scaffolds etc, to gain extra height.  
When using stepladders check the rungs, stiles, hinges, and restraining ropes/chains prior to use – if defective then take out of service and report it.  
Stepladder rungs must not be used to support boards and create working platforms.  
Do not over reach when working from stepladders – get down and move them!  
Never use working platforms such as stepladders and trestles near to exposed leading edges, voids, risers, lift shafts, etc.  
Do not work more than two thirds of the way up a stepladder (remember handholds), and ensure they are fully extended prior to mounting.

**CATS MAY HAVE NINE LIVES – YOU HAVE ONLY ONE!**

**Notes:**

<b>Talk No:</b> 13	<b>Title:</b> ROOF WORK
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**Introduction:** Roof work is inherently hazardous and results in a significant number of serious accidents every year. Don't become a statistic.

**Main points:**

Is it necessary to actually go on the roof? Are there alternatives such as tower scaffolds, mobile elevated work platforms (MEWPs), etc?  
 A risk assessment should be carried out for every roof to be worked on.  
 Only suitably trained operatives should be permitted to work on roofs.

**Discussion points:**

A safe method of work must be agreed prior to any roof work commencing.  
 Consider methods of access/egress – these must be safe.  
 Suitable and sufficient edge protection must be provided to prevent falls of both persons and materials (scaffolding, guard-rails, etc) – physical protection!  
 Hazard tape, rope etc, can only be used where employees are not going to go within 2m of a leading edge, opening, etc.  
 Identify all openings and securely guard or cover them.  
 Suitable crawling boards and roof ladders must be provided for sloping and/or fragile roofs (unless suitable battening is to be used).  
 Where crawling boards are to be used for access/egress or used near leading edges/openings then guard-rails, intermediate guard-rails and toe-boards must be fitted.  
 Where it is impractical to provide edge protection then safety harnesses must be worn and suitable anchor points utilised.  
 Always consider the weather – wet, windy and/or icy conditions can seriously impact on roof work.  
 Consider how you are going to get stores up (hoists, etc) and waste down (rubbish chutes, etc).  
 Consider recovery procedures in the event of an accident, ie a person hanging from a safety line, getting a casualty down from the roof etc.

**PREVENTING AN ACCIDENT IS ALWAYS POSSIBLE  
 – REPAIRING A BROKEN BODY ISN'T!**

**Notes:**

Talk No: 14	Title: USE OF HOISTS
<p><b>Introduction:</b> Hoists are an excellent accessory when used properly. If misused, they can be extremely dangerous.</p>	
<p><b>Main points:</b></p> <p>The erection, alteration and dismantling of hoists should be carried out only by suitably trained and qualified personnel. Hoists must be clearly marked denoting whether they are for personnel or materials use, or for both, and with the Safe Working Load (SWL). Hoists should be operated only by suitably trained and competent personnel.</p> <p><b>Discussion points:</b></p> <p>Hoist towers must be suitably tied to the hoist structure. Passenger hoists must be fitted with interlocking gates at each landing space, and all gates must be kept closed when the hoist is in operation. Hoist design and construction should prevent the fall of any materials from any platform or cage. Hoists must be fitted with a braking device that operates in the event of a lifting gear failure. Such braking devices must be re-tested following any significant adjustment or alteration to the hoist. Personnel must never travel in hoists designed for material loads, and material loads must never exceed SWL's. Hoists must be subject to periodic thorough examinations by competent persons (in the case of personnel hoists this is at least every 6 months). A system of local interim inspections should also carried out on a regular basis (weekly?) and the results recorded. Hoists must be suitably secured when not in use to prevent unauthorised use.</p> <p style="text-align: center;"><b>IF YOU THINK SAFETY RULES ARE A PAIN – CONSIDER THE PAIN OF AN ACCIDENT!</b></p>	
<p><b>Notes:</b></p>	

<b>Talk No:</b> 15	<b>Title:</b> MOBILE ELEVATED WORK PLATFORMS
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**Introduction:** Mobile Elevated Work Platforms (MEWP's) are useful pieces of plant when used properly. However, they combine height with mobility and can be extremely dangerous if misused.

**Main points:**

- Ensure the correct MEWP is selected for the task (ground, height, SWL, etc).
- Only suitably trained operators can use MEWP's (must be trained for that specific item of plant).
- Continually monitor weather conditions.

**Discussion points:**

- Assess ground conditions (uneven surface could result in MEWP overturning).
- Check for overhead obstructions (especially overhead power lines) remembering height MEWP can be extended to.
- Beware of collision with other vehicles, plant, equipment, scaffold etc, be particularly aware when using near public footpaths and streets. Remember to allow for boom, arcs etc.
- Always check that the plant is stable prior to use, deploy stabilisers, outriggers etc, as required.
- Any tools, materials etc, taken on board must be secured so far as is reasonably practicable to ensure they don't fall from the edge.
- It is recommended that operators employ safety harnesses as secondary protection.
- Never exceed Safe Working Loads.
- When manoeuvring in tight areas or near public rights of way ensure a banksman/signaller is deployed.
- Consider refuelling options (LPG, Diesel, etc). Refuelling should take place in the open air where practicable, and the engine must be switched off.
- Any diesel spillages, etc, should be cleaned up immediately.
- MEWP's must be subject to thorough examinations at least once every six months, and should be subject to regular local inspections (weekly?) the findings of which should be recorded.

**EVERY ACCIDENT IS OWNED BY SOMEONE SOMEWHERE**

**Notes:**

<b>Talk No:</b> 16	<b>Title:</b> USE OF ELECTRICITY
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**Introduction:** Electricity is silent, invisible, and potentially fatal, so it deserves the utmost respect. Never ever take electricity for granted, and never assume a circuit is dead.

**Main points:**

- The lowest practical voltage should be used on construction sites, which should not exceed 110v.
- Only suitable and authorised electrical supplies and equipment should be used, which should be installed and maintained by trained electricians.
- Suitable protection such as circuit breakers, fuses, and residual current devices, must always be used, along with the correct load ratings.

**Discussion points:**

- Electrical cables should be suspended where practicable to avoid damage and damp (which also reduces a trip hazard).
- Carry out visual checks of plugs, sockets and cables – if any damage is identified then remove from service and report immediately.
- Any cable joins must utilise proper connector blocks, not just insulating tape.
- Never use lighting sockets to power equipment.
- Ensure cables are long enough for the task – they should not be pulled taut.
- The inner insulation of cables should never be visible – the outer insulation should extend into plugs and equipment and fully utilise cable grips.
- Blown fuses should be replaced immediately – never make do with a “bodge” (note: if a replaced fuse immediately blows again then it is indicative of a problem requiring the attention of an electrician).
- For electrical maintenance work ensure the mains supply is disconnected.
- Never overload electrical sockets – one plug per socket!
- Where “emergency stop” switches are present ensure they are tested regularly.

**LIVE ELECTRICITY CAN EQUAL A DEAD PERSON  
– ENSURE IT ISN'T YOU OR YOUR MATES!**

**Notes:**

<b>Talk No:</b> 17	<b>Title:</b> PORTABLE ELECTRICAL APPLIANCES
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**Introduction:** Electrical appliances used on site are subject to harsh treatment and can easily become worn and/or damaged. They can then become lethal.

**Main points:**

All portable electrical appliances should be subject to regular inspection and maintenance by a competent person (electrician).  
They must only be used at the correct voltages – this should be 110v maximum on a construction site.  
Visual checks of cables, casings and plugs should be carried out prior to use. If any damage is identified then remove from service and report immediately.

