

Evolution of Health and Safety Regulation, Management, and a Profession in the UK

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Abstract

Legal frameworks at national and international level set the operational boundaries for business and society as a whole. Initially societal concerns focussed on the basic needs of life but have evolved, with greater prosperity and standards of living, to increased demands for healthier and safer workplaces, cleaner environments, and safety products.

Health and safety regulation in the UK was founded in the industrial revolution of the 19th Century. Then the focus was on issues such as child labour and working hours, with issues relating to specific workplaces following later. Over a period of decades, prescriptive legislation evolved in a piecemeal fashion but some activities continued to be unregulated.

The move to goal-setting regime signaled by the Robens report of 1972 stimulated interest in health and safety management and provided a platform for the development of the health and safety profession and discipline.

Since the introduction of the 1974 Health and Safety at Work Act, fatal accident rates have fallen by 83%, and overall there have been significant reductions in injury rates across all the main sectors. Over half of the reduction in accident numbers and rates is attributable to changes in patterns of employment. This period has also witnessed massive changes in the economic, social and technological landscape, and with this have come new demands and challenges for health and safety policy practice.

While we and others strive to see health and safety recognised as the cornerstone of a civilised society, government, media and public attention has become focussed on the perception that health and safety is about stopping life and work rather than enabling us all to achieve our goals safely and healthily.

In the context of the UK, this paper will examine the evolution of health and safety regulation and management and the development of the health and safety profession and discipline. It will

then discuss the demands and challenges for health and safety practice in a changing world of work. Finally it will consider the implications of potential future scenarios on health and safety policy and practice.

We anticipate that the insights presented will be of interest to other occupational safety and health professional bodies outside the UK in developing the discourse on the future of the profession.

Introduction

From its origins involving concern about child labour in the cotton mills of England around the time of the American War of Independence and the campaigns to achieve better working conditions in the UK industrial revolution, health and safety regulation and management has evolved to encompass a new profession with the vision of a world of work, which is safe, healthy and sustainable. This paper will outline the history of health and safety regulation and management in the UK and describe how the occupational safety and health (OSH) profession has developed. The future challenges facing OSH professionals in the 21st century, including changes to the world of work and implications of emerging technologies will then be considered.

Evolution of Health and Safety Regulation and Management in the UK

The first 200 years

The very earliest health and safety regulation in the UK began as a result of reformers' campaigns to improve the poor conditions in the textile industry, which was booming in the years following the American War of Independence.

The textile industry consisted of water powered cotton spinning mills, situated in remote areas, which meant that it was difficult to find labour. Therefore cotton mill owners recruited children from poor families in large cities like London and from the workhouses (places where poor families were housed in return for labour). Children were sent from the workhouses as apprentices and became a source of cheap labour (Howard 1975).

This system of cheap labour had its advantages for the authorities as well, as it meant that there were less pauper children to support. Also mill owners no longer had to pay skilled craftsmen, as the new machinery could be operated by children.

These children served as apprentices hundreds of miles from home "unknown, unprotected and forgotten" (Howard, 1975:58).

Campaigners for public health observed the poor conditions that child workers endured. Typhus was rife and children regularly worked 13 hours a day with only half an hour for lunch and this was often spent cleaning the machines. Dr Thomas Percival campaigned for improvements to the conditions in the mills for child workers and in 1784 he persuaded Manchester magistrates to require children to only work a maximum of ten hours per day. However, since no outside person, even a magistrate, had the right to enter a mill, this resolution

could not be implemented. In response to further outbreaks of typhus the Manchester Board of Health was set up but in spite of good intentions, this also failed to improve conditions.

Legislation was clearly needed and Sir Robert Peel, a prominent mill owner and MP, who was a member of the Manchester Board, introduced the first Bill to improve the health and welfare of factory workers. This was called the Health and Morals of Apprentices Act 1802. As the name suggests, the Act specified some basic welfare requirements for apprentices, including specified maximum working hours of 12 each day, no working between the hours of 21.00 and 6:00, provision of medical assistance in the case of infectious diseases, a supply of fresh air, and instructions for minimum cleaning of the premises. The Act only applied to textile mills with more than 20 employees and at least 3 apprentices, but it was a start (Hale et al 2005). Unfortunately this act was also ineffective as it did not contain powers of inspection, so it was up to the mill owners to decide whether they wished to adhere to it. It also contained no provision for safe working procedures.

At the end of the 18th century steam power marked the end of this use of apprentices and the increasingly sophisticated machines meant that skilled craftsmen became unemployed. Mills were no longer reliant on water power and therefore moved into the towns, where women and children became factory workers. This so called “free” labour was not covered by the Act.

