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A Guide for Managers

Health and Safety

**fire service guide
Volume 2**



Scottish Office



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A Guide for Managers

Health and Safety

**fire service guide
Volume 2**

HM Fire Service Inspectorate
Publications Section

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A Guide for Managers

Health and Safety and the Fire Service

By its very nature the work of the fire service has always been hazardous. Firefighters are frequently exposed to risks, whether it be in operational situations or during training.

It is a reality that each year a number of firefighters are injured, some seriously, and occasionally some make the ultimate sacrifice in their service to the public.

Whilst some fire brigade officers may see health and safety as another bureaucratic burden that gets in the way of doing the job, there is no doubt that fire brigade officers care for those under their command.

This guidance has been prepared with a view to better enabling fire brigades to meet their moral and legal obligations or 'duty of care' to all their employees and other persons who may be affected by their work.

Effective Health and Safety Management

Within any fire brigade the effectiveness of any arrangements to comply with the law on health and safety will amongst other things, depend upon:

- 🔥 The policy and objectives set by the Chief Officer, Firemaster.
- 🔥 The commitment of **individual managers** throughout the brigade to achieving those objectives within the brigade management plan.

From the outset brigade managers should understand that:

- 🔥 Like any other command or management function, the main responsibility for health and safety rests with them as managers.
- 🔥 The responsibility should not be delegated to advisers, despite the importance of their role as professionals in the field.
- 🔥 Managers can be held personally responsible for failures to control health and safety.

Effective Health and Safety Management (contd).

The guidance contained in this and the other volumes seeks to dispel the mystery which sometimes surrounds health and safety. It aims to give managers the knowledge and confidence to develop local policies which promote the safety and health of all employees within their command. It also highlights the cost and operational benefits to be derived from good health and safety management.

Section 1

Health and Safety Law and the Legal Responsibilities of Fire Service Managers





The Health And Safety At Work etc Act 1974 (HASWA)

The Health and Safety at Work etc Act 1974 (HASWA) provides the basic framework for health and safety legislation in Great Britain.

This framework has been made more explicit by the **Management of Health and Safety at Work Regulations 1992**. These are summarised briefly later in this Section.

Objectives

The HASWA begins by setting out the following health and safety objectives:




-  to secure and improve standards of health, safety and welfare of people at work;
-  to protect the health and safety of others who are affected by the activities of people at work;
-  to control the keeping and use of explosive or highly flammable or otherwise dangerous substances; and
-  to control the emission into the atmosphere of noxious or dangerous substances.

Achievement of Objectives

To achieve these broad objectives the HASWA creates a framework of obligations and control measures, backed up by sanctions of criminal law.

General Duties

In general terms the duties imposed by the HASWA are for:

-  employers to safeguard the health and safety and welfare of their employees, and the safety of others affected by their undertakings;
-  controllers of premises to prevent harmful emissions; and
-  designers, manufacturers, importers, suppliers and installers to ensure the safety of articles supplied for use at work.

Although some parts of the HASWA apply to Northern Ireland the principal legislation which applies there is the **Health and Safety at Work (NI) Order 1978**.

Duties of Employers and Employees

This section summarises the general duties which the HASWA:

- 🔥 places on employers in respect of their employees and others affected by their undertakings; and
- 🔥 requires of employees whilst they are at work.

It also takes account of some additional requirements of the Management of Health and Safety at Work Regulations 1992.

General Duties of Employers to Employees

Section 2 of the HASWA imposes a general duty on every employer to:

ensure, so far as is reasonably practicable, the health, safety and welfare of all their employees.

Section 2 then goes on to specify 5 areas which, in particular are covered by the employer's general duties.

- 🔥 **providing and maintaining** plant and systems of work that are, so far as is reasonably practicable, safe and without risks to health;
- 🔥 safe arrangements for the **use, handling, storage and transport** of articles and substances;
- 🔥 **providing necessary information, instruction, training and supervision** for ensuring, so far as is reasonably practicable, the health and safety at work of employees;
- 🔥 **maintaining places of work under the employer's control** in a condition which is safe and free from health risks, and with safe means of entry and exit; and
- 🔥 **providing and maintaining a working environment** for employees that is, so far as is reasonably practicable, safe, without risks to health and has adequate facilities for their welfare at work.

These general responsibilities are more explicitly covered by regulations which specify the obligations in greater detail.

Written Statement of Health and Safety Policy

Section 2 also requires an employer to prepare, and at appropriate intervals revise, a written statement of:

- ✦ the general policy for the health and safety at work of employees; and
- ✦ the organisation and arrangements in place for carrying out that policy.

The employer is also required to bring the statement and any revision to the notice of all employees.

The Management of Health and Safety at Work Regulations 1992 extends this duty to record health and safety arrangements to that of recording arrangements for **the effective planning, organisation, control, monitoring and review of the preventive and protective measures.**

Consultations with Employees - Health and Safety Committees

Employers are also required to consult employees and their representatives on the making and maintenance of health and safety arrangements and checking their effectiveness.

Section 2 of the HASWA also provides that:

- ✦ recognised trade unions may appoint safety representatives to represent employees in these consultations; and
- ✦ if requested to do so by the safety representatives employers are required to establish formal **safety committees** for that purpose.



The Health and Safety (Consultation with Employees) Regulations 1996 provides that:

- ✦ Employers should consult with any employees not in groups covered by Trade Union Safety Representatives.



Detailed guidance on this and the 2 sets of Regulations which apply is contained in Section 5.

Duties of Employers to Others

Section 3 of the HASWA places general duties on employers to persons who are not employed by them but who are affected by their activities. In this case the duties on employers are:



-  to conduct their undertaking in such a way as to ensure, so far as is reasonably practicable, that these other persons are not exposed to health and safety risks; and
-  where there is a legal obligation to do so, to provide information to these and other persons about possible risks to their health and safety.

Within the fire service there are many instances where this duty will apply, for example:


-  to contractors and visitors to fire service premises, open days and displays; and
-  to persons who may be affected by fire brigade operations during incidents or any other work activity.

Duties of Employees


Section 7 of the HASWA places general duties on employees while they are at work. It requires an employee:

-  to take reasonable care for their own health and safety and that of other persons who may be affected by their acts or omissions; and
-  to co-operate with the employer to enable the employer to comply with statutory duties for health and safety.

Section 8 further states that:

-  no person shall intentionally or recklessly interfere with or misuse anything provided in the interests of health, safety or welfare in pursuance of the relevant statutory provisions.

Under Regulation 12 of the Management of Health and Safety at Work Regulations 1992 these obligations are extended so as to require employees:

-  to use correctly all work items provided by their employer, in accordance with their training and the instructions they receive to enable them to use the items safely.



to inform their employer, or the persons responsible for health and safety, of:

- any work situation which might present a serious and imminent danger, and
- any shortcoming in health and safety arrangements.


These requirements point to the importance of involving employees in the development of health and safety arrangements.








Prohibition on Charging

Finally, Section 9 prohibits employers from levying charges on employees for anything which is done or provided by the employer to meet specific requirements of the health and safety legislation. An example of such illegality might be to charge for the issue of protective clothing.




The Health and Safety Commission and Health and Safety Executive

Two bodies were established by the HASWA (the Health and Safety Commission and the Health and Safety Executive) to enforce the HASWA and associated legislation.

 ***The Health and Safety Commission (HSC)*** consists of a part time Chairman and nine members appointed by the Secretary of State with wide powers to supervise the legislation and to develop new policies. **The duties of the HSC include:**

-  promoting the objectives of the HASWA;
-  providing advice to the Government;
-  carrying out and encouraging research and training;
-  directing inquiries and investigations;
-  providing an information and advisory service;
-  preparing proposals for new legislation and submitting them to the Secretary of State and other Ministers;
-  approving Codes of Practice and Guidance on the operation of health and safety regulations.

The Health and Safety Executive (HSE) is the executive arm of the HSC. The responsibilities of the HSE include:

-  enforcing the legislation through their inspection programmes and investigations into reported serious accidents;
-  developing health and safety laws, codes and standards; and
-  providing advice and information and issuing licences to employers and others.



Regulations

The HASWA gives the Secretary of State wide powers to make regulations to secure the objectives of the health and safety legislation.

The modular guidance in Section 5 of this volume describe the regulations which have most relevance to fire service work.

Enforcement


In order to secure compliance with legislation, the HASWA:

-  gives the HSE responsibility for enforcement, except in cases where enforcement is delegated to local authorities; and
-  provides for the appointment of Inspectors with wide powers, which include powers:
 - of entry and investigation;
 - to issue improvement notices and prohibition notices to remedy contraventions of the health and safety legislation; and
 - to prosecute offences (in Scotland this will be done by the Procurator Fiscal, in Northern Ireland this is done by the Health and Safety Division of the Department of Economic Development).

Offences, Penalties and Prosecutions

Offences under HASWA

The Act creates a number of offences, which include:

-  failing to comply with the general duties imposed on employers, employees, the self-employed, people in control of premises,

manufacturers etc., or failing to comply with any requirement imposed by Regulations made under the Act;

- 🔥 obstructing or failing to comply with any requirements imposed by Inspectors in the exercise of their powers;
- 🔥 failing to comply with an improvement or prohibition notice;
- 🔥 failing to supply information as required by a notice issued by the HSC; and
- 🔥 failing to comply with a court order to remedy the cause of an offence.

Penalties

The offence of obstructing an Inspector can be tried only summarily, where the maximum penalty is level 5 on the standard scale (a fine not exceeding £5,000).

Other remaining offences in England and Wales can be prosecuted in the Magistrates' Courts or tried by jury in the Crown Courts. In the case of particularly blatant offences, or a persistent offender, the Inspector may decide to apply for the magistrates to commit the defendant for trial on indictment. The defendant must also be given the opportunity in the Magistrates' Court to elect for trial on indictment. The maximum penalty which may be imposed on summary conviction is a fine of up to £5,000 per offence or for some offences up to £20,000 per offence or up to six months imprisonment. On indictment an unlimited fine may be imposed. In the case of failing to comply with an improvement or prohibition notice or a court order, the penalties are a fine or up to 2 years imprisonment, or both.




In Scotland, all cases are heard in the Sheriff's Court either under summary procedure (without a jury) or solemn procedures (with a jury).

Who can be prosecuted?

Offences under the Act may be committed either by individuals or by corporate bodies such as limited companies, nationalised industries or local authorities. If an offence committed by a corporate body was committed with the consent or connivance of or because of the negligence of a director, manager, secretary or other similar officer, the director, manager, secretary etc is also guilty of the offence and may be prosecuted as well as the corporate body.

In England and Wales the HSE decide whether to prosecute. In Northern Ireland the Health and Safety Division of the Department of Economic Development makes that decision. In Scotland the Procurator Fiscal decides.

Whether prosecution goes ahead depends very much on the circumstances of a particular case. But prosecution is more likely if:

-  there is a significant risk to health and safety, either because several people are at risk, or because the risk is considerable;
-  safe practice has been ignored; or
-  the employer has ignored previous advice.

If someone ('person A') commits an offence because of an act or default of another person ('person B'), then 'person B' will also be guilty of the offence, and can be prosecuted, whether or not proceedings are taken against 'person A'.

Court Orders



When someone has been convicted of an offence under the Act or related legislation, the Court may order that person to take within a stated time limit specified action to put matters right. Such an order may be made instead of or in addition to other penalties. Failure to comply within the time limit would constitute a further offence.

Inspection And Enforcement

The Health and Safety Executive (HSE) is the enforcing authority for the HASWA and associated legislation in respect of all fire service work activities.

Introduction

This Section describes:

-  the way in which the HSE Inspectorate is organised; and
-  the powers of Inspectors and the way in which they operate when carrying out inspections

Organisation of HSE Inspectorate

HM Inspectors of Health and Safety operate from 19 HSE Area Offices. (The contact details of these offices can be found in Appendix 1 at the end of this volume)

In addition most area offices have groups with responsibility for developing health and safety policy in relation to one or more work sectors. These are

called National Interest Groups. Fire Service issues are handled by the National Interest Group (NIG) for Crown, Fire and Police, which is located at the Basingstoke Area Office.

Powers of HSE Inspectors

Under the HASWA, HSE Inspectors have a wide range of powers. Among other things they can:

- ✦ enter premises at any reasonable time (or at any time if they think a work related situation is, or may be, dangerous);
- ✦ carry out examinations and investigations;
- ✦ direct those premises or any part of them be left undisturbed so long as is reasonably necessary for the purpose of any examination or investigation;
- ✦ take measurements, photographs and samples;
- ✦ take possession of articles or substances and arrange for them to be dismantled or tested;
- ✦ require information and take statements from people they think can help in any investigation;
- ✦ inspect and copy documents; and
- ✦ issue improvement and prohibition notices and prosecute people and companies.

Purpose of Inspections




HSE Inspectors visit employers in order to:

- ✦ make sure that risks from work activities are properly managed;
- ✦ help people who have responsibilities under the law, or to talk over a particular problem, often at an employer's request;
- ✦ investigate accidents and ill health;
- ✦ investigate and help settle complaints about working conditions that could affect health, safety or welfare; and
- ✦ gather information, for example about technical developments or work related ill health and follow up earlier enforcement action.



Conduct of Inspections

This will depend upon why the inspection is being made and the type of organisation being visited. As a rule, places with more serious hazards or risks, or where hazards have been poorly controlled in the past, are visited more often.

Inspectors generally call by appointment. They will normally wish to:

-  talk to managers, supervisors, employees, health and safety representatives and others, including any health and safety advisers;
-  look around parts of the premises; and
-  see paperwork such as health and safety policies, risk assessments, equipment maintenance and inspection records, training and accident records.

Inspectors have a legal duty to tell employees about workplace health, safety and welfare. They do this by:



-  talking to safety representatives and employees during visits; and possibly
-  sending a letter to employees and/or their representatives.

At the end of the visit the Inspector will tell the employer what further action, if any, HSE is going to take. The Inspector may ask the employer to confirm in writing the action agreed.

Enforcement Action

If Inspectors find something unsafe or against the law they will use their judgement to make sure that employers in similar circumstances are treated in a similar way. Their main aim is to help and advise, but if they find reckless disregard for the law, they will have to take action. This means Inspectors will require action in **proportion** to the risks concerned.

Formal enforcement powers will only be used when it is the most appropriate way of dealing with the matter. Inspectors might:

-  issue a **warning or advice**, either orally or in writing, on the steps needed to put things right; or
-  issue an **improvement or a prohibition notice**.

Improvement notices

Inspectors can issue an improvement notice when they consider that health and safety legislation is being contravened. A notice can be issued when the legal requirements being broken are part of the Act or are part of any other relevant statutory provision.

The period allowed to put matters right must also be stated and may not be less than 21 days, as this is the time limit for taking an appeal to an industrial tribunal.

Inspectors may state in the notice what action they think may be necessary to put matters right and may in doing so refer to, for example, an Approved Code of Practice or other published guidance such as British Standards.

Prohibition notices (immediate and deferred)

A prohibition notice may be issued when an inspector considers that there is a risk of *serious personal injury*. The notice prohibits the carrying on of the work activity giving rise to the risk of injury. If an inspector considers that the risk of injury is imminent, the notice must take immediate effect and stop the work activity at once. If not, the prohibition notice must be deferred, stating that the work activity must be stopped within a certain specified time. Apart from this difference in timing, immediate and deferred prohibition notices are identical. Both kinds of notice can be issued for work activities which are about to begin, as well as those already started.

When notices are issued:

- ✦ the Inspector will inform the person concerned about their right to appeal to an Industrial Tribunal and will provide a form to use to appeal;
- ✦ a copy of the notice is provided for employees and the notices are put in a register which is open for public inspection; and
- ✦ the Inspectors will follow up notices to check what has been done. Failure to comply is a serious offence which may lead to prosecution.

Service of notices

An improvement notice is served on the person responsible for the breach of legal requirements, the improvement notice is served on the employer, ie the Fire Authority. A prohibition notice is served on the person carrying on or in control of the activities concerned, whether or not that person would also be

responsible for any breach of legal requirements. A prohibition notice might, therefore, be served on a station commander.

