

Making companies safe: **What works?**

A report by Dr Courtney Davis
Centre for Corporate Accountability

Supported by



Acknowledgments: Courtney Davis would like to thank David Bergman (CCA's Director) and Professor Steve Tombs and Dr Dave Whyte, (CCA Board members) for commenting on various versions of this report. She would also like to thank Professors Neil Gunningham and Richard Johnstone (both from the National Research Centre for Occupational Health and Safety Regulation, Australia) and Greenstreet Berman for their comments on an earlier draft of the report. The content of this published report is however entirely the responsibility of the Centre for Corporate Accountability.

The Centre for Corporate Accountability would like to thank Amicus for supporting the publication of this report

ISBN No: 0-9548654-0-5

Funding for the research of this report has been provided by the **Joseph Rowntree Charitable Trust**
Design and printing costs have been covered by the trade union Amicus
Irwin Mitchell has also provided some financial support for CCA's distribution costs





Making companies safe: **What works?**

A report by Dr Courtney Davis
Centre for Corporate Accountability

Supported by



Contents

INTRODUCTION	7
MAIN FINDINGS	13
PART ONE LEGAL REGULATION v VOLUNTARISM	
Chapter One: The Evidence	19
Chapter Two: Directors Duties	23
Chapter Three: Workforce Participation	29
Chapter Four: Conclusion	33
PART TWO SECURING COMPLIANCE THROUGH FORMAL ENFORCEMENT	
Chapter Five: The Evidence	41
Chapter Six: Implications for the HSE	49
PART THREE SECURING COMPLIANCE WITHOUT FORMAL ENFORCEMENT	
Chapter Seven: Campaigning and Educational Activities	59
Chapter Eight: The role of Partnerships	67
Chapter Nine: Arguing the Business Case for Safety	69
Chapter Ten: ‘Earned Autonomy’ or ‘Twin Track’ regulation	83
PART FOUR CONCLUSION	
Chapter Eleven: Conclusion	105
APPENDIX SELECT COMMITTEE ON WORK AND PENSIONS: EXTRACTS	107
REFERENCES	109

Introduction

This report attempts to answer two important questions about health and safety regulation.

- First, it considers whether, in trying to change the way companies and their senior officers conduct themselves in relation to health and safety, the Government should introduce new legislation; or whether instead it is just as effective for the Government to adopt voluntary codes of conduct, which have no legal basis and no capacity for outside enforcement.
- Second, in relation to the law that currently exists, it considers what techniques regulatory bodies should use to ensure that companies and other employers actually comply with it. It assesses whether compliance is best obtained through, on the one hand inspections and investigations with the threat of the imposition of formal enforcement notices and prosecution, or, on the other hand, through education and other forms of contact with duty holders in which regulators inform them about what they should do and encourage them to take action where necessary, but with no or little threat of actual enforcement.

The report tries to answer these questions by undertaking a comprehensive review of the available published research and considers what the evidence tells us about the relative effectiveness of (a) the use of the “law” to obtain improvements in health and safety and (b) various regulatory techniques and approaches that exist to ensure companies comply with existing health and safety law.

HSC/E’s “Faith Based” Policy Making?

The Centre for Corporate Accountability (CCA) was prompted to write this detailed review as a result of two recent decisions by the Health and Safety Commission and Executive (HSC/E) – the government body in Britain with principal responsibility for the regulation of work-related safety.

The first decision was HSC's October 2003 recommendation to the Government that legal duties should not be imposed upon company directors, even though the HSC had previously committed itself to advising Ministers “on how the law *would need* to be changed to make these responsibilities statutory”¹. The HSC instead concluded that it should continue with its “existing *voluntary* approach to promote and encourage greater corporate responsibility and accountability through engagement and publicity and guidance.”²

Secondly, the HSC/E have recently taken a series of strategic decisions which, if implemented, will bring about a significant change of emphasis in how the HSE and Local Authorities attempt to secure compliance with health and safety law. This strategic shift is articulated publicly in its February 2004 strategy document, “*A Strategy for Workplace Health and Safety in Great Britain to 2010 and Beyond*”, and in its written evidence to the Select Committee on Work and Pensions, but is most robustly stated in a number of internal papers.

What is this shift? In sum, it is a move away from traditional modes of obtaining compliance – through the use of inspection, investigation and enforcement – to alternative forms of interventions, involving the creation of “strategic relationships between organisations and groups”, “engaging with the most senior managers to enlist their commitment”, and “encouraging those at the top of the supply chain to use their influence”.³

So for example, the new Strategy document states that:

“Acceptable health and safety standards can be achieved in many ways and much of this strategy focuses on new ways of securing compliance voluntarily”⁴

In its recent evidence to the Select Committee, the HSC/E stated that there should be two key principles that HSE and Local Authorities should consider when determining what interventions to make:

“The first principle is a fresh emphasis on encouraging duty holders to do more to improve health and safety by updating and improving the financial and other arguments to persuade duty holders that good standards will help their business. The second principle is to be vigorous and consistent in going beyond compliance assessment and enforcement to make full use of other intervention strategies.”⁵

Whilst the HSC states that “inspection and enforcement will remain vital intervention strategies”⁶ it is clear that their use will be increasingly limited in favour of strategies that emphasise voluntary compliance. In an internal paper written a few months prior to HSC’s new strategy document and in its evidence to the Select Committee, HSE’s Deputy Director General stated:

“In terms of the balance of our efforts we want to put more emphasis on the ‘educate and influence’ aspects of our work and the working in partnership with others (at all levels) who can help achieve the improvement in health and safety performance for which we strive”

It goes on to state:

“Encouraging our staff to use their authority and experience more on these activities [i.e ‘education and influence’] means using a smaller proportion of our total front line resource for the inspection and enforcement aspects of our work”

And in a subsequent paper written after the publication of the new Strategy Statement, the HSE stated that the vision of the new strategy:

“means that in ten years time the regulators will no longer be the principal drivers for improvement ... [because] health and safety become the accepted norms, the moral and business cases [for safety] are well understood, and employees play a greater role.”⁸

There is no question that the underlying emphasis of this new strategy is that the role of the HSE and Local Authorities as enforcers of the law through inspection and investigation is to be a diminishing one.