To help improve their conditions, the 1819 Act was passed. Again, this was only applicable to cotton factories and aimed to ban the employment of children under 9 years old and to limit their daily hours of work to 12. In 1825 and 1831 these measures were extended to include night working and the limit of 12 hours daily working was extended to include all those less than 18 years of age.

All these reforms have been judged retrospectively as ineffective. Sometimes manufacturers informed on each other, but it was difficult to get workers to give evidence against their employers (Carson 1979).

Finally in 1833 the first Factories Act was passed. This specified the appointment of the first four factory inspectors, and a number of superintendents to work under them who could enter a factory or mill at any time. Children’s working hours were limited to a maximum of 9 hours per day, with 12 hours of compulsory schoolwork a week.

Problems were faced when trying to enforce the new law, particularly implementing the educational provisions of the 1833 Act, although some mill owners felt that giving children education could help make them easier to control in the mill.

From 1836 – 1843, it was particularly difficult for inspectors to distinguish those mill owners who would normally be flouting the law. This was because there was a crisis in the cotton industry, and mills were working less than the maximum number of hours permitted for the youngest age group. When the inspectors visited it was difficult to establish which children should be in the factory at a given time. Mill owners also found that it was often cheaper to pay the odd fine than conform to the law. They would also delegate responsibility for hiring and subsequent blame onto the worker; for example an employee on a piece time rate could subcontract to children to help them achieve the production target.

In 1840 the first compensation in the history of English law was obtained on behalf of a girl who lost her leg in an industrial accident. Shortly afterwards legislation was passed to ban women and children from working underground.

In 1844 a further Factories Act introduced “clocking on,” which made it more difficult for employers to make workers work long hours.

Between 1875 and 1937 there were a series of Acts to keep pace with developments in manufacturing and heavy industry. The Factories Act of 1937 consolidated these measures and also introduced some new requirements concerning safe access, and further revision took place in 1961. In 1963 The Offices, Shops and Railway Premises Act was passed. This provided for the health, safety and welfare of non-factory workers and was similar to the Factories Act but excluded regulations which only applied to factories (Ridley and Channing 1999).

The Robens Committee 1972 and the Introduction of the Health and Safety at Work Act

The Robens Committee was appointed because it was felt that improvements could be made to health and safety at work. This was felt to be because there was “too much law” and that apathy was causing accidents.

“Apathy is the greatest single contributing factor to accidents... This attitude will not be cured as long as people think health and safety can be ensured by inspectors” (Robens, 1972:7)

This apathy was based in the common belief that accidents only happen to other people and cannot be prevented. Underpinning this idea was that prevention of accidents was a matter for enforcing agencies and legislation to deal with, not about employers taking responsibility. It was felt that most employers would voluntarily wish to improve health and safety, and this was why a move towards self regulation was recommended. The three pillars of self regulation included management responsibility, specialist advice and worker involvement (Rimington 1995)

Woolf (1973) challenged the fact that it was apathy that causes accidents and questioned whether there was actually little conflict of interest between workers and management in relation to health and safety, which was why Robens felt that self regulation with co-operation from both sides of industry would be successful. Woolf regarded the problems as “not too much law” but rather the lack of enforcement of existing law.

Woolf (1973) also highlighted a statement made by Fitzgerald and Hadden (1970) in their Law Commission working paper No. 30 where they pointed out that the Factory Inspectorate believed that all employers were “anxious to meet their legal obligations in respect to the safety health and welfare of their employees”. Later in the same report however, it mentions a view at the time that factory legislation prevented manufacturers operating as economically as possible and therefore made them less competitive with foreign supplies who did not have to comply with the same laws. This statement made the idea of self regulation less viable. Woolf (1973) also mentions the unlikelihood of companies ever receiving an inspection visit, which remains true to this day, and the Chief Inspector’s view in his 1971 report that “the greatest obstacle in the way of further improvement is the sheer indifference of some companies to the safety of their workers”.

Robens made a series of recommendations aimed at rectifying problems with the legal system.

The main recommendations were:

- The establishment of a national authority for health and safety at work
- The introduction of a set of general duties for employers and others in connection with the health, safety and welfare of workers.
- An increased emphasis on health and safety management underpinned by a goal-setting philosophy and self regulation
- Increased powers for inspectors

The Health and Safety at Work etc Act 1974 (HSW) was introduced following his recommendations. The Act was regarded as a step change in the approach to health and safety. It provided the basis for improving standards of worker protection and as Walters (2000) points out HSW Act “represents the quintessence of the British approach to regulating health and safety”. It introduced a broad goal setting, non-prescriptive model, based on the view that ‘those that create risk are best placed to manage it’. In place of existing detailed and prescriptive industry regulations, it created a flexible system, supported by codes of practice and guidance.