Withdrawal of notices

Once any remedial action necessary to comply with a notice has been taken the notice ceases to have effect and there is no need for it to be withdrawn. However, in certain circumstances, the issuing inspector may decide to withdraw an improvement or deferred prohibition notice, for example, if the situation giving rise to the notice changes.

Management Of Health & Safety At Work Regulations 1992

Introduction

These Regulations establish a basic framework for the effective management of health and safety within organisations.



In broad terms they can be said to create the infrastructure which employers need in order to comply with their general duties under the Health and Safety at Work etc. Act 1974.

The Regulations cover the following main areas:

- ✦ risk assessments;
- ✦ the recording of Health & Safety arrangements;
- ✦ health surveillance;
- ✦ appointment of competent persons;
- ✦ emergency procedures;
- ✦ information;
- ✦ capabilities and training; and
- ✦ co-operation and co-ordination.

Risk assessment





In its application to the fire service this requires:

-  all Brigades to carry out a suitable and sufficient assessment of the risks to the health and safety of their employees and of others affected by their work;
-  that the assessments:
 - should identify the measures needed to comply with their general duties under the HASWA and the more specific duties in the various Acts and Regulations associated with the HASWA;
 - should be reviewed when there have been significant changes or if there are reasons to suspect that they are no longer valid; and
 - should be in writing or in some other way that is easily retrievable and should include the significant findings of the assessment and details of any group of employees identified as being significantly at risk.

Risk assessment for operational incidents is covered in detail in Volume 3: *A Guide to Operational Risk Assessments*.

Arrangements

Chief Fire Officers, Firemasters must introduce appropriate arrangements for effective:

-  planning;
-  organisation;
-  control; and
-  monitoring and review;

of the preventive and protective measures. This information must also be recorded, for example, as part of the brigade's Health & Safety policy

Health Surveillance

Under the Regulations, brigades will be required to ensure that employees are provided with health surveillance appropriate to any risks to their health and safety which are identified in the risk assessments.

The objective of health surveillance is to detect adverse effects at an early stage, thereby enabling further harm to be prevented.

Competent Persons




Employers must appoint one or more competent persons to assist in undertaking the measures necessary to comply with the relevant statutory provisions.

For the purposes of this Regulation a competent person is defined as one who has sufficient training and experience or knowledge and other qualities which enable them to provide proper assistance in such matters.



Guidance on the appointment of competent persons is contained in Section 5, Module 10.

Emergency Procedures

This requires employers:




-  to establish and effect appropriate procedures to be followed in the event of serious and imminent danger;
-  to nominate persons competent to implement the evacuation procedures; and
-  restrict access to danger areas in certain circumstances.

Workers exposed to the danger should:

-  be informed of the nature of the hazard and the protective steps, so far as reasonably practicable; and
-  be able to stop work and immediately proceed to a place of safety if exposed to serious, imminent and unavoidable danger.

Information

This requires employers to provide comprehensible and relevant information to employees on:

-  risks to their health and safety identified in any risk assessment;
-  preventive and protective measures;
-  emergency procedures;

- ✦ the persons appointed to implement emergency evacuation procedures; and
- ✦ the risks arising from the activities of other employees who share the same workplace.

Capabilities and Training

In entrusting tasks to employees, employers must:

- ✦ ensure that the demands of the work given to employees do not exceed their ability to carry out the work without risk to themselves or others (taking into account their capabilities, level of training, knowledge and experience); and
- ✦ ensure that adequate health and safety training is given to employees upon recruitment and on exposure to new or increased risks.

Co-operation and Co-ordination

Where employers are sharing a workplace, whether or not permanently, each employer is required to:

- ✦ co-operate with the other employers concerned so far as necessary to comply with the health and safety requirements;
- ✦ take reasonable steps to co-ordinate their health and safety measures with those of the other employers; and
- ✦ take all reasonable steps to inform the other employers concerned of the risks to their employees' safety arising out of their undertaking.

Further Guidance

Management of Health and Safety at Work Regulations 1992;
Approved Code of Practice
ISBN 0 11 886330

Successful Health and Safety Management
HSG65 HSE Books

A guide to the Health and Safety at Work etc Act 1974
published by HSE Books (L1)

Further Guidance (contd)

Working with Employers
published by HSE (HSE26);

Enforcement policy statement
published by Health and Safety Commission (MISC030);

Your rights when health and safety inspectors take action
published by Health and Safety Commission (MISC033);

Dealing with the HSE - Guidance for CACFOA.

Health and Safety Regulation - A short guide
HSC13 HSE Books

Health and Safety Executive and You
HSE34 HSE Books

Fire Service Circular
(Fsc) 5/95

Health And Safety Training

Introduction

People are the most valuable asset of the fire service. It is vital, therefore, that they are properly trained and equipped in order that they can perform to the highest possible standard.

The fire service has a tradition of providing both on the job and developmental training. It is vital that this training leads to the performance of fire service work in as safe a way as is reasonably practicable. In addition specific health and safety training may need to be given to supervisory and managerial officers.

What the Law Requires

The obligation to provide health and safety training is one of the general duties imposed on employers by Section 2 of the HASWA. This duty was extended by Regulation 11 of the **Management of Health and Safety at Work Regulations 1992**, which requires:

- ✦ employers to ensure that the demands of the job do not exceed an employee's ability to carry out the work without risk to themselves or others;
- ✦ employers to ensure that employees are provided with adequate health and safety training;
 - at the time they are recruited; and
 - when they are exposed to new or increased risks when they change work, take on new responsibilities or through the introduction of new equipment or systems of work; and
- ✦ the training is:
 - to be repeated where appropriate;
 - to be adapted to take account of new risks to employee's health and safety; and
 - to take place during working hours.

Implications for the Fire Service

In considering what this requirement means in terms of fire service training it is important to:

- ✦ first consider what is already in place; and
- ✦ assess what additional training is required and how this should be prioritised.

What is Health and Safety Training?

The law requires that the training should be **adequate**. This does not mean that everyone should be given a crash course in health and safety law and practice, although some fire service managers may need to acquire this knowledge. What it does require is that firefighters are given sufficient training in terms of the **hazards and risks to which they are exposed**. For most firefighters this will mean practical training in the skills and techniques they need to protect their health and safety. This will include training in:

- ✦ safe systems of work;
- ✦ safe handling techniques;
- ✦ how to use personal protective equipment properly; and
- ✦ emergency first-aid.

They do not need to know which health and safety regulations apply to these activities.

Assessment of Training Needs

Because the training of personnel should be related to the **risks to which they are exposed**, the starting point for identifying particular needs should be the **risk assessments**.





Many of the generic risk assessments contained in Volume 3, *A Guide to Operational Risk Assessments*, identify training needs. In most cases managers will find that personnel will already have been trained in safe working practices. The training may have been received through their general training, from participation in specialised courses or on the job.

Dynamic Risk Assessment

All firefighters in the UK have been provided with a personal issue of a document giving guidance on Dynamic Risk Assessment. This guidance is entitled:

“Dynamic Management of Risk at Operational Incidents”

The document explains the following:



-  levels of operational risk management;
-  the safe person concept;
-  dynamic management of risk; and
-  dynamic assessment method;

Brigades should incorporate the principles contained in this document into their operational training programmes.

Training For Competence

One of the outcomes of the Training Strategy Group (TSG) report published in 1994 was the recommendation of a competence based approach to training for the fire service. The Implementation Working Group (IWG) has developed a methodology for implementing the proposals of TSG. This methodology takes the form of a ‘Competence Framework’ for the management and operation of a competency based approach for the training and development of personnel, more commonly referred to as ‘Training for Competence’.

The competence framework provides guidance for brigades to put in place a structure for the management of training for competence. The guidance is based on the management model described in:

-  HSG65 ‘Successful Health and Safety Management’; and
-  BS 8800: 1996. ‘Guide to Occupational Health and Safety Management Systems’.

The competence framework identifies these two documents as best practice models for the management of training for competence.

Training For Competence (contd)

In developing the framework, the IWG developed a single set of occupational standards against which the performance of the workforce can be measured, reflecting the roles of personnel within Local Authority Fire Brigades.

Training for competence places the emphasis on the workplace performance and it is the activities carried out in the workplace that determine individual performance. It embraces both the learning phase and the performance of individuals in the workplace. The terms used to describe these two main components are 'Acquisition' and 'Application' respectively. They are defined as:

Acquisition: The stage at which individuals are undertaking a structured learning programme, designed to develop the knowledge and skills identified for a particular role.

Application: The stage at which individuals have demonstrated competence in Acquisition and are now able to apply their knowledge, skills and understanding in the workplace.

Within the training for competence framework, assessment of individuals in the Acquisition and Application stages is a vitally important element. A 'Guide to Best Practice for Assessment' has been developed by the IWG for information to brigades.

A critical review of training systems in place must be continually undertaken to ensure that they are effective and develop lasting competence.

The ultimate aim of 'Training for Competence' is to provide employees with knowledge, skills and understanding that will enable them to work effectively and safely. To this end, much of the content of the training provided will be strongly influenced by the results of risk assessments appertaining to operational incident types. Thus 'Training for Competence' will contribute a large part towards achieving the central pillar of health and safety thinking in the fire service, the 'safe person concept'.



Principles Of Operational Training

Health and safety must be a key concern and responsibility of every member of the fire service. It is an essential part of all fire service activities.

Firefighting is a hazardous profession and it is acknowledged that there will be occasions when firefighters may be exposed to risks to their personal safety. At an incident there will be some risk to firefighters by virtue of the nature of their role.

In order to prepare the firefighter for the hazards faced at incidents it is necessary for them to experience the physical and mental effects created by exposure to these hazards. This will reduce the risk of firefighters at incidents jeopardising their own safety and the safety of others.

Operational training sets out to achieve this by exposing personnel to risk in a realistic, controlled environment. However, the risks to which personnel are exposed during training must:


-  be based on realistic scenarios; and
-  be in proportion to the risks at operational incidents.

‘Operational training’ can be defined as:

‘A learning experience carried out within defined parameters and under controlled conditions which ensures that any exposure to risk is essential to the attainment of clearly identified training objectives, and is judged to be acceptable.’

The product of operational training will be experienced personnel who can recognise hazards, assess the potential risks, exercise controls and take the necessary precautions to ensure as safe as practicable an outcome for an incident.

Levels of performance will be those required for operational incidents. These will be developed and maintained by:

-  training which will provide firefighters with an appropriate level of knowledge and skills; and

- 🔥 experience, gained by the progressive introduction of tasks and responsibilities, which instils confidence and develops the basic knowledge and skills provided by training.

During 1996 FSC 5/1996 (in Scotland 3/1996) 'The Principles of Operational Training' was issued to all brigades. The publication was produced by The Realistic Training Working Group of the Joint Training Committee of the Central Fire Brigades' Advisory Council.

Fire brigades should formulate an Operational Training Policy which should be supported by the brigade's training strategy encompassing objectives and guidelines for all aspects of training in accordance with guidelines laid down in the above mentioned document.

Steps should be taken to:

- 🔥 review the training policy to ensure it reflects the current and future training requirements of the brigade;
- 🔥 establish a new training strategy in line with recommendations within the document 'Principles of Operational Training';
- 🔥 develop a code of practice which sets out clear guidelines when planning a training event, including the identification of hazards and appropriate control measures;
- 🔥 develop a policy and structured plan for off-station training;
- 🔥 develop a policy and design a proforma for planned exercises.

Brigades should ensure that the training plan reflects the information and guidance contained within the following:

- Fire Services Act 1947;
- A guide to the Health and Safety at Work Act 1974;
- the Management of Health and Safety at Work Regulations 1992 and Approved Code of Practice;
- Training Strategy Group Report;
- Joint Training Committee 'Principles of Operational Training';
- Volume 3: A Guide to Operational Risk Assessments.



Accidents And Injuries

Learning from Experience






Accidents and their repercussions (sickness of personnel, early retirement, civil litigation and damage to property and equipment) have serious implications for operational efficiency. They place enormous burdens on brigade budgets and take up resources which could be spent on providing a better fire service.

Health and Safety Executive Definitions

For the purposes of this section:





-  **Accident** includes any undesired circumstances which give rise to ill-health or injury; damage to property, plant, products or the environment; production losses or increased liabilities;
-  **Incident** includes all undesired circumstances and 'near-misses' which could cause accidents.

These collectively can be referred to as **safety critical events** and include the following:

-  injuries and cases of ill-health (including monitoring of sickness records);
-  other losses such as damage to property;
-  incidents, including those with the potential to cause injury, ill-health or loss;
-  hazards; and
-  weakness or omissions in performance standards.

Accident Investigation

Investigation of safety critical events provides an opportunity for Brigades to:

-  monitor its health and safety performance;
-  identify management and systems failure;
-  revise, if necessary, its risk assessment process; and
-  improve its health and safety performance.

In addition, investigation will enable Brigades:

- ✦ to report certain accidents and dangerous occurrences to the HSE under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR);
- ✦ to comply with the Social Security (Claims and Payments) Regulations 1979, which requires the preservation of data about injured persons to enable claims for industrial disability to be processed.
- ✦ to provide information which Brigades are requested to furnish to HM Chief Inspector of Fire Services and HM Chief Inspector of Fire Services (Scotland), although this is not statutory.

Investigations should be carried out as soon as practicable after the event, because over time, conditions change and people's memories fade.

The key to investigation is accurate reporting. This can be encouraged by:

- ✦ training which clarifies the objectives and reasons for identifying such events;
- ✦ a culture which emphasises an observant and responsible approach; and
- ✦ open, honest communication in a just environment, rather than a tendency merely to allocate blame.

Not all events need to be investigated to the same extent or depth. Greatest effort should concentrate on events where there has been serious injury, ill-health or loss as well as those which had the potential to cause or serious injury or loss. Investigations should:

- ✦ identify reasons for sub-standard performance;
- ✦ identify underlying failures in health and safety management systems;
- ✦ learn from events;
- ✦ prevent recurrences; and
- ✦ satisfy legal and reporting requirements.

It is important that managers should routinely analyse accident data in conjunction with information from personnel, finance, occupational health and welfare departments in order to provide a holistic view of performance.

**‘Safety is, without doubt,
the most crucial
investment we can make’.
And the question is not
what it costs us, but what
it saves’.**

**Robert E McKee
Chairman and
Management Director
Conoco (UK) Ltd**

Management information

An analysis of the total costs incurred through accidents would provide a brigade and its senior management with:

- ✦ a good indication of the effectiveness of its health and safety policy;
- ✦ information which will need to be taken into account when setting budgets.

The table on the following page illustrates the numbers of injuries reported to the HSE.

NUMBER OF INJURIES BY KIND OF ACCIDENT AND REPORT TYPE

Injuries To Employees Reported To HSE's Field Operations Division, 1996/97
(Fire Services) Occupation = Fire Service (Leading Firefighter And Below)

Kind of Accident	Severity of Injury		
	Major Injury	Over 3 Day Minor	Total
Contact with moving machinery or material being machined	2	5	7
Struck by moving, including flying or falling object	26	216	242
Struck by moving vehicle	3	15	18
Strike against something fixed or stationary	18	153	171
Injured whilst handling, lifting or carrying	18	683	701
Slip, trip or fall on same level	82	538	620
Fall from a height:			
Up to and including 2 metres	18	89	107
Over 2 metres	9	22	31
Height not stated	4	32	36
TOTAL FALLS FROM A HEIGHT:	31	143	174
Trapped by something collapsing or over turning	1	0	1
Drowning or asphyxiation	4	8	12
Exposure to or contact with harmful substance	13	53	66
Exposure to fire	4	66	70
Exposure to an explosion	4	9	13
Contact with electricity or electrical discharge	0	1	1
Injured by an animal	2	6	8
Injuries caused by assault or violence	2	12	14
Other kind of accident	17	180	197
Injuries not classified by kind	1	11	12
GRAND TOTAL	288	2,099	2,327

Conducting Investigations

In conducting investigations the key sources of information will normally be gathered:

- 🔥 at the scene;
- 🔥 from the person or persons involved;
- 🔥 from any witnesses whether at the scene or not;
- 🔥 from any expert witnesses the brigade may need to consult.

