The Belfry Group Limited

Toolbox Talks

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TOOL BOX TALKS

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TOOL BOX TALKS

Every year approximately 100 people are killed during construction work (2 a week). The cost of accidents can be measured in both financial and human terms. The second of these may easily be the greater loss and have the longest and farthest reaching effect. A few minutes spent learning how to avoid accidents represents time well spent.

These Tool Box Talks address the most basic points concerning topics, activities and locations. They are designed to be fleshed out into short talks of 10 to 15 minutes duration without requiring specialist knowledge on the part of the speaker. The talks should be concise and punchy, in order to get the message across. A pattern of weekly talks is suggested.

Every employer has a legal obligation to inform, instruct and train operatives about the risks they face in their work. Safety Awareness Talks can play a part in this and will promote the discussion of safety procedures. They should be repeated at intervals. A record must be kept of who has received this training. On the back of each Talk Sheet there is an attendance form, which should be completed and returned to the person in charge of safety in your company. Proof of training may be required at a later date.

Advice on Presentation

The purpose of this collection of talks is to assist supervisory staffs, which have some knowledge of the subjects to be able to give sufficient advice and instructions to employees so as to enable them to prevent accidents and injuries at work.

To do this it is important to bear in mind the following points:

1. Although detailed specialist knowledge is not required to do the talk, experience of the activities is necessary together with an adequate appreciation of safety matters.

2. Choose the right time to do the talk. First thing in the morning, when there is time, and when people are more likely to devote attention, is generally thought to be a good choice. End-of-day talks fail to hold the attention of operatives eager to get home.

3. Choose the right place. Avoid locations where distractions are likely. Make sure you can be heard and you will not be interrupted. Make sure phone calls and visitors will be intercepted by someone else so that you and your listeners can concentrate on the talk.

4. Speak clearly and loudly enough to get the message across.

5. Use your experience; mention any examples you know of, or any stories you may have heard, to liven up the presentation.

6. Use the points on the sheets as a basis for the talk. Fill out the talk with any general information for example:

i. Differences in types/makes of equipment (when doing talks about types of equipment)

ii. Examples of when certain activities may be required.

iii. Mention specific examples of any of the activities of pieces of equipment that feature in the talk, which you may know exist on your site.

iv. Explain the reasons behind any of the points made in the talks.

7. Allow time for questions. Be prepared for a few questions, some of which may have to be referred to a safety adviser, or senior management. Also be prepared for silence – try to 'break the ice' – if necessary ask your listeners for a question to provoke discussion. If someone asks a question, make sure every body hears the question before you answer it and answer it to the whole group, not just the questioner.

8. Try to have a clock or watch where you can see it so that you can pace your talk without obviously doing so. Glancing at your wrist watch periodically to check the time makes your listeners restless.

9. The talks are not intended to be given without any preparation at all by the presenter. Each one should be regarded as suggestions only and the presenter should plan before hand what he will actually say. Some of the talks deliberately contain more material than may be needed, especially if there is considerable local input relevant to a particular job. The excess material allows the topic to be covered again after an interval without it becoming repetitious and boring. If so wished, the material could be made into 2 talks. The one on *Hand tools* could well be curtailed to make one talk or expanded to make two, dependant on what tools are actually in use on site.

10. If there is a plan and a pattern to the talks, they are much more likely to be remembered than a jumble of facts. The following is a suggested plan for a talk lasting about 15 minutes. If you have more time, obviously the middle section and

the questions can be expanded. If you have less time try to cut down on each section equally. Probably 10 minutes is the least time which can be allowed and still retaining some usefulness.

A	Statement of todays talks i.e. Title ********* 	0.5 minutes
B	Why this topic is important in our work Situation. Consequences of ignoring problems ********* 	1.0 minutes
C	Analysis of problem. Mention any defined Legislation etc bearing on the situation. ********* 	Up to 3.0 minutes
D	Advise on 'Good Practice' to avoid problems/ Conform to standards/legal requirements etc. ********* 	5.0 minutes
E	Any questions – if faced with silence ask a Check question to see if they have taken in above. Have questions ready in advance. ********* 	3.0 minutes
F	Summarise main points. Invite anyone with a Problem regarding today's topic to see you/ Safety officer later. Announce VERY briefly Next week's topic.	2.0 minutes

TOOLBOX TALK NO.1

BEING SAFETY 'AWARE'

A There is a difference between being aware of Safety in a vague, general way and being Safety 'Aware'. The second implies a continuous alert attitude to the safety aspects of every job we do.

In 1991 there were about 20,000 reported accident in construction. That is about 90 a day. How many went unreported no one knows.

B The Health and Safety at Work Act places duties on ALL persons at work. That includes you, your boss, and your foreman, indeed everyone at work. The only way the accident figures will come down is by everyone doing their bit about safety.

Your legal responsibility is to take reasonable care of your own health and safety and to safeguard the health and safety of those you work with and members of the public. (This includes children, who must be kept off sites).

You must co-operate with your boss in anything he does in the interest of health welfare and safety, and not interfere with anything provided in the interests of health welfare and safety. Fines of up to £2,000 can be imposed.

This includes wearing any Personal Protective Equipment (PPE) provided and using any safety equipment when provided and as instructed. If unsure about its use ASK!

Every employer must have a written Safety Policy (unless he has less than 5 employees), and draw your attention to it. Make sure you read it, and note the arrangements, which affect you.

C Play your part in keeping the site TIDY AND SAFE.

1 Look out for warning notices and OBEY the instructions given by them.

2 STAY ALERT when working in the vicinity of moving plant – diggers, dumpers, cranes etc.

3 DO NOT OPERATE machines unless you have been trained and authorised to do so.

4 NEVER RIDE on machines or hoists, which are not designed for passengers. It is illegal.

5 DO NOT INTERFERE with ladders or alter scaffolding or move boards unless you are authorised to do so.

6 NEVER THROW anything from scaffolding or any height. Lower it properly.

7 DO NOT take SHORTCUTS. Use the access provided. REPORT any DEFECTS or damage to ladders, scaffolding, plant or tools – at once.

8 REPORT any UNSAFE situations or practices you come across.

9 REPORT all ACCIDENTS involving injury, however slight, to your Foreman. Details of an accident requiring first-aid treatment should be entered in the Accident Book.

10 ASK your Foreman. If in doubt about the safety of any work activity.

D Any questions.

E Summarise points in capital letters.

TOOLBOX TALK NO.2

GOOD HOUSEKEEPING

A HOUSEKEEPING is important in order to protect people and materials.

Combustible materials left lying around are a FIRE HAZARD.

Other materials left in the way can cause people to trip over them. Round section materials are especially hazardous.

Carelessly or untidily stacked materials can topple over causing damage and injury.

B A tidy site is likely to be a safe site and vice-versa. The Health and Safety at Work Act lies down that we must have a safe place of work!

