

potential for exposure to risk. This issue is developed further when the Health, Safety and Welfare at Work Construction Regulations 2006 are being assessed. The employer here may have to give specific instructions to the independent contractor on the specific safety features of the workplace, whether for example a permit to work system exists in part of the undertaking or when isolation procedures are in place in the vicinity of electrical installations. A consultant engineer would also need to assess the implications of this section in relation to any advice he/she might have given in relation to the structure of the building. Another issue, which will be further developed in Chapter 5, is that of public access to places of work and measures required to be taken to prevent unauthorised access by members of the public.

Section 12 does not apply to:

- non-hazardous noise or noxious smells associated with the place of work
- issues involving either clinical judgment or the level of clinical care provided
- road traffic accidents except those involving road works or arising from excessive debris or mud left on the roadway as a result of construction work
- public consumer health and safety issues.

DUTIES OF EMPLOYEES

The duties of an employee under Section 13 of the 2005 Act may be summarised as:

- to comply with all relevant legislation
- to ensure that he/she is not under the influence of an intoxicant to the extent that he/she is a danger to his/her own safety or that of others
- if reasonably required to do so by an employer, to submit to appropriate tests by a competent person
- to cooperate as far as it is necessary to do so with the employer to ensure compliance with all relevant legislation
- not to engage in any improper conduct that is likely to pose a risk to health, safety and welfare in the workplace
- to attend such training as is reasonably necessary in relation to either work or health, safety and welfare issues at work
- to report to his/her employer any work carried on in a manner likely to endanger that workplace and any breach of statutes that are likely to endanger the health, safety and welfare of employees.

The duty not to be under the influence of an intoxicant, which is defined as including any chemical substance, requires the making of a ministerial regulation to implement it. This area poses particular difficulties for both employers and employees and any regulation would have to address the following matters:

- what constitutes a reasonable belief on the employer's part as to what constitutes a danger through intoxication
- how is the test to be carried out and by whom
- the need to produce a list of safety-critical occupations, including driving motor vehicles and operating machinery
- whether the regulation should ban all intoxicant consumption for these safety-critical occupations
- what employment sanctions should be imposed on those found to have breached the regulation.

The issue of any such regulation would require widespread consultation between the Health and Safety Authority, employer and employee bodies and the minister. Supervisors and line managers have an important role to play in ensuring that any known problem in the area of health, safety and welfare is brought to the attention of senior management as soon as possible.

Violence, bullying and horseplay at work come under the generic term of improper conduct. When working with potentially dangerous machinery, horseplay can have serious consequences and all varieties of this type of conduct are prohibited under Section 13.

Interference with, damage to or misuse of any item of protective equipment without reasonable cause is also prohibited under this section.

GENERAL DUTIES OF OTHER PERSONS

Under Section 16 of the 2005 Act, a general duty imposed on any person who designs, manufactures, imports or supplies any article used at work is that the article is designed and constructed so that it may be used with safety at work and is properly tested and examined to ensure its safety whilst in use. Persons who supply such articles are obliged to provide and update as necessary information on their safe installation, use, maintenance, cleaning and dismantling or disposal without risk to health or safety; the entire life cycle of the article must be covered from initial installation to final disposal. Designers and manufacturers of articles must carry out adequate research aimed at eliminating or minimising risk to health and safety posed by the use of the article.

Those who erect, install or assemble any article for use in a place of work must endeavour to ensure that when that article is assembled, installed or erected that it will not constitute a risk to the health or safety of employees in that undertaking.

Similar rules apply to the supply of substances for use in the place of work with the exception that information supplied about a substance must include:

- its identification
- details of any risks arising from the properties in that substance
- results of any tests that are relevant to its safe use
- details of conditions necessary to its handling.

Persons who either design or construct places of work must design or construct that place of work in a manner that does not pose a danger to others.