**Discussion points:**

Check that suitable protection devices such as fuses, circuit breakers and residual current devices are in place, and that any fuses have the correct load ratings.  
Only use portable electrical appliances for the purpose for which they were designed.  
Ensure switches are working properly at the earliest opportunity (prior to starting the task).  
Disconnect power tools when not in use.  
All power tools must be properly earthed unless it is an approved type that does not require earthing.  
Use of portable electrical appliances will often require wearing of suitable PPE such as eye and/or ear protection – ensure you wear them as required.  
Never connect portable power tools to lighting sockets.  
Never use blunt, worn or damaged bits and accessories.

**IT'S TOO LATE TO CARRY OUT BASIC CHECKS AFTER AN ACCIDENT!**

**Notes:**

<b>Talk No:</b> 18	<b>Title:</b> WELDING OPERATIONS
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**Introduction:** Welding is a multi-risk operation to both operatives and others in the vicinity that must be strictly controlled.

**Main points:**

Only trained operatives can undertake welding operations.  
 Welding operations will always require the wearing of suitable personal protective equipment.  
 Fire is an ever present risk when welding and suitable precautions must be taken.

**Discussion points:**

Infra red rays, visible light rays and ultra violet radiation are hazardous to the eyes and skin. Wear suitable skin and eye protection (basic eye protection will always be required, and normally filter protection will be required).  
 Consider the risks to other employees and provide suitable protection/procedures such as confining welding to specific areas, use of welding screens, etc.  
 Wear suitable clothing that covers bare skin and is flame resistant.  
 Welding and cutting produces fumes and gases that can harm the respiratory system (some fumes from lead or toxic coated materials can also affect the rest of the body) – wear filtered respirators for low volume work. Permanent welding locations should have local exhaust ventilation fitted.  
 Have CO2 or dry powder fire extinguishers at hand, check areas where welding operations have been undertaken at least 30 minutes after work has been completed for any residual fire risks.  
 Compressed gas cylinders pose a fire and explosive risk.  
 Ensure only the minimum number of cylinders are stored on site as are required, ensure they are stored upright, ensure flash back arrestors are fitted at cylinder gauge ends and non-return valves at inlets to the blowpipe, ensure valves are closed prior to moving.  
 The primary risk from electric arc welding is electric shock – check insulation, earthing, equipment condition and protective devices.

**GLOVES AND MASKS PROTECT THE USER  
 – SAFE SYSTEMS OF WORK PROTECT EVERYONE**

**Notes:**

<b>Talk No:</b>	<b>19</b>	<b>Title:</b>	<b>MANUAL HANDLING</b>
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**Introduction:** Manual handling in construction is unavoidable, thus it is essential that it is carried out correctly to avoid both immediate and long term injuries.

**Main points:**

The primary aim is to eliminate manual handling so far as is reasonably practicable (ie use mechanical handling).  
Where manual handling must be carried out then it must be assessed, and proper procedures must be used.  
Plan deliveries and storage to take into account load sizes, locations and distribution.

**Discussion points:**

Assess all loads: are they heavy, bulky, unstable, difficult to grasp, sharp etc? Size up the load and, if necessary, make a trial lift by rocking it from side to side and then lifting it a few inches.  
Can you handle the load yourself or do you need assistance?  
Wear suitable clothing and PPE such as gloves and safety boots to protect against cuts, crushed toes etc.  
Is there sufficient space, suitable lighting and a clear route to where you are taking the load?  
Do not carry a load that will obscure your vision.  
If necessary move loads in stages.  
Always use a good handling technique:

1. Stand reasonably close to the load, feet hip width apart with one foot slightly forward pointing in the direction you're going.
2. Bend your knees whilst keeping your back straight.
3. Get a secure grip on the load.
4. Breathe in before commencing the lift.
5. Carry out the lift smoothly using the legs to take the strain, keeping the back straight, chin up, and arms close to the body.
6. Step off in the direction the advanced foot is pointing, keeping the load close to the body.
7. If necessary, stop for rests en-route.
8. Avoid any jerky or twisting movements.

**GET IT WRONG TODAY AND YOU COULD SUFFER THE CONSEQUENCES TOMORROW  
– AND POTENTIALLY FOR THE REST OF YOUR LIFE!**

**Notes:**

<b>Talk No:</b> 20	<b>Title:</b> SAFE STACKING ON SITE
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**Introduction:** Unsafe stacking can cause injuries as a result of collapse, or when materials have to be collected from stacks. In contrast, safe stacking not only reduces risk, but also enhances site efficiency.

**Main points:**

Only stack materials in designated areas ensuring that escape routes, doorways etc, are not obstructed.  
Stack on level, firm surfaces, use packing where appropriate, and never stack materials higher than three times the base width.  
Make sure you wear suitable protective clothing such as gloves and safety boots, and use handling accessories as appropriate.

**Discussion points:**

Use machinery where possible eliminating the need for manual handling. Where manual handling is unavoidable, carry out an assessment.  
Stack small pipes in racks, whilst large diameter pipes must be securely chocked at the base.  
Do not stack pipes in pyramids – they are not sufficiently stable.  
Large concrete rings must be laid flat so they cannot roll.  
Small sized timbers should be stacked in racks.  
Bearers should be used for larger timbers and joists – use cross packing to keep level.  
Where possible keep different length timbers in different stacks.  
Large prefabricated panels should be stacked flat or in suitable racks – they should never be leant against temporary structures, parts of buildings, or where the wind could affect them.  
Store bricks/blocks/palletted materials on level surfaces and ensure heights are controlled - only stack two packs high, and place upper stacks squarely on lower stacks.  
If banding is damaged or materials are displaced then do not stack other materials on top - where necessary make lower stacks safe.

**YOU WERE BORN WITH TWO ARMS, TWO HANDS, TWO LEGS AND TWO FEET  
– LET’S KEEP IT THAT WAY**

**Notes:**

<b>Talk No:</b> 21	<b>Title:</b> USE OF CARTRIDGE OPERATED TOOLS
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**Introduction:** Cartridge operated tools are potentially lethal if misused and should always be treated with respect.

**Main points:**

Cartridge operated tools, including rivet guns, should only be used by properly trained persons (those issued with a certificate of authority).  
Read and understand the manufacturers instructions prior to use and comply with them at all times.  
Before handling a gun, and before putting it away, ensure it is not loaded.

**Discussion points:**

Always load with barrel pointing in safe direction (away from you and not at anyone else).  
Never walk around on site with a loaded tool/gun.  
Never place your hand over the end of the barrel.  
Ensure cartridges are suitable for material being fired into (no too powerful) – consider a test fire.  
Beware of voids in material being fired into and allow at least 75mm (3”) from edges of concrete or brickwork.  
Always hold gun/tool at right angles to material being fired into – ensure splinter guard is resting on surface.  
Always wear suitable PPE (eye protection and ear defenders as a minimum).  
In the event of a misfire wait one minute and try again. If still a misfire, then wait a further minute prior to unloading.  
Keep guns/tools well maintained and clean – never leave a gun loaded.  
Cartridges are explosives and must be strictly controlled (kept under lock and key, restrict issue, account for fired cartridges and ensure unfired cartridges are returned).

**IT’S TOO LATE TO PLAN FOR SAFETY AFTER THE ACCIDENT HAS HAPPENED!**

**Notes:**

<b>Talk No:</b> 22	<b>Title:</b> USE OF HAND TOOLS
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**Introduction:** Misuse and poor maintenance of hand tools result in countless injuries every year. Whilst many may be considered “minor” - all are avoidable by complying with relatively simple procedures.

**Main points:**

- Only ever use the right tool for the job.
- Maintain all tools in a serviceable condition – if unserviceable either repair or replace.
- Control/protect tools with obvious risks (Stanley knives, etc).

