Safe Systems of Work

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PERSONAL POINTS

1. Don’t take chances – carry out instructions.
2. If you don’t know – ask
3. Rectify or report all unsafe equipment, conditions and dangerous occurrences.
4. Use correct tools and equipment.
5. Help to keep the work place clean and tidy
6. Have all injuries, however slight, properly attended to.
7. Don’t horseplay or distract others.
8. Wear the protective equipment provided for your safety.
9. Don’t start machinery without the guard being in place.
10. Obey all safety rules and signs.
11. Use only those tools you are authorised to use.
12. Don’t leave tools on the floor or where they can fall on people below.
13. Know the location of first aid box and first aider.

YOU MAY BE ALRIGHT BUT THINK OF YOUR COLLEAGUES!
HOUSEKEEPING

1. Keep all walkways and stairways clear. Mark obstructions.
2. Don’t leave rubbish, tools or equipment lying about.
3. Ensure that access to fire extinguishers is not obstructed.
4. Keep all fire doors shut and exits clear of obstructions.
5. Stow your tools safely when not in use.
6. Wipe up spilt oil, grease or liquids.
7. Use metal containers with metal lids for oily or greasy rags and waste.
8. Keep benches and work areas uncluttered.
9. Don’t leave loose tools on running machines.

A CLEAN AND TIDY WORKING AREA MEANS FEWER ACCIDENTS!
SLINGS, CHAINS AND LIFTING APPLIANCES

1. Do not use untested slings or chains.
2. Find out the weight to be lifted and check S.W.L. of the lifting appliance.
3. Check the safe working load of the sling or chain and do not use it for any load in excess.
4. Do not use fibre or wire rope slings near welding or flame cutting operations.
5. Examine all slings and chains before use and reject any that are found defective.
6. Slings should be protected by suitable packing from sharp edges or corners of the load.
7. Slings should not be dragged along the floor.
8. Stand well clear of all loads being lifted.
9. Ensure the load is free before lifting.
10. Lower loads onto adequate packing to prevent damage to the slings when withdrawing.
11. Return slings and chains to store after use.
12. Always hook back the free end of empty slings or chains.
13. As the angle between the legs of a multi leg sling is increased the S.W.L. is decreased.

ALWAYS WORK SAFELY!
DANGEROUS OR UNIDENTIFIED SUBSTANCES

1. Don’t touch – substance may be DANGEROUS.

2. If you come into contact with an unidentified substance, flush copiously with cold water at once.

3. Don’t smoke near it – it may be FLAMMABLE.

4. Don’t smell it – vapour may be POISONOUS.

5. Don’t drink it – liquid may be POISON.

6. Wash spills and splashes away with running water.

7. Be especially careful with containers which have LABELS MISSING

8. Treat all substances as DANGEROUS until you know they are safe.

IF YOU DON’T KNOW – LEAVE WELL ALONE!
FIRE

1. Know what you have to do in case of fire.
2. Make certain you know your escape route.
3. Keep fire doors and shutters clear and unobstructed.
4. Don’t obstruct access to fire fighting equipment, learn how it operates.
5. Make sure you know which type of extinguisher is correct for different types of fire.
6. Don’t hang clothing over or near heating equipment.
7. Don’t let paper, oily rags or other rubbish accumulate.
8. Do not smoke in forbidden areas.
9. Do not use open tins or buckets for flammable liquids.
10. Handle flammable liquids at a safe distance from possible sources of ignition.
11. Check for flammable materials before and after using blowlamps, welding and cutting equipment.
12. Non-combustible stands must be used for crucibles, soldering, irons and gas rings.
13. Switch off from the mains any electrical equipment and turn off gas appliances when not in use.