Robens advocated a self regulatory approach and the need for greater consultation between workers and management. This approach has influenced regulatory strategies both in the UK and internationally, although (Walters 2003) pointed out that this trend towards self regulation was already developing independently in the Nordic countries.

The HSW Act itself aimed to bring about a greater awareness of the problems which surrounded health and safety matters and a greater involvement of those who are or should be concerned with improvements in occupational health and safety. The Act applied to people not to premises and covered all employees in all employment situations with minor exceptions. It also included duties towards persons who were not employees and might be affected by the work activities of a company. Obligations were placed on those who manufacture, design, import or supply articles or substances for use at work to ensure that these could be used safely and were without risks to health. Some provisions such as safety policies, and the need for safety representatives and safety committees aimed to increase awareness that the main responsibility for the prevention of accidents and ill health in employment lay with those who created the dangers. In summary, it enshrined the employers’ common law duty of care into a statutory law.

The original aim of the HSW Act was to repeal and replace all the old legislation within two decades. Much work was done to legislate in new areas but by the mid 1980s most of the original factory legislation had not been repealed. However the EC Article 118A helped to complete this work and from January 1993 a new overall framework was introduced (Smith, Goddard and Randall 1993).

The HSW Act is an “enabling Act”, which means that it acts as a framework within which further regulations can be created by the Secretary of State. It allows for progressive replacement of existing legislation by a system of regulations and approved codes of practice designed to maintain or improve standard of health safety and welfare and conform to European Directives.

European Union (EU) Directives

The UK is a member of the EU and is therefore bound by legislation made by the EU which, in the case of health and safety, consists mainly of directives adopted under the Treaty of Rome 1957 and its various successor treaties. These directives are effectively instructions to member states to implement the measures set out in the relevant directive and provide an effective means of enforcing those measures. The UK implements EU health and safety directives by means of regulations made under the HSW Act. The Health and Safety Executive (HSE) drafts the regulations and then issues them for consultation to interested parties. The regulations are then submitted to the Secretary of State before being presented to Parliament. The most significant EU health and safety directive, in that it laid down the principles for future legislation, was Council Directive 89/391/EEC (12 June 1989). This directive placed new duties on the employers, including those to:

- assess health and safety risks
- develop a prevention policy
- designate competent personnel
- make arrangements for emergency procedures
- provide information for workers
- allow workers' representatives time off with pay for appropriate training
- give workers a right to stop work when faced with imminent danger.

The greater part of this Framework Directive (including the key general duty to assess risk) was implemented in the UK by the Management of Health and Safety at Work Regulations 1992. This was replaced by the Management of Health and Safety at Work Regulations 1999 (MHSWR).

There are some significant general differences between directives and UK regulations however. The “reasonably practicable” defence is both traditional and specific to the UK. This tradition has been continued in many of the implementing regulations, in respect of both the Framework and Daughter Directives. The defence is not, in fact, to be found in European directives.

In the UK, a number of provisions contained in directives have found their way into the supporting Approved Codes of Practice (ACOP), but not into the implementing regulations. A failure to adhere to an ACOP does not in itself constitute an offence, but there is a case to be made that those parts of the directive which appear in the ACOP rather than the implementing regulation have not been properly implemented, as no effective method of enforcement has been provided.

An example is regulation 5(2) of the Management of Health and Safety at Work regulations (MHSWR), which states that an employer shall record their health and safety arrangements where they employ five or more employees, but the directive does not specify an exception for

any number of employees. Therefore, the UK exception for companies employing fewer than five employees, strictly speaking, is a failure to implement fully the provisions of the directive.

In 1997 the European Commission complained to the UK Government that it had failed to properly transpose Directive 89/391/EEC into national legislation. This complaint was dismissed by the European Court of Justice (ECJ). However, in 2005 (Case C-127/05), the ECJ was also asked to make a ruling on employers obligations and their duty regarding employees' health and safety, specifically relating to the UK defence of "reasonably practicable" (McKay 2007).

The Commission concluded the HSW Act did not fully implement Article 5 (4) of the Framework Directive, which requires the national laws of Member States to impose strict liability on employers for any event prejudicial to the safety and health of workers which occurs in their undertakings. However it was concluded that the wording of the relevant part of the Directive defined employers' duties as being to ensure safety but that it did not mean that the legal mechanisms for imposing liability could not take fault or negligence into account.

Therefore the UK was able to retain the "so far as is reasonably practicable" defence in its health and safety legislation. This ruling was influenced by the fact that negotiations prior to the Framework Directive had taken into account the different approach existing in UK law.