C **GOOD HOUSEKEEPING means:**

1. Keeping rubbish and loose objects clear of the floor and walkway areas.

2. Disposing of all such rubbish into skips or designated areas.

3. Stacking/storing all materials safely.

4. Keeping all tools and equipment in their proper places except when actually in use.

ACCESS WAYS are escape routes. A safe place of work at all times includes a safe means of access and egress to all places where work is done. Do not leave materials/tools/benches etc in gangways/corridors where they might impede someone's escape or cause a tripping hazard. (It might be you or your best mate who needs to get out in a hurry).

Dismantled wood must always have all the nails removed or made safe by hammering them flat.

If all rubbish is regularly collected and put into the skip, in the event of the fire, the danger is confined and more easily dealt with.

Damaged tools or equipment. Take immediate steps to have them repaired and put them somewhere safe. If not repairable or returnable they are classified as rubbish and the above applies.

When work is finished, put overalls and other PPE away in lockers or other safe places. Do not leave belongings lying around.

If you see anything lying on floors, stairways, passages that could cause people to trip and fall, pick it up and put it in a safe place – **DON'T WAIT FOR SOMEONE ELSE TO MOVE IT.**

If you notice rubbish piling up which you cannot remove, bring this to the attention of your supervisor.

If when working at height you notice loose objects on boards or walkways, put them somewhere where they cannot be dislodged. This avoids the risk of them falling and causing injury.

D Any Questions.

E Good housekeeping is everybody's business on site, it is an ongoing activity and a once-a-week clean-up is **NOT ENOUGH.**

REMEMBER – A TIDY SITE IS A SAFE SITE

TOOLBOX TALK NO.3

SAFETY SIGNS AND NOTICES

A Persons in charge of sites, plant etc frequently has a need to warn or advice others about hazards or risks. If we don't understand the signs and notices they put up, we could be in danger.

B All safety signs have to conform to the Safety Signs Regulations. If we are familiar with the principles of the regulations we will be able to spot instantly:

Prohibition Signs **Mandatory Signs** **Warning Signs**
Safe Condition Signs **Fire Fighting Equipment Signs**

C Prohibition Signs – These have a red circle with a cross bar on white ground. Any lettering is black.

Examples: Stop, No Entry, No Smoking

Meaning: DO NOT. YOU MUST NOT. STOP IT IF YOU ARE.

Mandatory Signs – These have a solid blue circle with a white symbol and/or lettering.

Examples: Hard Hats must be worn, Keep locked shut

Meaning: YOU MUST DO. OBEY.

Warning Signs – These have a solid yellow triangle (point up) with a black border. Any symbol or lettering is also black on yellow.

Examples: Danger, High Voltage, and Guard Dogs Loose.

Meaning: YOU HAVE BEEN WARNED, THEREFORE TAKE CARE.

Safe Condition Signs – These have a solid green square with white symbols and/or lettering.

Examples: Fire Exit, First Aid

Meaning: FOLLOW THIS SIGN TO REACH SAFETY.

Fire Equipment Signs – These have a solid red rectangle with white symbols and/or lettering.

Examples: Fire Alarm, Hydrant, and Extinguisher.

Meaning: HERE IS THE FIRE EQUIPMENT.

Note: Fire Extinguishers have their own colour code, which will be dealt with later

D Questions

E Summarise above i.e. which colour means what?

TOOLBOX TALK NO.4

MANUAL HANDLING OF LOADS AT WORK

A A Manual Handling Operation is any transporting or supporting of a load, including the lifting, lowering, putting down, pushing, pulling, carrying or moving, by hand or by bodily force. Picking up and carrying a toolbox or a step ladder or even picking up a screwdriver or hammer, or a set of stocks, is manual handling, just as unloading and positioning a boiler might be. Anything from the extremely light to something requiring your maximum strength is included.

B Manual Handling accounts for a large number of accidents each year and many millions of 'days off' are due to back and other injuries. Once someone's back has been weakened by injury it is often a recurring problem for the rest of that person's life.

a. All Manual Handling Operations are governed by the Manual Handling Operations Regulations. Employees have a duty to make full and proper use of anything provided by an employer in connection with manual handling. This includes following any advice and training given on lifting etc.

b. An employers duties can be summarised as – Avoid the need for manual handling wherever possible. Assess the risk. Reduce the need by providing mechanical aids. Train staff in good Manual Handling techniques.

C Basic Rules for safe Manual Handling

1. Think before lifting! Is it heavy (above 16kg)? is it large or awkward?, where is the centre of gravity?, can you manage it alone?

2. Use the strong muscles and bones of your legs, <u>not</u> the complex and vulnerable ones in your back.

3. Make sure you have a firm grip of the load and that you can sustain the grip for the duration of the lift. Wear industrial gloves to improve grip and protect hands from sharp edges.

4. Make sure you know where you are going to put the load and that the way is clear of obstacles and not slippery. The load must not impede your forward view.

5. If in doubt, get help! There's nothing macho about a slipped disc!

Lifting Technique

1. Tuck chin in. This keeps back as straight as possible and therefore least vulnerable.

2. Feet as close to load as possible, about a hip width apart, one foot slightly in front.

3. Bend the knees and crouch down.

4. Take a full grip, suing palms, not fingertips.

5. With elbows tucked in, straighten the leg, lifting smoothly.

6. Carry the load forward at waist height.

7. Change direction by turning on you feet, not by twisting the trunk.

8. Put down in the same careful way and continue being careful as you straighten up.

D Questions

E Summarise 5 Basic Rules

TOOLBOX TALK NO.5

WORKING WITH HAND TOOLS

A We all work with hand tools practically every day. Familiarity can lead to complacency. Faulty tools or wrongly used tools can cause nasty injuries and produce poor quality work.

B Taking reasonable care of your own Health and Safety, means keeping tools in good condition and using them expertly. Sharp tools, which cut steel, can cut flesh without trouble. Hammers, which can drive nails, can squash fingers too.

Work Equipment Regulations require employers to ensure that tools are 'suitable' and maintained in good order. They rely on you, as skilled trade's persons, to assist them in this by reporting immediately if something is not suitable or is broken.

C The following points are areas where care is needed (and abuse common).

1. ***Spanners:***
   Must be the right size or else they are automatically not 'suitable'. Ring spanners are better than open ended spanners. Open ended spanners are generally better than adjustable spanners.

2. Adjustable Spanners:
Although very convenient, these can very quickly become dangerous due to wear on the jaws and adjusting mechanism. If the jaws are no longer more or less parallel, or the sliding jaw is wobbly, report the tool as 'unsuitable'.

3. Stillsons:
These also suffer in time from wear on the mechanism. The spring will take up a certain amount of wear, but if the spring is exhausted, or the gripper teeth on the jaws are worn out, report the tool as 'unsuitable'.

NEVER attempt to gain extra leverage by using pipe over the handle. If the temptation arises obviously the tool is too small and therefore 'unsuitable'.