PROTECTIVE AND PREVENTIVE MEASURES

Section 18 of the 2005 Act deals with protective and preventive measures. Employers may need to appoint one or more competent persons to assist them in complying with health, safety and welfare provisions. Depending on a number of factors, including the level or degree of risk involved, the size of the place of work and the number of its employees, a competent person would be a person qualified to give technical advice on health, safety and welfare matters, including management strategies in safety, electrical installation and handling of loads. Such a person, where appointed, must demonstrate a detailed knowledge of best practice in his/her particular discipline, be fully cognisant of such matters as a perceived gap in training and be in a position to fill that gap. The number of competent persons appointed will reflect the size of the undertaking and the difficulty of the problems encountered.

The employer in the appointment of a competent person must first give consideration to appointing a competent person as an employee, because an employee is considered to be more familiar with the working of a particular undertaking. A small- to medium-sized business is less likely to have an employee with the necessary expertise and it makes sense to hire an individual or company with the relevant expertise. A company may also require temporary assistance to deal with a specific problem and in this instance an outside specialist will be employed. The competent person when appointed must be supplied with all relevant data pertaining to

health, safety and welfare at the place of work. Cooperation between safety representatives and the competent person appointed must be ensured by the employer. It should be noted that the appointment by the employer of a competent person does not relieve him/her of legal responsibility imposed by the legislation.

IDENTIFICATION OF HAZARDS AND THE ASSESSMENT OF RISK

A legal duty is imposed on employers to identify hazards in the workplace, to assess the risks from those hazards and to prepare a written risk assessment of those hazards as they apply to the workforce (see Section 19 of the 2005 Act). In this regard attention must be paid to the needs of particular groups of workers such as the young or inexperienced, expectant mothers and those who work alone or at night. A hazard in this context is any substance, article, machine or manner of working with the potential to cause harm. The degree of risk of harm is likely to be determined by the likelihood of harm, its potential severity and the number of workers exposed.

The level of detail required in a risk assessment depends on the size of the workplace and the number of significant hazards identified. For example, a small- to medium-sized undertaking with relatively few identifiable hazards only requires a simple risk assessment, a large undertaking with a wide range of hazards would require a far more detailed approach. Employers are only expected to provide for reasonably foreseeable hazards; they are not expected to provide for the unforeseen. Guidance on the preparation of risk assessments is available from the Health and Safety Authority, suppliers' and manufacturers' manuals should also be used as well as specialised independent advice if required. The risk assessment should include:

- any hazard that is foreseen as posing a significant risk of injury in the place of work
- all aspects of work, including shift and night work and work outside the workplace
- all work-related tasks, including occasional maintenance.

A duty of consultation with employees is imposed on employers when carrying out a risk assessment.

Using the information obtained through the risk assessment, the employer should be in a position to make informed decisions on the management of risks to health, safety and welfare in the workplace.

A risk assessment is not intended to last forever and must be reviewed and updated where found necessary. The assessment needs to be reviewed where significant change has taken place, for example if the workforce has increased significantly or the type of work conducted has changed. Incidents of ill health, an accident or a dangerous occurrence could also necessitate a review of the original risk assessment.

The employer must take all steps reasonably practicable to implement any changes found to be necessary by the most recent risk assessment. The general principles of prevention outlined earlier must be taken account of in the conduct of any risk assessment. It is important to note that the legal requirement to review imposed on employers only applies in the circumstances outlined earlier; as long as the original assessment remains valid, there is no legal obligation to review it.

It should be noted that the legislation also imposes a duty on persons in control of places of work to carry out a risk assessment in relation to those other than employees likely to be affected by the undertaking. In this regard those undertaking work experience, those delivering supplies and members of the public may have to be considered, as well as adjoining places of work.

SAFETY STATEMENTS

Every employer is required to have a written safety statement (see Section 20 of the 2005 Act). This statement must be based on the hazards identified in the risk assessment and must set out how the employer proposes to manage the health, safety and welfare of employees. As with the risk assessment, the general principles of prevention must be taken into account when preparing the safety statement.

The safety statement should:

- set out the hazards previously identified and the degree of risk assessed from those hazards
- outline emergency procedures
- set out employees' duties of cooperation and compliance in health, safety and welfare matters
- include the names and job titles of those assigned specific health, safety and welfare duties
- set out the arrangements for safety consultation.