**Discussion points:**

- Use correct size spanners/sockets for nuts – if using adjustables, be extra cautious as these are more prone to slipping.
- Always keep hands behind cutting edges when working.
- Grind down mushroomed heads of chisels, punches, etc to prevent splinters flying off.
- Do not use screwdrivers as chisels – handles splinter.
- Replace split or damaged wooden handles – do not tape or wire up.
- Regularly check hammer heads, etc for security of fixings.
- All files should be fitted with suitable wooden handles.
- Where necessary use specialist tools (insulated screwdrivers on live electrics).
- Protect sharp edges/points of tools.
- Keep tools in toolboxes or racks when not in use.
- Where applicable ensure suitable PPE is worn (eye protection, gloves, etc).

**MINOR ACCIDENTS CAN RESULT IN MAJOR INJURIES  
(A SPLINTER FROM A MUSHROOMED CHISEL HEAD CAN BLIND YOU!)**

**Notes:**

<b>Talk No:</b> 23	<b>Title:</b> FIRE SAFETY
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**Introduction:** Fire is a major risk both to persons and to property. You can either help prevent fires, or you can help start/allow them.

**Main points:**

- Ensure you are aware of the fire drill including the means of raising the alarm, escape routes, and the assembly point.
- Ensure you know where the nearest fire point is, what types of fire extinguisher are there, what types of fire they can be used on, and how they should be used (never put yourself at risk!)
- Never obstruct any fire points, fire doors or escape routes.

**Discussion points:**

- Never misuse or tamper with anything provided for fire prevention or fighting (never discharge fire extinguishers during horseplay).
- Don't hang clothing/materials over or near heating equipment.
- Control rubbish – don't let paper, rags, etc, accumulate.
- Store flammable liquids in suitable containers – well away from any sources of ignition, keeps lids on containers when not in use.
- Control smoking – use designated areas if necessary.
- Don't overload electrical sockets – one plug per socket!
- If electrical equipment is not in use then switch off at the mains
- Bitumen boilers, soldering irons, gas rings, etc., must be placed on non-combustible stands.
- Carry out residual heat checks 30-60 minutes after any hot work has been carried out.
- Always have a fire extinguisher within arms reach when carrying out hot work.
- Obtain hot working permits where applicable.

**FIRE DESTROYS PEOPLE AND PROPERTY  
– SAFE PEOPLE PREVENT FIRES**

**Notes:**

Talk No: 24	Title: DEMOLITION WORK
<p><b>Introduction:</b> All demolition work carries an inherent risk, with primary hazards being falls and unplanned collapse.</p>	
<p><b>Main points:</b></p> <p>Structures for demolition must be fully assessed for services, hazardous substances/materials (ie asbestos), and design. All demolition work must be suitably planned and method statements should be produced. All demolition work must be supervised by a competent person.</p> <p><b>Discussion points:</b></p> <p>Never enter a building if it appears unsafe. Select and use suitable plant (including protected cabs). Wear PPE including head protection, safety footwear, gloves and eye protection. Respirators/dust masks should be worn where required (dusty conditions). Only work from safe platforms (scaffolds, etc.) with safe access/egress. Protect the public using suitable exclusion zones, keep footpaths and roads clear of debris, damp down dust, minimise noise, and store any hoardings/materials in safe locations inside the site. Use banksmen for plant where appropriate. Never demolish walls, floors, etc., adjacent to other workers. Don't overload floors, supporting structures, etc. When cutting steel secure gas bottles, ensure flashback arrestors are used, store any spare bottles in suitable compounds and protect hoses. Ensure adequate fire fighting facilities are present. Do not burn materials/rubbish on site (unless specific permission has been granted). If in any doubt regarding procedures – ask!</p> <p style="text-align: center;"><b>SAFETY CULTURE IS WHEN PEOPLE ACT AND BEHAVE SAFELY – EVEN WHEN NO-ONE IS LOOKING!</b></p>	
<p><b>Notes:</b></p>	

<b>Talk No:</b> 25	<b>Title:</b> EXCAVATION WORK
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**Introduction:** Trenches are potential killers. The majority of fatal trench accidents occur where the depth is less than 1.5m. A cubic metre of earth can weigh over 1.5 tonnes – which will crush a man.

**Main points:**

- Prior to any digging carry out thorough checks for services.
- Plan excavations including shoring requirements, safe access/egress, etc.
- Ensure any support/shoring materials are present on site prior to commencing excavations.

**Discussion points:**

- Excavations must be supported/battered back where necessary to prevent collapse.
- Use ladders for access/egress – do not climb supports.
- Provide edge protection around excavations to protect other workers, the public, etc.
- Keep soil heaps, tools and vehicles back away from the edge of excavations.
- Never throw tools/materials into an excavation – always pass hand to hand or lower on a rope.
- Wear suitable PPE, including head and foot protection.
- Do not jump across excavations – provide suitable bridges where required.
- If vehicles are to be used to fill then position stops to ensure vehicles cannot drive into excavations.
- Never adjust/adapt supports/shoring without first getting approval from person in charge.
- Excavations must be inspected prior to entry, at the start of each shift, and after any destabilising event (including heavy rain).
- Excavations must be formally inspected by a competent person at least once every seven days and the results recorded.

**THE MESSAGE IS SIMPLE  
– DON'T DIG YOUR OWN GRAVE!**

**Notes:**

<b>Talk No:</b> 26	<b>Title:</b> USE OF LIFTING EQUIPMENT
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**Introduction:** Unsafe lifting practices result in numerous incidents every year, including serious and sometimes fatal accidents. Remember that lifting equipment now includes plant such as forklift trucks, telescopic handlers, MEWP's, hoists, gin wheels, etc, as well as cranes.

**Main points:**

All lifting operations should be planned, and be supervised where applicable.  
Lifting equipment and accessories must only be used for the purpose for which they were designed (ie buckets are not designed for lifting persons).  
Lifting equipment and accessories must only be used by trained personnel or under strict supervision.

**Discussion points:**

All lifting equipment must be marked with safe working loads (SWL's) which must never be exceeded.  
Beware of overhead obstructions such as overhead power lines.  
Use banksmen/slingers wherever applicable.  
Ensure all loads are stable and secure.  
Beware of weather conditions – especially wind conditions when using cranes.  
Ensure load is lifted off the ground, free, and correctly slung before hoisting.  
Always wear a safety helmet and hi-visibility vest.  
Never stand under a suspended load, and control movement under any such loads (exclusion areas).  
Use hand signals where applicable, using only approved code signals, ensuring they are clear and distinct.  
Use cranes to lift and lower loads vertically – never drag loads.  
If necessary attach tag lines to assist in stability.  
Lifting gear should be formally checked regularly, and visually inspected for any obvious damage prior to use.  
Riding on loads is strictly prohibited, as is riding in unauthorised positions on any lifting equipment.  
When using forklifts travel with the load in the lowest practicable position and don't raise it on the move.

**MURPHY'S LAW ONLY APPLIES WHEN YOU HAVE FAILED TO PLAN PROPERLY**

**Notes:**

<b>Talk No:</b> 27	<b>Title:</b> USE OF LIFTING ACCESSORIES
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**Introduction:** Misuse and/or neglect of lifting accessories are a common cause of accidents, some of which prove fatal.

**Main points:**

All lifting accessories should be marked with a safe working load (SWL) which must never be exceeded (note that some rope slings may not be marked but these should be accompanied by test certificate indicating the SWL).  
Only ever use the correct type of lifting accessories for the task in hand, and only ever use them in the manner intended.  
Visually inspect lifting accessories prior to use for any obvious faults – if in doubt do not use.