4. Files:
The handle is part of the tool. Without a handle the tool is 'unsuitable', and the tang extremely dangerous. Files are very brittle and must not be used as levers or chisels. If a file breaks, fragments of sharp metal are likely to fly off.

5. Cold Chisels and Punches:
When the head turns over after prolonged use, forming a 'mushroom', grind it off to prevent flying fragments. Keeping chisels sharp reduces the tendency for 'mushrooming'.

6. Hammers:
Use the right weight hammer for the job. ('suitability' again). Ensure hammer
Heads are secure, with proper wedges (good order). Never shorten a hammer shaft as this spoils the balance and could strain the wrist.

7. Screwdrivers:
These should fit the slot in the screw head, so use the correct size. The point should be 'cross ground' to minimise the risk of slipping. Do not use them as chisels. Cross Point (Phillips) screwdrivers are not generally re-sharpenable, so discard when wear makes them unsuitable.

8. Knives:
Retractable knives (Stanley) are commendable, but do not abuse them where a preferable alternative exists e.g. cable stripping. Use a purpose made cable stripper.

9. Hacksaws
Use the correct size with the correct blade for the job. High Speed blades last longer, but are very brittle. Slow steady cutting keeps the blade cool and gives better results. Always make sure the work is properly secured before starting to cut.

10. Tool Box/Bag
All hand tools should be put away when not in use. Good Housekeeping prevents damage and loss and keeps them sharp and available when needed. Do not walk about with sharp tools in pockets. Serious injury can result in the event of a slip or fall. Use a tool bag or box.

D Questions

E Summary: All tools must be suitable for the job in hand and in good order. Properly used by skilled hands, they will produce good quality work and not cause of accidents.

TOOLBOX TALK NO.6

WEARING AND CARING FOR PPE

A Personal Protective Equipment is intended to protect you from risks, which cannot be eliminated or guarded against by other more effective means.

B Your employer must assess the work you do and take all reasonable steps to eliminate or reduce risks (PPE Regulations). If he decides that some risk still remains he must provide you with PPE. Some risks are deemed to be always present on building sites, hence separate Regulations require 'hard hats' to be worn in 'hard hat areas', at all times.

C

1. You have a duty to wear any PPE provided by your employer and he has a duty to See that you do.

2. You must wear and use the PPE in the way it was intended – therefore it must fit you. **If it doesn't – report it.**

3. PPE must be suitable for the risk and the job in hand – **if it's not – report it.**

4. PPE must not itself create a new risk – **if it does – report it.**

5. You have a duty to take care of the PPE and not to abuse it.

6. You have no right to take the PPE off site unless your employer says you can. Otherwise you must return it to the appropriate storage place after use.

7. If you are unsure about how to use PPE (e.g. breathing apparatus) ask for training first. You must be adequately trained.

8. If there is anything wrong with the PPE provided e.g. worn out, broken, missing, In need of maintenance or cleaning etc. you must report it.

9. The Health and Safety Executive provide free advice leaflets on PPE for construction workers. phone up and ask for them 01925 837777.

10. Remember, the law does not expect your boss to be psychic, if you know of a problem Regarding PPE or a risk that need guarding against TELL HIM ABOUT IT!

D Any Questions

E Summarise Main Points

Note – Underlined words and phrases indicate a specific mention in the Regulations. Offences against the Regulations are Criminal Acts.

TOOLBOX TALK NO.7

WORKING AT HEIGHTS 1. LADDERS

A Much of out work involves equipment deliberately put out of reach. We therefore need to use access equipment (steps, ladders, towers, and scaffolding) to get at it.

More accidents occur involving ladders than any other piece of work equipment. This is because there are so many of them, not because they are particularly dangerous.

B A few easily memorised rules can ensure ladder safety. The use of ladders is covered by the Construction (Working Places) Regulations (Construction Sites) and by the Work Equipment Regulations (Everywhere else).

C Ladder Rules

1. Only use ladders for work of short duration and which can safely be done from a ladder e.g. work requiring only one hand and within easy reaching distance.

2. Ladders must be of sound material, strong enough for the purpose and properly maintained. (No splits, warping, decay, damage, etc.). A missing or defective rung condemns a ladder automatically (Reg. 31). Wooden ladders must not be painted. (Reg. 9).

3. Ladders must have a firm footing for each stile and if more than 3m long be secured at the upper end, i.e. be lashed. Where such lashing is not possible, securing at or near the base is necessary. Where securing at neither the top nor bottom is possible, a person must 'foot' the ladder. (Reg. 32).

4. Maximum height to be reached by ladder is 9m unless a resting place can be provided. (Greater heights require a scaffold or tower to ensure 'safe Place of Work').

5. Ladders used for access to a higher level must extend at least 1.06m above the landing place unless other regulation height hand hold is provided. (Reg. 32).

6. Ladders must be placed at a safe angle of approx. 75 degrees. This means; distance from base of ladder to the wall should be ¼ height reached by the ladder.

7. Only one person should stand on a ladder at one time, except when a second person is standing on the bottom rung to 'foot' the ladder.

8. When climbing or descending ladders, both hands are needed, so carry tools etc. in a shoulder bag or such like (or hoist them up afterwards).

9. Do not use metal ladders near electrical equipment**.**

10. Do not use a ladder in a driveway or passageway unless protected by barriers or an assistant is constantly in attendance.

E Questions

F Summarise 'ladder rules' and add:
Always inspect a ladder before using it and report immediately any defect or breaking of these rules. Make sure no one else can use the ladder either.

TOOLBOX TALK NO. 8

WORKING AT HEIGHTS 2. STEP LADDERS

A Folding step ladders are an extremely convenient way of accessing work, which is out of reach, but familiarity can lead to carelessness. Falling off a step ladder is no less serious than off an ordinary ladder so equal care is called for. (The floor is just as hard).

B Step ladders are covered by the same regulations as ordinary ladders regarding construction and materials and this is even more critical because of the extra parts required to make them foldable. (Construction/Working Places) Regulations and Work Equipment Regulations).

C Establishing a habit of checking off a mental list each time a pair of steps is used, will lead to safe working. Steps are probably the most 'borrowed' item of all site equipment and although this may be frowned upon, it is unlikely that it can be stopped. Always check 'borrowed' steps doubly well as it is still your responsibility to ensure your own safety.

Step Ladders Rules

1. Steps must be suitable. 'Domestic' weight steps are not normally up to 'trade' use.

2. Check anti-spread device (cords, clips brackets etc.). Remember, if it's defective it's illegal!

3. Check folding mechanism (hinges, pin, rivets, etc).

Remember .....

4. Always spread the ladder to its fullest extent, so that it can't suddenly jerk while you are on it.

5. Ensure that all four stiles are on firm, level ground. This is specifically mentioned in the Regulations (Reg. 32.7) so use of an unsteady step ladder is an offence!

6. You must always have a secure handhold not less than 1.06m above the highest level reached by your feet. Clearly this means you cannot stand on the top steps unless there is some other handhold e.g. an extension.