Enforcement

Maintaining an independent inspection function is important. This was reinforced by the Piper Alpha disaster when the need to reinforce independent off shore inspection was recognised by transferring responsibility to Health and Safety Executive (HSE) (Eves 1995).

The HSE itself and the Health and Safety Commission, with which it combined in 2008, was established as a result of the HSW Act and has a triple function:

- Inspection and enforcement (in liaison with local authority environmental health)
- Policy Making (with government departments)
- Carrying out and sponsoring research into topical issues and horizon scanning.

Although the HSE regularly inspect larger and more dangerous workplaces such as nuclear plants and large chemical plants, most typical workplaces will only see an inspector every 10 years.

If an HSE inspector finds that health and safety requirements are not being met, they can issue written advice and or warnings through the use of improvement or prohibition notices or they can take a prosecution to the courts. (In Scotland this is done by a slightly different system in that the prosecution is taken by the Procurator Fiscal on information provided by the inspector).

Statistics are available for Great Britain (England, Wales and Scotland), which indicate that there has been a substantial reduction in work-related injury rates and numbers since 1974. Research suggests that about a half of this reduction is due to changing patterns of employment. The picture for work-related ill health is much less clear, mainly because comprehensive data has

only begun to be available in the last decade or so. Direct comparisons of injury figures are also problematic as there have been three changes of legislation since 1974.

The HSE (2010) reported that since the introduction of the HSW Act, the number of fatal injuries has fallen by 84%. and the fatal injury rate by 83%. The number of reported non-fatal injuries has fallen by 75%.

There have been reductions in injury rates and numbers in all main industry sectors. Around 24% of the reduction in the rate of fatal injury in the last 10 years can be attributed to a shift in employment away from manufacturing and heavy industry to lower risk service industries. Recent research suggests that about 50% of the reduction in non-fatal injury rate since 1986 is due to changes in occupations of workers.

For work-related ill health, the only consistent data going back to 1974 relates to certain lung diseases. Between 1974 and 2008:

- deaths from pneumoconiosis fell;
- deaths from asbestos-related diseases rose (but current cases arise mainly from exposure to asbestos 30-40 years ago).

Based on self-reported illness (collected by the Labour Force survey in the last decade) the HSE (2010) suggested that:

- work-related illness prevalence fell;
- prevalence of musculoskeletal disorders fell;
- prevalence of stress-related ill health rose;
- the shift in employment may not have contributed to the overall fall (some service sectors have relatively high rates of self-reported illness).

The strategic vision of HSE is “to gain recognition of health and safety as a cornerstone of a civilised society” and in spite of massive economic, social and technological changes, the core of HSE’s agenda remains focussed on risk awareness, worker participation and good management.

Public perceptions of the risk regulatory bodies such as HSE are important if they are to be effective. If there is a situation of “low trust”, the public would not engage sufficiently with communications issued. However two separate studies, Walker et al (1998) and Walls et al (2004) found that the public did trust the HSE, as it was seen to be independent and “acting in the public interest” although concerns were expressed about its level of funding.

The Development of the Occupational Health and Safety (OSH) Profession

For the first forty years of the 20th century there was a focus on solving technical problems. Safety officers were employed in industry to enforce safety rules and check that machines were guarded and personal protective equipment used. In the middle of the 20th century the focus shifted to human factors, for example, job design and man- machine interfaces, which were

considered alongside technological issues. However it was the HSW Act that set the scene for the development of an occupational safety and health profession (Atherley & Hale, 1975). This reflected the growing recognition that work based health and safety issues were important and that competent advice was needed to solve these problems.

The HSW Act caused changes for the OSH profession, as before the Act employers only had to comply with any obligation specifically mentioned in a statute. Under the HSW Act they were required “to provide a place of work which was safe and without risk to health as far as reasonably practicable” but how they were to achieve this as not specified. As a result, there was an increase in demand for knowledge about health and safety at work.

In the early years, OSH professionals were regarded as an extension of management by the Trade Unions, who regarded safety representatives as the most important influence on safety in the workplace.

In the 1980s a series of major accidents such as the Herald of Free Enterprise ferry capsized in 1987 and the Piper Alpha oil rig disaster in 1988 and the growing idea that industry should self regulate, highlighted the importance of safety management (Hale et al 1998). Roles emerged for both technical experts and more general policy and management advisers, who could work closely with managers. However, it was not until the MHSWR 1992 came into force that it became a legal requirement to appoint a competent health and safety professional. The requirements of these regulations were that employers appointed one or more competent persons to assist them in undertaking the measures required to comply with the law. This reflected the requirement of the European Directive Council Directive (89/391/EEC) that employers had to engage a designated worker to deal with health and safety risks.