**Discussion points:**

Never use fibre rope or wire slings for hot loads and protect them from hot work such as welding.  
Protect nylon and wire rope slings from sharp edges.  
Never tie a knot in a chain sling to shorten it or join pieces together to lengthen it, and ensure there are no kinks or twists prior to use.  
Don't lubricate chain slings – they then pick up abrasive materials.  
Use only approved "C" type hooks or those fitted with a working safety catch.  
Check splices, rings and thimbles on any slings, and check the bow and pin on any shackles (never use home made shackles).  
Land loads onto suitable bearers to avoid damaging lifting accessories and to assist in easy removal.  
Ensure your hands are clear of ropes and chains before the load is taken, and stand well clear.  
Ensure all lifting accessories are suitably stored when not in use – they should not be left laying on the ground where they can get damaged.

**A CHAIN IS ONLY AS STRONG AS ITS WEAKEST LINK**

**Notes:**

<b>Talk No:</b> 28	<b>Title:</b> BANKSMEN/SLINGERS
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**Introduction:** The movement of loads around a site, whether by teleporter, crane or whatever, entails an element of risk. The use of banksmen/slingers can significantly assist in controlling these risks.

**Main points:**

- Any banksmen/slingers must be competent, ie must have received formal training.
- All lifting operations should be suitably planned prior to commencing.
- Ensure effective communications are in place.

**Discussion points:**

- Visually inspect all lifting gear daily – if in doubt do not use.
- Ensure safe working loads (SWL's) are always complied with.
- Establish communications with the crane driver where applicable – if you can't see him then use radios (ensure radios are fully charged before the start of shifts).
- When using signals then stand where you can clearly see the load, the crane operator can clearly see you, and make your signs clear and distinct using only the approved codes.
- Ensure you are aware of all relevant hazards on site including overhead power lines, excavations, etc.
- Always wear a safety helmet and hi-visibility vest.
- Always ensure crane hooks are centrally located over loads to reduce swinging when raised.
- Ensure loads are lifted off the ground, are free, and are correctly slung before hoisting.
- Use guide ropes to steady loads where applicable.
- When a crane is in operation, then concentrate on your task, do not become distracted, and on no account leave the area unless relieved by another competent person.
- If the crane is travelling, ensure you warn the driver of obstructions, sharp corners, etc.

**REMEMBER: PEOPLE CAUSE ACCIDENTS - NOT EQUIPMENT!**

**Notes:**

<b>Talk No:</b> 29	<b>Title:</b> USE OF ABRASIVE WHEELS
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**Introduction:** Misuse of abrasive wheels continue to result in accidents, often because the wrong type of wheel is fitted.

**Main points:**

- Wheels must only ever be fitted/replaced by a competent person.
- Machine speeds must never exceed the maximum permissible speed of the wheel.
- Eye and ear protection should always be worn.

**Discussion points:**

- Don't exert heavy pressure on wheels.
- Don't use the sides of wheels.
- Keep fingers clear of cutting edge of wheel.
- Ensure any guards are always correctly fitted and used – the minimum wheel surface required for the task should be exposed.
- Be aware of other workers in the area – do not expose them to risk.
- Adjust tool rests to be as close as possible to the face of the wheel.
- Only reinforced discs should be used on hand held machines.
- Run replacement wheels for a full minute prior to using them ensuring you stand well clear.
- Always stop wheels when not in use.
- Keep the face of the wheel evenly dressed.
- Visually check wheels before use for any obvious faults – if in any doubt get verification.

**PPE IS NO SUBSTITUTE FOR A SAFE SYSTEM OF WORK**

**Notes:**

<b>Talk No:</b> 30	<b>Title:</b> CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH (COSHH)
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**Introduction:** Many hazardous substances are used in the construction industry. Ignoring a hazardous substance today is something you may regret tomorrow.

**Main points:**

COSHH assessments must be carried out with the aim of elimination, substitution and reduction of exposure to hazardous substances.

Any substance that has a hazard warning label has the potential to do harm – assess the risks before you use it.

Employees must use hazardous substances as directed, following the required safety precautions, and using the required PPE as applicable.

**Discussion points:**

Store hazardous materials in suitable containers, ensuring only as much as is needed is in the workplace, and that lids are replaced when not in use.

Read labels on containers – if no label then do not use!

Know the correct precautions and control measures.

Avoid all unnecessary contact with hazardous substances.

Know where the first aid and washing facilities are on site.

Always wash hands after use, and do not eat, drink or smoke when handling hazardous substances.

Ensure there is adequate ventilation when using hazardous substances.

Never mix hazardous substances unless you are sure of what you are doing.

Never expose other employees to fumes, dust, gas or any other dangers from hazardous substances.

Don't store hazardous substances above head height.

Always clean up any spillages, dispose of hazardous waste properly.

**IF A DUST, FUME OR VAPOUR MAKES YOU COUGH,  
CATCH YOUR BREATH, OR GIVES YOU A HEADACHE  
THEN IT'S A SUBSTANCE HAZARDOUS TO HEALTH**

**Notes:**

<b>Talk No:</b> 31	<b>Title:</b> VIBRATION
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**Introduction:** Vibration can cause serious and disabling injuries, but many operatives are unaware of the risks. Many construction tools can cause vibration including road breakers, chainsaws, percussive hand tools, rotating hand tools, riveting guns, etc.

**Main points:**

Reduce the potential for vibration by careful selection of work equipment (use those with vibration absorbing features).

If using work equipment that causes vibration, then plan the task so that it is broken up with other activities, or rotate the task amongst several employees.

If you think you are suffering from the effects of vibration, then stop the activity immediately and speak to your supervisor. If necessary, seek medical advice.

**Discussion points:**

Vibration can affect the whole body, but more commonly affects the hands and arms. The first signs may simply be a tingling in the fingers, but can also result in fatigue, irritation and loss of concentration – thus increasing the general risks to safety at work. Longer term effects can include damage to blood vessels, nerves, muscles, tendons and body organs, and potentially lead to “Vibration White Finger” (VWF).

Always wear adequate clothing to keep dry and maintain hand and body temperatures (cold is a contributory factor to VWF) – note that heavily padded gloves do not protect against vibration and can even increase vibration levels.

Always let the work equipment do the work for you. Grip the handle as lightly as possible whilst ensuring sufficient grip is maintained for safety.

Do not use blunt tools – keep tools sharp and use the right tool for the job.

Note that nicotine reduces the blood supply to hands and fingers, so if you are a smoker, you are at increased risk of VWF.