7. Place the ladder at right angles to the work so that twisting the body is not necessary. Try to visualise where the centre of gravity of you, any tools or materials, and the ladder, lies so that it stays within the base area of the ladder.

8. An assistant standing on the bottom step lowers the centre of gravity very effectively, but make sure they understand and so do not step off suddenly.

D Any Questions

E Summarise main points

Report any defective step ladder immediately and prevent its use by others.

TOOLBOX TALK NO.9

WORKING AT HEIGHTS 3. TRESTLE SCAFFOLDS

A Trestle Scaffolds allow access to work where more than one person is needed or where access is necessary to a wider area than a ladder could reach.

They should be regarded in the same way as ladders or steps i.e. light, temporary access only. For heavy or long term access, proper scaffolding of tubes and boards of a mobile tower must be provided.

B The Regulations concerning trestles and staging are the same as for other access equipment regarding strength, condition, stability etc.

C Trestle Scaffold Rules

1. A trestle scaffold is not permitted to have the deck more that 4.5m high. (Reg. 21.2.a)

2. If the trestles are erected near an edge the 4.5m is measured from the lowest level.

3. The decking should be no more than two thirds up the height of the trestles.

4. Proprietary decking will have a label attached stating maximum loading and span and possibly maximum number of men. – Heed it!

5. The platform must be at least 635mm wide (25"). More if materials are deposited on it

6. Access to the staging should be by an adjacent step ladder. Do not climb up the trestles.

7. Trestles are not a substitute for a step ladder – the horizontal bars are too far apart – such use is not the way it was intended and is therefore abuse. Remember – suitability – (Work Equipment Regulations 1992.)

8. Where Planks make the platform the following guide as to maximum span should be followed:

38mm planks ($1^1/_2$ ")	1.5m
50mm planks (2")	2.5m
65mm planks ($2^1/_2$")	3.0m

9.Check that there are no loose or missing screws and bolts, no splits, warping or decayed or broken parts. It could be your neck that gets broken if it collapses.

D Any Questions

E Summarise main points and add

Report any defects to your supervisor and ensure no one else uses faulty equipment.

TOOLBOX TALKS NO.10

WORKING AT HEIGHTS 4. TOWER SCAFFOLDS

A Tower scaffolds represent the safest way of getting access to equipment above ground level.

B Towers built of scaffold tubes and fittings must comply with all the scaffold parts of the Construction (Work Place) Regulations and only be erected (and dismantled) by competent scaffolder's properly supervised.

C Tower Scaffold Rules

1. Towers must only be erected on a firm level base (Regulation 15)

2. The maximum height (of platform) is 3 x min base measurement if outdoors and 3.5 x if indoors. Outriggers are permitted to increase base dimension so that greater height can be achieved.

3. Minimum platform size recommended is 1.219m x 1.219m. The area must be fully boarded and have toe boards and hand rails if above 1.980m high.

4. Access must be by fixed ladder. Best is internal diagonal type. (Keeps C.G. inside base and braces tower.) An alternative may be part of end frame of tower with rungs not more than 300 mm apart. Shinning up the tower tubes is not permitted.

5. Where the tower is mobile (on wheels) each wheel must be fixed to the tower (not held in place by the weight of the tower) and be fitted with a brake. The brakes must all be 'on' whilst the tower is in use.

6. The above rule means that men and materials must not be on the platform whilst the tower is being moved.

7. Move by pushing horizontally near the base. Make sure the route is clear, both at ground level and up to the height of the tower, before starting to push.

8. Extra care is essential if outriggers are in use. The height/side ratio may be affected if the outriggers have to be removed for moving. Only raise the outriggers by the minimum amount possible. If in doubt about stability, get helpers to steady all four corners whilst moving.

9. Ladders must not be leant against towers, or stood on the platform to gain height. The risk of overturning the power is too great!

10. When working on a tower, pushing and pulling actions need to be undertaken with due thought as to where you are, to avoid the risk of overturning.

D Any Questions

E Summarise main points and add:

Report any defective equipment immediately and prevent others from using it.

TOOLBOX TALK NO.11

WORKING AT HEIGHTS 5. SCAFFOLDING

A Fortunately, falls form scaffolds or scaffold collapses are fairly rare, but when they occur they tend to be spectacular and also sometimes catastrophic.

B A few basic rules are worth memorising for your own safety. Scaffolding is covered in detail by the Construction (Working Places) Regulations. (Which is why scaffolding is generally safe).

C Scaffold Rules

1. Scaffolds must be provided where work cannot be safely done from the ground, a permanent structure or appropriate ladders (Regulation 7).

2. Erection, dismantling, and alteration of scaffolds must only be done by competent persons. (Regulation 8) You must not do it unless you have a certificate!

3. A completion certificate must be signed by a competent person before a scaffold is put to use.

4. A scaffold must be inspected by a competent person at least every seven days (more often in bad weather) and a Record Book signed to that effect.

5. Sub-contractors using a Main Contractors scaffold must satisfy themselves that it is safe (Inspection of the Record Book mentioned above).

6. Unsafe or uninspected scaffold must be barriered off and notices erected to prevent use. (Regulation 12).

7. Toe boards 150mm high and handrails between 914mm and 1.140m high must be in place at every working platform if the drop is more than 1.980m. (The gap between toe boards and handrail must not exceed 760mm and should be closed off if materials are stacked on the platform) (Regulation 28 and 33).

8. No plank may extend more than 4 x its thickness beyond its point of support unless it is secured against tipping. (Regulation 25)

9. Never walk along a single plank. The minimum width for a walk way is 440mm (Rule of Thumb 2 9" planks). For access and working 640mm (3 planks). For access, working and materials (4 planks or more) (Regulation 26 and 27).

10. Use the ladders or stairways provided. Never climb up scaffold poles.

D Any Questions

E Summarise Main Points

TOOLBOX TALKS NO.12

WORKING ON ROOFS

A Air Handling Units, Extractor Fans and Cooling Equipment are frequently installed on roofs so as to be out of everybody's way, but we need to get access to them for both installation and maintenance purposes. This means we are exposed to the risk of falling off or falling through, the roof.

B The Health and Safety at Work Act requires a Safe Place at Work at all times and this includes safe access and egress to and from the place of work i.e. the roof. The Construction Regulations are precise in that no one shall pass across, or work on, a 'fragile' roof.

Fragile roofs must, by law, have a warning notice conspicuous to any person likely to go on them, but do not assume because there is no notice that it is OK It may have blown away.

C Roofwork Rules

1. Always identify the type of roof construction and covering before starting work, in case it is fragile.

2. On flat roofs, always sty on the marked walk ways, if any.

3. Edge protection (guard rails and toe boards) is required if the drop is more than 1.98 metres.

4. Access must be by staircase or 'secured' ladders. Makeshift access, e.g. climbing out of a window, jumping over a gap, balancing on a ledge or parapet etc. is on flat roofs, always sty on the marked walk ways, if any.

