

Workplace Health & Safety Information for Students on Work Experience

GENERAL SAFETY

INTRODUCTION: The prevention of accidents in all places of work is the duty of every person using or entering them. Ensuring the health and safety of others is as important as the avoidance of personal injury. You should make it one of your first tasks on placement to become familiar with any special instructions or procedures issued for dealing with emergencies relevant to the place in which you are working.

GENERAL SAFETY RULES: You should always follow the workplace rules set out by the employer, for instance for eating, drinking and smoking. You must familiarise yourself with:

- the layout of the building;
- the location of fire-fighting appliances and how they work;
- ways of getting out of the building in an emergency which may be different to the way you came in;
- the siting of telephones;
- first aid arrangements.

Remember, it may be too late to find out much if an emergency actually happens. If you have any queries on safety matters consult your Workplace Supervisor.

THE 'HEALTH AND SAFETY AT WORK, etc ACT 1974' (HASWA): The Act is based upon the concept of a general 'duty of care' for most *people associated with work activities*, and the specific aims are to:

- **secure** the health, safety and welfare of **persons at work**;
- **protect persons** other than persons at work against risks to health or safety arising out of, or in connection with, the activities of persons at work;
- **control** the keeping and use of explosive or highly flammable or otherwise dangerous substances, and generally prevent the unlawful acquisition, possession and use of such substances;
- **control** the emissions into the atmosphere of noxious or offensive substances.

The main provisions of HASAW as applicable to people, are to place various duties upon employers, employees and others. In brief, these are:

General duties of employers: Employers are required, as far as reasonably practicable, to:

- ensure the health, safety and welfare of employees;
- provide safe plant and systems of work;
- ensure safe use, handling, storage and transport of articles and substances;
- provide information, instruction, training and supervision;
- maintain a safe place of work and safe means of access and egress;
- provide reasonable adjustment for disabled students.

General duties of employers to employees: The effect is to make criminally enforceable the common law duty to take reasonable care for the safety of employees. This includes the requirement, as far as reasonably practicable, to:

- ensure employees know the risks;
- ensure employees know the precautions;
- ensure the precautions are available;
- ensure employees know the precautions available.

General duties of employers to persons other than employees: Employers have a general duty to protect anyone affected by the undertaking, e.g. the general public. Regulations:

- require information to be given to persons affected, e.g. living near the plant;
- prescribe situations regarding emission of fumes, smoke, etc;
- place duties on persons in control of premises in relation to harmful emissions into atmosphere.

Duties of employees and students on work experience:

- to take reasonable care for themselves and others;
- to co-operate with the employer and to use safety appliances;
- not to interfere with or misuse safety appliances.

Written safety policies (businesses with more than 5 employees): Companies must prepare and revise, when necessary, a written statement of their general policy towards health and safety at work setting out:

- the organisation - i.e. who is responsible;
- the arrangements - i.e. what is to be done

ACTION TO BE TAKEN IN AN EMERGENCY: Because of the wide variety of work which is carried out and the possible complex layout of the various buildings it is not possible to produce a set of valid and detailed emergency instructions to cover every situation, which may arise. For this reason each employer has its own emergency instructions relating to particular buildings. There should be in every building a notice setting out the procedure to be adopted in case of fire/emergency.

This instruction should be studied and committed to memory: There are certain points which apply to all emergency situations:

- You should commit to memory the standing orders for emergency action. You will have no time to read them in an emergency;
- Remember, you are expected to act in the spirit of the instructions. There is no substitute for common sense;
- The most important consideration at all times is human safety;
- Remember, if you become a casualty someone must rescue you, possibly at personal risk to themselves;
- You should act quietly and methodically. You should not rush or attempt to pass others when leaving the scene of an emergency;
- The senior person present should assume control of the situation, ensuring the safe evacuation from the premises of all persons present and be prepared to warn the Emergency Services, etc, of known specific hazards.

If you have to telephone for assistance in an emergency, the following information must always be given:

- Who you are;
- Where you are: the location and telephone extension from which you are telephoning;
- The nature of the emergency and what services are required;
- The exact location where assistance is required. You should ensure that the message has been correctly received by asking for it to be repeated back to you;
- It is essential that the location is clearly defined. Local terminology should not be used because for instance, "the research site" means very little to the Emergency Services.

It is important always to give the correct name for the building and the street where it is located, if the postcode is known that should also be provided.

