

THE CHANGING FACE OF MINING LEGISLATION - SOME REFLECTIONS

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SUMMARY

This paper describes the background to the 1972 report of the Robens' Committee into safety and health at work¹ which led to the Health and Safety at Work etc Act 1974 (HSWA). This was the biggest revolution in industrial regulation in British history. It created a framework for goal-setting regulations supported by Approved Codes of Practice (ACOP) and guidance which enshrine the concept of self-regulation. The duty holder usually has a range of options on how to comply with this legislation and is expected to assess health and safety risks and to take them into account in deciding what to do. The paper explores the issues this risk-based approach poses for both the mining industry and the regulator. It concludes by taking stock of where we are now and briefly looking into the future.

INTRODUCTION

Britain has a long history of occupational health and safety regulation. From the early 19th Century successive Governments legislated on safety and health in the workplace. The first labour inspectors appeared on the scene in 1838. The first Mines Inspector was appointed in 1843, a year after women and children under the age of 10 years were banned from working below ground.

To get a true perspective on where we are now, and where we might be going, we first need to look at where we have come from. We need to be clear about why regulatory systems develop in the ways they do so that we can make sensible judgements about what it is possible for the regulator to achieve. Inspectors cannot change the world on their own. Health and safety is simply one element of many factors which influence the ways in which employers and employees behave.

Over the years the British approach to occupational health and safety regulation has reflected industrial development and the application of new technologies. But this has been only one influence. The shape of legislation and our approach to

regulation has been, and continues to be, more influenced by the social context of the times. This is particularly true of the role of the regulator.

WHAT WAS WRONG WITH THE OLD SYSTEM?

There is an old saying, "If it's not broke, don't fix it". By the late 1960's it was clear to the Labour Government of the day that the system for regulating health, safety and welfare in employment was not all it should be. Around 23 million working days were lost through absence arising from industrial accidents and prescribed diseases each year from 1961 to 1970². This put a huge strain on the national economy.

The number of people killed at work in Britain across all industries during the 1960's was declining by about 3% year-on-year but was still around 1,000 per year in 1970. The number of mine and quarry workers killed each year dropped from 284 in 1961 to 124 in 1970. Most of this was due to the rapid contraction of the coal mining industry, which saw hundreds of coal mines close and hundreds of thousands of mineworkers lose their jobs.

The numbers of non-fatal, major-injury accidents across all industries had not declined at all and remained stubbornly at about half a million each year. In mines and quarries the figure halved to 93,000, but again mostly due to downsizing in the deep coal mining sector.

The health and safety system might not have been broke but the Government was keen to see if it could be made more effective. On 29 May 1970 the Robens Committee was appointed. A few days later, a General Election was called and the Conservatives were returned to power the following month. The new Government did not, however, interfere with the Robens Committee's terms of reference and constitution.

THE REPORT OF THE ROBENS COMMITTEE

The Committee had a very open remit "*To review the provision made for health and safety of persons in the course of their employment (...) and to*

consider whether any major changes are needed..." It was also to look into whether or not further steps were needed to safeguard members of the public against hazards arising out of work activities. Transport systems were specifically excluded as they were felt to be adequately covered by other provisions. The embryonic offshore oil and gas industry was not even mentioned.

The Committee's terms of reference meant that this was to be fundamentally different from any previous reviews which, with one notable exception, had usually concentrated on specific activities following some disaster and an ensuing public outcry. The resulting 'legislation by accident' usually banned something or imposed onerous conditions for its continued use.

The notable exception to this pattern was the broad-ranging 1938 Report of the Royal Commission on Safety in Coal Mines³ which recommended some tentative steps towards the concept of self-regulation.

The system of health and safety regulation which Robens looked at was based on a number of key Acts of Parliament. Some, like the Mines and Quarries Act 1954 and the Factories Act 1961, were linked to premises. Others, like the Explosives Acts 1875 and 1923, covered certain industrial activities. These Acts focused on the high risk traditional industries and offered no protection to many people at work.

