UNIVERSITY OF STRATHCLYDE

DEPARTMENT OF PURE AND APPLIED CHEMISTRY

INDUSTRIAL TRAINING PLACEMENT - HEALTH AND SAFETY

(1) I have received a copy of the "Guidance Notes for Students on Placement", and I undertake to read the Guidance Notes thoroughly before starting my placement.

(2) I undertake to inform the University without delay if I have reason to be uneasy about safety procedures during my placement, or about the risks associated with my work.

(3) I have received a formal labelled "Student Induction Checklist" and I undertake to return this form, completed, to

Laureen Sykes,
Department of Pure and Applied Chemistry,
University of Strathclyde,
295 Cathedral Street,
Glasgow Gl IXL

within three weeks of starting my placement.

Name: .....

Student Number: .....

Signature: .....

Date: .....

Student Induction Checklist

Name of student _____ Start Date _____

Employer _____

The following items should be included in your induction into the organisation, preferably on your first day. Please check off the items below when they occur. It may be that not all of the items below are applicable, for example, your work placement may not involve any manual handling. This list is not exhaustive and topics may be covered, which you may note if you wish:

HEALTH & SAFETY ISSUES	**Date**
Emergency procedures.	
First Aid arrangements.	
Fire procedures.	
Accident reporting and location of accident book.	
Safety policy received or location known.	
COSHH regulations/risk assessments.	
Display Screen Equipment regulations/risk assessments.	
Manual handling regulations/risk assessments.	
Other appropriate risk assessments.	
Protective clothing arrangements.	
Instruction on equipment you will be using.	
Other issues:	

Signed _____ Date _____

return this form, completed <u>within three weeks</u> of starting your placement to:-

Laureen Sykes,
Department of Pure and Applied Chemistry,
University of Strathclyde,
295 Cathedral Street,
Glasgow Gl IXL

Guidance Notes for Students on Placements
(Health and Safety)

Action to be taken in an emergency

Because of the wide variety of work that 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 that may arise. For this reason, each employer has their own emergency instructions relating to particular parts of the organisation and buildings. There should be a notice in every building setting out the procedure to be adopted in case of fire.

This instruction should be studied and committed to memory.

There are certain points that 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.

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

- Who you are.
- Where you are: ie, the location and telephone telephoning.
- The nature of the emergency and what services are required.
- The exact location where assistance is required.

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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 post code is known, that should be provided.

The Health and Safety at Work Act 1974 (HASWA)

The Act is based upon the concept of a general duty of care for most people associated with work activities. 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 emission into the atmosphere of noxious or offensive substances.

Main provisions of HASWA

There have been a number of Regulations, etc, since HASWA but fundamentally they only amplify the basic concepts contained within HASWA. Those provisions 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 and 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.

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

No levy on employees is permitted for the provision of statutory protective equipment.

Employers also have legal responsibilities to persons other than employees, eg, visitors, the general public, contractors who may be affected by the employer's work activities.

Duties towards the customer

Duties of those who design, manufacture, import or supply and install articles or substances are to:

- ensure that they are safe and without risk to health;
- carry out tests, examination and research (or have it done on their behalf);
- provide adequate information regarding proper use, maintenance, etc;
- install or erect plant and equipment safely.

The duties can be discharged by a written undertaking from the supplier that they will take the necessary steps to ensure that the article or substance will be safe in use or while being cleaned, maintained, etc.

Duties of employees

Employees must:

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

Written safety policies

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

- the organisation - ie, who is responsible;
- the arrangements - ie, what is to be done.

Safety representatives and committees

Trade Unions may. in accordance with regulations, appoint safety representatives and ask for a safety committee.

There is a duty on an employer to enter into consultation with representatives. whose functions and rights are prescribed by regulations.

The Management of Health and Safety at Work Regulations, 1999

There are a number of pieces of legislation which require specific risk assessments to be carried out in certain circumstances, for example, manual handling, the use of display screen equipment (mainly VDU screens) and the use of hazardous substances (The Control of Substances Hazardous to Health Regulations (COSHH)). The host employer is required, by law, to ensure

that if you are in a position where any of these specific pieces of legislation apply, eg, if you are using a computer, if you are expected to carry loads or if you are exposed to any chemical or other substances hazardous to health, then a risk assessment must be carried out which details the control measures which need to be taken in the circumstances. However, under the Management of Health and Safety at Work Regulations, 1999 there is a duty on the employer to carry out a risk assessment of all the risks (which are not already covered by specific legislation) to which their employees might be exposed while they are at work. Many risks can be covered by generic assessments which include specific controls, eg, organisations' health and safety policies, individual areas' safety regulations, safe operating procedures, etc. However, there are many instances in industry and commerce, particularly in research, where specific risk assessments for the work you will be doing are required by law. In such circumstances these must be made known to you by the employer and you must ensure you work to the risk management controls identified as necessary by the risk assessment.