The scene

The scene of the accident should be left undisturbed as far as possible, until any investigation has been completed. Any item of material evidence involved at the scene should be examined carefully, photographed where possible and should subsequently be retained until it is no longer required.

Persons involved

The person or persons involved in the accident or dangerous occurrence are the primary witnesses but it should be borne in mind that:

- 🔥 they may not have been in the best position to see what actually happened;
- 🔥 if they did see what happened, they may not be able to describe it because of trauma, or because there has been too long a delay between the accident and the investigation;
- 🔥 the person or persons may be able but unwilling to describe accurately what happened because they fear disciplinary action. In some cases although the apparent cause may be the behaviour of one person, others remote from the scene may have caused that behaviour by giving inadequate training, incorrect instruction, or failing to ensure that someone is competent to carry out their duties.

Witnesses

Evidence from witnesses may be inadequate because:

- 🔥 they saw the outcome of the accident and subsequently made inferences as to its cause;
- 🔥 they may be unwilling to give accurate descriptions because of fears of being blamed in some way, or because they feel that to do so would be disloyal to colleagues.








When carrying out an investigation, all these factors should be borne in mind. It is also important to avoid the temptation to accept what appears to be the obvious without question. Once the root cause of an accident has been identified it should not be difficult to identify the appropriate action to prevent its recurrence.

Costs of Accidents

Many accidents to firefighters result in the cost of sick pay/temporary staff replacement/temporary promotion, etc. Added to this are the long term costs associated with ill health and injury, eg civil claims, commuted pensions and injury awards.

Costs

When costing accidents the following should be taken into consideration:

-  sickness costs;
-  training costs;
-  pension costs;
-  costs of damage to property, plant and equipment;
-  temporary replacement of personnel and equipment, etc;
-  working time lost;
-  legal costs.

Thus health and safety need not be viewed as an extra cost being imposed on brigades but as an opportunity to reduce unnecessary expenditure and free resources.

The Reporting Of Injuries, Diseases And Dangerous Occurrences Regulations 1995

Enforcing Authorities

The enforcing authority for the Regulations is the body responsible for enforcing the Health and Safety at Work Act, 1974, in the premises where, or in connection with the work at which, the reportable event happened. This can be either the HSE or the local authority's Environmental Health Department, but in the case of fire service activities or incidents in fire brigade premises it will always be the HSE.

The purpose of these Regulations - commonly referred to as RIDDOR - is to provide the HSE with the information it needs to improve health and safety conditions at work.



Briefly summarised, in its application to fire brigades, the requirements of RIDDOR are as follows.

Notifications to HSE

The Regulations require responsible persons to notify the local area office of the HSE in the following circumstances:

Death or major injury





Notify by the quickest practicable means (eg by telephone) and follow up with a completed accident report (Form 2508) within 10 days if there is an accident connected with work and:

-  an employee, or a self-employed person working on the premises, is **killed or suffers a major injury** (including an injury resulting from physical violence); or
-  a member of the public is killed or taken to hospital.


It should be noted that these are the only circumstances in which reports need to be submitted concerning members of the public

Major injury is defined in Schedule 1 to the Regulations.


It should be noted that, under Regulation 10, accidents involving vehicles moving on public roads are not reportable unless they involve or are connected with:

-  exposure to any substance being conveyed by road;
-  vehicle loading and unloading activities;
-  activities concerned with the construction, repair and maintenance of roads, roadside hedges and fences, or structures and buildings adjacent to roads; and
-  an accident involving a train where a person is killed or injured.

Over 3-day injury

-  **send a completed accident report within 10 days** if there is an accident connected with work (including an act of physical violence) and an employee, or a self-employed person working on brigade premises, suffers an **over 3-day injury**. An over 3-day injury is one which is not major but results in the injured person being away from work (eg on sick leave) or unable to do their normal work (eg on light duties) for more than 3 days (including non-work days but discounting the day of the accident).


Dangerous occurrences

-  **notify without delay** and follow up with a completed accident report **within 10 days**, specified types of dangerous occurrences. A list of these reportable dangerous occurrences is given in the schedules to the Regulations.

Brigade Reporting Responsibilities

Fire Brigade Premises

When a reportable death, injury or dangerous occurrence happens in premises owned or occupied by a fire brigade, it is the brigade's responsibility to notify the HSE. This is the case whether the injured person is a brigade employee, a trainee, a visitor, or a self-employed contractor.

-  In the case of '**Peripatetic Employees**' i.e. employees who regularly work at different sites, such as service engineers or building workers,

it is the worker's employer who must inform the HSE. The employer must, therefore, be contacted by telephone immediately in order that this statutory obligation can be fulfilled.

Operational Incidents

- ✦ Brigades are responsible for reporting the death of, or major injury to, any brigade employee at an operational incident.
- ✦ If a reportable injury is suffered by a person who is not a brigade employee or a dangerous occurrence happens during an operational incident, it will be the brigades responsibility to notify the HSE, provided that;
 - the event happened whilst the premises were under the control of the brigade; and
 - it occurred in connection with fire brigade operations e.g. a serious injury to a member of the public following equipment failure or the release of chemicals from a pressurised cylinder by firefighters.
- ✦ The HSE does not consider brigades to be responsible for reporting injuries to persons, other than brigade employees if these injuries arise directly from the incident itself e.g. fatalities at a fire in a workplace, or an injury to a workman due to the collapse of a trench.

Death Within One Year

If an employee who has suffered an injury as a result of a reportable accident i.e. a 'major injury' or an 'over three day injury', dies from his injuries within one year of the accident, the employer must inform the enforcing authority in writing.

This requirement applies whether or not the enforcing authority was notified of the original accident..

Disease

- ✦ if a doctor notifies the brigade that an employee suffers from a reportable work-related disease **a completed disease report form** must be submitted forthwith to the HSE area office.

Notification of reportable diseases is dealt with in Section 4 (Work Related Sicknes).

Form of report

The regulations require that reports shall be in a form **approved** by the HSE. The Executive has published:

- ✦ Form 2508 for the reporting of accidents and dangerous occurrences; and
- ✦ Form 2508A for the reporting of diseases.

Record Keeping

To comply with the Regulations brigades are required to keep a record of any **reportable injury, dangerous occurrence or disease**. This must include:

- ✦ the date and method of reporting;
- ✦ time and place of the event;
- ✦ personal details of those involved; and
- ✦ a brief description of the event or disease.

It is for the brigade to determine the **form** in which the record is kept, for example by keeping copies of completed report forms in a file or recording the details on a computer. The records should, however, be readily retrievable, so that they can be produced for an inspector of the HSE if requested.

The record must be preserved for a period of **3 years**. It should normally be kept at the premises of the person responsible for submitting the reports.

Further Guidance

Comprehensive information about RIDDOR is contained in:
Guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995, published by HSE Books
ISBN 01176 1012 8

This contains the text of the Regulations together with a detailed commentary.

Work Related Sickness

Background

The broad aim of this section is to provide practical guidance to brigade managers on the action which can be taken to reduce the incidence of work related sickness absence.

- ✦ Over 500 people die each year as a result of accidents at work. However, it is estimated that 10 times that figure die from work related illness and disease;
- ✦ Sickness absence can seriously affect operational efficiency because the numbers of firefighters and civilian staff are geared to operational needs.

Unplanned absences:

- ✦ reduce a brigade's ability to fulfil its commitments; and
- ✦ place additional burdens on those who have to cover for absent colleagues.

Many brigades are unaware of the costs incurred by them through sickness absence and work related ill health. The reality of absent staff is that work is delayed or more strain is placed on others to handle it. The long term effects on performance and morale should not be underestimated.

In addressing these issues it is important to recognise that:

- ✦ ill health, whatever its cause, will impact on an individual's ability to perform effectively and efficiently; and
- ✦ within the fire service, ill health can increase the risk to individual firefighters when they are exposed to severe hazards. This can lead to serious injury and even death.

Causes of Sickness Absence

Any firefighter may, from time to time, be absent from duty because of illness. **Sickness absence will include:**

- ✦ absence as a result of injuries sustained on duty;

- ✦ work related ill health, such as stress caused by especially difficult situations, or exposure to hazardous chemicals at an incident; and
- ✦ the kind of sickness which might arise in any circumstances.

Sickness absence is inevitable in any occupation. Sometimes it is caused by organisational and personal factors, which can include:

- ✦ unsatisfactory working conditions;
- ✦ low morale;
- ✦ conflicting domestic and professional priorities;
- ✦ poor management.

If excessive work related ill health is arising then it may indicate a training, system of work or equipment related problem. Excessive work related ill health should, therefore, be thoroughly investigated. This process may include revision of existing risk assessments and the associated precautionary and protective measures.

Ways of Identifying Work Related Ill Health and Health Issues

Managers should be aware that not all ill health results in sickness absences. It may manifest itself in many ways, for example:

- ✦ low staff morale and motivation;
- ✦ reduced productivity;
- ✦ increased staff turnover; and
- ✦ in the longer term, a rise in the level of ill health retirements.

Ill health issues may arise in a brigade from the work processes, the working environment and the management system. There are many ways in which these factors can be identified, evaluated and monitored enabling remedial action to be taken at the earliest stages.

Responsibilities of Managers

It is important that managers recognise their responsibility for managing work related sickness absence. This involves dealing with individuals sensitively and fairly, but also firmly when required.

The primary duties of managers in this area are to:

- 🔥 respond sympathetically and supportively and help those who are on sick leave to return to work;
- 🔥 develop and maintain a system for managing sickness absence which minimises the scope for abuse;
- 🔥 identify any organisational factors which might affect sickness and to take action to eliminate them, or minimise their effects.

Organisational arrangements

Brigades which are successful in reducing the impact of work related sickness absence are likely to have policies and procedures that will:

- 🔥 make it clear to all employees that abuse of sickness absence is a serious and accountable matter;
- 🔥 establish clear principles and standards for managing sickness absence;
- 🔥 emphasise the fundamental responsibility of managers to promote a genuine caring attitude among employees under their command and where possible, to take positive steps to expedite the early return to work; and
- 🔥 establish an effective brigade reporting system to enable the incidence and costs of sickness absence to be monitored and analysed at all management levels.

Role of senior management

The strategic responsibilities of senior managers will require measures to:

- 🔥 develop, publish and disseminate policy and procedures on management of sickness absence and work related ill health;
- 🔥 ensure sufficient resources and training are provided to implement these procedures;
- 🔥 regularly review progress with a view to establishing any non-compliance with current standards;
- 🔥 support line management in undertaking remedial action; and
- 🔥 integrate into staff appraisal procedures a system for evaluating the performance of line managers in managing sickness absence and meeting targets.

Role of line management

It falls to line managers to implement brigade policy and procedures, especially in regard to:

- ✦ the reporting and monitoring of absence;
- ✦ implementing policy in order to manage individual cases of sickness absence;
- ✦ establishing good liaison with the brigade support services such as:
 - Occupational Health;
 - Personnel;
 - Safety Adviser; and
- ✦ undertaking or recommending appropriate remedial action such as changes of work or transfer to other duties.

Role of Occupational Health

This should include the provision of advice and support for management and staff in the areas of:

- ✦ support to management and employees in the prevention of accidents and ill health;
- ✦ support services to individuals following sickness absence, accidents and work related ill health;
- ✦ assistance with the investigation and analysis of accidents, sickness absence and work related ill health;
- ✦ regular inspections of work places to identify health and safety problems;
- ✦ periodic health reviews and medical examinations of people at risk, eg personnel working at live fire training areas to monitor lung function;
- ✦ biological monitoring, as appropriate, of individual workers exposed to specific hazards;
- ✦ maintain records of accidents, incidents, sickness, ill health, health care and treatment provided at work; and
- ✦ provision of programmes to promote good health.

The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995

The Regulations require **responsible persons** to notify the local area office of the HSE in the following circumstances:

- ✎ injuries and dangerous occurrences - (the requirements of reporting these are set out in Section 3);

Disease

If a doctor notifies the brigade (eg by medical certificate) that an employee is:

- ✎ suffering from a disease, specified in Schedule 3 of the Regulations; and
- ✎ the ill person's current job involves the corresponding work activity, specified in Schedule 3 of the Regulations;

then a **completed disease report form (F2508A)** must be submitted forthwith to the HSE.

Record Keeping

Brigades are required to keep a record of any reportable injury, dangerous occurrence or disease. The records, which must be readily retrievable and preserved for a period of three years, must include the following details:

- ✎ the date and method of reporting;
- ✎ the time and place of the event;
- ✎ the personal details of those involved;
- ✎ a brief description of the event or disease.

Further Guidance

A Guide to The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995

1996 HSE Books ISBN 0 7176 1012 8;

Everyone's guide to RIDDOR 1995

HSE 31 1996 HSE Books (single copies available free from HSE Books, also available in priced packs of 10)

ISBN 0 7176 1077 2);

RIDDOR 1995 - Information for Doctors

HSE 32 1996 HSE Books.

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Introduction

This section contains a series of modules dealing with regulations and guidance which impinges on the day to day management of health and safety in brigades.

The list of regulations dealt with is intended to be comprehensive but not exhaustive. The intention is to give fire brigade managers an overview of regulations that may apply to their activities.

Regulations which are of interest to the fire brigade may be divided into 4 categories:

-  those that apply to in-house health and safety management, eg. the Management of Health and Safety at Work Regulations 1992;
-  those that apply to operational work, eg. the Control of Asbestos at Work Regulations 1987;
-  those that apply to procurement, eg the Personal Protective Equipment Regulations 1992;
-  those that apply to operational intelligence gathering, eg the Dangerous Substances (Notification and Marking of Sites) Regulations 1990.

It is obvious that these categories are not exclusive and many regulations will fall into more than one. When dealing with health and safety regulations, in order to understand the full ramification of a regulation package, it is important to bear in mind that brigade activities can be affected in the ways mentioned above.

The modules should not be regarded as a substitute for studying the regulations themselves and any associated Approved Codes of Practice (ACOPs) and guidance issued by the HSE. Nor should they be taken as an authoritative interpretation of the law.

Managers should be aware that there are regulations other than those dealt with in the Modular Guidance which will impinge upon brigade activities. A full list of health and safety legislation up to and including 1996 can be found in the publication:

'List of current health and safety legislation'
HSE Books ISBN 0717613119

To obtain more recent legislation and guidance in interpretation, managers should consult their brigade health and safety adviser.

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The Control Of Substances Hazardous To Health Regulations 1994

Introduction

The purpose of these Regulations (commonly referred to as COSHH) is to protect employees from the harmful effects of substances which they may encounter in the course of their employment and which are hazardous to their health.

Legal Requirements

COSHH places general duties on employers to ensure that:

- 🔥 the exposure of employees to substances hazardous to health is either prevented or, if this is not reasonably practicable, adequately controlled; and
- 🔥 any substance which is likely to be hazardous to the health of their employees or members of the public is not used unless:
 - a suitable and sufficient assessment of the risks to health created by that use has been carried out; and
 - effective control measures have been implemented.

Substances which are Hazardous to Health

These fall into the following categories:

🔥 Very toxic, toxic, corrosive, harmful, irritant etc substances
These range from common cleaning materials used in janitorial work, hose repair and substances used in brigade workshops to the smoke created at live fire training establishments or at incidents, hazardous cargoes involved in RTAs or substances encountered whilst effecting a confined space rescue.

🔥 Pesticides
These may be used in substantial quantities in certain occupations eg property maintenance and agriculture. They include toxic and very toxic chemicals.

🔥 Micro-organisms
These are prevalent in blood or body fluids. They may also be found at hospitals, university and research institutions, in sewers and water treatment plants (including air conditioning plant).



Dusts

These may be found in quantities harmful to health in vehicle workshops, industrial premises, farm silos, docks etc.



Maximum exposure limit

A substance for which a maximum exposure limit is specified in Schedule One of the Regulations or for which the HSC has approved an occupational exposure standard.