FIRE: GENERAL INFORMATION

Fire Precautions: applying routine precautions, some of which are set out below, can prevent most fires. When a fire occurs, the principal hazard to people is the smoke which is generated and most deaths at fires are due to asphyxia by smoke. Double doors in corridors and doors leading from

kitchens are designed to retain the smoke to allow the remaining corridors to be used for evacuating the building. The means of escape have a specified fire resistance so that the fire can be contained in a small section of the building.

Means of Escape: Ensure that rooms, passages, corridors and stairways are not obstructed and that fire doors are kept closed. If a room contains an emergency exit, make sure that it is unobstructed so that it is immediately available for use in an emergency.

Fire Extinguishers: *Do not attempt to use an extinguisher unless you have received appropriate instruction and training and if it is safe to do so.*

Discretion is essential in deciding the lengths to which first-aid fire fighting is pursued. Portable fire-fighting equipment is not designed to cope with extensive fires and it is important that first-aid fire fighting should cease and the location should be evacuated, as soon as the effects of fire threaten the means of escape, the building structure, or otherwise indicate that it is out of control.

Although further action might reduce material losses no such saving can compare in importance with human safety. Before attempting to fight a fire always ensure the alarm has been raised and ***you are able to leave the area if the fire escalates out of control.***

You should ensure you know the correct fire extinguisher to use and have received instruction in its use. For example, in a laboratory situation, use of the wrong choice of extinguisher can turn a minor incident into a major disaster. Several kinds of fire-fighting equipment may be found in the workplace. It is the duty of everyone to know where they are located, and for what types of fire each one is intended. Whenever fire-fighting equipment has been used an immediate report should be made to the supervisor so that the equipment may be recharged or replaced.

Use of Fire Extinguishers

Carbon Dioxide: Carbon dioxide extinguishers are the type most generally used for electrical fires or in laboratories, and have several advantages in dealing with small fires. No mess is made and there is little danger of apparatus nearby being knocked over or damaged. They can be used where live electrical circuits are involved. However, they have little cooling effect and until the extinguished material has cooled below the ignition temperature care must be taken to ensure that the fire does not re-ignite. Note: Carbon dioxide extinguishers are very powerful, they can reduce the oxygen content of the atmosphere in a confined space to a dangerously low level and can spread fire if used in the wrong circumstances.

Water: Extinguishers discharging water under pressure from a carbon dioxide cartridge are recommended for use on fires involving paper, wood, etc. They must not be used on fires where there are live electrical circuits. They may be used for solvents miscible with water. It should be noted that the strong jet of water can itself cause damage.

AFFF (Aqueous Film Forming Foam): This is a multi-purpose extinguisher suitable for most types of fires (materials etc) and it is ideal for dealing with the majority of fires involving flammable liquids. The aqueous film prevents re-ignition of the fire with limited cooling properties. Foam extinguishers may be used on immiscible liquids which are lighter than water, e.g. petrol and most oils. They must not be used where live electrical circuits are involved.

Hose Reels: These are usually sited in corridors or in large rooms, for use where extinguishers discharging water may be inadequate for the risk involved. They are intended to be used on fires involving wood structures, paper, fabrics, etc. The hoses are usually of 22 mm diameter and from 25-40 metres in length. Where a control valve is fitted, it is important to ensure that it is fully open before the hose is run out. Hoses fitted with automatic valves operate when between 1 to 3 metres of hose has been run off the wheel.

Fire/Smoke-Stop Doors: Fire/smoke-stop doors may be installed throughout buildings so as to prevent smoke and hot toxic gases circulating along routes to safety. These doors must not be wedged or propped open. They must be kept closed at all times.

Fire Detection Systems: Fire detectors give an early warning of a fire, particularly if the fire starts in an unoccupied area. There are generally two types of detector used, heat and smoke detectors

Misuse of fire-fighting equipment, e.g. hose-reels, fire extinguishers and fire-alarms, may render it inoperable when required in an emergency and could even result in loss of life. Moreover it is a criminal offence which may result in the imposition of severe penalties by the Courts and disciplinary action by the employer.

Fire Instructions: These appear in the Emergency Procedures for the organisation and possibly in the internal telephone directory. They should be displayed on notices in all buildings.