**PREVENTING EXPOSURE IS RELATIVELY EASY  
– CURING VIBRATION WHITE FINGER IS NOT!**

**Notes:**

<b>Talk No:</b> 32	<b>Title:</b> HIGHLY FLAMMABLE LIQUIDS
<p><b>Introduction:</b> Highly Flammable Liquids (HFL's), including petroleum based adhesives, are used extensively throughout the construction industry and carry with them the risk of fire, serious accidents and injury.</p>	
<p><b>Main points:</b></p> <p>Always look for the hazard symbol and wording on containers.          Only ever have the minimum quantities at the place of work. Keep the remainder in suitable stores.          Always keep the lid on containers when not in immediate use, and store correctly.</p> <p><b>Discussion points:</b></p> <p>Always follow the manufacturer's instructions.          Keep away from open flames and sources of heat (HFL's ignite at relatively low temperatures).          Do not smoke in areas where HFL's are used or stored, and do not use equipment which generates heat and/or sparks (including electrical sparks).          HFL vapours are generally heavier than air and will accumulate at ground level if they cannot disperse. Beware of drains, excavations, pits, etc, both when using and storing HFL's.          HFL vapours can also be toxic, make you drowsy, etc. Only use in well ventilated areas, or, if this is not possible, respiratory protective equipment may have to be worn.          HFL storage should comprise containers made of non-flammable material (don't forget the vapour hazards – ensure there is ventilation).          Clear up any spillage immediately and safely dispose of contaminated cleaning materials. If inside a building, consider assisting vapour dispersal by opening windows, doors, etc.          Consider covering drains to protect against entry by substance or its vapour where necessary and practicable.</p> <p style="text-align: center;"><b>IF YOU IGNORE HEALTH AND SAFETY          THE NEXT PERSON YOU INJURE COULD BE YOU!</b></p>	
<p><b>Notes:</b></p>	

<b>Talk No:</b> 33	<b>Title:</b> USE OF COMPRESSED GASES
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**Introduction:** Compressed gases, including Liquefied Petroleum Gas (LPG), are used extensively on construction sites and provide a valuable source of energy. Misuse, however, can result in fires, serious accidents and injuries.

**Main points:**

Treat all cylinders as full.  
 Regularly inspect hoses, cylinders and valves for damage and wear and tear.  
 The likes of Oxy/Acetylene cylinders should only be used by competent persons.

**Discussion points:**

Keep cylinders away from the sun, artificial heat, flammable materials, corrosive chemicals, etc. Do not smoke in vicinity.  
 If a cylinder catches fire, then call the fire brigade. Cool the cylinder with water spray only if safe to do so.  
 Always have fire extinguishers located within reasonable proximity to any hot work being carried out. Use hot work permits if appropriate.  
 Ensure everyone knows fire procedures including alarm signal, evacuation routes, assembly area, and correct use of fire extinguishers (including types!)  
 Avoid damage to cylinder valves and fittings. Don't use them as carrying aids. Open valves slowly and close sufficiently to cut off gas supply – do not use excessive force.  
 Always secure acetylene cylinders in upright position. Ensure all cylinders are stored so that they cannot fall or roll.  
 Consider manual handling of cylinders – they are heavy! Use a trolley for full size cylinders or get assistance.  
 Always unload cylinders from lorries, vans, etc, by lifting – not by dropping/sliding.  
 Transport cylinders in vehicles with good ventilation – ensure relevant signs (compressed gases) are clearly displayed on vehicles.

**PEOPLE CAUSE ACCIDENTS – NOT EQUIPMENT!  
 LPG AND COMPRESSED GASES ARE VALUABLE “TOOLS”  
 – BUT CAN BE LETHAL IF NOT USED CORRECTLY**

**Notes:**

<p><b>Talk No:</b> 34</p>	<p><b>Title:</b> LEPTOSPIROSIS (WEIL'S DISEASE)</p>
<p><b>Introduction:</b> The presence of rats on construction sites should be discouraged so far as is practicable, but to some extent can be unavoidable, and carries with it the risk of Weil's disease. The risk exists even where rats are no longer present, but were prior to work commencing, as the organism is carried in rats' urine.</p>	
<p><b>Main points:</b></p> <p>Discourage the presence of vermin by disposing of waste food, etc, properly.          Do not handle the carcasses of dead rats, etc, found on site.          Always wash your hands and forearms using hot water and soap. If clothing is contaminated then bag it and wash it.</p> <p><b>Discussion points:</b></p> <p>The leptospirosis organism contaminates humans by entering broken skin, or by passing through very thin linings such the eye, ear, nose, throat, anal and vaginal areas. Cover up any cuts and abrasions with waterproof dressings where there is any risk of rats. If you cut yourself whilst at work, get it treated by a doctor/nurse.          Consider the use of suitable PPE to assist in protection (ie coveralls).          Leptospirosis starts as a mild disease but becomes serious if left untreated, and can be fatal.          Unfortunately the signs and symptoms are very similar to flu. If you have been exposed to the risk of leptospirosis, then advise your doctor – a simple blood test can quickly confirm either way.          The greatest risk is to those working near water, who should consider carrying a card or tag warning of risk from the disease.          Remember that if you fall into infected water, you run the risk of contamination via water getting into your nose, ears, mouth, etc. If in doubt get it checked.</p> <p style="text-align: center;"><b>IT CAN'T HAPPEN TO ME? YES IT CAN!</b></p>	
<p><b>Notes:</b></p>	

<b>Talk No:</b> 35	<b>Title:</b> GENERAL SITE PLANT AND EQUIPMENT
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**Introduction:** Site plant and equipment comes in many forms. It can be static or mobile, and can range from dumper trucks to welding sets. Whilst all such plant is beneficial to construction work if used correctly, it can pose a hazard if used incorrectly, and misuse can result in serious injuries.

**Main points:**

Operators of power operated plant and equipment must be trained in its use.  
All such plant and equipment must be maintained in safe working order, and subject to formal inspection where applicable.  
All safety aids, such as guards, must be used.

**Discussion points:**

Familiarise yourself, and comply with, manufacturer’s instructions.  
Consider any risks to other employees nearby when using plant and equipment.  
Carry out visual checks for any obvious damage/defects prior to use – if in doubt, do not use, but advise your supervisor.  
Control access/use of plant and equipment – never leave unattended/unsecured.  
Do not carry passengers on plant unless it is designed for such.  
Consider use of banksmen when reversing, etc, always comply with site speed limits, one way routes, etc.  
Consider exhaust emissions – do these need to be vented out?  
Consider use of barriers/exclusion zones to protect others from risks.  
Route electrical cables so that they are protected from damp and damage (suspend).  
Lock off/chock wheels where applicable (mobile tower scaffolds, etc).  
Ensure any warning devices (lights, audible, etc) are functioning correctly.  
Ensure any safety limitations are clearly displayed (SWL’s, maximum speeds, etc).  
Wear appropriate PPE where applicable.

**PREVENTING AN ACCIDENT IS ALWAYS POSSIBLE  
– MENDING BROKEN LIVES AND BODIES IS NOT!**

**Notes:**

<b>Talk No:</b> 36	<b>Title:</b> SITE WELFARE
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**Introduction:** Adequate welfare provisions should be available on all sites, not just for the relative comfort of employees, but to encourage good hygiene practices and to help prevent occupational health diseases such as dermatitis.

**Main points:**

There should be sufficient toilets, wash basins and rest facilities on site to cater for the maximum number of employees.  
All such facilities must be maintained to a reasonable standard.  
Water facilities must include hot and cold or warm water for washing, and a suitable supply of drinking water that should be sign-posted where applicable.

**Discussion points:**

Employees are as responsible as employers for maintaining welfare facilities in a reasonable condition. Leave them as you would wish to find them - do not abuse them, and inform your supervisor if they are unsatisfactory.  
Washing facilities must be in reasonable proximity to toilets and to canteen areas.  
Soap and drying facilities should be provided at wash basins.  
Rest areas should be arranged to protect non-smokers from the effects of cigarette smoke.  
If food is provided on site it must be stored, handled and prepared in a hygienic manner.  
Where cookers/microwaves are provided for site use, ensure they are maintained in a reasonable and clean condition, and ensure all food is thoroughly cooked.  
Dispose of waste on site carefully, especially food waste which can attract vermin.  
Always wash your hands prior to eating/drinking on site.  
Suitable storage areas should be provided for PPE and for "street" clothes as applicable.