These two decisions - to continue down the voluntary approach in relation to directors’ responsibilities and to implement a significant strategic shift in its compliance strategies - were both of particular concern to the CCA because they appeared not to reflect the available research.

In fact, in its explanation of why it had decided to continue along the voluntary path and not impose legal duties on directors, there was no consideration of the evidence about the *relative* effectiveness of voluntary guidelines versus legislation. The HSE concluded that:

“Although legal obligations did make people take their responsibilities more seriously, further legislation should be seen as an option only once all other avenues including voluntary approaches had been fully explored. An approach based on voluntarism might be the most appropriate way of bringing about cultural and behavioral change ...”⁹

The only research considered by the HSC in making this decision was an assessment of the impact over the previous two years of the voluntary guidance which it had published in 2001 – research which was in fact very mixed in its conclusions. The HSC did not consider any

research on the potential effectiveness of law reform in this area - which is curious because of the importance that HSC has given to the potential impact of directors' conduct. It accepts, for example that ensuring that the "boards of large and medium organisations provide the leadership and direction" in health and safety issues is "essential if we are to achieve our health and safety targets."¹⁰

Similarly, in the background to HSC's new policy on 'enforcement', nowhere in HSC/E's internal discussion papers, or in the minutes of their Board meetings, has there been reference to any solid empirical evidence to support the shift towards "new ways of securing compliance voluntarily". In fact, the HSE's Deputy Director General has acknowledged that its decision to devote even more of HSE's already over-stretched resources to educational activities at the expense of enforcement is unsupported by evidence. He stated:

"It simply reflects a belief (and we agree at present our evaluation of the effectiveness of different approaches and techniques is not sufficiently well developed to allow it to be more than this) that... altering the balance in this will help us to climb off the current plateau in safety performance and to tackle the increases in ill health."¹¹

This "faith-based" policy making is of course particularly odd since the HSC/E claim that:

"Our work is underpinned by sound science, technology and evidence, all of which is open and available."¹²

And that their new strategy to 2010 and beyond:

"has been developed through a process of consultation and the examination of available evidence on the effectiveness of health and safety interventions."¹³

However, our report shows that had the HSC/E studied this research – and genuinely used it as a foundation for making decisions on these issues - they would have come to very different conclusions to those reached in their new strategy.

Understanding the HSC/E

This report is neither about why the HSC/E has come to make the decisions it has, nor why in doing so, it has apparently ignored the evidence – however, two important factors do, in our view, help to provide an explanation.

The first is the issue of "resources". In its recent evidence to the Select Committee on Work and Pensions, the HSC/E acknowledged that its current financial settlement with the Government, "represents a significant reduction in spending power". In November 2002, the HSE told its staff that "we will not fill any [inspector] vacancies for the time being" and that "we also have no plans at the moment for further recruitment." Due to staff retiring and leaving this is already resulting in a reduction in the number of inspectors. The foreword to its Strategy statement acknowledges that "this is a strategy about finite resources, hard choices and priorities."

Such a financial situation severely restricts the options available to the HSC. It is of course very difficult for the HSC/E to agree a strategy involving more inspections, investigations, imposition of enforcement notices or prosecutions – even if that was what the research suggested – if the Government does not support it with resources.

The second factor – which is perhaps even more important – is the Government's own thinking on business regulation which appears to be dominated by a concern with 'relieving burdens on business'. For instance the Government's Budget report for 2004 states that the Government is committed to delivering "targeted deregulatory changes to relieve burdens on business".¹⁴

A recent HSC discussion paper on 'Becoming a Modern Regulator' acknowledges the influence of the Government's agenda on 'reforming and reducing regulation' within the HSE.¹⁵ The report states:

“In recent years, there had been deregulatory pressure from within government to reduce burdens on businesses, be clearer about the benefits of regulation, and more sympathetic to business needs.”¹⁶

The report also specifies some of the ways in which HSE has responded to these pressures, as well as the ways in which it has responded to the recommendations of the Government's Better Regulation Task Force, which, according to the report:

“continues to press the case for more imaginative and creative thinking on achieving the policy outcomes of regulation through routes other than “classic regulation”.¹⁷

HSC's paper also refers to the current Hampton review. This is a Treasury led review that has been recently set up to explore the scope for promoting more “targeted inspection programmes,” and whose aim, in part, is to “minimise the costs borne by compliant firms”.¹⁸ As a response to this, HSE has asked HSC to “give a steer... on the scope for promoting more efficient approaches to regulatory inspection and enforcement,”¹⁹ including proposals to introduce “earned autonomy” whereby some companies will be exempt from HSE inspections altogether.²⁰

In terms of HSC/E's future emphasis and direction, then, it is clear that Government policy and initiatives will continue to have a major impact.²¹

Behind the Government's thinking

Does the Government itself have good grounds to favour ‘deregulation’? It seems that the Government's position is centred around UK business claims that a “mounting burden of regulation” has been having a negative impact on business for some time.²²

However, this is contradicted by independent evidence from the OECD, the World Bank, the accounting firm Arthur Andersen, and The Economist, which shows that Britain is one of the most business-friendly and least regulated countries in the world.²³ For instance, the OECD economic survey this year states that:

“Competitive pressures appear to be relatively strong in the UK, with economic and administrative regulations inhibiting competition and barriers to trade among the lowest in the OECD.”²⁴

It also found that the UK has the lowest costs and the most entrepreneurial-friendly regulation in the EU. Similarly, the World Bank put Britain in the top ten out of 130 countries with the least regulation. And whilst UK business claims to be ‘overburdened’ by ‘red tape’, the 2004 Federation of Small Businesses' membership survey reports that confidence is strong, with 43 per cent of businesses growing in size and only 16 per cent shrinking.²⁵

Back to Reality

There have been over 2000 deaths to workers and the public since 1997, and around 200,000 reported major injuries. HSE investigations and HSE-commissioned research has consistently shown that the majority of work-related deaths and injuries in Britain – around 70 per cent – could have been prevented, and were the consequence of management failure.²⁶ In addition an estimated 1,126,000 people in Great Britain suffer from a musculoskeletal disorder caused or made worse by their work, and overall around 2.3 million people in Great Britain are suffering from work-related ill-health.