GENERAL PERSONAL SAFETY CONSIDERATIONS

- where possible work as a minimum in pairs;
- carry a mobile phone and a personal attack alarm whether female or male, all are equally vulnerable, particularly when alone;
- always carry enough money for both expected and unexpected expenses, including the use of taxis but do not carry large sums of money or valuables unless you really need to, ensure wallets, cameras, jewellery and expensive watches etc, are not on display;
- consider your dress carefully - is it appropriate for the location, try to fit in without attracting attention, do not wear clothes that might cause offence;
- do not stand in places where you will be causing an obstruction;
- always carry your staff/student ID card and be prepared to identify yourself.

Personal Safety Advice: Traveling Alone on Foot

- whenever possible avoid walking alone at night;
- keep to busy, well-lit roads, avoid poorly lit or rarely used underpasses and walk facing on-coming traffic;
- do not use a personal stereo - you will be unable to hear anyone approaching from behind;
- walk with confidence and purpose - try not to look as if you are not sure of where you are going.

Personal Safety Advice: Other People's Homes

- do not enter a house if the appropriate person is not available;
- wait to be invited in or at least ask to enter, let them lead the way;
- let them know how much of their time you will need.
- do not enter if the person is drunk or aggressive;
- ensure you can get out quickly if necessary;
- if you feel threatened at any point, make an excuse and leave;
- try not to react to dirty or "smelly" surroundings.

Personal Safety Advice: Pets

- Remember not all pets are "friendly";
- If entering a house with a dog or cat, ask that the animal be put in another room if you feel uncomfortable;
- If you are "wary" of a dog, do not enter the house unless the owner is prepared to remove the animal from the room you are going to be in.

Personal Safety Advice: Aggressive Behaviour:

- It is important, even if someone is trying to provoke you, not to respond in kind. Meeting aggression with aggression leads to confrontation and someone could get hurt. When faced with aggressive people or confrontational situations:
- stay calm; speak gently, slowly and clearly. Do not argue or try to outsmart the person verbally, breathe slowly to control your own tension;
- avoid body language which may be misinterpreted, such as looking down on the aggressor; hands on hips/folded arms; raised arms; any physical contact. Keep your distance, do not turn your back on someone who is behaving aggressively;
- talk through the problem, suggest going to see a colleague, allow aggression to be diverted against inanimate objects such as banging the table;

- try to compromise and offer the aggressor a way out of the situation, do not be enticed into an argument;
- sometimes it is not possible to contain and diffuse the threat of violence so be prepared;
 - While talking, assess possible ways you can escape if the situation worsens;
 - Try to prevent the aggressor blocking any possible escape routes;
 - Never turn your back. If you are trying to get away, move gradually backwards.

Physical self-defence should only be used as a last resort because it limits your options of getting away and will invariably commit you to a fight. Remember also, that if you respond physically you could be legally liable for assault.

ELECTRICAL SAFETY: Two of the worst electrical hazards are careless or unskilled workmanship and faulty or worn out equipment. Neither of these hazards need arise. Electric and electronic supplies and equipment, including batteries and electrolytic capacitors can be responsible for personal injury and even death. They can also cause fires and explosions.

Electricity and Fire: All portable electrical appliances should have a current PAT Certificate. This involves a mechanical and visual check that all socket outlets, switches, flexible leads and electrical appliances are in good condition. In case of fire involving electrical equipment, the first action to take must be to switch off the power supply to that equipment. You should extinguish an electrical fire with **CARBON DIOXIDE**, never with WATER or FOAM.

Use of Electric Points and Equipment: Lead length should be adequate for the particular job for which the equipment is currently being used. In no circumstances must you interfere with the wiring or connections of any electric point or appliance. A duly authorised competent person will carry out all necessary adjustments or modifications to wiring.

NOISE: Noise can cause damage to hearing, reduce efficiency or merely annoy. Damage to hearing can result from a sudden violent sound producing an effect as dramatic as the rupture of an eardrum. Continuous exposure to lower noise levels can, however, produce deafness. In the latter case the impairment to hearing may pass unrecognised for a long period of time due to the insidiousness of the effect. For advice on noise problems you should consult the organisation's Safety Officer.

FIRST AID: It is a legal requirement to report all accidents in the workplace. Medical advice should always be sought, however serious the injury. Initially, simple first aid measures may be applied. Thus

Minor cuts: Cuts and grazes are best treated by cleansing under running water and then dried. A dry dressing or plaster should then be applied.

Severe bleeding: Bleeding will be stopped by applying direct pressure on a dressing covering the wound and if possible elevating the affected part.

Burns and scalds: The affected parts should be immersed under running cold water for about 10 minutes at least then a dry dressing only applied.