Other Materials, Mixtures and Compounds

Any other substance which creates a hazard to health of any person, which is comparable with the hazards created by the substances mentioned above.

Risk Assessment

The procedures for assessing risks under COSHH involve:



identifying all the substances likely to be encountered by employees and which have the potential to harm their health and safety, or that of members of the public;



identifying the circumstances where harm is likely to occur;



identifying suitable control measures to eliminate or reduce the likelihood that people will be harmed;



implementing the control measures; and



monitoring and reviewing the validity of the risk assessment.

Risk is related not only to the toxicity of a substance but also to its quantity and the ways and extent to which people may come into contact with it. A suitable and sufficient assessment is one in which a series of questions has been considered about the work and the substances which might arise from it. There are seven key questions.

1. What hazardous substances are used in, or are given off by, the work or process?
2. What harmful effects do these substances have on the body?
3. In which locations and in what quantities could the hazardous substances be present?
4. Who might be affected by the substance (i.e: employees and others)?

5. How great is the degree and the extent of their exposure to the substance?
6. How does in-house experience concerning exposure compare with recognised standards?
7. What action should now be taken in respect of the information gathered? i.e. (if action is shown to be necessary) methods of achieving control, standards to be achieved, maintenance requirements, training requirements, whether monitoring and/or health surveillance are needed etc.

The regulations require assessments to be reviewed “regularly” and forthwith if the assessment is considered to be no longer valid, or there has been significant change in the work to which the assessment relates.

The Approved Code of Practice identifies that “regularly” is a period not exceeding 5 years.



Who Should Carry Out COSHH Assessments

As with other health and safety requirements the responsibility lies with managers, but in this area managers may require technical advice from their brigade health and safety adviser and occupational health nurse or physician who will have access to technical data on hazardous substances.

Identification of Substances

Identifying all the hazardous substances to which employees are likely to be exposed is a large task, which needs to be approached in a systematic manner.

Within the fire service these substances fall into two broad categories:



-  manufactured substances, such as chemicals and cleaning agents, which a brigade acquires for use in its operations and in its premises; and,
-  other hazardous substances and agents, such as blood and body fluids, fumes and smoke which firefighters encounter in the course of their operational duties.

Manufactured substances

The identification of most hazardous chemicals and other manufactured substances will be comparatively easy, as their containers will normally bear warning labels which manufacturers and suppliers are required to attach.

Suppliers/manufacturers also have legal obligations under Section 6 of HASWA and the Chemicals (Hazard, Information and Packaging for supply) Regulations 1994, (CHIP) regulations, to provide hazard information to users.

In addition to providing warning, manufacturers and suppliers are also obliged to provide information about:

-  the use for which any substance is designed and has been tested; and
-  about the conditions necessary to ensure that when put to that use it will be safe and without risk to health.

This information is usually in the form of hazard data sheets etc.

Procedures are required to ensure that, whenever any new hazardous substance is brought into use, an assessment is carried out.

Other hazardous substances and agents




Any other hazardous substances and agents should be identified through the general risk assessment programme. The most common encountered by the fire brigade are fumes, smoke and body fluids.




Control Measures

Having identified the substances and the circumstances in which they are used or occur it is necessary to consider measures which need to be taken to protect those who are exposed to the substances. In the case of manufactured substances, this will involve an analysis of how substances are stored, handled, used, mixed, applied, controlled and disposed of and how exposure takes place.

Hazard data sheets will often determine the control measures to be taken in respect of manufactured substances.

The COSHH Regulations require that a hierarchy of control measures is applied. Brigades must, where reasonably practicable, apply control measures in the following order of priority.

-  **Elimination** remove the hazard completely;
-  **Substitution** replace high hazard substance with substances of lower hazard;
-  **Separation** separate individuals from exposure to the substance, eg by restricting access or by enclosing the substance or process;

- 
Engineering control the use of plant, processes and systems of work which minimise or suppress the generation of fumes, dust, vapours, etc. eg the provision of Local Exhaust Ventilation (LEV);
- 
Safe Systems of Work the adoption of safe working procedures eg the use of BA control procedures;
- 
PPE the provision and use of suitable personal protective equipment (PPE) eg gas tight suits and breathing apparatus.

NB. The use of PPE as a control measure must be regarded as a 'last resort' option.

Maintenance of Control Measures.

Where control measures are provided, employers shall ensure that they are maintained in an efficient working order. More specific guidance regarding the maintenance of different types of control measures is provided in the Regulations and Approved Code of Practice.

Routine Monitoring.





The employer shall ensure that the exposure of employees to substances hazardous to health is monitored in accordance with a suitable procedure. Records should be kept available for the time period stipulated in the Regulations.

Health Surveillance.

Where it is appropriate for the protection of the health of employees who are, or are liable to be, exposed to a substance hazardous to health, the employer shall ensure that such employees are under suitable health surveillance.

Employee Information

All employees are entitled to receive information on:

- 
 hazards and risks from work activity;
- 
 precautions to be taken;
- 
 results of tests/monitoring programmes; and
- 
 collective health surveillance information.

Further Guidance

Further information on COSHH is contained in the following publications.

EH40: published annually giving guidance on exposure standards and limits.

Approved Codes of Practice: General COSHH ACOP (including Control of substances hazardous to health 1994) and Carcinogens ACOP and Biological Agents ACOP L5 1995 HSE Books ISBN 0 7176 08190;

COSHH Assessments: A step by step guide HS(G)97 1993 HSE Books ISBN 11 886379 7;

Monitoring strategies for toxic substances EH42 1989 HSE Books ISBN 011 8854127;

COSHH a brief guide for employers IND(g) 1361 (Rev)

Dear Chief Officer Letter 5/1991, Dear Firemaster Letter 4/1991

The Personal Protective Equipment At Work Regulations 1992

Introduction

These Regulations require employers to provide **suitable** personal protective equipment (PPE) to any employees who may be exposed to risks to their health and safety while at work, **where the risk cannot be controlled adequately by other means which are equally or more effective.**

The qualification in bold is important and for this reason the HSE Guidance on the Regulations describes PPE as measures of **last resort** in the hierarchy of control measures.






Equipment Excluded from the Regulations

The following are not encompassed by the Regulations:

- 🔥 ordinary working clothes and uniforms which do not specifically protect the health and safety of the wearer;
- 🔥 portable devices for detecting and signalling risks and nuisance (eg gas detectors and radiation dosimeters);
- 🔥 PPE used for protection while travelling on the public highway, eg crash helmets;
- 🔥 equipment used during the playing of competitive sports, eg footballers' shin guards; and
- 🔥 where existing regulations already apply and require PPE to be supplied.

Examples of PPE in Operational Work

- 🔥 fire helmets
- 🔥 tunics and overtrousers
- 🔥 fire boots
- 🔥 gloves
- 🔥 high visibility jackets

-  safety glasses/goggles
-  life jackets
-  breathing apparatus
-  chemical protective suits
-  fire hoods




Selection of PPE

To help decide whether and which PPE is suitable the key requirements of the Regulations are as follows:

Risk Assessment




An employer has to choose PPE on the basis of an assessment of the nature of the risks to which staff may be exposed. This risk assessment may form part of a risk assessment under the Management of Health and Safety at Work Regulations

Whilst the Regulations do not require written risk assessments to be kept it is good practice to keep such records. Whether written or not, the assessment must include:

-  the risks identified and the risks that have not been avoided by other means;
-  the definition of the characteristics needed in the PPE in order to be effective; and
-  a comparison between the characteristics of the PPE that is needed and that which is available.

Suitable

To be suitable, PPE must be:

-  appropriate to the risks and workplace conditions;
-  chosen to take account of ergonomic considerations and the state of health of the person wearing the PPE;
-  capable of fitting the wearer correctly;

- ✦ effective in preventing or adequately controlling the risks without increasing the overall risk, so far as is practicable; and
- ✦ compliant with the PPE (EC Directive) Regulations 1992 and relevant European standards or, where none exist, British standards.

Compatibility

Where employees are required to wear more than one type of PPE the items must be compatible and effective. For example, where breathing apparatus and helmets are worn at the same time the helmet must not interfere with the seal of the breathing apparatus mask, nor the mask preclude the safe wearing of the helmet.

Review

The PPE risk assessment must be reviewed where there is a reason to suspect it is no longer valid, or following significant changes to the PPE or the work etc. Any changes identified should then be implemented.

Maintenance and Replacement of PPE

Any PPE provided shall be maintained (including replaced or cleaned as appropriate) in an efficient state, in efficient working order and in good repair.

Accommodation

Appropriate accommodation must be provided for PPE when not in use.




Information

Managers must provide all staff using PPE with relevant information, instruction and training. The information has to include:

- ✦ the risks which the PPE is designed to avoid or limit;
- ✦ the purpose and manner in which PPE works and should be used; and
- ✦ any action the staff should take to keep the PPE in an efficient state, in efficient working order and in good repair.

Use of PPE: Duties of Employees

Employees are required to:

-  use PPE in accordance with training and instruction;
-  to return it to the accommodation after use; and
-  to report to the line manager any loss or obvious defect in the PPE.

Further Guidance

Personal protective equipment at work: Guidance on Regulations:
HSE Books ISBN 0 11 8863347.




The Selection Use and Maintenance of Respiratory Protective
Equipment: a practical guide - HS(G) 53
HSE Books ISBN 0717615375

Relevant BSEN standards eg BSEN 469 Firefighters protective
clothing 136 BA face mask, 137 BA set, 443 Firefighters helmet, 659
Firefighters gloves and 345 part 1 Firefighters boots.




The Health And Safety (Display Screen Equipment) Regulations 1992

Introduction

These Regulations:

-  establish minimum requirements for the installation and use of display screen equipment (DSE) at work;
-  apply to employees who habitually use visual display units (VDUs) as a significant part of their normal work; and
-  apply to all workstations.

Within the fire service they may apply to many activities, from simple word processing to the use of new technology in a wider range of applications such as:




-  communications room equipment;
-  computer mapping systems; and
-  control rooms.

Minimum Requirements

The Schedule to the Regulations sets out the minimum requirements established by the European Union Council Directive 90/270/EEC.

Identifying Who is a User

Only employees who are defined as a **user** of DSE are covered by the Regulations. The Regulations define users as **employees who habitually use visual display units (VDUs) as a significant part of their normal work**. In most cases, where use is more or less continuous, it will be clear whether a person is a user. But where use is less continuous or frequent the HSE Guidance states that it will be appropriate to classify a person as a user if most or all of the following criteria apply:

-  carrying out the job depends on DSE;
-  the individual has no discretion as to whether to use DSE;
-  significant training and for particular skills in the use of DSE are required;

- ✦ there is continuous use of DSE for periods of an hour or more;
- ✦ use is more or less daily;
- ✦ there is a fast transfer of information between the user and screen; and
- ✦ a high level of concentration is required.

Assessment of Workstations

All workstations where DSE is installed will require an assessment, which is written or recorded electronically, which both;

- ✦ evaluates the health and safety risks to persons using the equipment; and
- ✦ ensures that the minimum requirements have been met.

The risks identified must be reduced to the lowest extent reasonably practicable. (Reg 2(3))

Assessments must be repeated when there is reason to suspect they are no longer valid, or when there have been significant changes in the workstation, for example when the workstation is relocated or new equipment introduced.

Health Issues

The health issues commonly associated with the use of DSE are:

- ✦ upper limb disorders (including pain from the neck, arms, elbows, wrists, hands and fingers);
- ✦ temporary eye strain (but not eye damage) and headaches; and
- ✦ fatigue and stress.

The Regulations seek to overcome these issues by:

- ✦ requiring action to be taken to ensure that workstations comply with the minimum standards;
- ✦ specific provisions for:
 - eye and eyesight testing;
 - varying the daily work routine;

- training; and
- information

Other Health Considerations

A common perception amongst DSE users is that the display screen may emit harmful radiation. The main concern being the possible harmful effects to pregnant workers.

In practice all display screens emit radiation similar to a domestic television set. These low emissions are not hazardous to health and should not be a cause for concern by pregnant employees, nor will they require any special protective clothing/equipment.

Pregnancy

Pregnant workers require special consideration when using DSE as they are prone to suffer discomfort or postural problems after prolonged periods of time.

Separate advice should be taken from the brigade's Occupational Health Adviser.

Eye and Eyesight Testing

The Regulations require employers to meet the cost of eye and eyesight tests, together with the costs of spectacles where they are specifically required to operate DSE.

It is the employee who initiates the eye sight tests on request to the employer.

The test may consist of either an eye check carried out by the employer's own trained staff, for example an Occupational Health Unit - Keystone Test, etc or by a private optician or optometrist.

Daily Work Routine

Employers are required to plan the activities of users so that their daily routine is periodically interrupted by breaks or changes of activity.

Certain jobs in the fire service involve intensive display screen work with little option for relief provided by alternative work eg communications room operators, telephonists, data entry staff.

For these people a planned work break away from the DSE will be an essential feature of their work.





Training

All employees should receive training in the correct techniques for operating and adjusting their workstation.

In addition, brigades are recommended to train key staff to become 'assessors' and for them to acquire the appropriate skills to recognise the risks involved in DSE work and the measures which can be adopted to rectify any problems which affect the safe use of the DSE.

Information

Employees are entitled to information on:

-  health and safety related to their workstations;
-  risk assessment and the steps taken to reduce the risks;
-  breaks and changes of activity; and
-  eye and eyesight tests.

Further Guidance

Guidance on the Regulations issued by HSE, published by HMSO
ISBN 07176 0410 1 (incorporating the Regulations)

Working with VDUs
free HSE booklet IND(G) 36L

VDUs an easy guide to the Regulations
HSE booklet

Ergonomics at work
free HSE booklet IND(G) 90L

Seating at work
HSE Books HS(G) 57

Lighting at work
HSE Books HS(G) 38

Work-related Upper Limb Disorders: a guide to prevention
HSE Books HS(G) 60

The Manual Handling Operations Regulations 1992







Introduction

These Regulations are intended to reduce the incidence of injury caused through manual handling - the transporting or supporting of a load by hand (including the lifting, putting down, pushing, pulling, carrying or moving), or by bodily force.





The cost of manual handling injuries is enormous. More than a third of all 'over-3 day' injuries reported to the HSE and local authorities arise from manual handling. On average each injury results in 20 days off work and sometimes the victim never fully recovers.

The Regulations apply to a wide range of fire service activities, including:

Operational duties

-  wearing breathing apparatus;
-  vehicle loading/unloading;
-  lifting of light portable pumps;
-  lifting of generators;
-  handling of equipment;
-  casualty rescue and handling.

Maintenance activities

-  vehicle operations eg maintenance;
-  movement of office equipment;
-  reprographic paper handling;
-  building and maintenance works.




Health Issues

Most RIDDOR reportable manual handling injuries are back injuries, though arms, hands and feet are also vulnerable. Common problems include slipped discs, back strain, dislocations, muscular strains and ligament damage.



Many of these conditions result in long term absence from work and often permanent disability.

General Requirements

The Manual Handling Operations Regulations require employers to take certain actions to:





-  **avoid** the need for hazardous manual handling as far as reasonably practicable;
-  **assess** the risk of injury from any hazardous manual handling that cannot be avoided; and
-  **reduce** the risk of injury from hazardous manual handling as far as reasonably practicable.

They also require employers to:

-  provide mechanical aids to avoid manual handling operations where there is a risk of injury and where it is reasonably practicable to do so; and
-  provide information on the loads to be moved/carried to include, where possible:
 - the weight of the load; and
 - the centre of gravity of the load

Solutions

Many manual handling operations can be avoided/reduced at little or no cost, for example by:

-  reducing the size of the load which is purchased.
-  splitting the load into smaller loads;
-  improving ergonomic design; and
-  training in kinetic lifting methods

Mechanical Solutions

Many activities have access to existing mechanical aids such as:

- 🔥 fork lift trucks;
- 🔥 hoists and lifting gear; and
- 🔥 trolleys and small trucks.

Some lifting and handling operations may justify a completely mechanical solution.

Risk Assessment

In operational work, the scope for avoiding manual handling is much less than in workshops and other premises.