Thus, for the first time, there was an explicit requirement to appoint a health and safety professional. However, employers had to decide what made a “competent” health and safety advisor. Competence is more than the possession of qualifications. It also includes having sufficient and relevant experience. Regulation 7(5) of the MHSWR gives some explanation:

“A person shall be regarded as competent where he has sufficient training and experience and knowledge and other qualities to enable him properly to assist”.

For a further discussion of competence see Holden and Vassie 2010.

Traditionally health and safety tasks were concerned with legal compliance, for example audits and inspections. OSH practitioners continue to focus on traditional areas with procedural tasks such as planning, record keeping, writing procedures, risk assessment, statistics collection, accident investigation, training and disseminating information and monitoring health and safety in the workplace (Hale and Ytrehus 2004). However, over the last decade, demographic and technological changes have impacted on the work of OSH professionals, widening the focus of their role to include psychosocial aspects of work and health issues, such as stress and musculo-skeletal disorders, rehabilitation and worker wellbeing.

James (2003) pointed out the “bolt on” status that health and safety has in many organisations means it is not included in decisions relating to work processes and general conditions for employees. The consequences of this marginalisation include a lack of priority by

senior managers and failure to identify and control risks. He argues that this is more significant when dealing with musculoskeletal or psycho social disorders as these are often closely related to the way work processes are designed and employees are treated within the organisation.

At an organisational level OSH professionals can play a key role in shaping a positive safety culture. Gaining management commitment to the process is vital, not only by helping to formulate policy but also to promote good practice by not putting production issues above the need for safety and also by setting a good example with their own personal actions. They can encourage open communication at all levels in order to obtain reliable information about accidents and incidents and learning the lessons from these.

Training in how to work safely particularly induction training is important followed by the promotion of safe behaviours and recognizing workers who work safely. The overall aim is to achieve a climate of understanding and trust between management and workers (Koradecka 2005) and OSH professionals have a key role here.

Demands and Challenges for Practice in a Changing World of Work

When the HSW Act was passed, most workers in the UK were male, full-time employees, working for large manufacturing companies. Since then a dramatic change in structure has taken place, away from mining and manufacturing to service industries.

There are a number of factors that are going to impact on health and safety policy and practice in the future. These include demographic changes, the increase in female workers and the accompanying gender issues, the global economy and increase in migrant workers, the focus on well being and emerging technologies (Koradecka and Pawlowsaka 2005)

The knowledge society characterized by banking, finance and administration now employs more than traditional sectors such as manufacturing, agriculture. Three million jobs in manufacturing have disappeared, and Britain now has a predominantly service driven economy, employing three quarters of all workers (Waterman 2005). The number of small firms has grown dramatically – firms employing fewer than 50 people now account for over 99 per cent of all organisations.

Outsourcing, franchising and downsizing by large firms has meant an increase in temporary work, contract work and self employment and the number of small medium enterprises (SMEs) (Walters 2003). This makes the task of the OSH practitioner more challenging as self regulation is more difficult to achieve if a company is a SME or is organised on several sites, uses casual workers or subcontractors. Worker participation and trades union representation is also likely to be lower in these circumstances.

There are also changes in employment patterns. For example, these include: an increase in the number returning to work post-retirement and the emergence of transient workers and migrant workers, who are unfamiliar with the local language or culture. More women are working and the proportion of older workers is increasing as compulsory retirement ages are abolished. There are projected to be 775,000 economically active people above the age of 65 in

2020. This compares with 582,000 in 2005, representing an increase of around 33% (Madouros 2006)

New technology such as the available of broadband has helped to increase the possibility of flexible working. Flexible working is also being actively promoted as a way of increasing employee well being. This means that more employees are able to work part of the week from home combining their life style with their work style to achieve a better work life balance.

Another challenge is the rise in importance of occupational health and well being. In March 2008, Dame Carol Black, the first National Director for Health and Work, published her review of the health of Britain's working-age population, *Working for a Healthier Tomorrow*. The review outlined the important role of the workplace in promoting health and well-being and the need to change perceptions about fitness to work, to address the high level of sickness absence and number of people on incapacity benefit. People who previously would have been signed off sick would now have their conditions managed while they work through measures like phased return to work, reasonably adjustments and job shifts. As a result, IOSH piloted a new programme to help safety and health practitioners play a more active role in the management and promotion of health in their workplaces.