Over 400 sets of Regulations were made under these Acts, each a set of rules covering some specific risk or activity. Many had their origins in accidents and disasters of the past or, in a few cases, where specific health risks had been identified. 1950's mining legislation was not immune and much of it was a direct result of accidents or disasters over a century or more.

On 9 June 1972 the Robens Committee submitted its report. It made a number of sweeping recommendations and suggested a programme of action to implement them⁴. It proved to be a watershed in the UK's approach to health and safety regulation.

Robens felt that the problem with rule-based legislation was that it was over-complex, often inadequate and had built-in obsolescence. The law often trailed behind industrial and technological developments so new and unforeseen issues created situations for which there was no legal remedy⁵.

Robens recommended a single broader and more flexible framework of legislation based on more effective self-regulation by employers and workers jointly. It should be administered by a single authority with a single inspection service. The seeds were well and truly sown for a tripartite approach to workplace health and safety, involving employers, workers and the regulator.

Robens recognised that: health and safety was a matter of efficient management, not a bolt-on extra; it needed a central focus provided by written safety and health policy statements, made available to all workers, and clearly defining roles and responsibilities at all levels within firms; those who create risks are those best placed to control them; those who create risks and those who are affected by them have mutual interests.

The concept of self-regulation is as old as industry itself. It stems quite naturally from a moral view that people should not be killed, injured or suffer ill-health as a result of work. Some were good at self-regulation but history records many who treated human life as just another expendable resource. Robens' suggestion was to develop a regulatory framework which would encourage duty holders to regulate their own activities effectively.

By the 1960's Britain had a plethora of prescriptive and rigid regulation which discouraged people from thinking for themselves about health and safety. Industry came to rely on an accessible regulator to tell them what to do, rather than defining and regulating its own health and safety performance. Self regulation was the only valid antidote to a system where employers (the creators of risk) simply waited to be told what to do by the regulator. Robens convinced the Government that this could not continue.

THE HEALTH AND SAFETY AT WORK ACT

The Government accepted Robens' recommendations in full and work began to develop the necessary primary legislation. Before the Health and Safety at Work etc. Act⁶ (the HSW Act) was ready, there was another change of Government when the Conservatives were narrowly defeated by Labour on the back of the 1974 miners' strike. The change did not significantly disturb progress as there was still cross-party consensus that something had to be done to regulate workplace health and safety more positively. The HSW Act was given Royal Assent in late 1974 and commenced on 1 January 1975.

The Health and Safety Commission and Executive

The HSW Act created two statutory bodies - the Health and Safety Commission (HSC) and the Health and Safety Executive (HSE).

The Commission is made up of representatives from all sides of industry; not only employers and employees but also consumers' and local government interests. It is the driving force behind the regulation of industrial health and safety and sets the policy. It makes proposals for new legislation but, by law, must consult publicly before putting them to Ministers.

The Executive is a distinct statutory body of three people which advises and assists the Commission. It also has specific responsibility for enforcing health and safety legislation. The Executive functions through a staff which now numbers some 4100, collectively known as HSE. It has about 1300 inspectors⁷ as well as policy advisers, technologists, scientists and medical experts. Its enforcement responsibilities included mines from the start and now cover most workplaces, having gained railways and the offshore oil and gas industries in the 1990s.

Both the Commission and HSE are independent of Government control but are subject to parliamentary accountability through a Secretary of State, currently the Secretary of State for Environment, Transport and the Regions, the Deputy Prime Minister, John Prescott.

The Core of the HSW Act

Just six sections⁸ of the HSW Act place all the general duties on those responsible for the health and safety of work activities. At its core there are the duties on an employer to provide safe and healthy working systems, premises, working environment, equipment and ensure people work safely through training, instruction and supervision. There is also a duty on each employee to observe safety and health provisions and to act with due care. The self-employed are given equivalent duties. All have to take account of other persons who may be put at risk by work activity, including members of the public.