The aims of the safety statement can be summarised thus:

- to involve management at the highest organisational level by assigning clear responsibilities in the control of safety, health and welfare at work
- to ensure that appropriate steps are taken to comply with legal requirements and to monitor and review where necessary any such steps taken
- to identify hazards and evaluate risk
- to allocate sufficient resources to the management of safety
- to ensure the involvement of employees in workplace safety management
- to ensure that problems as they arise are dealt with in an efficient manner.

The contents of the safety statement must be brought to the attention of all employees in a form, manner and language that is clearly understood. The contents of the statement must be brought to the attention of all new employees at the commencement of their employment. If persons other than employees are exposed to risk by the place of work, such persons must also be informed of the statement's contents. Those exposed to special risk, such as people working in confined spaces, must be informed of the details of the specific risk assessment carried out in relation to their circumstances and the protective measures proposed to be adopted. A copy or extract of the safety statement must be available to a health and safety inspector at or near to the place of work. Despite the generality of this provision, employers with three or fewer employees comply with Section 20 by observing a code of practice for the industry concerned; these codes are available for public inspection at the offices of the Health and Safety Authority.

HEALTH SURVEILLANCE

The risk assessment should identify circumstances in the workplace where health surveillance may be necessary. Health surveillance is designed for the early detection of adverse health effects in order to prevent further harm (see Section 22 of the 2005 Act). Continued health surveillance can be said to:

- monitor the effectiveness or otherwise of existing methods of control
- identify vulnerable employees
- consolidate the risk assessment.

A health surveillance programme is appropriate in the following circumstances:

- a particular type of work activity either has associations with an identifiable disease or is generally speaking adverse to health
- there exists a reasonable likelihood of a disease occurring
- valid techniques exist that are capable of detecting the health-related condition
- it is likely to provide further protection to employees
- it may be required by safety legislation, for example where an employee may be exposed to a substance likely to cause cancer such as asbestos or lead.

Where the employer proposes to adopt health surveillance procedures, all relevant information should be given to both safety representatives and the employees affected as part of safety and health consultation. Decisions concerning health surveillance should only be made by a competent person and in some cases this may mean a qualified medical practitioner.

SAFETY CONSULTATIONS AND REPRESENTATIVES

Employees are entitled to select and appoint a safety representative, the role of this representative being to bring to the attention of the employer matters affecting the health, safety and welfare of his/her fellow employees. While the safety representative is usually a member of a joint safety committee, where appointed, his/her role is in no way diminished by the existence of that committee.

The rights and duties set out under Section 25 of the 2005 Act are similar to those under the 1989 Act but confer in addition a right to make an immediate inspection where an accident or dangerous incident has occurred, or where there is a threat of imminent danger to the health, safety and welfare of employees. A safety representative has the right to investigate accidents and dangerous occurrences in the workplace but not in a manner that interferes with an investigation by a health and safety inspector.

Prior to the enactment of the 2005 legislation a discussion had arisen as to whether safety representatives should be compulsory in places of work. An example of the compulsory representative can be found in the Construction Regulations 2001 which require the selection of a mandatory safety representative for every construction site with twenty or more employees. The consensus at that time favoured the appointment of the safety representative on a voluntary basis, leaving it to the minister to regulate for the appointment of mandatory representatives where it was deemed necessary to do so.

Another discussion concerned the powers of safety representatives and whether they should have the power to order stoppages of work in certain circumstances. Safety representatives in some jurisdictions have this power, the idea however was opposed by employers' bodies on the basis that such a power interfered with the employer's duty to make decisions concerning health and safety issues. Viewed from another perspective, however, this would open safety representatives to legal responsibility and the possibility of being sued by aggrieved parties. The 2005 Act does not place this legal responsibility on safety representatives. It is suggested that if such a change was envisaged in the future any legal change contemplated would have to lift responsibility in tort from safety representatives, something the Industrial Relations Act 1990 has done for trade unions that authorise picketing of places of work.

RESOLUTION OF DISPUTES

The 1989 Act took the general view that the existence of a formal dispute procedure for dealing with health, safety and welfare issues would result in the matter being looked at as an industrial relations problem, something considered to be undesirable at the time. Guidelines issued by the Health and Safety Authority in 1994 contained useful information as to how disputes in this area could be informally resolved.