As OSH practitioners are on the frontline they are more likely to be able to notice the first signs of occupational illness and alert managers so that early intervention can be planned. However there is a need to expand their role into new skill areas and add to their knowledge so that they can provide support to others helping with rehabilitation. Influencing and communication skills are key as the OSH professional will need to be assertive and make a case for how they can help within their organisations. OSH professionals are often more comfortable with environmental solutions but sometimes work adaptations will need to be more than physical ones. Leka et al (2008) listed the key knowledge areas, which would be important for OSH professionals to develop in order to deal with the health agenda. These included:

- Health surveillance and identification of emerging risks
- Musculoskeletal disorders
- Sickness absence
- Planning for major health-related scares and incidents
- Work-related driving
- Work-life balance
- Giving advice to SMEs
- Evaluating a health and safety intervention

In addition to influencing and communication skills mentioned above, OSH professionals will need to be able to make the business case for workplace health and be able to identify workplace health priorities at an early stage. They will need to develop presentation and project management skills, including mediation and conflict management and develop a general understanding of business models and processes so that they can integrate OSH into decision making.

Recent landmark legislation has made it possible for OSH professionals to engage members and directors in a re-examination of their health and safety practices. The Corporate

Manslaughter and Corporate Homicide Act (2007), which came into force in April 2008 made it possible for the first time for companies and organisations to be found guilty of corporate manslaughter as a result of serious management failures resulting in a gross breach of a duty of care. Prosecutions are of the corporate body and not individuals; however the liability of directors, board members or other individuals under health and safety law or general criminal law is unaffected. And the corporate body itself and individuals can still be prosecuted for separate health and safety offences.

Prior to the arrival of this new Act, it was difficult to prosecute large organisations for corporate manslaughter, because, in order to prove a charge it was necessary to identify a 'controlling mind' in the company (for example a company director) and demonstrate that this person had failed in their duty of care towards the person who was killed. This meant that a chain of events had to be established which led directly from the death to the 'controlling mind', which was hard in situations where there were many layers of decision-making and complex management structures. That is why only directors of small companies were successfully prosecuted. Prosecutions of large companies, for example after rail disasters, were unsuccessful because it was not possible to establish one individual who fitted the criteria of a 'controlling mind' and link them directly with the accident.

The standard minimum fine is now £500,000 with no maximum limit. There are also two other penalties that can be imposed. These are a remedial order, which means that the convicted organisation can be required to take steps to rectify any failure or deficiency that may have contributed to the accident, including improving any policies, systems or practices. In addition, courts can impose a 'publicity order', which means that an organisation is ordered to advertise that it has been convicted of corporate manslaughter, the details of the case and what fine or remedial conditions were imposed by the court.

The Act provides an opportunity to focus directors on the need to provide leadership and adequate management to ensure the safety and health of their employees and others. Large organisations, keen to ensure that they are not exposed to risk via their supply chains, may also seek further assurance about the adequacy of the management systems and cultures of their suppliers, thus helping to drive up standards more widely. So it is also possible for OSH professionals to promote health and safety indirectly, for example, by working in partnership with employees involved in procurement. Walters and James (2009) found some evidence to suggest that buyers can influence health and safety in the supply chain. This could include procurement strategies, certification schemes to ensure competence and imposition of health and safety requirements on the supplier. However these were only likely to be successful if supported by adequate monitoring and penalties and could be counter productive if they clashed with the business interests of the suppliers.

Another challenge for OSH practice is the rise of Corporate Social responsibility (CSR), which has recently become a priority for companies. CSR is defined in the European Green Paper (2001) as "integration by companies of social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis"

It involves going beyond legal compliance and being seen as acting responsibly towards people, planet and profit. It is important because the ethical investment market is growing and as

such social performance is influencing these investment decisions. A company's reputation in social and environment areas influences customers and potential employees.

CSR has implications for OSH because it involves embedding an exemplary health and safety culture not just focussing on bare legal requirements for employees' health and safety.

All these changes mean that OSH practice has to change. OSH professionals also now require knowledge of business planning, risk management, communications and consultation to help integrate health and safety into business. They therefore need to become more business orientated and work in partnership with other professionals. Functional alliances are increasingly important as this helps the OSH professional promote safety and health so that it is considered and integrated with other business risks.

Negative media coverage

Yet another challenge for OSH practice is the need to overcome the negative media coverage in the UK. A recent survey carried out by IOSH highlighted that negative media portrayal was listed by OSH professionals as one of the top three issues currently facing the profession. (Joyce 2009).

The term health and safety is now a 'catch-all label' under which anything seen as 'nannying' is put, with stories tending to involve the public, leisure activities or children. IOSH and others are concerned that the stories can have a negative effect on public perception; make people less receptive to real health and safety messages; and cause confusion about the sensible, reasonable steps that the law actually requires.

Lord Young's report 'Common Sense, Common Safety' (Cabinet Office 2010) has triggered a debate in the UK about how health and safety legislation is applied in practice. In the UK, anyone can call themselves a health and safety adviser and this has led to a disproportionate approach towards health and safety in some low risk areas.