Robens' desire for self-regulation is at the core of the HSW Act. Legislation of this type is known as 'goal-setting'. It has no prescriptive detail so the duty holder, the risk creator, has a range of options on how to comply with the objective or goals. Where there is a choice, the duty holder is expected

to assess health and safety risks in coming to a decision.

The HSW Act also provides for the progressive replacement of the pre-1974 law by a system of regulations and approved codes of practice which spell out the general duties in the HSW Act. It also provides the legal bases for the appointments and powers of inspectors, penalties for offences etc.

Reasonable practicability

The HSW Act formalised the concept of 'reasonable practicability'. In aiming for the stated goal, the duty holder has to show that he has done what is reasonably practicable. If there is some risk in doing something without taking precautions, the duty holder can take into account the cost of providing precautions and set it against the marginal health or safety benefits that the precautions are designed to achieve. A small improvement at excessive cost is not reasonably practicable.

Reasonable practicability was designed to ensure a fair and consistent approach to health and safety across all industries. The industry's response in terms of preventative and protective measures should be proportional to the risks created by a particular work activity. The higher the risk, the more the risk creator is expected to do to properly manage it. The flexibility of response allowed by the HSW Act encourages businesses to manage health and safety as an integral part of their management arrangements and to regulate themselves effectively.

Hazard Identification and Risk Assessment

The two key self-regulation ideas enshrined in the HSW Act are: a risk based approach to health and safety; and an emphasis on prevention rather than remedy or insurance against failures.

Hazard identification, risk assessment and risk management have become the hallmarks of the British system of regulation⁹. For the regulator, the hazards present and the potential risks they pose form the basis for regulatory intervention and the targeting of effort. The regulator has to take account of the potential risks and the health and safety management performance of duty holders. HSE allocates proportionately more resources to hazardous industries with processes which have the greatest potential for harm.

The main problem with self-regulation for the duty holder is that goal-setting and risk assessment may

be simple concepts but the regulator does not tell the duty holder what to do; the duty holder must manage the risks.

REGULATIONS, ACOPS AND GUIDANCE

The progressive renewal of the legislation started almost as soon as HSC/E came into being. Public consultation on proposals is the final stage in the development of regulatory proposals. In practice consultation was to begin at a much earlier stage. The Commission set up a number of Industry Advisory Committees as part of its formal structure. This was to make sure that it had access to a wide range of advice on the practicability, scientific soundness and proportionality to risk.

The whole process of consultation was intended as a means of quality assurance so that the final product - the legislation itself - would be fit for purpose. It was also a useful means of kick-starting the process of 'ownership' and therefore compliance.

Regulations, like the Act itself, were to set goals to be achieved. Approved Codes of Practice would set out the best practical means of complying with the regulations, but leaving duty holders with the option of complying in a different way if something better came along.

Technical detail, including the relevant prescription of older legislation, was to be confined to guidance, unless there were persuasive arguments, acceptable to all parties, for including it at a higher level.

MINING LEGISLATION AND THE IMPACT OF THE EUROPEAN UNION (EU)

There has been comprehensive law on mine safety in Britain since the last century. The HSW Act embraced the Mines and Quarries Act 1954 which had its roots in even earlier legislation. For a number of years, the Commission has been working on a programme of legislative renewal to update, amend and consolidate it while taking on board developments in Europe.

From the mid-1980s⁵, the European Community (EU) has been the main engine of legislative change. The Single European Act of 1987 applied qualified majority voting in the field of worker protection in health and safety, so that the UK could no longer veto proposals on health and safety

which undermined its own preference for goal setting based on risk assessment.

The biggest single component of this tide of regulation was the so-called 'six pack' of regulations which took effect on 1 January 1993. These substantially altered existing UK law, sweeping some regulations totally off the Statute Book, repealing large parts of others, and introducing several entirely novel duties in areas such as manual handling and use of display screen equipment. The general duties enshrined in HSW Act remained intact, however, demonstrating the appeal and simplicity of the original drafting. The deadlines imposed by the EC were demanding and HSE became, for a while, a most unpopular regulator, faced with claims that over zealous inspectors were leaving employers with little room or time to adapt.