ANYONE CAN START A FIRE ….. CAN YOU PUT IT OUT!
CARE OF THE HANDS

1. The most important factor is personal cleanliness.

2. Barrier cream appropriate to the exposure should be used if gloves cannot be worn.

3. Gloves should be worn for handling rough or sharp material. But NOT on drilling machines.

4. Cuts or punctures can turn septic – get first aid at once.

5. Change soiled dressings on wounds.

6. Rings on fingers can be dangerous.

7. Use safeguards installed or provided.

8. Wash before eating and visiting the toilet – there may be harmful chemicals on your hands.

9. Do not use harsh abrasives or solvents for cleaning hands.

10. At the end of the day or shift wash hands with warm water and soap or cleaning cream – dry well.

CLEAN HABITS PREVENT DISEASES!
MANUAL HANDLING

1. Where possible gloves should be worn to protect against cuts, scratches or punctures.

2. Wear safety footwear to protect toes from falling loads.

3. Size up the load and, if necessary, make a trial lift of a few inches.

4. Do not attempt to lift alone any load that is too heavy, too large or awkward.

5. See that there are no obstructions in the direction you will be going.

6. Take up position, feet hip breadth apart, one foot slightly advanced pointing in direction it is intended to move.

7. Bend the knees, back muscles should be relaxed.

8. Get a secure grip of the load.

9. Lift, keeping the back straight, arms close to the body, leg muscles taking the strain.

10. Step off in direction advanced foot is pointing, load held close to body.

11. Do not carry a load which obscures the vision.

12. When lifting to a height from the floor do it in two stages.

BAD HANDLING CAUSES INJURIES!
GAS WELDING AND CUTTING

1. Oil or grease must not come into contact with oxygen fittings or cylinders.
2. Protect and keep hose lines clear at all times.
3. Open cylinder valves slowly. Close valves when not in use.
4. Do not allow any source of heat to reach cylinders.
5. Use goggles, hand shield or helmet with protective lenses.
6. Use screens to protect other personnel – glare can cause eye injury.
7. Suitable ventilation or a respirator must be worn when welding and cutting galvanised or coated metals.
8. When welding near flammable materials, beware of flying sparks and hot slag. Keep fire extinguishing equipment available and check before leaving.
9. Do not attempt to weld enclosed vessels or tanks until authorised by a supervisor.
10. Do not heave torch in enclosed vessels when not in use.
11. Do not weld material degreased with solvents unless it is absolutely dry.
12. Do not use gas cylinders as work supports.

ALWAYS PROTECT YOUR EYES!
SITE SAFETY

1. Scaffolding must be properly erected and maintained.
2. Services should be located, identified and isolated.
3. Trenches must be properly shored and supported or battered.
4. Excavations must be fenced at all times.
5. Site tidiness is essential to prevent accidents.
6. Accidents and dangerous occurrences must be reported.
7. Fire precautions must be observed at all times.
8. Suitable protective equipment must be used at all times.
9. Do not tamper with any equipment provided for your safety.

