

LEGISLATION

HEALTH AND SAFETY - LEGISLATION

DONALD LAMONT C. Eng., FICE.

ICE Health and Safety Board

Abstract

This briefing covers three issues, the framework of general occupational health and safety legislation in Great Britain, occupational health and safety legislation resulting from European Directives and occupational health and safety legislation relating specifically to construction.

General Occupational Health and Safety Legislation in Great Britain

Background

Occupational health and safety legislation in Great Britain is part of the criminal legal code. The principal Act of Parliament which is relevant is the Health and Safety at Work etc. Act 1974 (HSW Act). The Factories Act 1961, previously an important piece of primary legislation, is now of historic interest only.

The Health and Safety at Work etc. Act 1974

The HSW Act applies only within Great Britain i.e. Scotland, Wales and England, separate but similar legislation having been enacted in Northern Ireland, the Isle of Man and the Channel Islands.

The HSW Act establishes a general framework within which all work activities are required to be carried out "so far as is reasonable practicable" without risk to the health and safety of all persons affected by the work activity.

The principal duties under HSW Act are placed upon employers to ensure the health and safety of their employees and persons not in their employment but affected by their work undertaking. There are similar duties on the self-employed in respect of persons affected by their work activity. An employer is required to ensure the health and safety of his employees by the provision and maintenance of plant and systems of work which are safe and without risks to health, by ensuring the absence of risks to health and safety in connection with the use, handling, storage and transport of articles and substances, by the provision of such training, information, instruction and supervision as required, the maintenance of places of work in a safe and healthy condition and by the provision of adequate welfare facilities within a safe working environment.

Factories Act (- now of historical importance only)

This was formerly the major parliamentary act dealing with occupational health and safety. It dates from the 1830s and was subsequently revised a number of times. The original Factories Act followed from an Act "for the preservation of the health and morals of apprentices and others employed in cotton and other mills and cotton and other factories". The changing requirements of the Factories Act since the beginning of the 19th century reflected social and employment conditions over the period.

The most recent revision of the act, the Factories Act 1961, which has been superseded by the enactment of more recent legislation, most of which is of European derivation, contained sections on health, safety, welfare, employment of women and young persons, wages etc. In contrast to HSW Act, the Factories Act was prescriptive and did not include the concept of reasonable practicability.

First Aid, Employee Consultation and Accident Reporting

There are general requirements covering all industries in respect of First Aid, Employee Consultation and Accident Reporting.

Working Time Regulations

These apply to construction as to all work activity but do not appear to impact greatly on working practice in construction. They set out requirements for maximum working periods and entitlements to time off.

Enforcement of Health and Safety Legislation

The HSW Act established a Health and Safety Commission, responsible (at that time) to the Secretary of State for Employment, to which the Health and Safety Executive (HSE) is responsible. Currently HSE reports within the Department of Transport, however further changes may occur in the future.

Enforcement of the HSW Act is through the appointment by HSE of inspectors, to whom wide-ranging powers are granted for the execution of their duties. The HSW Act also sets out means of enforcement by the issue of improvement or prohibition notices and by giving inspectors power to institute legal proceedings. Because of differences in the legal system, inspectors do not have power to institute legal proceedings in Scotland, where all prosecutions are at the discretion of the Procurator Fiscal.

Improvement and prohibition notices are issued at the discretion of an individual inspector for breach of regulations or where the inspector believes there is a risk of serious personal injury. Notices normally result in an employer having to carry out remedial work to satisfy the terms of the notice. An appeals procedure exists whereby an aggrieved employer can appeal against the terms of the notice.



Practicability and Reasonable Practicability

The requirements of the HSW Act embody the principle of reasonable practicability. This requires the costs and difficulties in meeting a requirement to be balanced against the benefits to be obtained by such an action. The principle has been well established in case law. In contrast, the requirements of the Factories Act were much more onerous, many of them being absolute requirements or requirements qualified only by "practicability" - in which no allowance was permissible for cost or difficulty.