5. Edge protection (guard rails and toe boards) is required if the drop is more than 1.98 metres.

6. Access must be by staircase or 'secured' ladders. Makeshift access, e.g. climbing out of a window, jumping over a gap, balancing on a ledge or parapet etc. is not 'safe access'.

7. On sloping roofs (10^{o} pitch for walkways, 30^{o} pitch if work place) suitable roof ladders or crawling boards must be provided or other suitable hand hold and foothold.

8. On fragile roofs, suitable roof ladders or crawling boards must be provided, properly secured. Ordinary scaffold boards are not 'suitable'.

9. Think about tools and materials needed on the roof and ensure they are secure both whilst being taken up and whilst being used.

10. Think about others under the roof or below the roof edge. Barrier the area off and put up warning signs in case anything does accidentally drop.

D Any Questions

E Summarise Main Points

TOOLBOX TALKS NO.13

NOISE AT WORK

A Building site plant and operations are often very noisy. Exposure to excessive noise can, over a period of time lead to permanent hearing loss. In addition, noise is very wearing on the nerves and can cause irritability and loss of concentration leading to mistakes and accidents.

B The delicate mechanism in our ears wears out gradually as we get older. Loud noise wears it out more quickly, leading to premature deafness. There is no cure. Prevention is required by *The Noise at Work Regulations.*

C What to do about Noise

1. Stand 2 metres away from your mate and try talking. If you cannot hear each other without shouting, action is required by the Regulations.

2. *Action Level One.* Noise measurements with a special instrument must be taken. This reads in decibels dB(A). 85 dB(A) is the maximum you are allowed to hear all day.

3. The owner of the noisy plant must take steps to reduce the reading to below 85 dB(A). This could be by – changing to a quieter machine, moving it further away, having it properly serviced, placing it inside an acoustic enclosure. Etc.

4. If, after doing all that is reasonably practical, the noise is still above 85 dB(A) you can ask for hearing protection (earplugs, muffs etc.) so that the noise you actually hear is below 85 dB(A).

5. *Action Level Two.* If the noise is still above 90 dB(A) the hearing protection must be provided and you must wear it.

6. Hearing protection must be suitable and a good fit. Ear defenders to BS 6444 will usually be adequate

7. Ear Plugs (Bilsom Dams) should be used once only and then discarded. Cotton Wool is totally ineffective as a noise protector.

8. Wash hands before touching and inserting ear plugs and do not use if you have an ear infection – tell your supervisor. **KEEP EAR DEFENDERS CLEAN.**

9. Owners of noisy plant may declare immediate surroundings to be and EAR PROTECTION ZONE AND erect warning signs. Ear protection must be worn continually in this zone. If you need to communicate with your mate more than by hand signals, step outside the first zone.

10. Remember your duty to 'comply and co-operate' and also take care of PPE.

D Any Questions

E Summarise Main Points

TOOLBOX TALK NO.14

USE OF RESPIRATORS AND BREATHING MASKS

A There are two circumstances in which respiratory equipment may have to be used.
Dusty Places *Confined Spaces*
(Working in *Confined Spaces* will be dealt with in a later talk).

Dusty Places can be divided into two types: (i) Nuisance Dust (ii) Hazardous Dust

Nuisance Dust makes breathing uncomfortable and is irritating to the nose and throat. It may also get in the eyes and makes work less safe than it would be without it.

Hazardous Dust is a dust which if inhaled can cause injury to health e.g. Asthma, Cancer etc.

B The Health and Safety at Work Act requires that we have a Safe Place of Work at all time, therefore action must be taken to control nuisance dust.

If the dust is also a health hazard the control measures must satisfy the COSHH Regulations. Only if control measures cannot remove the risk is reliance on respiratory equipment allowed. (Also see PPE Regulations)

D

1. Can the dust be eliminated altogether by:
a) Doing the job a different way?
b) Using different equipment to do the job?
c) Using different material to do the job?

2. If elimination is not possible, control may be by:
a) Extract ventilation with a fan and suitable ducting.
b) A ten around the dust source to contain it.
c) Damping down and subsequent cleaning up.

3. If control measures are impracticable or inadequate, respiratory equipment will need to be provided.

4. If the dust is harmful, then overalls, gloves, boots etc. will be covered in it and will need washing/disposing of in a controlled way.

5. Coarse dust, occurring for a short time only e.g. during sweeping up, may be controlled by wearing face piece dust masks to BS 6061.

6. If wearing any form of respiratory equipment causes discomfort or breathing difficulties, go immediately out of the dusty area and take it off. Do not wait until you are gasping for breath, or take it off in the dusty area.

7. Tell your supervisor immediately of <u>any</u> problem with respiratory equipment. Also if you have asthma or allergies to dust.

8. For longer periods of protection full face respirators may be necessary. These must be suitable for the dust involved and must fit you properly.

9. You must be properly trained in using any respiratory equipment provided.

10. You must play your part by following the training given and by taking reasonable care of the equipment.

C Any Questions

D Summarise Main Points

REMEMBER – Respiratory Equipment should only be a 'last resort' control measure against dust.

TOOLBOX TALK NO.15

SUBSTANCES HAZARDOUS TO HEALTH

A Building operations involve the use of many materials which could harm out health unless precautions are taken. Common substances such as cement, plaster, adhesives, solvents, cleaning materials etc all pose a risk.

B The Control of Substances Hazardous to Health Regulations (COSHH for short), place duties on employers and employees. They set out a sensible step by step approach for the control of hazardous substances and for protecting people exposed to them.

C COSHH in operation

1. Substances have to be assessed: categories include very toxic, toxic, harmful, irritant, corrosive, flammable, and non hazardous.

2. Manufacturers and suppliers must provide information, when asked, to enable assessments to be done.

3. Employers (and self-employed) have to introduce control measures appropriate to the assessment.

4. Best control measure is:- use something else instead which is less hazardous.

5. Last resort control measure is:- provide PPE i.e. gloves, goggles, overalls etc.

6. Employers must inform and instruct employees about the risks and provide training on the precautions to be taken. The assessment must be to hand during use. I.e. in site hut, not at Head Office.

7. Employers must monitor the use of the substance and check that controls are adequate and if necessary arrange medical checks for workers.

8. Employees must:
   - use any control measures provided:
   - Use any PPE provided, in the way it was intended.
   - Use any washing, changing, eating accommodation provided, in the way it was intended.

9. Take reasonable care of your own health and safety and of others. Read labels on packaging and follow the instructions carefully.

10. Tell you supervisor immediately if you are unsure about a substance or if you have a health problem.

D Any Questions

E Summarise main points

TOOLBOX TALK NO.16

WORKING IN CONFINED SPACES

A Any work place form which it is not possible to simply walk away in an emergency must be a confined space, but more usually, closed tanks and vessels, roof voids, under crofts, large ducts and pipes, inspection chambers etc. are examples of confined spaced which spring to mind.

Any work mishap such as a bumped head, cut finger etc. is more serious in a confined space because of the added difficulty of getting first aid.