SERVICES SHOULD BE TREATED AS LIVE UNTIL THEY ARE POSITIVELY PROVED DEAD!
FORK LIFT TRUCKS

1. Take the weight and test your steering before lifting a load.

2. Do not move with insecure loads.

3. Keep clear view and look in direction you are travelling.

4. Travel with load low and fully tilted back.

5. Travel at safe speeds consistent with conditions.

6. Stop and start smoothly.

7. Stop at face of stack and raise load to stacking height still tilted back.

8. Move load over stack and lower until forks are free of load.

9. Withdraw and lower forks just clear of floor before travelling away.

10. Descend slopes with load behind you.

11. Drive uphill with load in front of you.

12. When truck is to be left unattended set the parking brake with forks on the ground. Remove starter key.

LOOK OUT FOR PEDESTRIANS!
ABRASIVE WHEELS

1. The law requires you to wear goggles when using an abrasive wheel.

2. Adjust the guard to expose the minimum wheel surface necessary for the operation.

3. The speed of the machine must not exceed the maximum permissible speed of the wheel.

4. Use the correct grade of wheel for the work in hand.

5. Abrasive wheels must only be changed or fitted by authorised persons.

6. Adjust the tool rest as close as possible to the face of the wheel.

7. Keep the face of the wheel evenly dressed.

8. Do not exert heavy pressure on the wheel.

9. Take care work does not slip off the rest.

10. Never use the side of the wheel unless it is designed for it.

11. Stop the wheel when not in use.

12. Only trained operatives are to use abrasive wheels.
EYE PROTECTION

1. A tiny fragment in your eye can be disastrous.

2. Seek First Aid for all eye injuries

3. Wear the eye protection provided for your safety – a little discomfort is better than blindness.

4. Your eyes must be protected when machining or turning.

5. You must wear welding goggles when cutting or welding with oxy-acetylene apparatus.

6. Eye protection must be worn if dust or fragments arise in your job.

7. Do not watch welders at work unless your eyes are properly protected. Glare is dangerous.

8. Make sure your eye protection is suitable and keep it clean.

9. The place for goggles is over your eyes – not on your head.

10. Protect your eyes when handling dangerous substances.

11. You MUST wear eye protection when using an abrasive wheel.

12. Remember: Eye protection is replaceable – your eyes are not.

A GOOD CRAFTSMAN VALUES HIS SIGHT.
WORKING DRESS

1. Wear the right clothing for the job.
2. If protective equipment is provided – wear it.
3. A safety helmet will protect your head – and perhaps save your life.
4. Safety footwear saves toes.
5. Always keep clothes clean. Dirty clothes can offer a fire or health risk.
6. Loose ends of sleeves, ties or scarves can become entangled.
7. Long hair can get caught and result in scalping.
8. Finger rings or bracelets are dangerous near moving machinery.
9. Remove contaminated clothing immediately and wash yourself.
10. It is worth dressing properly even for a short job.

PROPER CLOTHING MEANS SAFER WORKING!
COMPRSSSED GAS CYLINDERS

1. Treat every cylinder as “full” and handle carefully. Full and empty cylinders should be stored separately.

2. Always use a carrier and secure the cylinder into it.

3. Always secure acetylene cylinders in an upright position both in use and in storage.

4. Store all cylinders so that they cannot fall.

5. Keep them away from sun, artificial heat, flammable materials, corrosive chemicals and fumes.

6. Avoid damage to valves and fittings. Do not use them for lifting or carrying.

7. Keep valves and fittings of oxygen cylinders free from oil and grease.

8. Open cylinder valves slowly, and close sufficiently to shut off gas – never use force.

9. Always lift cylinders from trucks do not drop or slide them.

10. Remember – handling cylinders is a two man job.

11. See that gloves are free from oil and grease.

REPORT ANY DAMAGE OR DEFECTS IMMEDIATELY.
CARTRIDGE HAMMERS OR RIVET GUNS

1. Only authorised persons should use this equipment.

2. Only low velocity tools to be used.

3. Never leave gun loaded when not in use.

4. Before handling gun make sure it is NOT LOADED.

5. Load gun with barrel pointing in safe position – away from you and not towards other people.

6. Never place your hand over the end of the barrel.

7. Never walk around with a loaded gun – load at a site.

8. Keep the gun clean and well oiled.


10. Check material into which bolt is to be fired.

11. Hold gun at right angles to the job when firing.

12. In the event of a misfire wait a minute before unloading.

TREAT CARTRIDGE HAMMERS WITH RESPECT – ALWAYS!
PIPE LINES

1. Make sure you know what a pipe contains before starting work on it.
2. Ascertain the direction of flow in the pipe.
3. Check where the pipe is coming from and where it is going.
4. See that all pipelines are safely anchored.
5. Be sure you can identify all pipelines and their contents.
6. Learn to recognise dangerous leakages.
7. Learn how to act in an emergency.
8. Note where all the stop valves are situated.
9. Get to know the supervisors responsible for the various pipelines.
10. Arrange for the regular emptying of drip trays under leaks.
11. Avoid tripping hazards – do not leave loose pipes on the floor.

PIPE-LINE HAZARDS ARE NOT ALWAYS OBVIOUS!
ASBESTOS

1. Any new client or site should make you aware of the presence of any asbestos present on that site. A copy of their asbestos register should be made available on request.

2. On encountering any suspicious fibrous material you should carry out the following procedure:
   - Stop work immediately
   - Where possible minimise spread of materials.
   - Evacuate the immediate area.
   - Inform those responsible for the site.
   - Only return when it is safe to do so.

3. If in doubt, follow the above procedure.

4. Be aware that there is a higher risk of encountering asbestos in older buildings.
Live Electrical Testing (General)

1. All testing should only be carried out by a competent person.

2. All test equipment should be suitable and checked for safety and operation before commencing testing.

3. Ensure there are no unauthorised people in the vicinity of the test area.

4. If necessary, use temporary barriers around the test area.

5. Select the safest most practicable method of testing:
   
   a. If possible test the equipment whilst it is dead.
   b. If possible to do so, test the equipment by energising the non hazardous voltages only.
   c. Where practicable, apply test leads while the equipment is isolated and then energise it.
   d. If live testing is unavoidable employ the following where practicable:
      
      i. Shield any live equipment.
      ii. Use rubber matting (BS921) to prevent earth contact through the floor.
      iii. Shield or avoid contact with earthed metal work to reduce the possibility of shock from contact with a live conductor.