HSC's own legislative programme included a piece of legislation by which it set great store - The Control of Substances Hazardous to Health Regulations 1988 (which superseded six sections of the Acts and 34 sets of regulations). These Regulations demonstrated how time consuming and demanding the Robens approach could turn out to be in practice.

From concept through to realisation, this piece of law took five years from publication of the first consultative document until they took effect.

Another important area that the EU has influenced British practices is in the field of machinery/equipment certification or approval. Hitherto, such equipment was certified under British legislation and, while this still applies to some extent, membership of the EU has led to state legislation being enacted to support European Directives supported by 'harmonised standards' and this approach will eventually obviate the need for British certification or approval.

Wherever sensible, provisions of old mining law has been subsumed within new Regulations which apply to all sectors of industry, such as the Provision and Use of Work Equipment Regulations¹⁰ and the Electricity at Work Regulations¹¹.

HM INSPECTORATE OF MINES

HM Inspectorate of Mines is a division of HSE. As HM Inspectorate of Mines and Quarries, it was dragged somewhat unwillingly from its previous home at the Department of Energy when HSE came into being on 1 January 1975. Initial

uncertainties have long since gone, and today the Mines Inspectorate is a fully integrated and very active part of HSE.

Staffing

In the past decade or so, the size of the Mines Inspectorate has reduced considerably consistent with the reduction in the coal mining industry. Mines Inspectors are of three disciplines - mining engineers, mining electrical engineers and mining mechanical engineers - to reflect the diverse demands of the mining industry. All inspectors are recruited from the ranks of experienced colliery management, usually at the level of manager or mine engineer. All inspectors are Chartered Engineers. Mines inspectors all hold a 1st Class Certificate of Competency, the UK's statutory coal mine manager's certificate. Specialist inspectors hold a Class 1 Mine Engineer's Certificate.

Resource Allocation

The Mines Inspectorate is responsible for enforcing health and safety law work activities at deep mines and other mining related premises. It also advises the Executive, the Commission and Government when the need arises and plays a full role in regulatory development. We are adequately resourced to deal with the number of mines and the numbers employed in the mining sector. But where and how we intervene also depends, to a large extent, on assessed risks, a key feature of the Robens approach.

We allocate more resource to coal mine inspection, than non-coal mine inspection, because the coal industry is far larger and the hazards in the coal sector are greater and present higher levels of risk to the workforce. Within a mine we will inspect higher risk activities more frequently than those activities which present lower risks. In coal mines for instance, more effort is targeted at coal faces, drivages and underground transport operations, because historically, support and transport have given rise to the majority of serious accidents below ground.

We use a system of bottom-up planning. Inspectors are each allocated a group of mines. They will look at the activities planned at their mines over the coming year. Guided by a set of broad principles - for example, that coal faces should be examined every four months - they will draw up risk-based inspection programmes for all of their mines. They attempt to ensure their inspections remain equally biased towards higher risk activities. During the year, inspectors monitor

their own progress against their plan of work and have to account for any shortfalls or significant deviations from it.

Roles and responsibilities

Our role as mining regulator is to influence, educate and advise on achievement of minimum standards we have through legislation. But it goes beyond that, we also give advice on good or best practice. Our statutory powers mean that our advice is not taken lightly by the industry. Where we see no other alternative, we will act to secure improvements using legal sanctions such as by serving improvement or prohibition notices or by withdrawing an exemption. In the last resort, if all else has failed, we prosecute the offenders under criminal law, preferably with deterrent or exemplary effect.