B The Health and Safety at Work Act is clear in that a Safe Place of Work with safe access and egress is required. In addition a safe system of work and safe work equipment has to be provided. No relaxation of these is allowed for confined space.

C Ensuring a Safe System of Work

1. No one who suffers from claustrophobia should be expected to work in a confined space. They are a risk to themselves and others.

2. A Permit to Work System should be set up, to examine all possible hazards and to state the precautions to be taken against each one.

3. A Permit to Work is only a piece of paper. To be effective it has to be read and understood by <u>everyone</u> involved in the job. Make sure <u>you</u> do, before the job starts. Once inside it may be too late to ask questions.

4. Make sure the lighting provision is adequate and safe, i.e. flame proof if fumes, solvents or paint etc are to be used. Have 'back up' torches ready in case of lighting failure (also flame proof.) Evacuate if lighting fails.

5. Never enter a confined space alone or if no one knows you are in there. Some Permits to Work will insist on a '2nd man' stationed at the entrance to communicate with you, if the hazards warrant it.

6. Check you communications system before entering, and regularly whilst working, even if the system consists only of shouting. Radios or intercoms need to be flameproof too. (As lighting , above) Evacuate if communications fail.

7. If access involves crawling or scrambling, rehearse getting out again as soon as you go in, in case you need to do so in a hurry later, i.e. Find out if feet first or head first are quickest.

8. If breathing apparatus is not deemed necessary ensure space is well ventilated by a blower fan before entering and throughout period of work. Oxygen deficiency can occur due to sludge left in a tank or even just by a tank rusting. Evacuate if ventilation fails.

9. Evacuate immediately if breathing difficulty occurs. Collapse (and death) can occur in a very short time. Delay can put rescuers at risk too, so don't mess about.

10. Evacuate immediately if <u>any</u> of the conditions or precautions stated in the Permit to Work cease to be as laid down (That's why you memorised it first!)

D Any Questions

E Summarise Main Points

TOOLBOX TALKS NO.17

WORKING WITH ELECTRICITY

A Electricity is a killer, make no mistake about that! Not only can it kill but it can cause fires.

B The Electricity at Work Regulations is the main law covering electricity but BS 7671 for installations is also significant. (Former IEE Regulations.) Working with electricity involves two distinct areas.

1. Doing electrical work i.e. installations or repairs to an electrical system.
2. Using electrical appliances to lighten or speed up other types of work.

C Understanding how electrical equipment is designed to be safe, helps us to spot when things are wrong and therefore dangerous.

1. All metal parts designed to carry current (conductors) need to be properly insulated.

2. If the insulation is vulnerable it has to be additionally protected – sheathing, conduit, trunking, armoured cable etc. may be used.

   If you can see defective insulation or sheathing, the system is not as safe as it should be and should be isolated and immediate steps taken to get it repaired by a competent person. For example, a flex pulling out of a plug toop or a cable frayed of split showing the colours inside.

   NOTE: Sometimes conductors are made safe by 'placing out of reach'. This is OK until unusual circumstances (perhaps maintenance or decorating work) make them not 'out of reach' any more. Take special care in such cases.

3. Earthing all metal parts not intended to carry current will prevent them becoming live in a fault situation. Earth wires and connectors are just as important as the circuit wires and any damage or looseness must be repaired urgently by a competent person.

4. Earthing works in conjunction with the fuse or circuit breaker to protect the circuit in the event of excessive current. If a wrong size fuse is fitted, or a circuit breaker tampered with, the protection may not be adequate and danger could arise.

5. To protect people, either the voltage has to be reduced to a safe level by a transformer, or if using 240v the fault current should be limited by a Residual Current Device (RCD). When using 110v transformers the maximum voltage to earth is only 55v. An RCD limits the fault current to only 30mA and trips in less than half a second.

NOTE: These devices do not prevent electric shock, only that the shock is unlikely to be fatal. In damp or sweaty conditions the shock could still be severe so do not be lulled into a false sense of security.

D **Any Questions**

E **Summarise Main Points**
If in doubt, have the circuit/equipment checked by an electrician before starting work.

TOOLBOX TALK NO.18

LIFTING OPERATIONS

A Accidents during lifting operations are most often caused by misuse of equipment – not defective equipment. The potential for serious injury, if something heavy slips or drops during lifting, is all too obvious.

B All lifting operations on site are covered by the Construction (Lifting Operations) Regulations. All work Equipment (including lifting gear) used anywhere comes under the Work Equipment Regulations.

C Basic Rules for Safe Lifting

1. Lifting operations must be supervised by a competent person competent to operate the particular equipment being used.

2. Persons giving signals (Banks men) must also be competent. No person under 18 is allowed to operate equipment or to act as banks man unless supervised by a competent person.

3. All lifting equipment is marked with its safe working load (SWL) and is supplied with a test certificate. Check that the load is within its capacity and where necessary the equipment has the appropriate certificates.

4. Hired equipment is still the responsibility of the user who must ensure it is suitable for the lift (notwithstanding anything told to you by the hirer).

5. Proper planning of all major lifts is essential involving delivery to site, the site occupier, the crane or other driver, sufficient manpower, site security etc.

6. All persons not involved are to be kept clear of the danger area by barriers and signs (this is where liaison with the site occupier comes in).

7. Know exactly where the load is to be put down and that the space and the route to it is clear (height and width). Measure up the load and the space first, not when it is suspended in mid air.

8. It is forbidden for persons to ride on the load.

9. Lift and lower slowly, without jerking the load and keep your mind and eye on what's going on. Do not allow any distraction until the load is safely down.

D Any Questions

E Summarise Main Points

TOOLBOX TALK NO.19

LIFTING EQUIPMENT

A As lifting equipment is used intermittently, it can easily be neglected. However careful checking and maintenance is vital since failure could be extremely dangerous.

B Certain items are subject to statutory controls. The construction (Lifting Operations) Regulations apply to 'every lifting appliance', as do the provision and Use of Work Equipment Regulations.

C Lifting Equipment Rules:

1. Every lifting appliance must be properly made and strong enough for the work intended. If doubt exists – don't use it.

2. It is illegal to use home made or improvised gear which has not been examined and tested.

3. All lifting gear must be regularly inspected by a competent person and the results recorded in a properly organised system.

4. The properly organised system should include any maintenance or repair procedures laid down by the manufacturers.

5. Pulley blocks or gin wheels must be properly secured to the pole or beam, not just hooked on. The pole or beam must be strong enough for the load and not itself able to move under load.

6. Where eye bolts have to be fitted to loads, make sure the eye bolt have the right thread. Five different threads are known to be in use. Do not use a mismatched thread. Tighten the eye bolt firmly down. If this gives a poor lead to the sling, use washers under the shank to give a good lead, but not thicker than half a thread.

7. Slings, wire ropes and chains should be treated with care and never knotted or hammered. Careful handling (wearing industrial gloves) will prevent kinks developing.