Hierarchy of Legislation and Guidance

A hierarchy of legislation and guidance has been established which descends from the general framework of legal requirements in the HSW Act. More detailed requirements are set out in the numerous sets of regulations made under the principal act - the "Relevant Statutory Provisions". The next step down in the hierarchy is advice contained in Approved Codes of Practice (ACoP). These are codes of practice agreed between both sides of industry (the Employers and the Trade Unions) and "approved" by the Health and Safety Commission. Such ACoPs can be cited in support of a prosecution in which case the onus is on the defendant to show that what was done was at least as safe as the requirements set out in the ACoP. The lowest level in terms of legal standing is guidance. HSE issues guidance documents on numerous topics. Such documents are the subject of consultation with both sides of industry prior to publication. British Standards normally have only the standing of guidance documents except for the very few which have been "approved" by the HSC.

It is not intended in this briefing to review the full list of occupational health and safety legislation which currently numbers over 25 pieces of primary legislation (Acts of Parliament) and around 370 sets of regulations.



Penalties

Prosecution for alleged breaches of the principal acts or any of the relevant statutory provisions is through the normal criminal justice system. Current maximum penalties, on summary conviction, for breaches of the main sections of the Health and Safety at Work Act is £20,000 per offence and a maximum of £5,000 for breaches of the remainder of the relevant statutory provisions. On conviction on indictment, the fine is unlimited and the court also has the option of imposing a prison sentence of up to 2 years.

In legal terms "person" includes individuals, limited companies and plcs.

The European Influence

European Community Derived Legislation

The influence of the European Community on British occupational health and safety legislation has become increasingly significant. Much of this legislation is derived from directives under Article 118A of the Treaty of Rome and includes:-

Management of Health and Safety at Work Regulations 1992 (amended most recently in 1999) which place general duties, akin to those in HSW Act, on employers and the self employed towards persons affected by the work undertaking. The main duties placed on employers by these regulations are in respect of the assessment and reduction of risk to those affected by the work, the need for an employer to establish emergency procedures, health surveillance and information and training for employees. The duties in respect of risk assessment and reduction are considered particularly important. Provision and Use of Work Equipment Regulations 1992 (amended 1998) cover all machines, equipment, tools etc. for use at work. The requirements cover selection of equipment which must not only be suitable for its intended purpose but must be properly maintained and must be accompanied by adequate information, instruction and

training for the employee in its use. Specific requirements of these regulations deal with the guarding of dangerous parts of work equipment and the elimination or minimisation of other risks arising directly from the use of work equipment. These regulations are accompanied by an important ACoP.

Personal Protective Equipment at Work Regulations 1992 are linked with product directives relating to personal protective equipment under Article 100A of the Treaty of Rome and place various requirements on employers in relation to the provision, maintenance, storage and use of personal protective equipment.

Manual Handling Operations Regulations 1992 apply to manual handling operations identified as presenting a risk to an employee's health and safety by the risk assessment required under the Management of Health and Safety at Work Regulations. They apply to all lifting, loading, pulling, pushing and carrying operations and require that the risk of injury from manual handling be reduced as far as reasonably practicable and an assessment made as to whether a load must be moved at all or whether it can be done by mechanical means.

Construction (Design and Management) Regulations 1994

These regulations were the means by which the requirements of the Temporary and Mobile Constructions Sites Directive were implemented in Great Britain. The main effect of the Construction (Design and Management) Regulations is to place duties on designers of "structures" to assess the implications of their design on the health and safety of all persons affected by the building and maintenance of the "structure" when in use. The definition of a "structure" is very wide ranging. This is a somewhat radical departure from existing construction safety legislation where most responsibility for safety in construction has been placed on contractors.