**ON SITE HEALTH AND SAFETY IS THE RESPONSIBILITY OF ALL –  
TEAMWORK IS REQUIRED IF GOOD WELFARE FACILITIES ARE  
TO BE MAINTAINED.**

**Notes:**

<b>Talk No:</b> 37	<b>Title:</b> SITE SECURITY
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**Introduction:** Construction sites attract children looking for adventure, and thieves looking to steal plant and equipment. It is important, therefore, that sites are made secure in order to protect the public, who will not be as aware of the dangers of a construction site, and to protect site materials.

**Main points:**

The law effectively gives trespassers the right not to expect to be put at risk if they enter a construction site. This particularly applies to children.

Visitors are entitled to a safe environment and they should not be exposed to risk when on a construction site.

Site security should ensure that no-one can access the site when occupied without authorisation, and when not occupied without having to clearly commit trespass.

**Discussion points:**

Sites should be fenced all around with recognised access points, and signs should be displayed warning that it is a construction site and that entry is prohibited.

Plant and equipment should be locked away out of sight where practicable, and disabled/secured in situ where not practicable.

Never leave keys in any plant when unattended.

Hazardous substances on site that may be readily familiar to site employees can pose a serious risk to unauthorised persons who have not encountered them before – lock them away.

Consider methods of access control based upon the scale and type of site (this may comprise a simple sign telling persons to report to the site manager, or could be a manned access point – note this may also provide a method of monitoring who is on site for emergency purposes).

Remove ladders from scaffolding, walls, etc, or board up at the end of each working day.

Whilst trespassers, including children, should be challenged and either escorted off site or introduced to the site manager, avoid putting yourself in a position where you could be accused of assault.

**SILLY PEOPLE TAKE CHANCES – SENSIBLE PEOPLE TAKE PRECAUTIONS!**

**Notes:**

<b>Talk No:</b> 38	<b>Title:</b> DUST AND FUMES
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**Introduction:** Exposure to dust and fumes should be prevented where practicable, and must at least be controlled. Breathing in dust and fumes can have both acute and chronic effects, and can cause long-term health problems.

**Main points:**

Dusts arise from cutting, sanding and grinding operations, and can also be found when working with old lead pipes (lead oxide dust) or stripping out fibrous insulation (a prime, and very dangerous example being asbestos).

Fumes arise from a wider source of origins including welding operations, use of hazardous substances, heating metals such as lead, burning off old paints, etc.

The effects vary greatly, but examples of potential hazards include lung disease from silica dust as a result of cutting/scabbling concrete, cancer from cutting/sanding hardwood dust, metal fume fever from welding fumes, and lung cancer/asbestosis from exposure to asbestos, to name but a few.

**Discussion points:**

Where practicable, plan operations/tasks to eliminate exposure to dust and fumes. Where elimination is not practicable, then exposure to dusts and fumes must be controlled.

Use tools with dust extraction systems.  
use of portable extraction equipment.  
Consider use of local exhaust ventilation where practicable.  
Use personal protective equipment/respiratory protective equipment. Ensure it is suitable and that you know how to use it properly, and how to maintain it. Always remember other workers in the area – they may also require protection.

**YOU CAN LEAVE A DUSTY PLACE ANYTIME  
– BUT ASTHMA LASTS FOREVER!**

**Notes:**

<b>Talk No:</b> 39	<b>Title:</b> UNDERGROUND SERVICES
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**Introduction:** There continue to be numerous injuries, and several fatalities, every year as a result of contact with underground services.

**Main points:**

Ensure that as much research as possible is carried out to identify underground services prior to any work commencing (existing plans, service authorities, etc).  
 Clearly mark potential locations of underground services.  
 Employ safe digging techniques wherever underground services are suspected.

**Discussion points:**

Ensure all employees are aware of actions to be taken in event of discovering possible services.  
 Remember that gas is both inflammable and explosive. If any gas leak is suspected, leave the area and call the gas and emergency services (do not smoke in vicinity!).  
 Beware that modern house mains are often smaller diameter plastic pipes – do not confuse with electric cables!  
 Follow gas company specifications for back-filling.  
 Beware when working with water mains; remember that water at high pressure can cause serious, and even fatal, injuries, and that a burst water pipe can fill an excavation very quickly. Contact the water services immediately if water pipes are damaged.  
 Ladders should be provided for access/egress to excavations containing water pipes.  
 Don't leave lengths of pipes unsupported, and don't drop tools/equipment onto exposed pipes.  
 Be especially aware if foul sewers are damaged as they carry specific health hazards – evacuate immediately and contact the water company.  
 If you have to work in or near foul sewers, then wear PPE to protect against sewage, and wash hands before eating, drinking or smoking.  
 If you break a stormwater sewer when rain is falling, then evacuate as it could flood without warning.  
 Remember buried service colour coding:

- Black or red: Electricity
- Blue: Water
- Yellow: Gas
- Grey or white: Telecommunications
- Green: Cable television

**NO-ONE IS ACCIDENT PRONE – THEY'RE JUST POORLY PREPARED!**

**Notes:**

<b>Talk No:</b> 40	<b>Title:</b> ROAD/STREET WORKS
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**Introduction:** Many accidents occur at roadsides every year, most of which could be avoided with the implementation of safe working procedures.

**Main points:**

- Suitable warning signs should be displayed and correctly positioned.
- Traffic control must be implemented to meet the site requirements.
- Use a safety zone wherever practicable.

**Discussion points:**

- Cone off a tapered lead in zone to control traffic.
- Ensure barriers are erected around excavations, and that lighting/warning lights are used at night.
- Ensure a suitable pedestrian route is maintained – if necessary re-route.
- Clean any excess mud/debris off the road so far as is practicable.
- Beware of work activities that create dust or debris that may impact on vehicular or pedestrian routes.
- Position plant and equipment so that no part of it infringes on the safety zone, and do not store any materials or equipment in the safety zone.
- Consider and organise site traffic access/egress.
- Wear safety helmets, hi-visibility vests and safety footwear.
- Do not enter the safety zone unless specifically required and authorised to do so.
- In the summer consider protection against the sun.
- Consider precautions for working in excavations, underground services, etc.

**IF YOU THINK SAFETY IS EXPENSIVE OR TIME CONSUMING  
– TRY THE COSTS OF AN ACCIDENT!**

**Notes:**

<b>Talk No:</b> 41	<b>Title:</b> ACCIDENT PREVENTION
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**Introduction:** Whilst overall accident statistics indicate a general reduction, the construction industry remains the exception by showing an increase. It is essential that all personnel contribute in every way possible to reduce accident rates in construction.

**Main points:**

Equipment does not cause accidents – people do!  
Every accident is owned by someone somewhere!  
It's too late to plan for safety after an accident has happened!

**Discussion points:**

Accidents are caused by:

- a. People not thinking, not following instructions, or not putting their training into practice.
- b. Unsafe manual handling, loading, stacking and storing of materials.
- c. Overloading of platforms, scaffolds, hoists, plant, etc.
- d. Incorrect use and abuse of plant and equipment.
- e. Use of faulty equipment and “homemade” repairs.
- f. Illegal adaptations and illegal removal of guards/barriers.
- g. Failure to use PPE and ignoring safety signs/warning devices.

The costs of accidents include pain, suffering, ongoing disability, and potential fatalities. Can also result in loss of earnings, incapacity for the job, inability to support family, etc. Employers face financial and time costs in compensation, loss of working time, lost management time during investigations, possible fines, etc.

Help prevent accidents by:

- a. Not removing any guards/barriers.
- b. Not handling hazardous substances without knowing the hazards.
- c. Not using plant and equipment unless suitably trained.
- d. Always complying with laid down procedures.
- e. Always wearing suitable PPE as applicable.
- f. Not engaging in horseplay where it could result in hazards.
- g. Not misusing/abusing any equipment provided for safety.
- h. Not using any defective equipment/plant, and not carrying out “homemade” repairs.
- i. Employing good hygiene standards.
- j. Using the correct tools for the job.
- k. Obeying site safety rules and signs.