8. Fire ropes should only be knotted with recognised knots which do not slip or jam so that undoing is impossible. Remember a knot may reduce the strength by 50 per cent.

9. Use rags or timber slats over sharp edges to prevent chafing of ropes and slings.

10. All hooks must either have a safety catch or be 'moused' to prevent the load coming off. Special 'C' hooks and Liverpool hooks are designed to not need 'mousing'.

D Any Questions

E Summarise Main Points

TOOLBOX TALK NO.20

PERMIT TO WORK SYSTEMS

A The system of issuing *Permits to Work* was first introduced in high risk industries like mining and petrochemicals. The improvement in safety was so marked that the practice has been extended to all industries where a task involving a special risk is to be undertaken. Examples of circumstances where a Permit to Work system may beneficially be operated are:

a) Electrical Work
b) Roof Work
c) Trench Work
d) Hot Work
e) Confined Space Work
f) Work near or above deep water
g) Work in radiation 'controlled areas'

B No special legislation requires Permits to Work, they are just a way of ensuring a strictly controlled Safe Place of Work and a Safe System of Work in difficult circumstances. They also allow supervisory to keep a check on what is happening by limiting the issue of permits to what can actually be supervised. A Permit to Work will often be accompanied by a Method Statement stating how the job is to be done.

C A Permit to Work ensures that:

1. The task to be done is clearly stated.

2. All potential hazards have been considered and the risks assessed.

3. The measures appropriate to eliminate or control the risks have been put in place.

4. The person(s) to do the work are clear about it, and the safety precautions to be observed.

5. The person authorising them to do it is satisfied about the safety of the task and method of working.

6. The date and time when the work is to be done is agreed and also when work will stop. (Finished or otherwise).

7. The person authorising the work is told when the work stops, what stage the job has reached e.g. 100% finished; - 10% finished etc.

8. The person acknowledges that he has been told what state the plant is in e.g. ready to run; - further work need etc.

What to do upon receipt of a Permit to Work

1. Check that all sections have been completed i.e., <u>all</u> hazards have been considered.

2. Check the date and times when the permit starts and expires. *Note: Permits are issued to individuals, therefore should only be valid for one shift. Circumstances can change while you are away, so a new permit is necessary for the next shift.*

3. Check the work location to ensure that no problems have been overlooked. Check that persons not included on the Permit are excluded from the area (barriers, notices etc.).

4. When you are sure everything is in order, sign for acceptance of the permit and commence work.

During the Work

1. Ensure that everybody involved observes all the conditions of the permit. Do not relax any of the stipulated precautions.

2. Make sure any safety devices like padlock keys or fuse links are safely in your possession.

3. If things go wrong or the situation changes notify the authorised person at once. The Permit may need to be cancelled and a new one issued to cover the new situation.

4. If time runs out, stop work and notify the authorised person at once. He can decide to issue a new permit or to extend the time.

On Completion

1. Return the Permit to the authorised person and both of you sign it to show that the work is complete and the responsibility is passed back to him.

D Any Questions

E Summarise Main Points

TOOLBOX TALK NO.21

WORKING OUTDOORS

A Some people are attracted to construction work because the outdoor life is preferred to the factory or office environment. However, extremes of weather can take the gilding off unless we know how to cope.

B The Health and Safety at Work Act requires employees to take reasonable care for themselves and others. This includes coping with the weather. The PPE Regulations also refer to 'exposure' and this also implies the weather.

C Working in Cold Wet Weather

1. Rheumatism can be brought on or aggravated by allowing joints and limbs to be cold and wet for long periods. Treatment is difficult to prevention is best. Water proof clothing which is big enough to allow adequate warn garments to be worn underneath should be worn. (Especially applies to boots).

2. Bronchitis is a development of a cold brought on by exposure to cold and damp. Once affected it is easily caught again and can get worse until you are virtually disabled. Smoking makes the chance of catching it even greater.

3. If working in water e.g. in a trench or other place where wading is necessary, even good boots and socks can eventually allow the feet to be blue and numb. Do not stand in water for too long and if possible, change socks for a dry warm pair at intervals.

Work in Cold Dry Weather

1. Working in intense cold can slow you down physically and mentally. Reactions are slower and decision making over even simple things becomes harder. Hence accidents are more likely.

2. In extreme weather conditions, if possible arrange a work rota system to that regular periods are spent out of the cold and wind.

3. Hypothermia usually occurs when you can no longer maintain your body temperature at about 37^{o}C. Shivering is usually the first sign, but some people do not seem to shiver. If you begin to feel cold 'deep inside', refer to your foreman/charge hand and take a short break in a warm place. Have a warm drink and a snack during your breaks.

4. Chill Factor is the added effect of wind on the body which makes it seem colder than the thermometer actually reads. At 0^{o}C and 10 mph wind, the chill factor may make it seem like $^{-}$10^{o}C, so extra protection is called for.

5. Chilblains, Frostbite and Skin Damage are not confined to Arctic explorers. They are extremely painful and disabling so prevention is better than cure. Warm gloves and socks are essential but if you can feel your extremities getting too cold, change to a warm dry pair. Protective creams are available for face and wrists etc. To replace the natural oils dried up by the cold and prevent cracking and peeling.

6. Where necessary, temporary shelter should be constructed. This will almost certainly pay for itself by improving productivity. Sheeting over scaffolding, tents, or even working in the lee of the site hut are possibilities. Somewhere warm and dry to take refreshments and dry clothes is required by the Construction (Health and Welfare) Regulations.

7. Long sleeved vests, long-johns, thermal underwear, etc may be the butt of jokes, but if they keep you warm, it is better to be laughed at for a few minutes than unhealthy for the rest of your life.

Work in Hot Weather and Conditions

1. Sunburn is very common, very painful, but easily avoided. Glare from an overcast sky can also cause burns on sensitive skins. Stripping off too hastily or for too long is unwise, especially for fair skinned people and near midday. Ultra violet light causes premature ageing (wrinkling) of skin and increases chances of skin cancer. Thinning of ozone layer in upper atmosphere is allowing more ultra violet through. Sun Blocking lotion is recommended, but take account of how long you will be in the sun, a high protective index is probably required.

2. Prickly Heat is brought on by working in hot conditions. It causes groups of small itchy spots on the skin. Frequent washing to remove sweat, wearing loose cotton clothes and if possible, periods of work out of the hot location are advised.

3. Heat Exhaustion is the combination of high temperature, exertion and loss of fluid and salt through sweating. It can be dangerous if not recognised. Fainting, cramp and nausea can overcome the unwary.
   Frequent rests and plenty of cool, but not iced, drinks are necessary.

D Any Questions

E Summarise Main Points

TOOLBOX TALK NO.22

FIRE PREVENTION ON SITES

A Fires on building sites regularly cause much damage and because of the unfinished nature of the building, danger to life of both workers and fire-fighters.

B The presence of flammable waste materials, solvents, hot work processes, incomplete electrical systems, vandalism and malicious acts make fire prevention a prime object.