The Construction (Design and Management) Regulations require the Client for a project to appoint a Planning Supervisor whose main role is to co-ordinate the health and safety aspects of project design and initial planning. This is achieved by ensuring designers comply with their duties under the regulations, particularly in the reduction and control of risk, in co-operation between designers for different parts of a project, notification of the project to HSE, and by ensuring the Health and Safety Plan and File are prepared in accordance with the requirements of the regulations

The Health and Safety Plan should include a general description of and programme for the project, all information on the significant residual risks to the health and safety of those affected by the construction work, and details of the arrangements made by the Principal Contractor for the co-ordination and management of health and safety during the construction phase.

The Health and Safety File should be held by the Client after construction has been completed. It should contain information on the structure relevant to the health and safety of those carrying out maintenance, repair or renovation work on the structure.

A revised Approved Code of Practice was issued in 2002.

The Machinery Directive and CEN Standards

The need for compliance with the essential safety requirements of the Machinery Directive and its amendments has also to be considered. Much work has been done under the auspices of the European Standards Organisation (CEN) to produce harmonised standards as an aid to manufacturers in demonstrating conformity of their product with the Directive. Once these standards are published, machinery manufacturers can self-certify that their products meet the requirements of the relevant CEN standards and thus are deemed to satisfy the essential safety requirements of the Directive. The relevant legislation is the Supply of Machinery (Safety) Regulations 1992 (as amended). More detailed information on machinery safety legislation applicable to tunnelling machinery, can be found in "Implementation of European Community Directives 89/392/EEC and 92/57/EEC in the UK." by Donald R. Lamont, published in the proceedings of the 5th International

Tunnelling Symposium on Tunnel Construction, Munich, 1-2 April 1998.

Most of the standards for construction machinery safety are the responsibility of CEN/TC151 and its working groups. Working groups cover the full range of construction machinery including earthmoving machinery, piling and drilling rigs, tunnelling machinery, demolition machinery, roadmaking machinery and machinery for the production of many construction materials such as bricks, glass and cement.

Requirements for mechanical and electrical equipment for use in potentially explosive atmospheres can be found in the **Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 1996**.

Other Legislation

Other important legislation resulting from the European influence includes the Noise at Work Regulations 1989 and the Control of Substances Hazardous to Health Regulations 1994. Both sets of regulations are applicable to virtually all work activities and require employers to assess the risks to employees and if the level of risk exceeds stated levels to apply a hierarchy of risk elimination and reduction measures for the protection of those employees exposed. This hierarchy of risk elimination and reduction requires that in the first instance the employer ceases the activity which gave rise to the unacceptable level of risk. If that cannot be done engineering means must be adopted at source to reduce the level of risk to all employees. Only as a last resort can an employer issue personal protective equipment.

Construction Health & Safety Legislation in Gt. Britain

Background

In Britain, most occupational health and safety legislation is applicable to all work activities within whichever industrial process environment they occur, e.g. the Noise at Work Regulations and the Control of Substances Hazardous to Health Regulations. Some legislation however is industry specific e.g. the Construction (Health, Safety and Welfare) Regulations which relate specifically to construction work.

Mining legislation is not normally applicable to the construction industry.

Construction (Health, Safety and Welfare) Regulations 1996

The Construction (Health, Safety and Welfare) Regulations (CHSW Regulations) came into force on 2nd September 1996. These regulations consolidated the requirements of the Construction (General Provisions) Regulations 1961; the Construction (Working Places) Regulations 1966 and the Construction (Health and Welfare) Regulations 1966 into a single set of regulations and were drafted in a goal setting style. In addition they incorporated into British legislation the requirements of Annex IV of the Temporary and Mobile Construction Sites Directive (relating to workplace conditions etc.). The CHSW Regulations have introduced a number of new requirements including requirements for emergency lighting, traffic management, fire precautions and emergency procedures, means of escape in an emergency and welfare and site environment provisions.

The Construction (Head Protection) Regulations 1989

These apply to all construction activity and deal exclusively with the control of risk from head injuries.