**BE THE “EYES AND EARS” FOR SAFETY ON SITE AND  
REPORT ANY HAZARDS TO SUPERVISORS IMMEDIATELY!**

**Notes:**

<b>Talk No:</b> 42	<b>Title:</b> USE OF CHAINSAWS
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**Introduction:** Chainsaws are increasingly used within the construction industry, often in a manner for which they were not originally designed. They are particularly dangerous and can cause serious injury, even in the hands of a trained operator.

**Main points:**

All chainsaw operators should have received formal training.  
Chainsaw operators should wear suitable PPE.  
Chainsaws should be maintained in a serviceable and safe condition.

**Discussion points:**

Before using a chainsaw carry out the following checks:

- a. Check guards are in place, in good condition and secure.
- b. Check chain brake operation.
- c. Check security of casing and all nuts and screws.
- d. Check throttle and interlock for serviceability.
- e. Check chain sharpness, tension and freedom of movement.
- f. Check chain lubricating reservoir – top up if required.

Ensure you have all the required PPE and that it is serviceable. This should include leggings.

Always engage the chain brake and place on a secure surface clear of any obstructions before starting the chainsaw.

Never make adjustments to the chainsaw whilst it is running.

Maintain a firm grip, using both hands, on the chainsaw when in operation, and aim to complete cuts at full throttle where practicable.

If you have to stage cuts, take extreme care when re-entering the previous cuts.

Always beware of the timber closing in on the saw cut and pinching the chain.

Never place any part of your body in the saw’s line of cut.

Before moving with the chainsaw, switch it off, apply the chain brake, and fit the scabbard over the chain. Carry by front handle with chain facing rearwards.

Refuel chainsaws in well-ventilated areas and at least 3 metres away from where you are going to use the chainsaw (wipe up any spilt fuel). Do not smoke and ensure no naked flames are nearby. Check for fuel leakage and ensure fuel cap is correctly replaced.

**WE WERE GIVEN TWO ARMS, TWO HANDS AND TWO LEGS –  
LET’S KEEP IT THAT WAY!**

**Notes:**

<b>Talk No:</b> 43	<b>Title:</b> WORKING NEAR WATER
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**Introduction:** Most drowning incidents occur in inland waters and involve males. Most causes relate to bravado, foolishness and/or lack of safety awareness.

**Main points:**

Drowning can occur in relatively shallow water, and can also occur in other liquids. The primary aim should be to prevent persons from falling in the first place. Prevention of drowning is the secondary aim!  
 Never work alone near water – always employ the “buddy buddy” system.

**Discussion points:**

All working platforms near water must be properly constructed including the required guard-rails and toe-boards. Consider securing boards where water or high winds could affect them.  
 All ladders must be firmly secured.  
 Ensure there is clear passage on all platforms and access/egress routes.  
 Safety harnesses should be employed where applicable.  
 If lighting is supplied for night work, note that it should be able to take in the surface of any water that an employee could fall in to.  
 Ensure pontoons are properly loaded, stable, and securely moored.  
 Where applicable only ever embark at suitable landing places.  
 Never work alone, always work in at least pairs, and continually check on each other (never rely on a “shout” as an indication of someone falling – it may not happen or you may not hear it).  
 Know how to raise the alarm and know the location of rescue equipment.  
 If there is a risk of falling in, then wear a life jacket or buoyancy aid (note that a life jacket will automatically turn an unconscious person face up in the water – a buoyancy aid will not!)  
 Ensure all rescue equipment is regularly inspected and maintained (visual check at the start of each shift).  
 Where safety boats are provided, they should be continuously manned by a competent (trained) person.  
 Know the emergency drills.  
 Be aware of dangers from Weil’s disease (leptospirosis).

**TIME SPENT NOW ON SAFETY COULD SAVE A LIFE LATER!**

**Notes:**

<b>Talk No:</b> 44	<b>Title:</b> WORKING WITH ASPHALT/BITUMEN
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**Introduction:** Working with asphalt and/or bitumen often carries a double risk. A primary risk from working with hot materials, and a secondary risk from the location – roads and roofs!

**Main points:**

- Plan tasks using asphalt and/or bitumen taking into account the local environment (roads, roofs, etc).
- Only trained personnel should carry out such tasks (or trainees under supervision).
- Apply hot work precautions including PPE, fire appliances, after work checks, etc.

**Discussion points:**

- Areas where asphalt/bitumen work is to be carried out should be fenced off to prevent access by other employees and/or the public. Where applicable, traffic control will need to be deployed.
- Signpost the type of work in hand (particularly when asphaltting).
- Ensure suitable PPE is available, serviceable, and used!
- Wear hi-visibility vests when working on or near roads.
- Have suitable and serviceable fire extinguishers within arm's reach. Ensure all know how to use them.
- Have a first aid kit within reasonable access. Ensure basic treatment for burns is known.
- Ensure asphalt/bitumen pots are serviceable and, in particular, that taps are working.
- Avoid the need to carry hot asphalt/bitumen over any distance so far as is reasonably practicable.
- Carry out checks 30 minutes after hot work has been completed for any residual risk.

**GOOD QUALITY PROMOTES GOOD HEALTH AND SAFETY!**

**Notes:**

<b>Talk No:</b> 45	<b>Title:</b> GENERAL HEALTH & SAFETY REFRESHER
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**Introduction:** All persons on site have a legal responsibility for health and safety and to conduct their activities in a safe manner. This duty applies both to yourself and to your workmates.

**Main points:**

Safety culture is when people think and act safely even when no-one is looking!  
Safety signs don't prevent accidents – safe people and safe systems do!  
No system can be safe without the co-operation of all employers and employees. It is a team effort requiring awareness and alertness on the part of everyone.

**Discussion points:**

Know the company's safety policy, including the arrangements.  
Use and maintain PPE provided – report any defects immediately.  
Do your bit to keep the site tidy, in good order, and safe.  
Obey all warning signs.  
Never operate plant or equipment unless suitably competent/trained.  
Never interfere with the likes of guard-rails, ladders, etc.  
Never interfere or misuse safety equipment such as fire extinguishers.  
Never throw things from height, always lower properly.  
Never take short cuts – they rarely are!  
Only ever use authorised access/egress routes.  
Store/stack materials sensibly, especially if at height.  
Check substances before use – are they hazardous? Inflammable?  
Be alert in vicinity of mobile plant.  
Be aware of trespassers – if you don't recognise someone, ask them who they are looking for and direct them to the site manager.  
Constantly think safety on site. Be on the lookout for unsafe practices, defective equipment, excessive waste build up, etc, and report such to site managers – NEVER turn a blind eye!

**SAFETY IS EVERYONE'S BUSINESS  
- ESPECIALLY YOURS!**

**Notes:**

<b>Talk No:</b> 46	<b>Title:</b> MANAGING SITE WASTE
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**Introduction:** Most construction sites produce significant waste which, if allowed to accumulate, can create new, or complicate existing, health and safety hazards. These range from basic nails in wood to attracting vermin.

**Main points:**

Suitable waste locations must be established, and these must be segregated where applicable (controlled and special waste, etc).

A formal waste management system should be implemented, ie spending the last 15 minutes of each day, or last hour of each Friday, cleaning up the site.

Waste should only be removed from site by those in possession of a valid waste carriers licence, and should only be handed over to those with a valid waste managers licence.