General Safety

Introduction

The prevention of accidents in laboratories, stores, workshops and all other places of work is a duty of every individual using or entering them. Ensuring the safety of others is as important as the avoidance of personal injury.

Everyone should make it their first task to become familiar with any special instructions issued for dealing with emergencies peculiar to the place in which they are working.

General safety rules

Eating, drinking, smoking and the application of make-up in laboratories or when handling or working with chemicals is prohibited. Smoking may also be prohibited in many other areas.

You should familiarise yourself with:

- the layout of the building;
- the location of fire-fighting extinguishers (if you have not been trained in their use do not attempt to use the extinguisher);
- ways to get out of the building in an emergency, which may be different to the way you came in;
- the siting of telephones
- and first aid arrangements.

Remember: it may be too late to find out very much when an emergency actually happens.

If you have any queries on safety matters: consult your supervisor or safety representative.

Specific topics

Fire

General information

Most fires can be prevented by applying routine precautions, some of which are set out below. When a fire occurs, the principal hazard to people is the smoke that is genefated and the cause of most deaths at fires is asphyxia by smoke. Fire doors in corridors and doors leading from kitchens, for example, are designed to retain the smoke to allow the remaining corridors to be used for evacuating the building. The walls of corridors have a specified 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 corridor 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/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 after access and egress has been effected.

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.

Electricity and fire

All portable electrical appliances should have a current PAT certificate. This involves a mechanical and visual check that all *plugs,* 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 *(if it is safe to do so.)* You should extinguish an electrical fire with *carbon dioxide,* **never with water or foam**.

Precautions in offices, libraries, etc

A recent nation-wide survey has revealed that offices are the scene of a substantial number of serious accidents every year. Most of these are avoidable. There is an increasing use of machinery in offices, eg, paper-guillotines, duplicators, etc, which should be operated only according to the makers' instructions. Only maintenance personnel should remove the enclosing panels of machines.

All portable electric appliances should carry a current Portable Appliance Test label. Leads should not be allowed to trail in a manner likely to cause persons to trip over them or to pull over the item. You should not leave appliances in precarious positions nor use waste-paper baskets as ashtrays.

Care must be taken to avoid spillage of water in rooms in which there are electric power points set in the floors. It is possible, in some circumstances, for a person standing on such a wet floor to receive a severe, possibly fatal, electric shock.

When carrying files or other materials you should not carry so many that your vision is obscured. Filing cabinet drawers should always be closed as soon as you have found what you want. The comer of a metal drawer can inflict a very painful injury. Open only

one drawer at a time because more than one drawer open may cause a filing cabinet to tip forward.

You must never stand on revolving stools or chairs and should only use appropriate kick-stools or step ladders to go above head height.
You should not leave stacks of boxes, bags or files on the floor near doorways for people to fall over. Polished floors, particularly if waxed or wet, offer a hazard. You should never run on the polished floor of corridors or common rooms.

Work outside normal hours

Many companies have their own rules with regard to work outside normal hours, eg, 0800 to 1800 hours, Mondays to Fridays. Saturdays, Sundays, Bank Holidays and other official holidays are usually regarded as outside normal hours.

Extreme care should be exercised when working outside normal hours. *Such wor#(must only be undertaken* with the explicit authority of the management of that organisation. It should be forbidden to perform operations deemed hazardous by the employer unless accompanied by another member of staff and only after prior permission has been given by the Head of the Section or their nominee for the particular work involved.

Electrical hazards

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. Remember, some foreign colour coding of electrical leads differ from British practice. **If In doubt, ask.**

Use of electric points and equipment

Lead lengths should be adequate for the particular job for which the equipment is currently being used. In no circumstances should you interfere with the wiring or connections of any electric point or appliance. All necessary adjustments or modifications to wiring will be carried out by a duly authorised, competent person.

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 ear drum. 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 *Adviser.*