Where manual handling is identified as a substantial hazard in the course of carrying out a risk assessment, a proper analysis of problems should be carried out to identify the most suitable control measures. This applies equally to non-operational work.

Any manual handling assessment should be repeated if:

- 🔥 there is reason to suspect that it is no longer valid; or
- 🔥 there has been a significant change in the manual handling operations to which it relates.

Emergency situations




In emergencies there will not be time to carry out written risk assessments although generic and model risk assessments can be written for situations operational personnel are likely to encounter. In this case the guidance to the Manual Handling Regulations 1992 is particularly relevant.

The guidance states broadly that, the extent of a brigade's duty under the regulations to avoid manual handling is qualified by 'so far as is reasonably practicable'.

This means that the duty is satisfied where the cost of preventive steps is disproportionate to any benefits that might be derived.

A fire brigade employer can, therefore, discharge this duty when it can show that the preventive measures to avoid manual handling would make it unduly difficult to achieve efficient discharge of the brigade's emergency functions.



The preventive measures that a brigade may adopt will generally be expressed in terms of:

-  equipment provision;
-  training in combined lifting techniques; and
-  making personnel aware of the risk to their health in trying to lift loads which are too heavy for them.

Personal Safety

Employees all have a different capability for lifting loads, therefore, an individual's strength, fitness and health should be taken into account when conducting a risk assessment.



Special consideration should be given to:

-  pregnant women during their pregnancy and for a reasonable period of time after the birth; and
-  employees with a history of back problems.

Training

The risk assessment process will identify basic training needs, however, the nature of fire brigade work is unpredictable and can require emergency action to be taken by firefighters. This may be undertaken without access to lifting aids or special equipment.

As part of their induction and ongoing training programmes for personnel, brigades should:

-  raise awareness of the health hazards of lifting loads incorrectly or loads which are too heavy; and
-  provide basic training in lifting and handling, which might include the following elements:
 - skills training in operating handling equipment;
 - kinetic handling techniques; and
 - how to assess loads.

Employee Information



The Regulations require employees to make full and proper use of any system of work provided by their employer to avoid manual handling hazards.

It follows that they need and indeed are entitled, to receive information on the outcome of risk assessments and the action taken to avoid injury.

Further guidance

Manual Handling Operations Regulations 1992 and Guidance on Regulations - HSE published by HMSO ISBN 0 11 886 3355

The Guidance:

-  contains much practical advice on measures to reduce the risk of manual handling injuries; and
-  gives general guidelines for lifting, carrying, pushing and pulling and handling while seated.

HSE Guide 'Getting to grips with manual handling' IND(G)1431;

HSE Guide 'lighten the load' - Guidance on musculoskeletal disorders;

HSE leaflet 'If the task fits - Ergonomics at work' IND(G)90(L).

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The Workplace (Health, Safety And Welfare) Regulations 1992

Introduction

The Workplace Regulations and the supporting Approved Code of Practice (ACOP) establish minimum requirements at workplaces in or near buildings. They contain a considerable amount of detail, which this note attempts to summarise, under the following headings:

- 🔥 health;
- 🔥 safety; and
- 🔥 welfare

Since 1 January 1996 the Regulations have applied to any workplace or parts of a workplace, including ships, aircraft and building sites.

Definitions

'Workplace' means 'premises or part of premises which are not domestic premises and are made available to any person as a place of work'.

The definition includes 'any place within the premises to which such person has access while at work and any room, lobby, corridor, staircase, road or other place used as a means of access to or egress from the workplace or where facilities are provided for use in connection with the workplace other than a public road'.

'Premises' means any place including a place out of doors.

'Domestic premises' means a private dwelling and therefore, excludes homeworkers but includes such places as hotels, nursing homes and such parts of these workplaces where 'domestic' staff are employed, eg hostel kitchens or sheltered accommodation.

General Requirements

The duty on every employer

All employers have to comply with the Regulations relating to every workplace, modification, extension and conversion under their control and where any of their employees work. They also have a duty under Section 4

of the Health and Safety at Work etc Act 1974 to people who are not employees but use their premises.

Maintenance

If there is a duty to provide something under the law then there must be a parallel duty to keep things in such a condition that they continue to comply. The duty is couched in familiar terms often used in legislation applying to the workplace. The Regulation refers to an 'efficient state', 'efficient working order' and 'good repair' adding for the first time the addition phrase 'cleaned as appropriate'. Efficient, in this context, means efficient from the view of health, safety and welfare, not productivity or economy.

The Regulations apply to the workplace itself and not just to equipment, devices and systems within it. Furthermore, they require a system of maintenance. This is a positive requirement.

Health

Ventilation

The regulations require effective and suitable provision for every enclosed workplace to be ventilated by a 'sufficient quantity of fresh or purified air'.

Any ventilation plant used must include a visible or audible warning device to indicate failure which could prejudice the health of those concerned. Fresh air is normally to be that brought in from outside the building but there is a warning that inlets, if not located in suitable positions, can be contaminated by fumes from flues, exhaust system outlets or vehicles operating nearby.

The ACOP gives a yardstick for fresh air supply rates, 5 to 8 litres per second, per occupant as a minimum requirement.

Temperature

During working hours all workplace temperatures should be reasonable. Heating methods should not be such that injurious or offensive fumes result and there should be a sufficient number of thermometers provided to determine the temperature throughout the building.

An indication of temperature levels is given but there is an element of flexibility to cope with such factors as work involving severe physical effort, temperatures necessary to prevent food from deteriorating and work on hot processes. A normal temperature of 16° Celsius is quoted. Further guidance on thermal comfort is promised by the HSE.

Suitable and sufficient lighting

Requires all workplaces to have suitable and sufficient lighting which so far as is reasonably practicable should be by natural light. If artificial lighting is provided in rooms where lighting failure could expose the occupants to danger, suitable emergency lighting has to be provided. Advice on the lighting of fire escapes is contained within fire safety guidance.

Cleanliness

Requires workplaces, furniture, furnishings and fittings to be kept 'sufficiently clean'. Floors, walls and ceilings must be capable of being kept clean and so far as reasonably practicable, waste materials should not be allowed to accumulate in workplaces except in suitable receptacles.

Workspace

Calls upon the employer to have sufficient floor area, height and unoccupied space for purposes of health, safety and welfare in every room where persons work. If for example much of the room is taken up by furniture etc, this should be allowed for by providing extra space.

Workstations and Seating

Requires workstations to be arranged suitably to accommodate the worker and the work. Factors to be dealt with include: protection from adverse weather, ability to leave the workstation swiftly or be assisted in an emergency and action to prevent slips and falls. The provision of seating is also dealt with.

Safety

Floors and Traffic Routes




This is defined as routes for 'pedestrian traffic, vehicles or both and includes any stairs, staircase, fixed ladder, doorway, gateway, loading bay or ramp'.

Floors or workplaces and traffic routes must be suitably constructed for the purpose for which they are used. Holes, slopes, unevenness and slipperiness have to be dealt with to prevent hazard.

The Approved Code of Practice refers to handrails, spills and leaks; arrangements to deal with snow and ice; drainage and the option of the provision of non-slip footwear as an extra measure where, despite precautions against slipping, some risk remains.

Preventative Measures

Suitable and effective measures must be adopted to prevent certain listed events. These are:

-  persons falling a distance likely to cause personal injury;
-  persons being struck by a falling object likely to cause personal injury; and
-  any containers of dangerous substances (hot, toxic, corrosive, fumes or free-flowing or viscous materials which could envelope persons) must be covered over or fenced.

Windows and Doors

Addresses the problems of windows and other translucent surfaces in walls, partitions, doors or gates.

The hazards being tackled are broken glass or other materials and the dangers associated with walking into transparent materials because they are not easily visible or apparent. The precautions called for include: the use of safety material or protection of breakable material and/or the use of markings or features to make them apparent.

Opening of Windows



Relates to hazards associated with opening windows, skylights and ventilators. None of these should be capable of being opened, closed or adjusted in a way exposing persons to risk when they are undertaking the tasks mentioned. Hazards from open windows, skylights and ventilators (from walking into them) should be prevented by locating them in positions, where they cannot pose a risk.

Safe Window cleaning

All windows and skylights should be designed or constructed so that they can be safely cleaned.

Organisation of Traffic Routes

This deals with the safety of pedestrians from risks posed by traffic. The following points are covered;

-  workplaces have to be organised so that vehicles and pedestrians can circulate in a safe manner;
-  traffic routes have to be suitable for the vehicles and pedestrians using them and sufficient in number, position and size. (**Note: for existing workplaces this clause only applies 'so far as is reasonably practicable'**).

The general requirements relating to traffic routes state that they are not satisfactory unless:

- 🔥 they prevent danger to persons working near them;
- 🔥 there is sufficient separation of vehicles from doors, gates and pedestrian traffic routes;
- 🔥 where vehicles and pedestrians use the same traffic route, sufficient separation is kept between them; and
- 🔥 traffic signs and indications of all traffic routes is called for, where this is necessary for safety reasons.

Escalators and Moving Walkways

Escalators and moving walkways must function safely, be equipped with any necessary safety devices and fitted with one or more easily identifiable and readily accessible emergency stop control(s). The approved Code of Practice refers to HSE guidance and a relevant British Standard.

Welfare

Suitable and sufficient sanitary conveniences

Requires employers to provide suitable and sufficient sanitary conveniences at readily accessible places. To be suitable, regard has to be given to: ventilation, lighting, cleanliness and separate provision for men and women, **except** where each convenience is in a separate room with a door capable of being secured from the inside.

Washing facilities

Requires suitable and sufficient washing facilities to be provided in readily accessible places. The facilities have to include showers if required by the nature of the work for health reasons. Suitability relates to the provision of washing facilities near to sanitary conveniences and changing rooms. It also relates to the availability of clean hot and cold or warm water (running water so far as practicable); soap, towels (or other suitable means for drying) and the location of facilities in clean rooms. Separate facilities should be provided for men and women except where they are provided in a room the door of which is capable of being secured from inside and the facilities in each such room are intended to be used by one person at a time.

Drinking water

Puts a duty on employers to provide an adequate supply of wholesome drinking water and cups for their employees. It must be readily accessible at suitable places and conspicuously marked by an appropriate sign where

necessary for reasons of health or safety. This is to ensure that taps controlling drinking water are not mistaken for taps which may control some other liquid which may harm anyone drinking it.

Clothing Accommodation

Requires suitably located clothing accommodation to be provided for employees' own clothing and for special work clothing which is not taken home. Matters such as the security of the clothing, separate accommodation for working clothing and other clothing where there could be health risks (by contamination with harmful substances used at work) are also covered. Facilities for drying clothes also have to be provided.

Changing facilities

Requires changing facilities to be provided for persons at work in all cases where they have to use special clothing for their work and those persons, for reasons of health or propriety, cannot be expected to change in another room. Other Regulations and Codes of Practice also cover the subject of protective clothing provision.

Suitable and sufficient rest facilities

Obliges employers to provide at readily accessible places suitable and sufficient rest facilities (in new workplaces the facilities must be rest rooms but in old workplaces rest rooms or rest areas meet the requirements).

Facilities have to include places to eat meals where food eaten in the workplace could become contaminated. They also have to include suitable arrangements to protect non-smokers from discomfort caused by tobacco smoke and facilities for pregnant women or nursing mothers to rest. Suitable facilities have to be provided for persons at work to eat meals where meals are regularly eaten at the workplace.

Further guidance

The Workplace (Health, Safety and Welfare) Regulations 1992 (SI 199 No 3004); and Approved Code of Practice
ISBN N 0118863339 HSE Books.

The Noise At Work Regulations 1989

Introduction

The Noise at Work Regulations 1989 are concerned with protecting the hearing of people from noise generated in the workplace.

The regulations place duties on employers:

- ✦ to reduce the risk of damage to the hearing of the employees; and
- ✦ where an employee is likely to be exposed to noise, a noise assessment is carried out by a competent person.

Examples of where personnel may be exposed to excessive noise include:

- ✦ during driver training;
- ✦ in transport workshops; and
- ✦ whilst operating pumps

Health Issues

Prolonged exposure to noise can cause irreparable damage to hearing. If employees are to be assigned to duties where there is a known noise problem audiometry testing should be considered before staff take up their duties.






Whilst not a legal requirement under the regulations audiometry testing does establish a base hearing level for an individual. By repeating the tests at regular intervals and maintaining records, it should be possible to detect any deterioration of hearing at an early stage. This will enable the staff concerned to be transferred to other less noisy duties or the noise reduced to acceptable levels.

Risk Assessment

The Regulations set 3 Action Levels at which specific obligations are imposed along with the steps which need to be taken. These are set out in more detail in the Regulations and guidance notes.

Control Measures

Where excessive noise is identified there is a range of control measures which may be taken: These include:

-  removing those affected from the area;
-  reducing the length of exposure;
-  examining how the noise levels can be reduced (engineering controls).
-  containing the noise; and
-  providing appropriate hearing protection.

Hearing Protection

This can range from disposable ear plugs to custom designed ear defenders with built-in communications systems.

Expert Guidance

The measurement of noise levels, audiometric testing and the identification of appropriate control measures are highly technical matters. It is important, therefore, to seek expert advice wherever employees may be exposed to excessive noise.

In the first place guidance should be sought from the brigade health and safety adviser and occupational health unit.

Further guidance

The Noise at Work Regulations 1989

Introducing 'The Noise at Work Regulations'
(HSE IND(G)75(L))

Noise at Work: Noise Assessment, information and control
(Noise Guide 3-8) HSE HS(G)56 ISBN 0118854305

Noise at Work Advice for Employees
IND(G)99(L)REV

The Construction (Design And Management) Regulations 1994

Introduction

The main purpose of the Construction (Design and Management) Regulations is to ensure that health and safety considerations are taken properly into account at all stages of the construction of buildings.

The Regulations are complex and few fire brigade managers will need to acquire a detailed knowledge of their provisions. However, they do represent an extremely important development and senior brigade managers who are involved in new building projects should have at least an awareness of the underlying principles of the Construction (Design and Management) Regulations 1994.

‘Construction’ is a wide concept and includes many activities, hazards, materials, techniques, employment patterns and contractual arrangements.

Poor management is a prime cause of the unacceptable accident and occupation health record of the construction industry.

In these circumstances good project management is needed from conception through to execution if good health and safety standards are to be maintained.

Underlying Principles


The Regulations place duties on the:

- 🔥 clients (including client’s agents and developers);
- 🔥 planning supervisors;
- 🔥 designers;
- 🔥 principal contractors;
- 🔥 contractors.

The following principles underpin the structure and detail of the Regulations:

- ✦ safety and health must be considered from the outset of a project, systematically and at each stage thereafter.
- ✦ clients must provide and where necessary, seek information about the site, land and existing buildings.
- ✦ designers must consider the principles of risk avoidance and reduction from the earliest stages.
- ✦ the involvement of all who have responsibilities and can contribute to improved health and safety, including clients, designers, contractors, employees and those working on the site.
- ✦ from the outset and throughout a project to completion there must be proper planning and coordination, for example:
 - the planning supervisor must coordinate and review the design effort and act as a focal point for information; and
 - the principal contractor must then carry this function forward into the construction phase.
- ✦ to ensure that health and safety provision is adequate, the competence and resources of designers, contractors and specialists must be verified and monitored.
- ✦ health and safety must be planned and managed throughout the project. For example:
 - a health and safety plan is initially developed by the planning supervisor; and
 - is taken forward by the principal contractor to become a central document for managing health and safety during construction work and reviewing and monitoring activities on site.
- ✦ information must be shared and communicated as and when necessary, for example:
 - between the client and designers and their planning supervisor during the project development;
 - between the client and prospective contractors;

- between the planning supervisor and principal contractor as the health and safety plan is developed;
- between the principal contractor and other contractors; and
- between the principal contractor, contractors and those working on site as construction is being progressed.




 any information which might be useful in forming the basis of future improved health and safety management should be recorded. For example, the health and safety file, developed and maintained by the planning supervisor shall act as a repository for information relevant to health and safety, both in the later stages of project and during the subsequent maintenance.