What is good for business is not always good for health. The purpose of regulation is to protect people from unnecessary suffering and avoidable harm, and it is *this* purpose that should inform the Government's assessment of whether or not health and safety regulation is successful. Our position is that regulation should not be judged on whether “significant and lasting improvements in the regulatory environment for business will be delivered”.²⁷

There is clearly an urgent need for further action – to address our growing occupational health problems and to address current levels of preventable work-related death and injury. However, this action needs to be based on solid evidence, not on ideological assertion.

What this Report is not about

The aim of this report is to review the empirical research relating to a range of regulatory options, to consider whether HSC/E's new approach is consistent with this evidence, and finally in light of this evidence to consider how effective HSC/E's new approach is likely to be in protecting the health, safety and welfare of those who depend on them.

It is important to note what this report is not about. First, it only focuses on research relating to 'improving safety', it does not consider other advantages of particular approaches. So, for example, in considering the effectiveness of prosecutions, the report looks at how they impact upon the future conduct of the company prosecuted and on other companies. The report does not look at other potential advantages of a prosecution strategy – for example ones of 'accountability' and perceptions of 'moral justice'. These, of course, do need to be taken into account when considering an appropriate compliance strategy, but they are not considered here.

In addition, the focus of the report is on the impact of regulation. It does not consider, therefore, other important ways in which improvements in the work environment can be secured, such as the widespread provision of occupational health services.

Finally, this report does not deal with the extensive academic literature on 'responsive regulation', or speculate what the best 'mix' of regulatory strategies and styles might be in a range of enforcement situations

The Structure of the Report

The report is divided into four parts:

Part one of the report concerns the effectiveness of 'legal regulation' vis-a-vis voluntarism.

Chapter one looks at the international and UK evidence on the extent to which the existence of *law* is a factor in motivating companies and those that control them to take positive steps to improve occupational health and safety (OHS).

Chapters two and three consider how, despite this and other evidence, the HSC in two important policy spheres – directors duties and worker participation - decided against opting for a policy of legal regulation.

Chapter Four contains a short conclusion.

Parts two and three of the report looks at the research on the effectiveness of different strategies intended to ensure that companies and other organisations comply with existing health and safety law.

Part two considers the effectiveness of 'formal enforcement mechanisms' – that is to say inspections, investigations, the provision of advice, the imposition of enforcement notices and prosecutions.

Chapter five sets out the evidence, whilst chapter six sets out the implications of this evidence for the enforcement strategies of the HSE.

Part three considers the effectiveness of strategies that do *not* require formal enforcement by the HSE – otherwise known as voluntary compliance strategies.

Chapter seven looks at the effectiveness of education, the provision of information and campaigns.

Chapter eight is a short chapter looking at the role of 'partnerships'.

Chapter nine looks at whether employers can be persuaded to comply with the law by arguing that there is a business case for safety.

And chapter ten looks at whether there is evidence that would support a proposed new policy in which the HSE would no longer regulate particular sectors or companies and they would be left to self-regulate entirely.

Part Four contains chapter eleven, the conclusion.

¹ DETR/HSC (2000: 26). Emphasis added.

² Health and Safety Commission (2003e: para 5.3).

³ See Health and Safety Executive (2003a: annex 2, p.5), and Health and Safety Commission (2004b, para 4).

⁴ Health and Safety Commission (2004a: p.11) Emphasis added.

⁵ Health and Safety Commission (2004c: annex 2, p.15). Emphasis added.

⁶ Health and Safety Commission (2004c: annex 2, p.16).

⁷ Health and Safety Executive (2003a).

⁸ Health and Safety Commission (2004b: para 4).

⁹ Health and Safety Commission (2003e).

¹⁰ Health and Safety Commission (2003b: 12) Emphasis added.

¹¹ Health and Safety Executive (2003a).

¹² Health and Safety Commission (2004a: 2).

¹³ Health and Safety Commission (2004a: 4).

¹⁴ HM Treasury (2004: 3.52).

¹⁵ This is the title of the section on regulation in the Budget report.

¹⁶ Health and Safety Commission (2004b: 3).

¹⁷ Health and Safety Commission (2004b: 3).

¹⁸ HM Treasury (2004: 3.57).

¹⁹ Health and Safety Commission (2004b: 1).

²⁰ Health and Safety Commission (2004b: 5).

²¹ In this respect, a recent statement by the Minister for Work, before a Work and Pensions Select Committee inquiry, were somewhat disingenuous. When the Minister was asked whether her Department had any influence over how resources were allocated within the HSE, she responded: "No. They are an independent organisation, they receive a budget and they manage their resources based upon the work that they have to do within the resources that they have got." Work and Pensions Committee (2004: Q563).

²² See the website of the Cabinet Office's Regulatory Impact Unit:
<http://www.cabinet-office.gov.uk/regulation/business/index.asp>

²³ The Guardian, 'Stretching the red tape', Friday April 23, 2004.

²⁴ OECD (2004: 6) *Economic Survey of the United Kingdom, 2004*.