Chemical spillage: All chemicals must be washed off the body with copious amounts of water. Some laboratories have emergency showers and should always be used when available.

Needle stick injuries: Allow all puncture injuries to bleed freely then wash under running water using soap or a hand cleanser. The injury should be reported immediately to the provider.

Eye injuries: All eye injuries must be irrigated thoroughly then treated at the Medical Centre or local hospital. You should never attempt to remove foreign objects from the eye. Always seek medical assistance.

'CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS 2002' (COSHH) applies specifically to the assessment of virtually all substances hazardous to health, except, asbestos, lead, substances which are hazardous only because they are radioactive, or have explosive or flammable properties, as other regulations apply to these risks.

Hazardous substances in the workplace could include adhesives, paints, cleaning agents, fumes from soldering or welding, wood dusts, laboratory chemicals etc. If your placement activity involves you working with hazardous substances, your placement provider MUST have had assessed the risks to health from the substances, decided what precautions to prevent exposure are required, ensured that control measures are used and maintained, monitored exposure, carried out health surveillance checks and ensured that as an 'employee' you are properly informed, trained and supervised in their use.

'PERSONAL PROTECTIVE EQUIPMENT (PPE) REGULATIONS 1992: PPE is defined as 'all equipment (including clothing affording protection against the weather) which is intended to be worn or held by a person at work and which protects him against one or more risks to health or safety'. If you are undertaking a work-based activity and you have been provided with PPE you MUST use/wear it. It is an offence to damage or interfere with any PPE you have been provided with. Your provider must provide your PPE free of charge to you.

DISPLAY SCREEN EQUIPMENT REGULATIONS 1992 (DSE): These regulations require employers to minimise the risks in DSE work by ensuring that workplaces and jobs are well designed. They apply where staff habitually use VDUs as a significant part of their normal work. Other people, who use VDUs only occasionally, are not covered by these Regulations, but their employers still have general duties to protect them under other health and safety legislation. Employers must, analyse workstations, and assess and reduce risks the whole workstation including equipment, furniture, and the work environment; the job being done; and any special needs of individual staff (whose views may be sought as part of the assessment). Where risks are identified, the employer must take steps to reduce them.

Screen/display should:

- have a clear image, without flicker or glare;
- have a controllable contrast;
- be adjustable for tilt and swivel.

Keyboard should:

- be detachable and moveable, light but stable;
- have separate number keys;
- have a non-reflective finish.

Desk should be:

- of sufficient size for the task, providing space for equipment, documents and the user;
- stable and have a non-reflective finish, with no sharp edges.

Chairs should be:

- stable, with five star base configuration on castors and swivel to give access to work surface/storage;
- easily adjustable from a sitting position for height, have an adjustable backrest for height and tilt;
- you should undertake regular changes of activity, which do not involve use of DSE equipment? (i.e. at least 5-10 mins break from keyboard/screen work every 50-60 mins).

ACCIDENT REPORTING: The reporting of accidents and ill health at work is a legal requirement under the 'Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995' (RIDDOR), whether they are an employer, self-employed or person in control of work premises they will have duties under RIDDOR which will require them to report some work-related accidents, diseases and dangerous occurrences - it applies to all work activities.

If you have an accident or a 'near-miss' incident whilst on placement you MUST notify your placement provider and ensure that they notify your University Placement Organiser. It should be noted that

even an injury, which appears at first sight to be trivial, should be reported, since some 'trivial' injuries occasionally develop into more serious situations.

RISK ASSESSMENT: Assessment of health and safety risks is a legal requirement. You cannot manage risk (and therefore protect yourself & others) without first having assessed it.

The employer should therefore risk assess all significant risks before the work activity commences, giving sufficient time to allow necessary control measures to be put in place and ensuring that persons are informed of the significant risks and the necessary control measures to reduce risk. Some activities may require a dynamic risk assessment approach with the activity being continually assessed as the activity progresses.

A risk assessment must include:

- Description/details of the activity;
- Identification of any hazards associated with the activity and risks they present;
- Assessment of who might be harmed and how (assessment of individuals may be required);
- Identification of existing controls/precautions;
- Identification of any further controls/precautions to reduce risk further;
- Assessment of remaining level of risk (e.g. low / medium / high);
- Record risk assessment (if significant hazards);
- Reviewing assessment as required (e.g. if significant changes occur to activity or control measures).

To ensure your own safety, as far as reasonably practicable, you should employ these two age-old maxims

“If it looks dangerous, it probably is” and “If in doubt, ask”