Sections 27 to 30 of the 2005 Act bring health and safety dispute resolution straight into mainstream human relations. The legislation simply states that an employer may not in any way penalise or threaten to penalise any employee for performing his/her duty as a safety representative, complying with safety legislation or refusing to work in a place of imminent danger. Appeals against any such action may be taken to a rights commissioner in the Labour Relations Commission. A decision on any such matter by a rights commissioner may be taken to the Employment Appeals Tribunal. This system may in the future establish guidelines for dealing with disputes.

CRIMINAL OFFENCES

Section 78 of the 2005 Act introduces significant changes in penalties imposed for breach of duty under the legislation. There is a potential on conviction in the District Court to a term of imprisonment of not more than six months and/or a maximum financial penalty of €3,000. In the Circuit Court, on indictment, the maximum penalty is two years'

imprisonment and/or a fine of up to €3 million. Under the 1989 legislation a maximum fine of €1,900 was possible for breach of general duties imposed under Sections 6 to 11 of the Act and there was no possibility of a custodial sentence; on indictment, an unlimited fine was possible, but a custodial sentence was only possible for breach of a prohibition notice. Under the 2005 Act a wide range of offences now carry the increased penalties.

The issue of corporate killing was addressed by the Law Reform Commission in a report to the government in 2003. The Commission recommended that a new offence be created where gross recklessness in the workplace was found to have caused death, and that the offence should carry a maximum custodial sentence of five years' imprisonment. While the government appeared broadly to favour this recommendation, it was not included in the 2005 Act. The concept of on-the-spot fines was introduced by the 2005 legislation and is to be prescribed by ministerial regulation. At the time of writing no such regulation has been introduced but perhaps it could be used where, for example, there has been a failure by employees to use personal protective equipment when required to do so, or where employers have failed to report workplace accidents.

The Health and Safety Authority issues, on an annual basis, details of prosecutions it has taken both summarily in the District Court and on indictment in the Circuit Court. For the year ending December 2006 the Authority published details of twenty-eight prosecutions dealt with summarily in the District Court, twenty of which involved convictions and sentencing by the District Court, eight were subject to appeal to the Circuit Court; forty-six cases were tried on indictment in the Circuit Court, resulting in forty-three convictions, two appeals against the severity of sentence and one appeal against a conviction to the Court of Criminal Appeal.

OFFENCES COMMITTED BY CORPORATE BODIES

The responsibility of those in senior management for managing health, safety and welfare in the workplace is set out in the 1989 Act and provides that where a body corporate has been found to have committed an offence with the help or knowledge or neglect of a director, secretary or other similar corporate officer, he/she as well as the body corporate shall be proceeded against for the offence alleged. The decision of the Circuit Court in the *DPP v Roseberry Construction and McIntyre* in 2001 demonstrates the use of this section to impose substantial penalties on corporate officers. In this case the court imposed a fine of €50,600 on the managing director, which was confirmed on appeal to the Court of

Criminal Appeal. This prosecution was taken based on the provisions in the 1989 Act.

Section 80 of the 2005 Act includes some important changes with regard to company officer responsibility. Under the 2005 Act it shall be presumed that a director, or other officer with responsibility for the management of the undertaking, authorised, consented to or connived at the acts constituting the offence with which the body is charged, unless he/she can prove to the contrary. Some limited protection is provided by this part to those who give professional advice, because giving professional advice does not for the purposes of this section amount to acting in a management capacity.

GUIDANCE ON PENALTIES IMPOSED BY THE COURTS

The Court of Criminal Appeal in *DPP v Roseberry Construction and McIntyre*, in rejecting the appeal against the severity of the sentence, adopted the list of aggravating and mitigating circumstances set out by the English Court of Appeal in the 1999 decision of *R v Howe* in deciding on the level of fine to be imposed. The aggravating factors to include:

- death as a result of the breach of legislation or regulation
- a refusal or failure to heed warnings
- risks run in order to save money.

The mitigating factors to include:

- an early plea with admission of responsibility
- an effort made to remedy the problem complained of
- an otherwise good safety record.