²⁵ Federation of Small Businesses (2004) *Lifting the Barriers to Growth 2004*.

²⁶ Health and Safety Executive (1985); Health and Safety Executive (1986); Health and Safety Executive (1987); Health and Safety Executive (1988); Loughborough and UMIST (2003: 69).

²⁷ HM Treasury (2004: 3.54).

Main Findings

There is a substantial body of international and UK research on what motivates employers to improve their occupational safety and health performance. The main findings from our review of these studies are set out below.

The benefits of legal regulation

- All the major reviews of the international literature conclude that the most important driver of management action to improve occupational health and safety performance is legal regulation.¹
- This finding is mirrored in the UK research, where the need to comply with the law was the most commonly cited reason for health and safety initiatives amongst all sizes of organisations.²
- There is growing evidence that wholly voluntary approaches – in the form of voluntary codes of conduct or corporate social responsibility initiatives for example – are largely ineffective in bringing about improved standards of health, safety or environmental performance.
- Recent HSC decisions not to address either the current loophole in the law relating to directors' lack of legal safety obligations, or weaknesses in the regulations governing workers' rights to participation and consultation are inconsistent with the published research which suggests that new law on these issues could bring about significant improvements in occupational health and safety.

The benefits of inspection and enforcement

- The application of enforcement is an effective means of securing compliance in all sectors and sizes of organisations, including major hazard sectors.³
- Some studies demonstrate significant reductions in individual plant injury rates following inspections coupled with some form of penalty. Brief inspections, that did not result in penalties, had no injury reducing effects.⁴
- Whilst the evidence suggests that UK employers are 'legislation driven'⁵ and that fear of enforcement is a significant motivator for organisations,⁶ there is also substantial evidence to suggest that current levels of inspection, enforcement and prosecution are too low to maximise the impact that regulators could have on employer compliance or to provide a sufficient level of deterrence.⁷
- Recent HSE proposals to shift resources away from front-line inspection, investigation and enforcement activity are contrary to the evidence which strongly suggests that HSE could have a significantly greater impact by *increasing* inspection and enforcement activity.

The impact of awareness-raising, education and campaigning activities

- The provision of education, information and guidance alone, or in the context of low levels of inspection and enforcement, is unlikely to bring about the necessary improvements in health and safety amongst the majority of employers.⁸
- Evaluations of awareness-raising campaigns do not provide strong evidence that employers are prompted to take action as a consequence of these campaigns.⁹
- Whilst there is evidence that seminars may be successful in some sectors in prompting employers to take action, the usefulness of seminars is limited in that they are unlikely to be as effective as inspections in motivating 'reluctant compliers' or small employers.¹⁰

- The only sector-specific data on the relative effectiveness of inspections and seminars relates to the motor vehicle repair sector, and this shows that inspections are a more effective driver of employer action than seminars.¹¹
- There is evidence from a number of UK studies that compliance may be patchy and inadequate even when levels of knowledge and understanding amongst employers are high, indicating that knowledge alone is not enough – absent the threat and reality of enforcement – to secure adequate improvements in the health and safety performance of individual firms.

The impact of HSE's 'business case' arguments

- All of the major reviews (and the majority of UK studies) reveal serious limitations with the 'safety pays' and cost avoidance arguments that are commonly relied on by regulatory agencies in this and other countries.
- There is no evidence outside of the United States that employers are significantly motivated to improve health and safety for financial reasons.¹²
- Whilst fear of reputational damage has been identified as a key driver for firms operating in high risk and high profile sectors,¹³ the evidence also suggests that reputational pressures can lead to 'skewed' and inappropriate responses to health and safety management in the absence of regulatory intervention.
- Regulation, inspection and enforcement are key to creating reputational risk, therefore, the existence of reputational pressures depend upon there being a high probability that incidences of non-compliance will be detected and punished by regulators.¹⁴

'Earned Autonomy'

- While the HSE's proposals for 'earned autonomy' are modelled on OSHA's incentive-based programs, where 'high performing' firms are exempted from regulatory inspections, and are put forward on the basis of similar budgetary arguments,¹⁵ no adequate systematic evaluation of these programs exists.¹⁶ Moreover, the evidence that does exist is conflicting as it regards the impacts of these programs on workers' health and safety and suggests that there may be inherent problems in monitoring and evaluating outcomes.
- Reviews of the empirical research indicate it is very unlikely that companies are capable of achieving and maintaining effective self-regulation without regulatory intervention and oversight, and in the absence of other safeguards. This is true even in relation to high profile, high risk sectors where companies would be expected to have the highest levels of intrinsic motivation to effectively manage occupational health and safety. There is also some evidence to suggest that the successful control of risks does not simply depend on systematic management but on systematic management, *coupled with* some form of effective worker participation and strong regulatory support and enforcement.
- Even if there was strong evidence that some firms are capable of genuine self-regulation, the HSE have not proposed any reliable criteria for identifying these firms. Nor do the HSE possess the kinds of sophisticated data on firms, or intimate knowledge of individual firms' behaviour to enable them to predict whether firms will be capable of self-regulation without posing unacceptable risks to workers' and public health.
- Finally, one of the main justifications for an 'earned autonomy' approach is that regulators' will be able to utilise stretched resources more efficiently by focusing on the poorer performers. However, empirical studies suggest that where this approach has been adopted and is claimed by its proponents to have succeeded, it consumed much *greater* resources than traditional inspections, and where organisations have failed to properly implement a systems-based approach, inadequate inspectoral resources had been identified as one of the reasons for failure.