It is particularly important that when a mines inspector calls, he should be regarded by the mine management not simply as enforcer of regulations, but as someone able to contribute to its thinking, able to interpret legislation and formal guidance sensibly and reasonably in the particular situation and backed by scientific and technical resources which command respect. If the power which an inspector has to require improvements is to be sensibly deployed, the quality of staff must be high and neither we nor the industry can afford to compromise on it.

We operate by preventive inspection and the exercise of discretion in dealing with what we find. We provide some creative tension to stimulate action and development. A risk-based, discretionary approach which relies mainly on persuasion rather than coercion is more discriminating and efficient - though not weaker nor more tolerant of low standards. The effectiveness of such an approach depends both on the legal powers at inspectors' disposal, and on the professionalism with which inspectors do their jobs.

REGULATORY CHALLENGES

Permissioning régimes

Although about two-thirds of UK mining legislation has been reformed over the past ten years, there are still sets of regulations in force which date from the 1950's. This old prescriptive legislation suffers from inflexibility. To enable the industry to gain from the health and safety benefits offered by new technologies not catered for by this old law, the Mines Inspectorate issues exemptions

where the law provides for this approach. In doing so, we effectively have to give permission for these new systems to be used.

Permissioning is resource intensive work, but over the years it has enabled us to work with all sides of industry to raise standards. In doing so, standard conditions have been developed for each type of exemption. The problem with most permissioning work in mines is that when we receive an application for exemption, we have no option but to deal with it. The vast majority of the several hundred exemption applications we receive each year deal with systems where users have demonstrated time and again that they have both the technical capability and management systems in place to control the risks to workers. Our attention is therefore deflected away from planned routine inspection, targeted on the basis of risk, to lower-risk situations which, through obsolete legislation, require the regulator's permission to work.

We feel, therefore, that permissioning is not an appropriate regulatory approach for the majority of work activities in mines. Pragmatism and the belief that those who create the risks are best placed to control them mean that, even in a very well inspected industry such as mining, we still rely heavily on self interest and self regulation to prevent accidents and ill-health.

The Contraction of the Coal Mining Sector

The contraction of the public sector industry prior to privatisation brought with it its own challenges. A high proportion of senior managers, both at mines and at regional level, retired within a very short time. The loss of corporate memory manifested itself in the industry not always being able to deal with unusual problems - such as deep-seated spontaneous combustion heatings - as effectively as it once had. The Mines Inspectorate found itself in the position of having to fill the gap to some extent.

The Use of Contractors

To cope with rapid change at mines, there was a big increase in the proportion of contractors used at mines. The use of contractors brought into sharp focus the suitability and effectiveness of mine management structures to control the interfaces for health and safety matters. Under British law the mine manager is the focus of statutory responsibility at a mine but the old legislation led to uncertainties about who was in control of contractors. The Management and Administration of Safety and Health at Mines Regulations¹², now

oblige a mine manager to establish a suitable management structure for the purposes of ensuring the health, safety and welfare of all persons at work at the mine - a classic example of a goal setting regulation.

Privatisation of the Government's coal mining assets

The Conservative Party was re-elected to Government for a fourth consecutive term in 1992 committed to privatising the coal mining industry. Preparing the ground for privatisation gave rise to a series of further challenges for the regulator. Ministers consulted the Health and Safety Commission. The Commission: emphasised the importance it attached to retaining a comprehensive health and safety regulatory regime; recommended that it should remain the health and safety regulatory body and HSE the enforcement authority; identified certain areas where the current statutory regime would need to be strengthened in preparation for privatisation; and said that proposals would be submitted to the responsible Minister wherever necessary.

The Government published its White Paper 'Prospects for Coal' in March 1993¹³. This clearly restated the Government's commitment to safety, recognising that the maintenance of safety standards was paramount. It also reaffirmed the role of the Commission as the regulatory body for health and safety and HSE as the enforcement authority.