The growth in negative coverage has coincided with TV advertising of 'no win, no fee' personal injury claim firms, which seem to have raised some people's fears of being sued and made them defensive in their decisions. A study of decision-makers (Wright et al 2008) found they believed the top two solutions to preventing over-cautious decisions were definitive guidance and access to professional advice.

Almond (2009) pointed out that regulatory myths, such as towns banning the use of hanging baskets are retold so many times that people's acceptance of health and safety regulations in general may decline. In contrast research by Vanilla research (2008) found that only a small number of businesses resisted the concept of health and safety regulation and that there was widespread acknowledgement of the importance of health and safety in the work place.

IOSH has proposed a solution, which is to promote the "risk intelligent" society, requiring education in all spheres about what health and safety law really requires and better access to good advice and guidance.

Implications of Emerging Technologies

Emerging technologies will present a technical challenge to OSH practitioners. Over the next ten years the UK will be moving towards a new energy economy. The existing reliance on coal, gas, oil and nuclear power and centralized electricity generation will be replaced by renewable energy alongside some old and new technologies with much less centralization.

Carbon produced by fossil fuel power stations will be stored underground using carbon capture and storage (CCS) technology. CCS technology is seen as a key technology to help combat climate change and has the potential to capture 95% of carbon dioxide produced by coal and gas fired power stations.

The new energy mix could include cleaner coal fired electricity generators, imports of liquefied natural gas (LNG), renewable energy such as offshore and onshore wind power, wave energy, tidal power and solar energy. Heat pumps will be used to produce small scale energy needs and biofuels and hydrogen in the domestic and transport sectors. Many SMEs will be involved in the “Green” energy sector, who will need guidance.

There are major hazards and risks associated with these new energy sources, mainly involving fire and explosion. There are also occupational health hazards including asphyxiation in confined spaces, exposure to chemicals and solvents causing irritation and potentially toxic nanomaterials.

Health and safety will be very important if these new technologies are to inspire confidence and the OSH practitioner will potentially play an important role in helping to achieve this.

Communicating Health and Safety to the Next Generation

Finally it is interesting to speculate on the changes that will be needed if health and safety is going to be communicated effectively to the next generation. Will health and safety practitioners need to have a presence in virtual reality worlds such as Second Life? Major companies such as Toyota, Nissan, the BBC, Sun Microsystems and some universities are already there. This will require a whole new set of skills. As Ellwood (2007) points out there could be psycho-social risks when working in the metaverse.

In addition, Snodgrass (2010) draws attention to the need to communicate differently to the new working generation, who he terms “Generation Z” and who will enter the workforce within the next ten years. They will be completely familiar with new technologies and their access to knowledge via cloud computing will enable them to work more flexibly from any location. OSH practitioners will need to become familiar with these new technologies to promote health and safety effectively.

Summary

This paper has:

- outlined the evolution of health and safety and management in the UK
- described the development of the health and safety profession

- highlighted some of the demands and challenges of a changing world of work
- considered the implications of emerging technologies for the profession.

Bibliography

Almond, P. (2009) "The Dangers of Hanging Baskets: Regulatory Myths and Media representations of Health and Safety regulation", *Journal of Law and Society*, 2009: 26 / 3: 352-375.

Atherley, G. R. C. and Hale, A. R. "Pre-Requisites for a profession in Occupational safety and Hygiene" *Annals of Occupational Hygiene*. 1975:18, 321-334.

Atherley, G. R. C. Else, D. and Levy, L. S. "A review of the organisation of occupational health and safety and occupational hygiene in Britain" *Medecine sociale et preventive* 1978: 23, 8-13.

Cabinet office. *Common Sense Common Safety Lord Young's review*. London 2010.

Carson, V.G. "The Conventionalization of Early Factory Crime". *International Journal of the Sociology of Law* 1979: 7 37 – 60.

Case C-127/05 Commission of the European Communities versus United Kingdom of Great Britain and Northern Ireland. (retrieved 1 March 2011) (<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:62005J0127:EN:HTML>).

Cross-government Health, Work and Well-being Programme, Working for a healthier tomorrow: Dame Carol Black's review of the health of Britain's working age population. London: The Stationery Office, 2008.

Davies, F. "Still committed to the Robens' idea". *Safety Management* October 1999: 6-8.

Ellwood, P. "Virtual Health and Safety" HSE Horizon Scanning Intelligence Group SR 013 Horizon Scanning Section HSL 2007.

European Green Paper 2001 *Promoting a European framework for corporate social responsibility*.

Flounders, J. "The Historical Development of Health and Safety Legislation". *The Safety Practitioner*. March 1987: 21-25.