**Discussion points:**

Consider how you are going to separate waste where applicable, such as using different skips, etc.

Ensure nails etc, are removed from wood or hammered flat to avoid puncture wounds to other persons.

Consider how waste is going to be lowered to ground level from height. It should never be thrown down! Consider hoists, waste chutes, etc.

If lightweight waste is produced, it may need to be bagged and tied to prevent the wind blowing it all over the site.

If skips are to be placed on roads, then permission is required and it must be suitably cordoned off to protect the public and vehicles.

Never overload skips – they should not be loaded higher than the sides.

Beware of accumulating flammable waste and thus creating a serious fire risk.

Never burn or bury waste on site.

Dispose of any foodstuffs carefully to avoid attracting vermin and the risk of disease such as Weil’s disease.

Inspect your waste! Can it be reduced? Can any of it be reused? Is any of it recyclable?

All waste that leaves the site is costing money!

**MINIMISED WASTE = MINIMISED COSTS**

**Notes:**

<b>Talk No:</b> 47	<b>Title:</b> POLLUTION PREVENTION
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**Introduction:** Pollution not only threatens today's generations, but also those of tomorrow – our children, and, in turn, their children. Not only is there a legal obligation to prevent pollution, there is also a moral one.

**Main points:**

Pollution can affect air, land or water!  
 Smoke, fumes, vapours, chemicals, oils, fuels, etc, are all potential pollutants.  
 Pollutants can migrate over significant distances from a site – particularly if water bound.

**Discussion points:**

Always use hazardous substances (remember COSHH?) with care, ensuring they are suitably stored and empty containers are properly disposed of.  
 Diesel tanks, fuel cans, etc, should be stored and used so that leakages/spillages can be contained (consider hard standings, bunding, spill trays, spillsorbs, etc).  
 Do not run plant or equipment when not in use. This is using valuable fuels which are in turn causing pollution, and is also costing someone money!  
 Electrically powered plant and equipment is more environmentally friendly than combustion engine operated, but still damages the environment at source.  
 Ensure all plant and equipment is well maintained to ensure it is running efficiently (using less energy), and does not have the likes of oil leaks.  
 Noise is also a pollutant and should be reduced so far as is reasonably practicable – this will also help your ears.  
 Water is an increasingly valuable resource. Do not waste it by using leaking hoses or by leaving them running unnecessarily.  
 Be particularly aware if your site borders any watercourse. Water can carry pollutants over significant distances, and all too easily contaminate local drinking supplies. Never use watercourses for cleaning tools, etc, and never store hazardous substances nearby.  
 Likewise beware of drains – especially storm drains. Again, never store hazardous substances nearby and never pour any contaminants down storm drains.  
 If in doubt – ask!

**PRACTICE SUSTAINABLE DEVELOPMENT  
 BY MEETING THE NEEDS OF TODAY'S GENERATIONS,  
 WITHOUT COMPROMISING THE NEEDS OF TOMORROW'S GENERATIONS!**

**Notes:**

<b>Talk No:</b> 48	<b>Title:</b> ACCIDENT PROCEDURES
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**Introduction:** Whilst the emphasis should be on prevention, the construction industry is a high-risk business, and there is always the possibility of an accident. It is important that all know what to do in such circumstances.

**Main points:**

- All accidents, and near misses, should be reported.
- All must know who the appointed persons/first-aiders are.
- All should know the best means of contacting the emergency services.

**Discussion points:**

Know the name and contact procedures for the appointed person/first aider, and the location of the first aid kit.

If you are going to be working away, in a small group etc, consider a small first aid kit to take with you.

Know the basic rules if you have to deal with a casualty:

- a. Remove hazard from casualty if safe to do so.
- b. Call for help (first aider if possible).
- c. Send someone to phone for an ambulance if necessary.
- d. Do not move the casualty unless he is in immediate danger.
- e. Make the casualty as comfortable as possible and remain with him providing reassurance.
- f. Don't give food or drink to the casualty – moisten lips if necessary.
- g. Do not allow casualty to smoke.

Consider what you know about first aid - do you know:

- a. How to resuscitate and start the heart?
- b. How to stop major bleeding?
- c. How to treat burns, scolds and shock?

These comprise basic first aid procedures that can save a life both at home and at work. If you don't know them you may wish to consider first aid training.

Accidents and near misses should be investigated to establish the cause, and to enable the implementation of procedures etc, to prevent recurrence.

**AFTER AN ACCIDENT THE QUESTION SHOULD BE  
"WHAT SHOULD HAVE BEEN DONE TO PREVENT IT?"  
– ACTION SHOULD THEN BE TAKEN TO PREVENT RECURRENCE**

**Notes:**

<b>Talk No:</b> 49	<b>Title:</b> CONFINED SPACES
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**Introduction:** Confined spaces can include cellars, pits, tanks, drains, manholes, sewers, and even some types of excavation. Some are more obvious than others, but confined spaces are more common on construction sites than often realised.

**Main points:**

- Consider what may comprise a confined space on your site!
- A risk assessment should be carried out for all confined spaces.
- Never ever work alone in a confined space.

**Discussion points:**

- Hazards include oxygen depletion/enrichment, suffocation, toxic and flammable atmospheres, physical dangers (plant), biological hazards (Weil’s disease), etc.
- Confined space atmospheres should be checked prior to entry.
- Suitable PPE should be worn which may include breathing apparatus, and may require specialist training.
- Employees working in confined spaces should be fit and healthy.
- Permit to work systems should be used where applicable (these should include rescue procedures).
- Work in confined spaces must be supervised, either physically or by communications/monitoring equipment (remember failure procedures).
- Ensure any recovery equipment is checked and serviceable prior to starting work.
- Ensure all know the alarm procedure – including location of nearest telephone, etc.
- Don’t attempt a rescue without first sounding the alarm.
- Always leave a confined space immediately if told to do so.
- Don’t eat, drink, smoke, or used naked flames in confined spaces or in close proximity to entry.
- Ensure there is suitable access/egress.
- Remain alert to any changes in the situation/environment. If in doubt - get out.

**GLOVES AND MASKS MAY PROTECT INDIVIDUALS  
– SAFE SYSTEMS OF WORK PROTECT EVERYONE**

**Notes:**

<b>Talk No:</b> 50	<b>Title:</b> STEELWORK
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**Introduction:** Steelwork carries with it significant inherent risk, both to those erecting steelwork, and to those in the vicinity. Only safe systems of work can control these risks and reduce them to an acceptable level.

**Main points:**

Only suitably trained personnel should undertake steelwork, or trainees under suitable supervision.

A risk assessment must be carried out, and a method statement produced, for any steelwork.

Suitable PPE should always be worn, both by steelworkers, and by other employees in the vicinity.

**Discussion points:**

Plan steelwork according to the method statement, remembering to take into account the use of cranes or other lifting equipment and accessories, and co-ordinate with other site activities.

If cranes are to be used consider the ground conditions, potential danger to other employees and the public as a result of crane arcs, and the need to ensure continued serviceability of lifting equipment.

Utilise slingers and banksmen where appropriate.

Beware of any overhead services.

As an absolute minimum head and foot protection should be worn.

Ensure there is safe access/egress to/from places of work.

Where possible work from a stable working platform.

Where no working platform is available, utilise a safety harness and fall arrest device – ensure it is clipped on at all times.

Beware of dangers to those below – consider exclusion zones, nets, etc, as appropriate, do not leave tools/equipment on steelwork.

Never move along beams by straddling unless absolutely necessary – clip on as soon as is practicable.

**CATS HAVE NINE LIVES – YOU ONLY HAVE THE ONE!**

**Notes:**