Whilst many of the studies reviewed are self-report studies,¹⁷ three factors suggest we can be fairly confident in the validity of the main findings. First, there is *remarkable consistency* with

regards to the findings reported in the international literature concerning the main drivers of management and company commitment to OHS. This gives rise to confidence in the conclusions reached by the individual studies.¹⁸

Second, these findings are replicated in relation to research on environmental management, where compliance with regulation was the most commonly cited spur to greater management action.¹⁹

And third, four separate reviews of the international research – all commissioned by national regulatory authorities – have reached identical conclusions with regard to what the majority of the studies tell us about the drivers of management commitment to OHS, indicating that not only are the findings of the various studies consistent, but also that they are unambiguous.²⁰

¹ Wright (1998); Gunningham (1999a); O'Dea and Flin (2003); Wright *et al.* (2004).

² Sigman (1992); Ashby and Diacon (1996); Honey *et al.* (1996); Honey (1997); Hillage *et al.* (1997); Wright (1998); Brazabon *et al.* (2000); Wright *et al.* (2000); Hillage *et al.* (2001); Lancaster *et al.* (2001); Baldwin and Anderson (2002); King *et al.* (2004).

³ Wright *et al.* (2004).

⁴ See for instance Gray and Scholz (1993: 192) and Hopkins (1995: 90).

⁵ Wright (1998).

⁶ Wright (2000).

⁷ Thomson-MTS (1993a); Mayhew and Quinlain (1997); Wright (1998); Brazabon *et al.* (2000); Wright *et al.* (2000); King *et al.* (2004); Wright *et al.* (2004).

⁸ Gunningham (1999a: 30); Wright *et al.* (2004: vii, x).

⁹ See for example Hillage *et al.* (2001: 24).

¹⁰ Rakel *et al.* (1999).

¹¹ Rakel *et al.* (1999).

¹² See for instance, Nichols and Armstrong (1973); Dawson *et al.* (1988); Ashby and Diacon (1996); Cutler and James (1996); Wright (1998); Gunningham (1999a); Gunningham and Johnstone (1999); Hopkins (1999); Brazabon *et al.* (2000); Wright *et al.* (2000); Hillage *et al.* (2001); Smallman and John (2001); O'Dea and Flin (2003).

¹³ Gunningham (1999a).

¹⁴ Wright *et al.* (2004).

¹⁵ Frick and Wren (2000: 40).

¹⁶ OECD (2000); GAO (2004).

¹⁷ This may give rise to concerns about subjectivity and possible bias.

¹⁸ Gunningham N. (1999: 10), and Wright M. (1998: 8).

¹⁹ Wright (1998); Gunningham (1999a).

²⁰ Wright (1998); Gunningham (1999a); O'Dea and Flin (2003); Wright *et al.* (2004).

PART ONE

Legal Regulation v Voluntarism

This part of the report looks at international and UK research in an attempt to determine which, of two alternative strategies, is more effective at changing the behaviour of companies and senior managers and directors – legal regulation or voluntarism.

In particular it focuses on two areas where the HSC have decided to take a voluntary approach – Directors Duties and Worker Participation – and considers whether the research supports the HSC’s policies on these issues.

Chapter One:

The Evidence

The HSC stated its new “2010 and beyond” strategy that: “We do not see new regulation as the automatic response to new issues or changing circumstances”¹, although it does go on to say that the HSC will “continue to press for higher fines, a new law on corporate killing and the removal of Crown Immunity.”

The reluctance to use law as a means of regulation appears to mark a shift from June 2000 when the Health and Safety Commission (HSC) and Department of Employment, Transport and the Regions (DETR) issued their joint strategy statement *Revitalising Health and Safety*. In this document they undertook to introduce new law on a number of issues including: sentencing for Occupational Health and Safety (OHS) offences,² the imposition of legally binding safety duties on company directors,³ the removal of Crown Immunity,⁴ the harmonisation of workers’ rights to consultation and involvement,⁵ and the strengthening of employers’ duties to rehabilitate where appropriate.⁶

As of July 2004 the HSC and Government had failed to meet any of these legislative commitments and have made explicit their intention *not* to introduce legislation on workers’ rights or directors duties. HSC and Government commitments to introduce legislation imposing legal safety obligations on directors⁷ were abandoned by the HSC in 2003.⁸ And earlier proposals to strengthen and extend employee rights to participation and consultation⁹ have been replaced by a statement in which HSC/E indicate that they will encourage the *voluntary* expansion of workplace health and safety representatives.¹⁰

This met with the approval of the CBI, which claims that HSC has recognised that:

“The case for further legislation as a motivator for higher standards of health and safety... has not been, nor is it likely to be made.”¹¹

However, the question as to whether or not further legislation can be a motivator for higher standards is an *empirical* – not a political - question that can only be answered by reference to the existing research and not by simple assertion.

Review of the International Research

In a report for the Australian Occupational Health and Safety Commission, Gunningham reviews the international literature and concludes:

“There is very considerable evidence that the single most important driver of improved performance, whether in respect of OHS, environment protection, or affirmative action, is regulation.”¹²

Similarly, O’Dea and Flin (2003) state that their review of the literature on corporate governance of safety provides support for:

“the notion that the motivation to achieve good health and safety standards are linked primarily with regulatory requirements and that government regulations are necessary in order to protect employees against excessive levels of workplace risk”.