In October 1993, the Commission provided more detailed advice to Ministers in its report 'The Framework for Health and Safety in Britain's Coal Mines'¹⁴. There were four areas, in particular, where the statutory regime needed to be strengthened prior to privatisation as they were largely covered by rules of the nationalised industry. These were: the ventilation of blind ends; mines fires; frictional ignitions; and the prevention of inrushes. The first three were addressed by the Owners Operating Rules Regulations 1993¹⁵. The fourth was the subject of an Approved Code of Practice giving practical guidance to duty holders on the application of the Precautions Against Inrushes Regulations 1979¹⁶ and relevant parts of the Management and Administration of Health and Safety at Mines Regulations 1993.

As soon as work on these two packages was complete, the Commission started to push ahead on the development of new mines rescue legislation to cater for both privatisation and the contraction in the industry.

The Deep Mined Coal Industry Advisory Committee

New mechanisms were required to ensure that information, knowledge and experience were disseminated and shared following privatisation. We needed to create an environment for an industry-wide safety culture based on the prevention of hazards, the control of risks and the promotion of best practice. The Deep Mined Coal Industry Advisory Committee ('the IAC') was established to fulfil these functions and to advise the Commission and the Executive on other matters concerning health and safety in underground coal mines. Adequate consultation arrangements already existed for non-coal mines through the Mining Association of the UK.

I chair the IAC. Membership is split equally between representatives of employers and employees. In addition, a small number of assessors and observers from the professional institutions, the Confederation of British Industry and Trades Union Congress are invited to attend. The formation of the IAC has enabled, for the first time, a substantial number of small mines to be represented in a national forum alongside the larger operators. As an independent committee advising both the Commission and HSE the IAC has an important role. It meets four times a year and considers a wide range of health and safety issues.

The Effects of Privatisation and Further Rationalisation

The concentration on fewer, more highly productive units, has continued. On the one hand, risks are concentrated in fewer places, but higher levels of production has changed risk profiles. We have given the industry a lot of advice on how to manage these risks.

What we probably haven't fully come to terms with yet, is the impact of privatisation on management systems. On the face of it, physical standards are no worse, and often better, than they were in public sector days. But the pressure to produce has undoubtedly increased since privatisation. We probe deeper than ever before, sometimes using safety auditing techniques, for the information to assess how management and control systems are functioning.

Political factors have also affected us. Private mine owners arguably pay less heed to mining trades unions. With the election of the Labour Party to Government in 1997, trades union leaders have sought other ways of realising their agendas.

Not least, they have lobbied Ministers and the Commission in an attempt to swing the regulatory reform programme back towards a more prescriptive approach. Employers have not seriously resisted their efforts in this area as their colliery managers, in particular, see protection in prescription and, provided prescribed limits are well established, are prepared to live with it.

New Hazards and Harms

Automation, through microprocessor or computer controlled equipment, has wrought benefits but brought with it new risks. The tendency to deeper working and higher horsepower equipment has led to increased heat and humidity and the physiological effects of heat stress and heat exhaustion. We have to address these and other issues by developing the skills and professionalism of the inspectorate to intervene where intervention is warranted.

WHERE ARE WE NOW? WHERE ARE WE GOING?

So where does our risk-based, preventative, self-regulatory system stand? I have just outlined some of the threats. But it is an approach which has had many successes, not least a year on year reduction in fatal accidents to employees and a much greater attention to tackling both occupational health problems and threats to public health and safety.

I continue to believe that health and safety approaches based on risk management, prevention and self regulation work with the grain, at the level of both the regulator and the regulated. Quality approaches which promote the enlightened self interest of companies from a commercial point of view may also bring about the full achievement of self regulation in and by British industry. It won't happen overnight. The time when we move to a fully self-regulating system where the statutory regulator becomes simply a standards developer and adviser is many years away - if ever it is achieved.

My job as Britain's Chief Inspector of Mines, is to ensure that the regulatory system continues to evolve in such a way that it best meets the needs of both the regulator and the regulated. I'm sure that the Health and Safety Commission, the Executive, and particularly the Mines Inspectorate have the skills, the knowledge, the professionalism and the will to see that is achieved.

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