Operational Intelligence

Brigades should be aware that these Regulations provide an opportunity for the gathering of operational intelligence. The health and safety plan; for construction sites where new building, renovation, alteration, demolition and dismantling is taking place, and the health and safety file for completed construction sites are both sources of information for brigades.

Health and Safety Plan




The health and safety plan includes the following information:

-  general health and safety information appertaining to the site and particular hazards if any;
-  information on traffic systems and restrictions, access for fire appliances within the site, arrangements made in case of fire and fire fighting systems;
-  information on site access and egress points for emergencies.

Information from the health and safety plan will be available from the principal contractor on site.

The health and safety file

The health and safety file includes the following information:

-  drawings and plans;
-  general details of construction methods and materials and
-  details of the location and nature of utilities and services, including emergency and fire fighting systems.

Brigades should be aware that approach might be made to them asking for guidance in drafting arrangements in health and safety plans or files.

Further guidance

Approved Code of Practice: L54 'Managing construction for health and safety: Construction (Design and Management) Regulations 1994.
ISBN 0 7176 0792 5 HSE Books

The Health And Safety (First-aid) Regulations 1981

Introduction

These Regulations require employers to:

- 🔥 provide adequate and appropriate equipment and facilities for enabling first-aid to be rendered to their employees if they are injured or become ill at work;
- 🔥 provide an adequate and appropriate number of suitable persons to render first-aid to any of their employees who are injured or become ill at work; and
- 🔥 inform employees of the first-aid provisions which have been made for them.

Interpretation

The Regulations use the following definitions

'First-aid' means:-

- 🔥 in cases where someone will need help from a medical practitioner or nurse, treatment for the purpose of preserving life and minimising the consequences of injury and illness until such help is obtained; and
- 🔥 treatment of minor injuries which would otherwise receive no treatment or which do not need treatment by a medical practitioner or nurse.

A 'suitable person' is:-

- 🔥 a first-aider who holds a current first-aid certificate issued by an organisation approved by the HSE for the purposes of the Regulations. In certain circumstances a first-aider will need additional or specific training to be a 'suitable person'; or
- 🔥 any other person who has undergone training and obtained qualifications approved by the HSE for the purpose of the Regulations.

Compliance

In order to determine what is an adequate and appropriate provision of equipment in accordance with the Regulations, Brigades must have regard to the different work activities of their employees. Provision for operational firefighters will, for example, differ from that for office staff and, whereas first-aid kits may be adequate on fire stations, a fully equipped first-aid room may be necessary at a training centre.

Special arrangements may need to be made for employees, such as communications engineers, who work alone and at remote sites.

The number of first-aiders required will also be decided following consideration of all relevant factors.

All employees should be informed of the first-aid arrangements as part of their induction training when joining the Brigade and, subsequently, when moving to another part of the establishment if the arrangements are different.

Notices should be posted in all workplaces giving the locations of first-aid equipment and facilities and the names of the trained first-aiders.

Further Guidance

More comprehensive guidance on how to comply with the requirements of the Regulations can be found in:-

First-aid at Work: Health and Safety (First-Aid) Regulations 1981:
Approved Code of Practice and Guidance COP 42, published by HSE
Books ISBN 0 7176 0426 8.

Safety Representatives and Safety Committee Regulations 1977

Key provisions of:

- ✦ Safety Representatives and Safety Committees Regulations 1977 (amended 1992 and 1996);
- ✦ Health and Safety (Consultation with Employees) Regulations 1996.

Safety Representatives and Safety Committee Regulations 1977

The Safety Representatives and Safety Committees Regulations 1977, made under section 2(4) of the Health and Safety at Work etc Act 1974, prescribe the cases in which recognised trade unions may appoint safety representatives. The Regulations also specify the functions of such safety representatives and set out the obligations of employers towards them.

Appointment of Safety Representatives

For the purposes of section 2(4) of the 1974 Act, a recognised trade union may appoint safety representatives from amongst the employees in all cases where one or more employees are employed by an employer by whom it is recognised.

Functions of Safety Representatives

Safety representatives have the following functions:

- ✦ to investigate potential hazards and dangerous occurrences at the workplace (whether or not they are drawn to their attention by the employees represented) and to examine the causes of accidents at the workplace;
- ✦ to investigate complaints by any employee represented relating to that employee's health, safety or welfare at work;
- ✦ to make representations to the employer on relevant matters;
- ✦ to make representations to the employer on general matters affecting the health, safety or welfare at work of the employees at the workplace;
- ✦ to carry out inspections in accordance with Regulation 5, 6 and 7;

- ✦ to represent the employees they were appointed to represent in consultations at the workplace with inspectors of the Health and Safety Executive and of any other enforcing authority;
- ✦ to receive information from inspectors in accordance with section 28(8) of the 1974 Act; and
- ✦ to attend meetings of safety committees where they attend in their capacity as a safety representative in connection with any of the above functions;

NB

- No function given to safety representative by this paragraph shall be construed as imposing any duty on them.
- An employer shall permit safety representatives to take such time off with pay during the employees' working hours as shall be necessary for the purposes of performing their functions.

Employees Duty to Consult and Provide Facilities and Assistance:

Without prejudice to the generality of section 2(6) of the Health and Safety at Work etc. Act 1974, every employer shall consult safety representatives in good time with regard to:

- ✦ the introduction of any measure at the workplace which may substantially affect the health and safety of the employees the safety representatives concerned represent;
- ✦ arrangements for appointing or, as the case may be, nominating persons in accordance with regulations 6(1) and 7(1)(b) of the Management of Health and Safety at Work Regulations 1992;
- ✦ any health and safety information required to be provided to the employees the safety representatives concerned represent by or under the relevant statutory provisions;
- ✦ the planning and organisation of any health and safety training required to be provided to the employees the safety representatives concerned represent by or under the relevant statutory provisions; and
- ✦ the health and safety consequences for the employees the safety representatives concerned represent of the introduction (including the planning thereof) of new technologies into the workplace.

Provision of Facilities:

Employers are required:

- ✦ to provide such facilities and help as safety representatives may reasonably require for the purpose of carrying out their functions, and.
- ✦ to allow safety representatives such time off with pay during their working hours as *is necessary for them to:*
 - perform their statutory functions; and
 - undertake a reasonable amount of training.

Rights of Safety Representatives:

To enable them to perform their functions freely the Regulations specify the following:

- ✦ an employer must not discriminate against a safety representative for any activity which is carried out while performing the role of a safety representative;
- ✦ the right to present a case to an industrial tribunal if an employer has failed to allow time off to undertake the functions, or has failed to pay for time spent on performing them.

Health and Safety Committees





The Regulations require an employer:

- ✦ to establish a safety committee if requested to do so, in writing, by at least two safety representatives appointed by recognised trade unions;
- ✦ to establish the committee within three months following consultation with the safety representatives in the workplace concerned.

Objectives and Functions of Safety Committees

The Health and Safety at Work Act 1974 states the function of a health and safety committee as **keeping under review the measures taken to ensure the health and safety at work of employees.**

Within fire brigades, the following subjects are considered appropriate business for safety committees:

-  monitoring compliance with the brigade health and safety policy statement;
-  considering management proposals for implementing the health and safety legislation, especially in relation to the preparation of risk assessments;
-  considering reports of injuries (accidents and assaults) and dangerous occurrences with a view to recommending appropriate preventive action;
-  considering inspection reports submitted by safety representatives and Inspectors of the HSE.



Membership

The membership and structure of a health and safety committee should be settled locally in consultation between management and the trade union representatives through the normal consultative process.

In general terms the aim should be for the committee to perform its functions as far as possible through consensus.

Health and Safety (Consultation with Employees) Regulations 1996

Briefly summarised these Regulations:

-  Require employers to consult any employees not in groups covered by trade union safety representatives. The employer can choose to consult them directly or through elected representatives.
-  The onus is on the employer to ensure that there are no groups which are not covered by these arrangements.

Further guidance

Safety Representatives and Safety Committees This contains the texts of the 1977 Regulations and the two Approved Codes of Practice on Safety Representatives.
ISBN 0 11 883959 4 HSE Books

A guide to the Health and Safety (Consultation with Employees) Regulations 1996
ISBN 0 7176 1234 1 HSE Books

A free leaflet **Consulting Employees on Health and Safety - A Guide to the Law**
IND(G)232L HSE Books

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The Health And Safety Adviser Role (CACFOA)

Introduction

The CACFOA Health and Safety Committee have decided that the fire brigade safety officer (adviser) role should be described in functional terms and constructed around previous work undertaken in this area. Whilst the role has been described in such terms it should still be possible for brigades who so wish, to relate the functional role, tasks and activities to a competency framework.

In determining the functions of the health and safety adviser role consideration has also been given to the level of knowledge and skills which such an adviser could be expected to have to fulfil the role to a 'competent' standard. It will not necessarily be the case that recognised national qualifications will provide all the skills that are required. In particular accident investigation, audit and risk assessment require specific skills and knowledge for competence to be demonstrated.

The Management of Health and Safety at Work Regulations, 1992 require an employer to have available competent advice with regard to health and safety matters. It is not necessarily the case that such competence should be invested in one individual or job role. Brigades will need to decide for themselves how they obtain such advice, especially where their access to a competent professional safety adviser may be limited.

A framework is provided below which seeks to address all the functions that are related to the provision of competent advice, the level and type of knowledge required to provide such advice and the extent of management involvement.

It is important that the safety adviser role is not seen as the 'doer' for health and safety actions. Where action (including strategic decisions) on health and safety matters is required this should be a management function. The safety adviser role is to support the management function and not replace it.

For example activities such as accident investigation require a high degree of management involvement as it is unlikely that a single 'adviser' will be able to carry out all the tasks and attend all the incidents which require 'investigation'. Attention needs to be paid to the role of line management in this process particularly the responsibilities of individual managers and supervisors with regard to accident prevention. The safety adviser can assist in ensuring that no conflict of interest arises.



In deriving the role and functions of the safety adviser due cognisance should be given to the advice provided in HSG65 'Successful Health and Safety Management', (second edition) regarding the positioning and influence of the health and safety adviser in the organisational structure. The adviser should have direct access to the Chief Fire Officer, Firemaster.

Health and Safety Functions

The 17 key and 2 additional functions listed below are general in nature and brigades should examine their own activities to determine where and how these functions are undertaken.

- 🔥 development of health and safety policy;
- 🔥 identifying and responding to legislation;
- 🔥 reviewing operational procedures;
- 🔥 operating information systems;
- 🔥 investigation, recording and reporting of accidents;
- 🔥 auditing;
- 🔥 inspections;
- 🔥 identifying and providing scientific advice;
- 🔥 training for health and safety;
- 🔥 dealing with health and safety;
- 🔥 identifying occupational health issues;
- 🔥 liaison with the medical adviser;
- 🔥 liaison with the HSE;
- 🔥 liaison with staff side;
- 🔥 assisting litigation claims;
- 🔥 monitoring and advising on contractors;
- 🔥 ensuring continuing professional development.

additional functions:

-  providing advice on food hygiene matters;
-  dealing with environmental issues.

The detail of each function and the involvement of the adviser in each brigade may vary according to local needs and resources. The overall aim is to secure the systematic management of health and safety for all staff employed by brigades. The safety adviser will need to be aware of the necessity for ensuring safety in support areas and activities as well as in fire brigade operations. 'Safety' in this document is to be taken to include 'health'.

In general the functions should cover the following aspects:

Policy:





A central focus in any organisation is the constant evolution of safety management systems to maintain and improve health and safety.

A safety adviser's role should include as a central factor the overview and revision of health and safety policy by detailing recommendations to the senior management team. This will include assisting in the design and development of appropriate management systems.

Part of the various facets of the advisory role lead into the monitoring of the health and safety policy. If the policy is working well then there should be few if any 'accidents' and all inspection, monitoring and audit reports should be satisfactory, indicating a high standard of safety is being achieved.

Another aspect of policy development is responding to changes in legislation and the introduction of new legislation, as well as incorporating good practice arising from the analysis of external reports. Such reports include legal judgements, academic papers and peer group information (both within and outside the fire service).

Knowledge and skills required:

-  legal requirements for health and safety policies;
-  the formulation and monitoring of policy requirements, including appropriate methods and their application;
-  an understanding of the purpose of policy requirements and how to ensure policy is appropriate and effective and
-  components and design of safety management systems.







Identifying and Responding to Legislation

Advisers should ensure that brigades respond not only to existing but also proposed legislation.

This will include identifying consultation documents and collating responses from the various functions of a brigade - operational, technical, training etc as to the likely impact of proposed legislation and making comment where necessary.

Advisers should be involved in the establishment and maintenance of systems to identify the various aspects of the law, both criminal and civil, which impact upon a brigade and the recording of the way in which the brigade complies.

Knowledge and skills required:

-  the nature of legislation, particularly criminal law and its application;
-  sources of information on law, including case law and their impact and relevance;
-  the relationship between criminal and civil law;
-  the purpose of consultation documents and the ability to provide industry specific comment;
-  the application of specific legal requirements to fire brigades and their support services;
-  the main requirements of the Health and Safety at Work etc Act 1974 and Regulations made thereunder.





Reviewing Operational Procedures

The advisory role is one of assisting in the monitoring and development of procedures and health and safety requirements.

This will involve ensuring that adequate risk assessments have been undertaken and the results incorporated in to operational procedures to ensure that a suitable system of work is in place.

Providing advice on the methods and processes available to ensure that all operational procedures will be effective. In particular this will involve providing advice on human factors as well as equipment and training requirements.

Knowledge and skills required:






-  techniques for hazard identification, analysing risk and their application to safe systems of work;
-  ability to review and analyse work practices to determine the effectiveness of operational procedures;
-  the impact and development of management systems which support operational procedures, including those required for support activities;
-  understanding of human factors and their impact on working practices.

Information Systems

As well as the accident/safety event type of data, the safety adviser should also be involved with the operation of data collation and analyses on a number of issues. Typical of these are the collation and recording of risk assessments so that their impact can be monitored. The development of an information base from inspection, monitoring and audit reports. Factoring events (including accidents), audit reports and other results into the risk assessment process so that advice can be provided on risk ranking and prioritisation of interventions.

As well as receiving, the adviser should also be disseminating information. This will take a variety of forms appropriate to each brigade and could include, safety bulletins, reports to health and safety committees and reports to senior managers.

Knowledge and skills required:

-  methods of information collection, collation and handling;
-  communication of health and safety requirements;
-  communication methods and practices;
-  the nature and reliability of information required for risk assessments and management purposes;
-  epidemiological skills.

Accidents

The safety adviser role should be pivotal in ensuring that accidents are properly investigated. 'Accident' includes events which do not necessarily result in injury.

This function has three distinct parts: accident investigation, accident reporting and accident recording.



Investigation:

All accidents and other events which may include deficiencies in the brigades management of safety should be investigated to an agreed standard or protocol. The adviser may only be involved in the more serious incidents but should provide an overview and direction to the investigation processes.

The adviser may act as the pivotal role in liaison with the various authorities concerned. These include the police, the HSE, the Fire Service Inspectorate as well as the brigade's solicitors and senior managers.

The adviser should monitor the standard of investigations and the outcomes achieved, including the development of action plans and their completion.



Reporting:

The adviser will be the liaison for reporting accidents to the HSE. It is, therefore, advisable that the adviser should also be responsible for reporting on accidents to the senior management team, the trades union representatives and the health and safety committee.

Reports may include specific issues or analyses of accident patterns and trends. Such reports may include both legal and financial implications. Depending on the size of the brigade, there will also be a need to administer the reporting process.









Recording:

This is part of a systematic approach to management information on safety issues.

A safety adviser should be able to develop and maintain systems for the recording of health and safety related events to provide information to support the risk assessment process used by the brigade as well as providing 'state of the organisation' reports to the management team.

The recording system is one area of evidence that can be utilised by regulators to determine the effectiveness of safety interventions.