In contrast to this, there is growing evidence from both academic research and from research undertaken by non-governmental organisations (NGOs) that ‘voluntarism’ – that is, corporate

self-regulation through the adoption of codes of conduct or 'corporate social responsibility' initiatives¹³ – is largely ineffective in bringing about improved standards of health, safety or environmental performance. For instance, in a wide-ranging review of the regulation of workplace safety in 1999, Gunningham and Johnstone find "significant evidence of the limits of voluntarism".¹⁴ In particular, one major study on environmental protection from the Netherlands found that companies were not motivated to introduce safety management systems until legislation had been put in place. Wright observes in relation to these findings that,

"there is a cost-benefit argument that legislation is needed to encourage systematic management and that more broadly... there is evidence of mandatory requirements being effective".¹⁵

Recent research by the OECD on the effectiveness of voluntary approaches for environmental policy concluded that the environmental effectiveness of voluntary approaches is often questionable, *and* that their economic efficiency is generally low. The researchers found that it was highly unlikely that most of the voluntary approaches contributed much to emission reductions and that achievements often did not exceed a 'business as usual' scenario, except in those cases where 'credible threats' were incorporated into the approach if targets were not met. The researchers also found that combining voluntary approaches with other types of instruments (for example, permitting systems, subsidies, related taxes and charges and emission trading systems) tended to weaken the effectiveness of the latter instruments. In other words, where participation in emissions trading systems, for example, was voluntary many businesses chose not to 'opt-in' to the schemes.¹⁶

Further support for the importance of law and regulation in bringing about real changes in corporate behaviour comes from the experience and research of NGOs, labour rights activists and trade unions. NGOs were instrumental in getting multinational companies to adopt voluntary workplace codes of conduct. However, many human rights NGOs are increasingly realising the limitations of both voluntary codes of conduct and 'corporate social responsibility' initiatives in national and international contexts.

A number of case studies have shown that Corporate Social Responsibility (CSR) programmes adopted by multi-national and transnational corporations have not brought any tangible benefits to the workers and communities adversely affected by their operations.¹⁷ Similarly, the experience of workers in developing countries is that many companies are simply failing to properly implement their codes of conduct within individual workplaces, and that workers are wholly unable to protect their rights in the absence of the possibility either of legal/ state enforcement or of trade union enforcement and organising structures.¹⁸ Thus, one observer has commented:

"We have put too much emphasis on codes and probably too much emphasis on voluntary enforcement. It is untenable to expect companies to enforce their codes voluntarily."¹⁹

As a consequence of these failures, and as observed in a recent letter to Patricia Hewitt signed by more than 20 leading charities in the UK:

"CSR is coming under growing attack from different quarters on the basis that it is not delivering results. Recent reports from think tanks and civil society organisations call into question the effectiveness of existing initiatives".²⁰

One example of this is research published in March 2004 by the consultancy Article 13. It said that less than 3 per cent of FTSE 350 firms have acted seriously on challenges such as climate change, waste and poverty.²¹ Another example is the chemical industry's 'Responsible Care' program - a voluntary self-regulatory program set up by the industry in response to a loss of public confidence in the US chemicals sector. The stated aim of the program is to: "reduce chemical accidents and pollution, [and] to build public confidence through improved performance, continuous improvement and increased communication."²² However, research in the early 1990s demonstrated that firms which relied on Responsible Care alone did not achieve better environmental performance.²³ And more recently, research in the US has shown that the number of chemical 'accidents' each year (including worker fatalities and

serious chemical releases into the local environment resulting in evacuations, hospitalisations and deaths) occurring amongst firms that have adopted Responsible Care guidelines has not declined since the creation of the program in 1990.²⁴

Whilst some NGOs and human rights activists support voluntary codes of conduct as an 'interim measure',²⁵ many are now calling for a framework of international regulation, backed up by national legislation, to guarantee that the rights of people and the environment are properly protected. And in particular, NGOs are calling on the governments of OECD countries, including the UK government, to enact legislation that would help to ensure that companies are held legally accountable under national laws for their actions overseas.²⁶

It is not only in an international context that codes of conduct have proved ineffective. The British Office of Fair Trading was recently forced to re-evaluate its programme for encouraging voluntary codes of conduct on the basis that they were not proving effective.²⁷ However, according to the DTI, the UK government remains committed to a voluntary approach on CSR.

Finally, whilst much of the international evidence on the impacts of regulation and enforcement is based on self-report surveys, with less data existing on *outcomes* (that is, on actual benefits to workers' health and safety), Wright notes that a study by the European Agency for Safety and Health at Work found evidence from a number of European member states that legal regulation had a clear and positive effect on accident statistics.²⁸

Review of UK Studies

Whilst the weight of international research supports the proposition that legislation, backed by credible enforcement, is the primary driver of corporate commitment to OHS, a number of studies dealing specifically with UK businesses provide confirmatory evidence. These studies have found first, that compliance with the law is the most commonly cited reason for organisations initiating changes to improve OHS management, and that this is true for all sizes of organisations,²⁹ and second, that the introduction of regulations are generally associated with reported changes in employer practice.³⁰ This is illustrated below.

- The only factors consistently identified by UK research to prompt health and safety improvements were the fear of loss of corporate credibility and the need to comply with health and safety legislation.³¹ For instance,
 - A survey of 127 corporate risk and finance managers selected from 350 of the largest UK companies found that the respondents placed most emphasis on ensuring statutory compliance with health and safety legislation and on avoidance of legal liabilities.³²
 - More recent research undertaken by researchers from the London School of Economics, which involved structured interviews with senior staff from 50 large UK companies, found that concerns for corporate reputation, followed by fear of corporate criminal liability/penalties and fear of competitive or market effects of criminal convictions, were the main drivers of companies' efforts to manage regulatory risks.³³
 - A number of other UK-based evaluations, studies and surveys have found that the most important reasons that employers took action to improve practices and procedures were compliance with the law, and fear of being taken to court and/or receiving claims for compensation if found to be in breach of the law.³⁴
 - For instance, separate evaluations of the Manual Handling Operations Regulations (Lancaster *et al.*, 2001) and the Noise at Work Regulations (Honey *et al.*, 1996); research on the construction sector (Brazabon *et al.*, 2000); a survey of organisations implementing health promotion programmes (Sigman, 1992); a study on health surveillance (Honey, 1997); and a study of some of the largest UK corporations (Ashby and Diacon, 1996) all show that the perceived need to comply with legal requirements is the most important and commonly cited reason for employer action in all of these areas.