The Court of Criminal Appeal, in confirming the fine imposed by the Circuit Court, was of the view that if the defendants had had a safety statement in place then risks arising from work-related hazards would have been assessed and necessary remedial action would have been taken, thus avoiding what beyond doubt in this case was an unnecessary loss of life.

The issue of legal duties owed to persons other than employees arose in the decision of the Court of Criminal Appeal in *DPP v O'Flynn Construction Company Limited*. The defendant company had pleaded guilty in Cork Circuit Court to two offences: a legal breach of duty to a person other than an employee under Section 48 of the 1989 Act and a failure under the Construction Regulations to sign and identify the perimeter of a building site properly. The Circuit Court imposed a fine of

€200,000 on the first offence charged and ordered that the second offence be taken into account; an appeal was taken against the severity of the sentence. In dismissing this appeal the Court of Criminal Appeal agreed with the trial judge's finding that the company either knew or ought to have known that children from the adjoining housing estate regularly came onto the site and that, while the company was not reckless in its behaviour, it was indirectly culpable with regard to the death of a young boy from severe burns as a result of wood preservative being spilled and set alight, subsequently causing an explosion. On the date of the fatal accident there was evidence that indicated the presence of several children on the building site, none of whom were challenged by security staff. The most serious lapse found by the court was leaving a container of hazardous material in a position where unauthorised persons, in this case children, could gain access to it. In those circumstances the Court of Criminal Appeal found that the trial judge was entitled to take a serious view of this legal breach by the company because it had played a significant part in a series of events which led to the death of the child. The trial judge had also been mindful of the previous unblemished safety record of this company. Having balanced both sets of circumstances, the judge had imposed a proportionate penalty which could not be said to be either too severe or wrong in legal principle.

REVISION QUESTIONS

- 1 What are the general duties imposed by the Health, Safety and Welfare at Work Act 1989 on employers in relation to their employees?
- 2 Under the 1989 Act, to whom do employers have duties other than employees?
- 3 List the duties imposed by the 2005 Act on employees.
- 4 Under the 2005 Act, who has primary responsibility for preparing, updating and reviewing the safety statement on an annual basis?
- 5 Outline the role and function of the safety representative under health, safety and welfare legislation.
- 6 List five of the principles of prevention as set out in the 2005 Act.
- 7 What information must an employer give to his/her employees to satisfy the legal requirements set out in the 2005 Act?
- 8 Define the following workplace terms: 'hazard' and 'risk'.
- 9 List the circumstances in which a health surveillance programme may be necessary in the workplace.
- 10 Outline the changes in penalties introduced by the 2005 Act for those committing offences.

REFERENCES

DPP *v* O'Flynn Construction Company Limited, Court of Criminal Appeal, 2006

DPP *v* Roseberry Construction and McIntyre, Court of Criminal Appeal, 2003

Health, Safety and Welfare at Work Act 1989

R *v* Howe, English Court of Appeal, 1999

Safety, Health and Welfare at Work Act 2005

Safety, Health and Welfare at Work (General Application) Regulations 1993 (as amended in 2001 and 2003)

2

Safety, Health and Welfare at Work (General Application) Regulations

This chapter is concerned with the promotion of safety in the workplace, in particular accident prevention, and examines the role of the Regulations made under the Acts of 1989 and 2005 in promoting a safe place of work.

On 22 February 1993, the Safety, Health and Welfare at Work (General Application) Regulations came into force. These Regulations were made by virtue of the powers conferred on the Minister for Enterprise and Employment by Section 28 of the 1989 Act. The 2005 Act provides that breaches of any Regulation made under this legislation shall be considered a breach of that Act and treated accordingly.

The Regulations provide a number of important definitions. For example:

- *fixed-term employee*: an employee working for a fixed period of time or employed to perform a specific function of limited but imprecise duration
- *personal protective equipment*: designed to be worn to protect an employee against hazards to health and safety in the workplace, it includes overalls or uniforms not specifically designed to provide protection at work
- *temporary employee*: an employee in a temporary employment business who is assigned to work under the control of another undertaking.