Knowledge and skills required:

-  ability to apply differing methodologies to accident investigation and undertake investigation in an appropriate manner;
-  legal duties relating to investigation, including the role of the police, coroner, procurator fiscal and legal advisers;
-  writing accident reports and developing or assisting in the development of action plans;
-  establishing and maintaining information systems and preparing reports identifying trends etc;
-  legal implications of accidents, identification of underlying causation and the relationship with risk assessments, safe working practices and human factors.
-  the requirements of criminal proceedings, investigations and legislation.





Auditing

This is a very specific function. Ideally the adviser should be trained as an auditor or at the very least be able to identify the requirements for a safety management system audit.

The adviser will undertake auditing as an audit team leader or facilitator. A key role will be the identification of key areas to be audited and advising principal management accordingly.

Establishing, maintaining and developing the safety systems audit, including monitoring of the implementation of action plans following any audit.

Knowledge and skills required:

-  the nature and purpose of safety, health and environmental auditing;
-  the application of various audit standards;
-  ability to design or adapt audit protocols to fire brigade requirements;
-  the ability to develop audit tools and undertake audits as a trained auditor with an understanding of audit techniques and report writing.

Inspections






The adviser may undertake inspections, however, it is more appropriate that the inspecting role is undertaken by line management.

The advisory role is, therefore, to ensure that appropriate methods and standards are utilised for inspections.

Advisors should be involved with the planning of inspections and setting appropriate outcomes.

Monitoring of inspections should include not only the frequency but also the systems which are in place to ensure the appropriate response to inspection findings.

Knowledge and skills required:


-  the nature and purpose of inspections, design and implementation of inspection protocols;
-  the sourcing and utilisation of standards;
-  legal requirements for inspections and the level of competence required;
-  reporting and follow up of inspection reports;
-  the application of inspection processes in a safety management system.

Accessing Scientific Advice:

A safety adviser should take on the role of specifying and obtaining scientific advice, including detailed technical evaluations/ examinations, on matters relating to health and safety. Part of this role is to ensure that the appropriate examinations, etc, are undertaken and that the reports developed can be utilised by the brigade to achieve improvements where necessary. Scientific advice may come in various forms, including engineers advice on the structure of buildings (for example when there has been a collapse at an operational incident involving an accident investigation) the detailed examination of PPE or the metallurgical examination of failed equipment etc.

The safety adviser should be able to take an overview of any such matters and put them in the context of risks to the brigade and its personnel.

Knowledge and skills required:

-  identification of appropriate sources of scientific advice;

- ✦ an understanding of scientific principles including investigation, reliability and appropriate standards;
- ✦ a grounding in basic sciences;
- ✦ the ability to identify levels of competence, when to seek assistance and the nature of the assistance required;
- ✦ ability to specify work requirements and the sourcing of appropriate technical standards including their application;

Training for health and safety

This is a central role with two components. It is important to distinguish between training which makes a job safe (a major component of fire service practical training) and training which is not directly related to the provision of safe working skills.

✦ Safety Training

This is a wide ranging area which involves a number of inter-related issues. An adviser should be involved with staff training, especially that of managers (uniformed and non-uniformed) by undertaking or assisting in training needs analyses. Crucial aspects will be those of hazard identification and risk assessment. It will also include system design as well as safe working practice formulation and how the responsibilities defined in a brigade's safety policy should be discharged. There will also be areas of training specifically related to certain items of legislation, including those of duties, standards and monitoring/ inspection methods. The adviser is unlikely to be involved directly in training firefighters and commanders in fireground safe working practices.

✦ Training for Safety Related Matters

This includes, accident reporting, accident recording, accident investigation etc. Such matters in themselves **do not ensure safety** but are essential to the overall system of management. Many such activities are ancillary to ensuring safety and the adviser should be involved in training staff in the necessary activities, such as how to complete a RIDDOR form.



Knowledge and skills required:

- ✦ ability to present information in a learning environment;
- ✦ techniques of training needs analysis;
- ✦ competent level of knowledge in the areas which are required to be delivered;
- ✦ identification of competent trainers and sourcing of materials and courses.

Health and Safety Administration

All the aspects of the advisers role require administration support. Much of this involves appropriate recording and filing systems as well as general information collation and dissemination. Specific aspects will include accident investigation reports and action plan tracking, reporting to the HSE, preparation of audit and inspection reports, recording of risk assessments and the compilation and preparation of training materials. There are a number of administration issues for health and safety, the extent and nature of which will depend upon the extent of involvement of the adviser in any of the above roles.

Knowledge and skills required:


-  the nature and utilisation of administration systems, including document control, information handling, support technology and legal requirements with respect to the retention of specific information;
-  report writing skills and identification of administration needs.

Identifying Occupational Health Issues

This role is one of assessing and providing advice on the two main aspects of occupational health. The impact of health on work and the impact of developing appropriate management systems relating to the occupational health function.

There are a number of areas that should concerned the adviser. Whilst much of the health on work impact is about such matters as sickness absence, fitness for work and physical capabilities (especially given the nature of the fire service) there is a need to ensure that task design is appropriate. The adviser should maintain an overview of these issues and assist management in the formulation of a suitable approach. The emphasis for the adviser will most likely be focused on the impact of work on health issues.

Legislation is mainly directed towards identifying and then eliminating or controlling the impact that work has upon health. Examples of this include the COSHH, Manual Handling and Noise at Work Regulations. In order to ensure that adequate provision is made in management systems for health effects, the adviser should assist in the establishment and maintenance of methods and processes for the identification and control of health effects, many of which require a long term approach. This work will include for example:

-  proactive: the undertaking (or arranging for them to be undertaken) of noise surveys and the development of brigade hearing protection strategies and any surveillance that is required; assessments made

under the COSHH Regulations and any health monitoring or surveillance that results from these; the brigades response to manual handling issues;

- 🔥 reactive: monitoring exposure at incidents and ensuring early medical examination where necessary.

Knowledge and skills required:

- 🔥 a working knowledge of occupational health as a subject area, its principles and requirements;
- 🔥 epidemiological skills appropriate to organisational needs;
- 🔥 human health effects and modes of causation;
- 🔥 the ability to identify and develop occupational health recording and monitoring systems;
- 🔥 the legal requirements with respect to occupational health and how compliance can be achieved ;
- 🔥 technical ability related to the identification of health effects.

Liaison with the Medical Adviser

The safety adviser's role is one of making the link between the provision of medical based services and advice and the development and maintaining of management systems.

Liaison with the medical adviser should be in a very general sense and not about specific cases, unless there is a particular need to do so. In general there should be a high level of consultation between the medical and the health and safety services.

Such involvement will include:

- 🔥 identifying various health impacts and overseeing referrals for medical examination where it is appropriate to do so. Such situations may arise at operational incidents, examples being smoke inhalation, heat stress or exposure to noise, or following a review of working practices, such as working with VDUs;
- 🔥 analysing and commenting on epidemiological data regarding the overall performance of the brigade with respect to health matters;

- ✦ liaising with other brigade functions, eg. training, to ensure occupational health matters are addressed;
- ✦ obtaining medical advice where appropriate on such issues as manual handling, PPE etc.

Knowledge and skills required:

- ✦ an understanding of occupational hygiene;
- ✦ an understanding of the specialised occupational physician and nursing roles and activities;
- ✦ the ability to understand medical terms and the basics of occupational health fields or knowledge;
- ✦ a grounding in epidemiology and the ability to identify health effects;
- ✦ the nature of medical ethics and the client-doctor-employee relationship.

Liaison with the HSE

It is important that a brigade has a focal point for liaison with the HSE local Inspector. This liaison includes a wide variety of issues but predominately:

- ✦ overview of reports to HSE under the provisions of RIDDOR.

This overview is important to ensure that the brigade is complying with the Regulations and to ascertain the likely implications of the report in terms of enforcement action.

- ✦ informing the HSE Inspector of any significant developments in the brigade impacting upon health and safety;
- ✦ obtaining advice from the HSE on issues where the brigade requires some direction or opinion from the HSE;
- ✦ actively promoting the brigades approach to health and safety issues;
- ✦ alerting the HSE to any matters which may have wider impact, both for the fire service and industry in general;
- ✦ informing the HSE of matters which may require their enforcement attention e.g. a brigade may attend an incident on a construction site where breaches of legislation by the site occupier have exposed firefighters to risk.

- ✦ advising the management team on matters related to HSE activity;
- ✦ facilitating visits to the brigade by the HSE, including routine inspections and enquiries following an incident.

The adviser should be proactive in assisting the brigade to work to the guidelines provided in the CACFOA guidance: 'Dealing with the HSE'.

Knowledge and skills required:

- ✦ the nature and organisation of the HSE including the legal duties and roles of HSE Inspectors;
- ✦ the priorities given to the various issues which can arise;
- ✦ a good understanding of the principles of safety law, especially the general duties laid out in the Health and Safety at Work etc Act 1974 and regulations made thereunder;
- ✦ the requirements of the police and criminal evidence legislation.





Liaison with Staffside

The principle aim should be to ensure the involvement of the trades unions and other staff representatives in all matters affecting brigade health and safety. The adviser should be a member of the health and safety committee and in such a role assist the brigade in promoting a positive attitude to participation and consultation. The adviser should not be seen by the trades unions as having executive responsibility or powers to resolve health and safety issues, other than by the provision of effective and independent advice.

Activities may include:

- ✦ meeting with the staffside on an informal basis to outline brigade processes and improvement strategies relating to health and safety matters;
- ✦ responding to requests for information on particular aspects of brigade policy, where it is appropriate to do so outside the joint committee arena;
- ✦ involving the staffside in a participatory capacity on health and safety development work, such as working parties, risk assessment and accident investigation.





Knowledge and skills required:

-  the role of staffside representatives and the duties and powers provided within the legislation;
-  the ability to consult in a non-confrontational manner;
-  the role and purpose of Health and Safety Committees;
-  the nature of advice required by brigade principal managers with respect to dealing with the Trades Unions on safety related matters.

Assisting litigation claims

The advisory role should not (ideally) be concerned with claims made against a brigade resulting from alleged failings in health and safety management. There will be a need to liaise with legal advisers and others concerned with litigation (this also includes pension appeals due to service awards). This need will include the provision of information and the identification and mitigation of adverse situations. This will be the case especially in relation to accident investigation and reporting, as well as health monitoring.





Knowledge and skills required:

-  the nature of civil law, litigation, pension appeals and industrial injuries awards, including prescribed diseases;
-  the relationship between proactive health and safety management systems and reactive responses, including litigation;
-  the nature of privileged information;
-  the requirements for separation between accident investigation and information for defence litigation.

Monitoring and Advising on Contractors

This is a very specific area which presents its own problems. The adviser's role will be to ensure that the employment of contractors does not adversely affect the health and safety of brigade personnel. The role demands specific application of inspection, monitoring and review techniques. Advisers should be involved in establishing and maintaining policy and procedures for contractor control. Liaison with line managers and contract administrators is also required.

Knowledge and skills required:



-  the application of the Construction (Design and Management) Regulations as a template for contractor control;
-  the application of these regulations to building works;
-  the nature of contract duties of care including of vicarious responsibilities and duties;
-  the ability to design procedures and systems - including policy - to effect control of contractors and visitors to brigade premises.

Ensuring continuing professional development

This is a role often overlooked but it is essential. The extent of professional development will depend upon the level at which the adviser is working, but as a minimum, it should include keeping up to date with legislation, safety methods and practices and maintaining skills (for example in accident investigation/audit etc).

Timetabling of professional development activities and their resourcing should be discussed with management. A significant aspect of this development should be the ability of the adviser to identify their own competences and know when to call on expert assistance.

Knowledge and skills required:


-  the importance of continuing personal development;
-  the identification of a personal level of competence in the various aspects of the adviser's role and functions.

Additional Functions

Food Hygiene Matters

It is very likely that the adviser will be involved with food hygiene matters, including the preparation of guidance, overview of procedures and inspection of catering facilities. Food safety is a specialised area, the legislation for which exists outside the normally considered health and safety law umbrella.

Knowledge and skills required:

-  the basics of food hygiene and current legal requirements for brigade food related activities;

- ✦ a knowledge of routes of food poisoning and food contamination;
- ✦ a general knowledge of food hygiene principles and the ability to undertake food hygiene inspections based upon risk related principles;
- ✦ an understanding of the role and powers of local authority Environmental Health Officers.

Environmental Issues

The approach to environmental risks is very similar to that employed for safety and health risks. Many of the environmental risks are also health risks and as such it is generally the case that both will have to be considered together. The guidance provided in HSG65 indicates this to be the case. British Standard 8800 makes the link between environmental management systems and health and safety management systems.

The adviser's role should take on board the relationship between environmental and safety risks. This role may be expanded to include the development of policy, procedures and managing systems for environmental risks, both those occurring operationally (such as river pollution during a fire) and those which arise as a result of the activities of the organisation (such as the disposal of waste materials).

Knowledge and skills required:

- ✦ the legal requirements relating to environmental pollution and control, including the principles of integrated pollution control;
- ✦ the nature of environmental effects, the ability to create an environmental effects register;
- ✦ an understanding of the various standards relating to environmental control and management systems and associated auditing and monitoring processes.

The Dangerous Substances (Notification And Marking Of Sites) Regulations 1990

Introduction

The reasons behind these Regulations are twofold; firstly to provide a means of operational intelligence, and secondly to provide a means of signing to warn fire crews, on arrival, of the nature of the site they are attending.

Provision of the Regulations

If a total quantity of 25 tonnes or more of dangerous substances are held at a site at any one time, the person in control of the site must notify the fire authority and the HSE in writing that the site falls under the scope of the Regulations. The presence of the dangerous substances must be indicated by means of signs placed at the entrances to the site and on the storage buildings, as directed by the enforcing authority (the fire authority or HSE). The signs must be kept clean and free from obstruction.

Further guidance

HS (R) 29 Guide to Notification and Marking of Sites in accordance with The Dangerous Substances (Notification and Marking of Sites) Regulations 1990

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The Control of Asbestos at Work Regulations 1987

Introduction

These Regulations apply to all work activities directly involving asbestos.

Employers have duties not only to their own employees but also to:

- 🔥 visitors to the place where work with asbestos is being carried out;
- 🔥 the occupiers' employees if the work is done in someone else's premises; and
- 🔥 other persons who might be accidentally exposed to asbestos dust arising from the work.

The Regulations require that an employer should prevent exposure of his employees to asbestos or reduce that exposure to the lowest reasonably practicable level.

Working with Asbestos

The Regulations require an employer, before working with asbestos, to determine the type of asbestos or, failing that, assume that the asbestos is a crocidolite or amosite (ie assuming the worst case). When that is done the nature and degree of exposure which may occur during the work should be established. On the basis of this, steps should be taken to prevent or reduce exposure to the lowest reasonably practicable level.

Information, Instruction and Training

The Regulations require that all employees should have adequate information, instruction and training to make them aware of the risks from asbestos, (and precautions which should be observed) to allow them to perform their duties effectively.

Control Measures

Suitable protective clothing should be provided.

Employers should enforce the use of control measures and ensure that equipment is maintained and in a clean condition.

Further guidance

The Control of Asbestos at Work Regulations, 1987
HSE Books L27

Provision And Use Of Work Equipment Regulations 1992.

Introduction

The aim of the Provision and Use of Work Equipment Regulations 1992 is to ensure the provision of safe work equipment and its safe use.

Equipment provided for use at work should not give rise to risks to health and safety, regardless of its age or place of origin. Second hand, hired or leased equipment is also subject to the Regulations.

Context of Regulations

The Regulations should not be considered in isolation. They operate alongside the Health and Safety at Work Act 1974 and other regulations made under that Act.

The Regulations amplify and make more explicit the general duties on employers, the self-employed and people in control of premises to provide safe plant and equipment. Nearly all the requirements already exist in legislation or constitute good practice. The Regulations bring these requirements together and apply them across all industrial, commercial and service sectors.




In some instances, the requirements of the Regulations overlap the requirements of existing legislation, but, where this occurs, compliance with the existing requirements should be sufficient to comply with the Regulations eg scaffolds which have been properly maintained under the Construction (Working Places) Regulations 1966 will also meet the requirement for maintenance under the Regulation.