- A number of studies evaluating the impact of specific health and safety regulations found that these were generally associated with a change in employer practice amongst those organisations that were aware of them.³⁵ For instance;
 - Hanson *et al.*'s 1998 review of the Six Pack Regulations found a steady increase in the proportion of employers conducting risk assessments from 30 per cent before the regulations were introduced in 1992 to more than 80% by 1998.
 - Honey *et al.*'s 1996 evaluation of the Noise at Work Regulations found that around 35-40% of employers had introduced ear protection following the introduction of the legislation.
 - Lancaster *et al.*'s 2001 research found a similar level of impact following the introduction of the Manual Handling Regulations.

It is clearly crucial that the HSC is aware of this research when making decisions on whether to pursue a voluntary or regulatory route. Whilst it may be cheaper, easier and more politically convenient to opt for voluntary routes – the evidence certainly indicates that they will not be effective.

The next two chapters look at the extent to which the HSC considered this and other evidence in making its decisions on Directors Duties and Worker Participation.

¹ Health and Safety Commission (2004a: 11).

² Action point 7.

³ Action point 11.

⁴ Action point 15.

⁵ Action point 16.

⁶ Action point 31.

⁷ See Action Point 11 of *Revitalising Health and Safety* (DETR/ HSC, 2000).

⁸ Health and Safety Commission (2003b).

⁹ See, for instance, Health and Safety Commission (2000).

¹⁰ Health and Safety Commission (2003a).

¹¹ Confederation of British Industry (2004).

¹² Gunningham (1999a: 12).

¹³ Voluntary codes of conduct are a form of self-regulation for corporations operation in the global economy. Workplace codes may be inspired by, and sometimes incorporate international human rights standards established in the conventions and declarations of the ILO and the UN, but they are nevertheless entirely voluntary (Human Rights Dialogue, 2000: 1-3). Christian Aid defines Corporate Social Responsibility (CSR) as: "an entirely voluntary, corporate-led initiative to promote self-regulation as a substitute for regulation at either national or international level" (Christian Aid, 2004: 5).

¹⁴ Discussed in Wright *et al.* (2004: 14).

¹⁵ Wright *et al.* (2004: 14).

¹⁶ OECD (2000).

¹⁷ See for instance the report by Christian Aid (2004).

¹⁸ See for instance, Duong (2000) and Banks (2000: 14).

¹⁹ Benjamin (2000: 7).

²⁰ Letter from Amnesty International and other organisations to DTI, 27 May 2004, 'Consultation on Draft International Strategic Framework'.

²¹ *The Observer* 'UK's 'responsible' industry credibility blown asunder', Sunday May 30, 2004.

²² Gunningham (1999a: 24).

²³ Discussed in Gunningham (1999a: 24-25).

²⁴ Purvis and Bauler (2004).

²⁵ Benjamin (2000: 7).

²⁶ Christian Aid (2004).

²⁷ OECD (2000: 26, 29).

²⁸ Wright *et al.* (2004: 7).

²⁹ Hillage *et al.* (2001: 29); Wright (1998).

³⁰ Hillage *et al.* (2001: 26).

³¹ Wright (1998).

³² Ashby S.G. and Diacon S.R. (1996).

³³ Baldwin and Anderson (2002: 25).

³⁴ Hillage *et al.* (2001).

³⁵ Hillage *et al.* (2001: 26).

Chapter Two:

Directors Duties

This section looks at the implications of the research evidence set out in the previous chapter on whether the law should be changed to impose legal duties upon directors, and in particular considers HSC's recent decision that it should continue to pursue a voluntary approach.

The importance of directors' commitment to OHS

A consistent finding of both the national and international research is that the commitment and conduct of senior officers is often determinative of corporate compliance and whether a company has safe working practices.¹

For example, a UK study of occupational noise-induced hearing loss reported that management rules and commitment led to the wearing of hearing protection becoming a normal accepted part of working life amongst employees, and that unless senior management was committed to hearing conservation and conveyed this commitment to middle management, the latter were unlikely to have any interest in the issue.² The researchers concluded that:

"A very clear finding... was that in most of the case studies, the company's performance on hearing conservation directly matched the attitudes of senior management about the topic. Where senior management had treated noise as an important issue for some time, the company was controlling the risks from noise effectively, with the reverse being true in companies where senior management did not accord priority to noise... [Senior management] provide the 'authority to act', whilst others provide technical competence and operational skills."³

Another UK study – a recent survey of the senior staff of 50 leading UK FTSE-250 (or equivalent companies) undertaken by researchers from the London School of Economics – provides further evidence of the importance of senior management commitment. When asked to rank the four most serious impediments to good risk management, 60 per cent of respondents mentioned lack of leadership at Board level as one of the top four impediments. Next highest was 'corporate culture' with 52 per cent of respondents citing this as an impediment, followed by 'lack of resources' which was cited by 46 per cent of respondents. The authors of the report state:

"Arguably this sequencing is entirely logical: if a company's leaders are disinterested, corporate culture will reflect that, and therefore senior managers are unlikely to provide a sensible budget to deal with the issue."⁴

In other words, it appears that failures to properly manage risks are either a direct consequence of lack of executive level commitment and leadership, or are a consequence of other factors that are themselves determined by, and flow from, lack of such commitment.