These provisions apply to members of the permanent Defence Forces except when engaged in active service. The Regulations apply with equal force to self-employed, temporary, fixed-term and full-time workers.

GENERAL PRINCIPLES OF PREVENTION

Part 2 of the Regulations sets out the general principles of prevention, now incorporated in the 2005 Act, as follows:

- avoid risks
- evaluate unavoidable risks
- combat risk at source
- adapt and design places of work to suit the individual worker
- avail of technical progress
- substitute the less dangerous for the dangerous
- develop a policy and ethos of accident prevention
- give priority to collective prevention measures
- suitably train all employees
- adequately cater for emergencies.

EMERGENCY PLANNING

It is essential that planning for emergencies take place. An example of this would be properly planned emergency evacuation procedures, the appointment of competent persons to plan and coordinate emergency evacuation and ensuring that such persons be properly trained and equipped for this purpose. Steps must be taken to warn employees of imminent danger, to stop work and to leave the premises by the nearest and safest emergency exit. Employees should not be requested to return to work until all danger has passed. Only employees who have been specifically trained to do so should be allowed access to an area where danger exists.

VENTILATION

Under Regulation 17 of the General Application Regulations 1993 (as amended in 2001 and 2003), a working area must be properly ventilated. If natural air is not sufficient to provide adequate ventilation in the place of work, then artificial ventilation must be provided. In most cases natural air provided by windows is sufficient, however ventilation will be required in working conditions that involve constant dust or high temperatures. The following factors are relevant in deciding on ventilation systems:

- processes, substances and materials involved
- space involved
- number of occupants, where relevant animals to be included
- physical activity involved
- location within the building.

Mechanical systems, where used, must be maintained in good order. In this regard regular cleaning and maintenance of the system is vital; dirt

deposits in the system should be removed before they in turn pose an additional hazard for the workforce.

ROOM TEMPERATURE

The temperatures required in indoor places of work depend on a number of factors, such as level of physical activity and radiant heat. Special working conditions are faced by those who work in very hot or cold temperatures, such as those working with either furnaces or refrigeration, and in those situations localised heating or cooling may be necessary. It is essential in this regard that the danger from contact burns and fume emission be addressed.

With regard to light physical work, the recommended room temperature is 16 degrees Celsius which should be reached within one hour of the commencement of activity. Sedentary occupations such as office work require a room temperature of 17.5 degrees Celsius, again to be reached within one hour of activity commencing. The recommended room temperature for manual work is 10 degrees Celsius but issues such as frequency and location of work involved plus physical effort required will have to be taken into account.

LIGHTING

Natural light is the preferred option but all places of work must be fitted with adequate artificial lighting. The type of lighting fitted should not of itself cause a hazard to workers through glare. In order to make maximum use of natural light, all windows must be cleaned internally and externally on a regular basis. Levels of shading and brightness should be arranged to avoid reflecting the glare from the light into workers' eyes. The standard of lighting provided obviously depends on the type of work activity involved and if any doubt exists as to the quality of lighting required for a particular work activity the advice of an appropriate professional should be sought.

FLOORS, WALLS AND CEILINGS

Floors and traffic routes must be kept free from holes, uneven surfaces and slopes and not be the source of a slip hazard thereby causing a worker to slip and fall, or cause instability in a load carried thereby causing loss of vehicle control. Slopes in traffic routes, where they exist, should be no

steeper than absolutely necessary. Where steep slopes exist, a handrail must be provided. Floor surfaces wherever possible must be of the non-slip variety, and should be easy to clean and refurbish. Walls and ceilings need regular cleaning to maintain high standards of hygiene in the building. Walls and ceilings also need regular repainting. Cleaning when conducted should not itself pose a hazard and warning signs in strategic places must be utilised to warn of the cleaning activity.

USE OF WARNING SIGNS

In any area of the workplace where there exists an increased risk of injury to a worker exposed to that risk, prominent signs must be erected adjacent to the place of danger warning employees of the threat posed. These signs are especially apt in areas where there are fragile roofs; working on or in the vicinity of such roofs is prohibited unless that employee is specially trained to do so.