C Precautions to reduce the risk of fire

All sites

1. Clear away rubbish and waste regularly to the designated areas. If fire breaks out there, it is more readily confined and dealt with.

2. Never attempt to dispose of rubbish by burning it. Site 'bonfires' are illegal.

3. Electrical systems, including temporary supplies, must only be installed by a competent electrician and must be regularly maintained.

4. Site huts are vulnerable to fire because of: temporary heaters, smoking, intermittent occupation, clothes drying, waste packaging, old newspapers etc. Extra vigilance is therefore called for. Last man out – have a quick look around etc.

5. Temporary heaters must be properly installed in a safe position and have guards fixed.

6. High intensity lights should not be covered or placed near combustible material. They must be securely fixed to prevent them falling over. Treat them as though they were heaters.

7. Do not smoke in areas of high fire risk or designated 'no smoking' areas. Elsewhere dispose of matches and dog ends carefully.

Hot Work

8. Hot work is best controlled by a Permit to Work System to ensure all risks are adequately controlled.

9. Ensure surrounding area is free of combustible material. Non removable items must be covered with heat proof blankets. Don't underestimate how far radiant heat and sparks can travel. Remember to check floor ducts etc close to the work area.

10. Have suitable fire extinguishers readily to hand. Where circumstances make it necessary, one man should be on 'fire watch'.

11. Cease 'hot work' well before knocking off time and check the area at 30 minute intervals to make sure nothing is smouldering. Have a last look round before leaving site.

12. Ensure you know your part in the site fire safety plan. Know where extinguishers are and make sure you know how to use them. Make sure you know the evacuation procedure and where your escape route is.

D Any Questions

E Summarise main points and add

Remember: ***Your life (and your mates) may depend on you playing your part in fire prevention.***

TOOLBOX TALK NO.23

WORKING IN EXCAVATIONS

A Most building works involve excavations so you are likely to be working close to this type of work even if not actually involved. Sometimes services are installed in trenches and then special care is called for on your part.

B Excavations, even shallow ones, are like electricity and fire – they can kill very quickly and with very little warning. They need to be treated with similar respect. The Construction (Working Places) Regulations deal with excavations in detail. The Health and Safety at Work Act requires a 'safe place of work' at all times.

C Excavation Rules

1. All excavations should be supervised by a competent person. The law requires all excavations to be inspected at least once a day by a competent person. If more than 2 metres deep, then once a shift. Every 7 days a 'thorough' inspection and written record is necessary.

2. Timber for shoring must be available for all excavations and if deeper than 1.2 metres, must be used, except where the sides are 'battered' at a safe slope.

3. Ladders must be used for access and egress. Do not jump into or climb in or out on the timbering supports. Do not jump across excavations.

4. Warning signs and barriers should be placed round all excavations and are compulsory if deeper than 2 metres.

5. Never dig mechanically or by hand until a careful investigation using detection equipment has been made for buried services. When services are known to be close, careful hand digging (no picks) is necessary until the precise position of the service is revealed.

6. Keep spoil heaps and other materials well away from the edge of an excavation and ensure that vehicle wheels cannot approach the edge. Place stop blocks as a guide to tipper drivers.

7. Safety helmets and safety footwear must always be worn during work in excavations.

8. Do not alter or remove any supporting member unless you are competent on shoring, or are under supervision.

9. Watch out for the weather forecast. Conditions in a trench can change drastically if it comes on to rain.

10. Remember, 1 cubic metre of earth weighs at least 1 tonne, more if wet. In the event of a collapse it could take a strong man an hour to dig you out.

D Any Questions

E Summarise main points and add –

If your work involves digging, make sure it's not your own grave.

TOOLBOX TALK NO.24

FIRE ON SITE

A This talk could be called 'What to do if you discover a fire' but there are certain things you need to do and know before you discover a fire.

B A well organised site will have a Fire Safety Plan and appointed Fire Wardens. Make sure you know your part in this plan. Site huts require a special 'Fire Certificate'.

C Reading the newspapers will soon show that fires are happening all the time, go get into the frame of mind that fire is an ever present risk and be prepared in case your site is the next news report.

If you know what to do, you are unlikely to panic. Panic makes people do stupid things, sometimes the complete opposite of what they would do if calm. Panic is contagious so stay calm even if others are not.

Preservation of life is more important than protection of property. Staying calm and leading others to safety is better than trying to fight the fire and being overcome by smoke.

Always know your escape route, especially if you are working in an unfamiliar place. Familiarise yourself with the route.

Know the types of fire extinguisher and what they are suitable for:

Red	-	Water based	- for wood, paper, rubbish fires - NOT ELECTRICAL FIRES
Hose Reels	-	Water	- as above
Black	-	Carbon Dioxide	- electrical fires - liquids
Blue	-	Dry Powder	- liquids and low voltage
Cream	-	Foam	- liquids - NOT ELECTRICAL FIRES

Notes: Carbon Dioxide works by displacing oxygen so evacuate to the open air as quickly as possible.

Dry Powder and foam leave a residue which may be hard to clear up.

Colours are to BS5423 which is not mandatory, beware of foreign imports all coloured RED.

If you discover a fire

1. Shout FIRE as loud as you can and repeatedly. This alerts others and summons help.

2. If there is a fire alarm system e.g. break glass points, operate it or send someone to dial 999.

3. Make sure no one is trapped.

4. Decide quickly whether to tackle the fire or evacuate, but always obey instructions given by a Fire Warden.

In the absence of a Fire Warden

1. If fighting the fire seems possible, be prepared to change your mind in an instant if things begin to get works.

2. Always keep your back to the escape route as you fight, to ensure you are not cut off.

3. Beware of smoke billowing around you. More people are killed by smoke than by heat. Be ready to evacuate if the smoke begins to get bad. Crawling or slithering on the floor may enable you to get past the smoke. This is when knowing the route pays off.

4. If using an appliance – aim it at the base of the flames. 'Knock the fire down' is a good strategy.

5. If evacuation is the only way, closing doors behind you may contain the fire and smoke until the brigade arrives.

6. When the brigade arrives, leave things to them unless they specifically ask. They have the training, the gear, the experience so keep out of their way until they say it's ok to go back in.

D Any Questions

E Summarise Main Points

SAFETY AWARENESS TRAINING RECORD

TOOLBOX TALK

DATE ……. ……. **TIME ……..**

SITE LOCATION ……

PERSON PRESENTING TALK …… **TALK NO ……..**

SIGNATURE OF PERSONS ATTENDING:

1. …… **11.** ……

2. …… **12.** ……

3. …… **13.** ……

4. …… **14.** ……

5. …… **15.** ……

6. …… **16.** ……

7. …… **17.** ……

8. …… **18.** ……

9. …… **19.** ……

10. …… **20.** ……

COMMENTS AND QUESTIONS ARISING

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DATE OF NEXT TOOLBOX TALK …… **SIGNED ……**