6. If any work is to be carried out on electrical circuits during or following testing, the equipment should be isolated and locked off with an appropriate padlock.
**Hot Work**

(Definition of hot work - work with flame cutting apparatus, oxyacetylene welding apparatus, electric welding apparatus, blow lamps, grinding equipment, any other equipment producing flame, intense heat or sparks, working with bitumen boilers).

1. Obtain a Hot Work Permit if the site operates such a system.

2. Ensure the following:
   a. all welding and cutting equipment to be used is in satisfactory condition and in good repair.
   b. any combustible materials must be cleared from the immediate area. E.g. combustible solids, flammable liquids, combustible building fabric (floors/walls/ceilings/roofs), flammable/toxic gases/vapours, chemicals.
   c. Floors constructed of combustible materials are properly protected by either wetting the surface or covered by fire-resistant shields.
   d. Where relocation is not practical, the combustible materials shall be protected with flame-proof covers or otherwise shielded with metal or fire-resistant shields or tarps.
   e. Hot work is not undertaken on pipes or other metals that are in contact with combustible walls, partitions, ceilings or roofs, if the work is close enough to cause ignition by conduction.
   f. Nearby personnel are suitably protected against heat, sparks etc.

3. When required, designate a responsible person to serve as a fire watch. The fire watch shall:
   a. Have fire extinguishing equipment readily available and be trained in its use.
   b. Know how to activate the building’s fire alarm system, if applicable, or who to notify in the event of a fire.
   c. Watch for fires in all exposed areas, and try to extinguish them first only when obviously within the capacity of the equipment available, or otherwise sound the alarm immediately.

4. Monitor the work area for at least 1 hour after completion of the hot work to detect and extinguish any smouldering fires that may be identified.

5. Pay consideration to confined spaces, work at height, pressure (pipes/vessels), conduction of heat/sparks.
Working in exposed conditions

If the place of work is exposed to any of the following environmental conditions, appropriate precautions must be taken to reduce any risk to health or safety:

- Extreme cold
- Extreme heat
- Rain or standing water
- Direct sunlight
**Lighting conditions**

Ensure the place of work is adequately lit to carry out the task in a safe manner, appropriate precautions must be taken to reduce any risk to health or safety.

- The lighting levels in the place of work should sufficient to carry out the work in a safe manner.

- If the lighting levels are insufficient then temporary lighting should be installed.
**Lone Working**

The Health & Safety Executive (HSE) defines lone workers as:

- People working separately from others;
- Only one person working on the premises; or
- People working outside hours of expected building occupancy

Persons are considered to be working alone if they have neither visual nor audible communication with someone who can summon assistance in the event of an accident or illness.

Lone working must not be undertaken where there is a reasonably foreseeable risk that the work may result in an accident which would be sufficiently serious to require a second person to be available to summon help.

Lone working is prohibited by law for the following activities:

- Entry into confined spaces
- Ladders – use of ladders that cannot be secured and require footing by a second person.
- Machinery. Moving or rotating machinery, hydraulic or pneumatic presses etc.
- Electrical work – working on or near equipment that has exposed, bare or uninsulated live conductors. Manipulation of live uninsulated power conductors.

Employers Responsibilities

Ensure lone workers are medically fit and suitable for the lone-working role they have been assigned.

- Does the job impose any extra demands on the lone worker’s physical or mental stamina?
- Does the lone worker suffer from any illness that might increase the risks of the job?

Make aware and set limits of activities that may be too risky to be carried out by an unaccompanied worker.

- Live electrical work
- Access
- Manual handling

Provide some level of supervision and monitoring.

Contact procedures in the event of emergency.
Lone Working (continued)

Lone working procedure

Any of the following situations should not be tackled alone, stop work and request assistance. That assistance may be a colleague or an employee of the customer who can summon help in the event of an emergency.

- Live working or testing on any control panel or piece of electrical equipment that has exposed, bare or uninsulated conductors.
- Working at height.
- Any work on or near rotating or moving machinery.
- Any manual handling outside the normal guidelines.

In the event of any other lone working,

- The employee must inform the office or the “on call” engineer when arriving on site to log on as a lone worker.
- At the end of office hours, the “on call” engineer will be informed of any lone working employees, their location and the time of last contact.
- Every 2 hours, or when leaving site once the work has been completed, the employee must contact the office or “on call” engineer to log off.
- If the employee fails to make contact after 2 hours, then contact will attempt to be established by the office or “on call” engineer. If there is no response then the alarm must be raised – contact the customer, AK Controls director or emergency services as necessary.