Risk Assessment

The Management of Health and Safety at Work Regulations 1992 require that all employers and the self-employed assess the risks to the health and safety of workers and any others who may be affected by the work carried out, for the purpose of identifying the measures needed to comply with other legislation. Carrying out this assessment will help to identify all the protective and preventative measures which have to be taken to comply with the Regulations, such as the selection of suitable work equipment or the safeguarding of dangerous parts of machinery.

Provisions of the Regulations

Suitability: Work equipment should be so constructed or adapted as to be suitable for the purpose for which it is used or provided. In assessing the suitability of equipment the following should be considered:

-  integrity;
-  place of use;
-  purpose for which it will be used.

Maintenance: Work equipment should be maintained in efficient working order and good repair.

Specific Risks: If work equipment is likely to involve a specific risk then the employer must ensure that the use is restricted, maintenance controlled and adequate training given.

Information, Instruction and Training: Employees must be provided with information and instruction as far as reasonably practicable to ensure health and safety. The Regulations provide more specific guidance on the content of health and safety training than the general requirements made by the Management of Health and Safety at Work Regulations.

European Community Requirements: The Regulations place a duty on the employer which complements that laid out in the Health and Safety at Work Act 1974 for the manufacturing suppliers and designers - to ensure that equipment complies with relevant standards.

Selected Hazards: The Regulations address the need to control selected hazards eg contact with dangerous parts of machinery, the risk of fire and explosion, disintegration, contact with hot and cold surfaces, instability etc.

Further guidance

Work Equipment, guidance on the Regulations
HSE Books L22 ISBN 0118863320

Lone Working

Introduction

Employers are responsible for the health and safety at work of their employees and the health and safety of those affected by the work. These responsibilities cannot be transferred to employees who work alone or without close supervision. It is the duty of the employer to organise and control solitary workers.

Some examples of when lone working occurs in a fire brigade context are:

- 🔥 supervisory officers attending to assess an incident eg gaining entry;
- 🔥 officers dealing with fire safety matters;
- 🔥 cleaning staff; and
- 🔥 workshop staff working away from their normal place of work, or outwith normal working hours.

Safe Working Arrangements for Solitary Work

Establishing safe working arrangements for solitary workers is no different from organising the safety of other employees. The existing law and standards which apply need to be known and an assessment made to determine if the requirements can be met by people working alone.

Solitary workers must not be exposed to significantly higher risks than employees who work together.

Further Guidance

Working Alone in Safety: Controlling the risks of solitary work.
IND(4)73(L) HSE Books

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The Health And Safety (Young Persons) Regulations 1997

The fire service has a minimum recruiting age of 18 years for operational personnel therefore in this area these Regulations are unlikely to apply. However, in the support services such as brigade workshops and administration it is likely that some personnel will be covered by the Health and Safety (Young Persons) Regulations 1997 eg apprentices and young office staff.

The definition of a young person is one who is over minimum school leaving age and under 18 years old.

Young persons are seen as being particularly at risk because of possible lack of awareness of existing or potential risks, immaturity and inexperience.

Employers are required to:

- 🔥 assess risks to young people, before they start work;
- 🔥 take into account their inexperience, lack of awareness of existing or potential risks, and immaturity;
- 🔥 address specific factors in the risk assessment;
- 🔥 take account of the risk assessment in determining whether the young worker should be prohibited from certain work activities, except where they are over the minimum school leaving age (just before or just after their 16th birthday) and it is necessary for their training and:
 - where risks are reduced so far as reasonably practicable; and
 - where proper supervision is provided by a competent person.

Risk Assessment

The Management of the Health and Safety at Work Regulations 1992 require that a suitable and sufficient assessment of the risks to the health and safety of all employees be made, identifying groups of works who might be particularly at risk. The Approved Code of Practice associated with the Health and Safety (Young Persons) Regulations 1997 specifically identifies young or inexperienced workers as such a group.

The following factors must also be taken into account:

- 🔥 the fitting out of the workplace and the workstation;
- 🔥 the nature, degree and duration of exposure to physical, biological and chemical agents;

- ✦ the form, range and use of work equipment and the way in which it is handled;
- ✦ the organisation of processes and activities;
- ✦ the extent of the health and safety training provided, or to be provided, to the young people concerned.
- ✦ the physical and psychological capacities of the young person

Restrictions on the Work of Young People

The outcome of the risk assessment and the extent of the control measures introduced will determine whether significant risk of harm to the young person remains.

If a significant risk remains despite best efforts to do what is reasonably practicable to control harmful exposure to substances at work, or significant risks to young persons undertaking particular work, they must not be employed to do this work.

Training

The prohibitions will not apply where young persons over the minimum school leaving age are doing work necessary for their training, under proper supervision by a competent person, and providing risks are reduced so far as is reasonably practicable, in line with existing health and safety legislation (training includes government-funded training schemes for school leavers, modern apprenticeships, inhouse training arrangements and work qualifying for assessment for N/SVQs eg craft skills).

Children

There may be occasions where brigades are considered to be employing children (persons below the minimum school leaving age), for example, school pupils on work experience placements. In these instances, the child's parents or guardians must be informed of the results of the risk assessment and any control measures, before the employment begins.

Further Guidance

HS(G)165 Young People at Work: A Guide for Employers
(ISBN 07176 12856). HSE Books

Health and Safety (Young Persons) Regulations 1997
(SI No 135/1997).

Fire Precautions (Workplace Regulations) 1997.

Introduction

The Fire Precautions (Workplace) Regulations 1997 implement the general fire safety provisions of the European Framework and Workplace Directives not specifically dealt with by other legislation. Their purpose is to ensure the safety of employees and others who may be in the workplace, in case of fire.

Application to Fire Service Premises

The Regulations apply to most fire service premises, except those covered by a current fire certificate under the Fire Precautions Act 1971.

Duties

Under the Regulations there is a duty to:



- ✦ assess the fire risks in the workplace (either as part of a general review of health and safety risks already carried out, or as a specific exercise);
- ✦ ensure that a fire can be detected in a reasonable time and that people can be warned;
- ✦ ensure that people who may be in the building can get out safely;
- ✦ provide suitable firefighting equipment;
- ✦ ensure that those in the building know what to do if there is a fire; and
- ✦ provide and maintain the fire safety equipment.

The significant findings of the fire risk assessment must be recorded. Employees, or their representatives must be informed of the findings.

The assessment must be reviewed at suitable intervals and when there is a significant change to the workplace or working practices.

Responsibility

Responsibility for compliance rests with:

-  the employer; and
-  every person who has, to any extent, control of a workplace - including anyone who has an obligation in relation to maintenance, repair or safety

in so far as the requirements of the Regulations relate to matters or areas within their control.

Compliance



Managers should consult their Fire Safety departments for advice on the compliance of particular brigade premises.

Confined Space Regulations 1997

The Confined Spaces Regulations 1997 were made under the Health and Safety at Work etc Act 1974 and came into force on 28 January 1998. The Regulations apply in all premises and work situations in Great Britain which are subject to the HASWA Act, with the exception of diving operations and below ground in a mine (there is specific legislation dealing with confined spaces in these cases).

Meaning of Confined Space

Under these Regulations a 'confined space' has two defining features:



-  it is a place which is substantially (though not always entirely) enclosed and;
-  there will be a reasonably foreseeable risk of serious injury from hazardous substances or conditions within the space or nearby.

Many confined spaces are easy to identify, for example, closed tanks, vessels and sewers. Others are less obvious but may be equally dangerous, for example, open-topped tanks and vats, closed and unventilated or inadequately ventilated rooms and silos, or constructions that became confined spaces during their manufacture.

Some places may fall within the definition of a confined space only occasionally, perhaps due to the type of work to be undertaken, such as a room during spray painting. Other places may become confined spaces because of a change in the degree of enclosure or confinement, which may occur intermittently.

Duties under the Regulations

Every employer shall:

-  ensure compliance with the provisions of these Regulations in respect of work carried out by his employees; and
-  ensure compliance, so far as is reasonably practicable, with the provisions of these Regulations in respect of any work carried out by persons other than their employees insofar as the provisions relate to matters which are within their control.

Risk Assessment

A risk assessment must be made before any work is commenced in a confined space. The priority when carrying out the risk assessment is to identify the measures needed so that work in confined spaces can be avoided. If, in the light of the risks identified, it cannot be considered reasonably practicable to carry out the work without entering the confined space, then it is necessary to determine what measures need to be taken to secure a safe system of work.

Preventing the Need of Entry

Employers have a duty to prevent employees, or others who are to any extent within the employer's control, such as contractors, from entering or working inside a confined space where it is reasonably practicable to undertake the work without entering the space.

In every situation, the employer must consider what measures can be taken to enable the work to be carried out without the need to enter the confined space. The measures might involve modifying the confined space itself to avoid the need for entry, or to enable the work to be undertaken from outside the space. In many cases it will involve modifying working practices.

Work in Confined Spaces

Where it is not reasonably practicable to avoid entering a confined space to undertake work, the employer is responsible for ensuring that a safe system of work is used. In designing a safe system of work, priority must be given to eliminating the source of any danger before deciding what precautions are needed for entry.

Safe System of Work

The precautions required to achieve a safe system of work will depend on the nature of the confined space and the risk assessment. For example, the risks involved and precautions needed for cleaning car interiors with solvents will be relatively straightforward by comparison with those involved when undertaking welding work inside a chemical reactor vessel, or work in a sewer. The main elements to consider when designing a safe system of work and which may form the basis of a 'permit-to-work' are:

- Supervision
- Competence for confined spaces working
- Communications
- Testing/monitoring the atmosphere

- Gas purging
- Ventilation
- Removal of residues
- Isolation from gases, liquids and other flowing materials
- Isolation from mechanical and electrical equipment
- Selection and use of suitable equipment
- Personal protective equipment (PPE) and respiratory protective equipment (RPE)
- Portable gas cylinders and internal combustion engines
- Gas supplied by pipes and hoses
- Access and egress
- Fire prevention
- Lighting
- Static electricity
- Smoking
- Emergencies and rescue
- Limited working time

Supervision

The degree of supervision should be based on the findings of the risk assessment. In some cases an employer might simply instruct an employee how to do the work and then periodically check that all is well, for example, if the work is routine, the precautions straightforward, and all the arrangements for safety can be properly controlled by the person carrying out the work. It is more likely that the risk assessment will identify a level of risk that requires the appointment of a competent person to supervise the work and who may need to remain present while the work is being undertaken. It will be the supervisor's role to ensure that the permit-to-work system, where applicable, operates properly, the necessary safety precautions are taken, and that anyone in the vicinity of the confined spaces is informed of the work being done.





Competence for confined spaces working

To be competent to work safely in confined spaces, adequate training and experience in the particular work involved is essential. Training standards must be appropriate to the task and to the individual's roles and responsibilities, so that work can be carried out safely. Where the risk assessment indicates that properly trained individuals can work for periods without supervision, you will need to check that they are competent to follow the established safe system of work and have been provided with adequate information and instruction about the work to be done.

To be effective a safe system of work needs to be in writing. A safe system of work sets out the work to be done and the precautions to be taken. When written down it is a formal record that all foreseeable hazards and risks have been considered in advance. The safe procedure consists of all appropriate precautions taken in the correct sequence.

Use of a permit-to-work procedure

A permit-to-work system is a formal written system and is usually required where there is a reasonably foreseeable risk of serious injury in entering or working in the confined space. The permit-to-work procedure is an extension of the safe system to work, not a replacement for it. The use of a permit-to-work system does not, by itself, make the job safe. It supports the safe system, providing a ready means of recording findings and authorisations required to proceed with the entry. It also contains information, for example, time limits on entry, results of the gas testing, and other information that may be required during an emergency and which, when the job is completed, can also provide historical information on original entry conditions. A permit-to-work system is appropriate, for example:

-  to ensure that the people working in the confined space are aware of the hazards involved and the identity, nature and extent of the work to be carried out;
-  to ensure there is a formal check undertaken confirming elements of a safe system of work are in place. This needs to take place before people are allowed to enter or work in the confined space;
-  where there is a need to co-ordinate or exclude, using controlled and formal procedures, other people and their activities where they could affect work or conditions in the confined space;
-  if the work requires the authorisation of more than one person, or there is a time-limit on entry. It may also be needed if communications with the outside are other than by direct speech, or if particular respiratory protective and/or personal protective equipment is required.

A permit-to-work should be cancelled once the operations to which it applies have finished.

Emergency Arrangements

Arrangements for emergency rescue will depend on the nature of the confined space, the risks identified and the likely nature of an emergency rescue. Account needs to be taken not only of accidents arising from specified risk, but also any other accident in which a person needs to be recovered from a confined space, for example, incapacitation following a fall. To be suitable and sufficient the arrangements for rescue and resuscitation should include consideration of:

- Rescue and resuscitation equipment
- Raising the alarm and rescue
- Safeguarding the rescuers
- Fire Safety
- Control of plant
- First-aid
- Public emergency services
- Training

Rescue and Resuscitation Equipment

Rescue equipment provided should be appropriate in view of the likely emergencies identified in the risk assessment, and should be properly maintained. If resuscitation has been identified as a likely consequence, provision will need to be made for appropriate training to enable resuscitation procedures to be carried out and this may include use of appropriate resuscitation equipment. In determining if resuscitation is likely to be needed, consideration should be given to experience gained from knowledge of previous incidents.











Rescue equipment will often include lifelines and lifting equipment (since even the strongest person is unlikely to be able to lift or handle an unconscious person on their own using only a rope), additional sets of breathing apparatus and first-aid equipment.

'Self rescue' equipment may be appropriate for use in situations where there will be time to react to an anticipated emergency situation, for example, smoke logging in tunnels or reacting to atmospheric monitoring devices.

They should be made available only where the type provided is suitable for the hazard expected in the emergency situation. They are not a substitute for respiratory protective equipment.

Training

Those likely to be involved in any emergency rescue should be trained for that purpose. The training needs for each individual will vary according to their designated role. It is important that refresher training is organised and available on a regular basis, for example annually. Training should include the following, where appropriate:

-  the likely causes of an emergency;
-  use of rescue equipment, eg breathing apparatus, lifelines, and where necessary a knowledge of its construction and working;
-  the check procedures to be followed when donning and using breathing apparatus;
-  checking of correct functioning and/or testing of emergency equipment (for immediate use and to enable specific periodic maintenance checks);
-  identifying defects and dealing with malfunctions and failures of equipment during use;
-  works, site or other local emergency procedures including the initiation of an emergency response;
-  instruction on how to shut down relevant process plant as appropriate (this knowledge would be required by anyone likely to perform a rescue);
-  resuscitation procedures and, where appropriate, the correct use of relevant ancillary equipment and any resuscitation equipment provided (if intended to be operated by those receiving emergency rescue training);
-  emergency first-aid and the use of the first-aid equipment provided;
-  use of firefighting equipment;

- ✦ liaison with local emergency services in the event of an incident, providing relevant information about conditions and risks and providing appropriate space and facilities to enable the emergency services to carry out their tasks; and
- ✦ rescue techniques including regular and periodic rehearsals/exercises. This could include the use of a full-weight dummy. Training should be realistic and not just drill based and should relate to practice and familiarity with equipment.

Employers are required to provide such information, instruction, training and supervision as is necessary to ensure the health and safety at work of employees.

Specific training for work in confined spaces will depend on an individual's previous experience and the type of work they will be doing. It is likely that this training will need to cover:

- ✦ an awareness of the Confined Spaces Regulations and in particular the need to avoid entry to a confined space, unless it is not reasonably practicable to do so, in accordance with Regulation 4(1);
- ✦ an understanding of the work to be undertaken, the hazards, and the necessary precautions;
- ✦ and understanding of the safe systems of work, with particular reference to 'permits-to-work' where appropriate;
- ✦ how emergencies arise, the need to follow prepared emergency arrangements and the dangers of not doing so.

Further guidance

Safe Work in Confined Spaces - the Confined Spaces Regulations, 1997. Approved Code of Practice, Regulations and Guidance
HSE Books L101 - ISBN 0717614050