Work in Compressed Air Regulations 1996

These came into force on September 16th 1996 and replaced the Work in Compressed Air Special Regulations 1958. Based on the adoption of contemporary engineering and medical knowledge, the 1996 regulations should take forward improvements in compressed air working practice into the early decades of the 21st century.

Among the changes the 1996 regulations required, were the introduction of a Compressed Air Contractor responsible for the safe management of the work, the need for either a twin compartment manlock or two single compartment manlocks, a prohibition on the use of vertical locks for staged decompression, a prohibition on decanting, an enhanced role for the Contract Medical Adviser, alterations to the 1 bar pressure cut-off by requiring the provision of a medical lock at 0.7 bar and medical lock attendant at 1.0 bar, provision for contractors to propose the use of alternative decompression tables including those based on the routine use of oxygen, oxygen to be available in the medical lock to be used at the Contract Medical Adviser's discretion for treatment of decompression illness, extensive requirements for fire and emergency provisions, the introduction of an individual health and exposure record for each person exposed and a prohibition on smoking in the workings.

A revised decompression regime incorporating oxygen breathing and superseding the Blackpool tables was introduced by HSE in September 2001. The approved decompression tables included staged decompression at pressures between 0.7 - <1.0 bar. An addendum to the existing Guidance booklet was also issued.

Confined Spaces Regulations 1997

The Confined Spaces Regulations came into force in January 1998. Although only a short set of regulations, they cover the main requirements for a safe system of work in confined spaces.

Lifting Operations and Lifting Equipment Regulations 1998

These cross industry regulations apply to all lifting equipment and lifting operations on site.

Draft Dangerous Substances and Explosive Atmospheres Regulations

HSE has recently issued proposals for new regulations, ACoP and Guidance, to come into force late in 2002, covering work in potentially explosive atmospheres – the Dangerous Substances and Explosive Atmospheres Regulations 2002. The regulations are derived from the EC Chemical Agents Directive, which the UK is obliged to implement this year. There will be an ACoP and Guidance hopefully giving information on the application of the regulations to construction.

The principal requirements of the regulations cover risk assessment; division of the workplace into one of three zones depending on the likelihood an explosive atmosphere being present; the provision of both mechanical and electrical explosion protected equipment; ventilation and the control of ignition sources, training etc and emergency procedures for when an explosive atmosphere is detected.

More controversially perhaps for the industry, the employer has to have the safety of the workplace against explosion, verified by a competent person; provide protective clothing which will not generate electrostatic sparking when methane is present and a risk of explosion exists; and provide means of venting overpressure in the event of an explosion.

Draft Work at Height Regulations

HSE is currently working on proposals for generic regulations covering work at height in response to further EC Directives. These regulations once in force will contain similar requirements for ensuring safety in work at height, to the Construction (Health, Safety and Welfare) Regulations 1996 which will be amended accordingly.

Physical Agents Directive

Regulations will soon be proposed to enable the implementation of the Physical Agents Directive in Gt. Britain. The regulations will limit exposure to whole body and hand-arm vibration.

British Standards, Codes of Practice and Guidance

Much of the guidance on safe working practice in construction is contained in documents which although not published by the Health and Safety Executive, have had major input from HSE inspectors. Such documents include British Standards, CIRIA Reports and Industry guidance. These documents do not have any particular legal standing within the occupational health and safety legislative framework but are statements of good practice prepared by committees of experts from within the relevant parts of British industry.

Accident Statistics

HSE collects accident data and statistics relating to construction in general. In general, data is collected by accident type and not by construction process. Falls of people or materials from height is the single most common cause of accidents generally in construction. Other major causes of accidents include accidents involving plant, machinery and transport. Electrical accidents are another important cause of serious accidents.

Concluding Summary

Occupational health and safety legislation in Great Britain relating to construction is a combination of:-

- general health and safety legislation, some of which dates from the 19th century
- legislation of European influence, some of which is general and some of which is more specific in application, and
- prescriptive industry specific legislation dating from the post-war period most of which are currently being updated.