Hale, A. R. Bianchi, G. Dudka, G., Hameister, W. Jones, R. Perttula, P and Ytrehus, I. "Surveying the role of Safety Professionals: Objectives, Methods and Early results" *Safety Science Monitor* Issue 1 2005: 9, 1-33.

Health and Safety Executive (HSE) 2009. *A guide to health and safety regulation in Great Britain*

Health and Safety Executive (HSE) 2010 *Health and Safety in the New Energy Economy - Meeting the Challenge of Major Change*, A report to the HSE Board 15 December 2010.

- Holden J, Vassie L “Becoming an effective occupational safety and health professional in the 21st century” 2010. *ASSE conference 2010*, Session 730
- Howard, J. K. “Dr Thomas Percival and the Beginnings of Industrial Legislation” *Journal of the Society of Occupational Medicine* 1975, 25, 58-65.
- Humphreys, S.J. “Health and Safety at Work Act 1974: Is it too late to teach an old dog new tricks” *Policy and Practice in Health and Safety* 2007: 5,1,19-35.
- James, P. “Changing occupational safety and health contexts and their policy challenges”. *Policy and Practice in Health and Safety*. 2004: 2/1,3,1-3.
- James, P. “The changing world of work: an exploration of its implications for work-related harm.” *Policy and Practice in Health and Safety*. 2006: 13, 4/1, 3-15.
- James, P. “Wellbeing at work: an issue whose legislative time has come?” *Policy and Practice in Health and Safety* 2003: 1/2, 5-18.
- Joyce, J. *The value of Health and Safety*. IOSH Wigston 2009.
- Koradecka, D. *How to improve health and safety in the future*. Warsaw Poland: Central Institute for Labour Protection – National research Institute 2005.
- Leka, S, Khan, S, Griffiths, A. *Exploring health and safety practitioners’ training needs in workplace health issues*. IOSH Wigston 2008 (retrieved 1 March 2011) (www.iosh.co.uk/researchreports).
- Madouros, V. “Projections of the UK Labour force 2006 – 2020” Labour Market Division, Office for National Statistics 2006 (retrieved 24 February 2011. (http://www.statistics.gov.uk/downloads/theme_labour/projections_LMTJan06.pdf).
- McKay, S. European Court ruling on employers’ duty regarding health and safety, European Industrial Relations Observatory on-line (eiroline) 2007 (retrieved 1 March 2011). (<http://www.eurofound.europa.eu/eiro/2007/07/articles/eu0707059i.htm>)
- Ridley, J. and Channing, J. *Safety at Work*. Oxford Butterworth-Heinemann 1999.
- Rimington, J. “Valedictory summary of Industrial health and safety since the 1974 Act.” *The Electricity Association Safety Management Conference* 1995.
- Smith, I., Goddard, C, Radnall, N. *Health and Safety – The New Legal Framework*. London: Butterworths, 1993...
- Snodgrass, R. “The Generation Gap: Towards Generation Z”. Futures team HSL Horizon Scanning SR024 2010.
- Strugath, Warren. “Turning values into valuation: Can corporate social responsibility survive hard times and emerge intact?” *Journal of Management Development*. 2011: 30, 1, 44-48.
- The Honourable Lord Cullen “The development of safety legislation” *Royal Academy of Engineering and Royal Society of Edinburgh lecture* .1996.
- Vanilla Research. 2008. *Perceptions of the Health and Safety Regime* (retrieved 24 February 2011) (<http://www.bis.gov.uk/files/file47058.pdf>)
- Walters, D. “A timely critique of the British regulatory system.” "Regulating health and safety at work: the way forward." *TUTB Newsletter*, March 2000:No. 13, 7-10.

- Walters, D. "More consequences of globalisation for health and safety policy and practice." *Policy and Practice in Health and Safety*. 2005: 3/2. 2. 1-2.
- Walters D, and James, P. "Robens revisited the case for a review of occupational health and safety legislation". Institute of Employment Rights 1998.
- Walters, D. The Challenge of change for strategies on health and safety at work in the 21st century practice", *Policy and Practice in Health and Safety*. 2005: 18, 3/2, 3-20.
- Walters, D. James, P. *Understanding the role of supply chains in influencing health and safety at work*. IOSH: Wigston 2009.
- Walters, D. "Workplace Arrangements for OHS in the 21st Century, Working Paper 10." *Australian OHS Regulation for the 21st century conference* 2003.
- Woolf, A. D. "Robens Report – the wrong approach?" *Industrial Law Journal* 1973: 2 (1) 88-95.
- Wright, M. Beardwell, C. Pennie, D. Smith, R. Norton Doyle, J. and Dimopoulos, E. *Evidence based evaluation of the scale of disproportionate decisions on risk assessment and management RR536* Berkshire HSE Greenstreet Berman, 2008.