LOADING BAYS AND RAMPS

Loading bays and ramps must be suitable in size for the loads being transported. Loading bays need at least one exit point to allow any employee in danger of being struck by a vehicle to escape, and the provision of a ladder to a higher area or a side opening will satisfy this requirement. Larger loading bays need an exit point at each end. To avoid accidents, a one-way traffic system is recommended.

ROOM DIMENSIONS

Overcrowding is a major health and safety concern and in order to reduce the problems associated with it, adequate provision must be made both to access and exit the place of work and a minimum amount of space must be provided for each worker. For example, in the case of an office worker the minimum space required including the office chair is 4.65 metres squared. For employment that is not office-related, the minimum requirement is 11.3 cubic metres per person in any room at any given time. The measured space should not take account of any space more than 4.3 metres from the floor.

USE OF WORK EQUIPMENT

The proper use of work equipment is dealt with under Part IV (18 and 19) of the 1993 Regulations. The range of work equipment in use is almost infinite and the precautions necessary will depend on the type of equipment used and the manner of its use. Equipment can pose a danger to workers in one of two ways: moving machine parts or the actual use of the equipment. All places of work are covered by these Regulations regardless of the work activity conducted.

Accidents in the workplace involving machinery may occur for any one of the following reasons:

- machinery was not properly guarded
- machine guards were not properly maintained
- machine guards were poorly designed
- workers did not receive adequate training
- shortcuts were taken in work practice
- supervisors turned a blind eye to potentially hazardous practices.

In choosing work equipment, health and safety must be a priority; work equipment must be adapted to ensure safe use, all routine maintenance must be carried out and instruction and information on the safe use of the equipment must be provided.

European Community Directive 95/93 imposes additional obligations on employers in regard to the safe use of mobile machinery including fork-lift trucks. The use of lifting equipment now requires more stringent examination as to its safety, and full instruction must be provided in the use of lifting equipment.

Danger zones mean any areas where an employee is subject to any risk to his/her health or safety and in the case of moving machinery this includes the immediate area of that machine. Where gases or vapours are emitted by work equipment a risk assessment is necessary to determine the parameters of the danger zone. In this context an exposed employee is defined as an employee wholly or partially in a danger zone. It is important to note that workers can be at risk from work equipment from start-up time right through its use to servicing and maintenance.

When purchasing work equipment employers must match that equipment to the work required to be done. In this context suitability of equipment means suitable in every foreseeable way and not likely to pose risks to the health and safety of employees.

As part of normal on-the-job training, written, easily understandable instructions will be given on the safe use of equipment. Written instructions on the safe use of equipment should take account of three basic issues:

- the conditions under which the equipment will be used
- foreseeable abnormal conditions
- conclusions where appropriate to be drawn from previous use of similar equipment.

In some instances it may also be necessary to consult manuals supplied with that equipment. If highly technical language is used in instruction manuals, the employer must supply an easily understood interpretation of those instructions.

The European Community Machinery Regulations 1994, in force in Ireland since 1 January 1995, require all machinery to be safe in its design and not to pose a health risk whilst in use. All equipment carrying the European Community safety logo meets the requirements of these Regulations. The National Standards Authority of Ireland will, on request, issue information on the safety standards required for the safe use of equipment. The 1994 Regulations also apply to equipment imported into the European Community. Employers are required under these Regulations to show due diligence in sourcing only equipment that complies with the European Community Safety Standard.

Work equipment must be maintained efficiently and kept in a state of good repair at all times. Experience shows that lack of essential maintenance has caused many work-related accidents. A maintenance log should be kept that should record all servicing and repairs carried out on the equipment. It is essential that all equipment should continue during its working life to meet safety standards. Because of the wide range of work-related equipment, not all safety standards will apply in each case, only those relevant to the particular work equipment will apply.

CONTROL DEVICES ON MACHINERY

All control devices on machinery must be clearly visible and marked where necessary (see Fifth Schedule, Regulation 20). Such devices, if possible, should be located outside danger zones and must not give rise to any additional risk by virtue of unintentional operation. Control devices essential to the operation of equipment must not pose any risk to the operator by reason of the use of the incorrect control or for any other