The HSE accepts, and indeed argues itself, that the conduct of directors and senior company officers in particular is fundamental to the success of health and safety management.⁵ And because of the acknowledged importance of directors' conduct to the health and safety of individual workplaces, Gunningham has argued that:

"[A] focus on the motivation and accountability of key decision-makers could play considerable dividends."⁶

Gap in the law

Yet despite the importance of Board level commitment and action to secure safe and healthy systems of work, there is currently a gap in the regulatory framework in that company directors have no *positive* legal obligations to take measures to ensure that their companies are complying with the law. The only obligation they have in law – and even this is not an explicit duty – is to take steps to rectify a situation if they are aware that their company is not in legal compliance.⁷ It has been argued that this lack of legal duties has a two-fold effect. First:

“[First] it creates a situation where directors are left in effect to their own devices about how they should conduct themselves. While some may interest themselves in the safety of the company, others will not. [And secondly] it makes it difficult, and indeed sometimes impossible, to prosecute directors for either manslaughter or for health and safety offences.”⁸

Since the lack of legal duties makes it easier for directors to escape prosecution for either health and safety offences or for manslaughter,⁹ there may actually be an incentive on directors to ‘manage’ the risk of prosecution by delegating safety responsibilities down the management chain, thereby ‘insulating’ themselves from knowledge of safety problems in their companies.

In the absence of clear legal obligations there are often no other incentives on company directors to proactively manage health and safety. A number of studies, which will be discussed in greater detail in chapter 9, show that even in the context of major disasters where companies are prosecuted for breaches of the law, senior managers are often shielded from any adverse financial consequences or reputational damage.¹⁰ In fact, one study has shown that the reputations of senior managers may actually be *enhanced* in the eyes of shareholders following major disasters, since they are judged – not for the environmental or safety failures of their companies – but for their ability to ‘manage a crisis’.¹¹

In light of these findings and the lack of any positive legal obligations on company directors, it is reasonable to suppose that, in general, UK directors will not be highly motivated in relation to OHS issues. Anecdotal evidence and some recent survey data from the UK provide *some* support for this assumption. For instance, a recent study of the UK construction industry found reports that:

“Most interviewees consider that workers adapt their attitude to health and safety on a project according to the overall attitude of site managers, and this in turn is dependent on the attitude of senior management. In general, senior management are poor at demonstrating their commitment to health and safety and rarely visit the construction site... Low levels of management commitment probably reflect the level of importance which some clients place on health and safety. The majority of interviewees feel that there has been no change in the acceptance of responsibility for health and safety by management.”¹²

And anecdotal evidence arising out of the DETR and HSC’s consultation in 1999 on a new health and safety strategy also suggests that the majority of directors and senior managers fail to prioritise health and safety:

“Responses from health and safety practitioners pointed *unanimously* to the perception of a low profile for their profession with little support from senior management.”¹³

Finally, Osborne and Zairi, in a comprehensive study of companies known to be advanced in their use of Total Quality Management (TQM), identified “a leadership vacuum at executive level in respect of health and safety”, and could discover:

“no evidence of real enthusiasm for H & S management coming from and through executive and senior management.”¹⁴

What Drives Senior Management?

In light of these findings, and given the importance of senior management and board level commitment to improved OHS performance, an important question for Government and for the HSC/E is how best to motivate individual directors to assume responsibility for the safe and healthy operation of their companies. A review of the available research reveals consistent evidence that the single most effective means of securing the personal commitment of senior managers would be to impose direct personal liability on company directors and senior officers and to make available suitable sanctions in the event of non-compliance. In his report to the National Occupational Health and Safety Commission of Australia, Gunningham directly addresses the question of how Chief Executive Officers (CEOs) and/ or business owners can be motivated to place a higher premium on, and commitment to, improved occupational health and safety outcomes. Following a comprehensive review of the international literature, Gunningham concludes that:

“the key to motivating CEOs and senior management to improve safety is to make them liable to personal prosecution and to actually enforce such provisions. Such prosecution is not only a powerful motivator to the CEO concerned, but also has a flow-on effect to senior management in other organisations.”¹⁵

This finding is supported by survey data from the UK, which reveals a widespread perception that the imposition of legal duties on individual directors and senior managers – and prosecution in the event of breaches of those duties – would provide a powerful antidote to management apathy. For instance, in 2000 Brazabon *et al.* report that:

“The majority of interviewees perceive that if the number of prosecutions of Directors and Corporate Manslaughter charges increased then this could result in large improvements in health and safety standards as this may enforce the message that directors are responsible for the health and safety of their workforce.”¹⁶

And in the same year Wright *et al.* report, following in-depth interviews with a representative sample of 120 UK employers, that two thirds of the employers interviewed suggested that:

“an increase in the possibility of inspection and prosecution, especially of individuals, would provide the best prompt for employers to improve their approach to occupational health.”¹⁷

This evidence reflects the research on the importance of legal regulation set out in the previous section.

Reflections on current Government and HSC policy

Initial Government and HSC thinking in May and June 2000 appeared to be consistent with the evidence and included proposals to introduce new legislation which would: (1) following the conviction of a company for the proposed offence of ‘corporate killing’, allow for either (a) criminal proceedings to be brought against individual company officers if they “contribute” to the company’s serious management failure that resulted in death; or (b) allow for the disqualification of directors;¹⁸ and (2) impose statutory safety responsibilities on company directors.¹⁹

In addition the HSC undertook to develop guidance on directors’ responsibilities.²⁰ The Commission published its voluntary guidance, *Directors responsibility for health and safety*,²¹ in July 2001. The guidance is aimed principally at large companies and organisations and imposes no legal requirements, with no possibility of enforcement in the event of directors choosing *not* to assume any responsibilities for health and safety. The HSC also asked the HSE to commission research to evaluate the effectiveness of the guidance. Two surveys – a baseline survey in 2001 and a follow-up survey in 2003 – of 400 large private and public sector organisations were carried out by Greenstreet Berman and the resulting analysis published in July 2003.

By September 2002 the Government had changed its mind about the need to provide for the disqualification of culpable directors, and also about allowing for the prosecution of individual directors for contributing to the offence of corporate killing. In a letter to private sector organisations the Home Office reassured industry that:

“Individuals (directors or officers) influencing or with responsibility for the management failure resulting in death will not be subject to disqualification from acting in a management role [and that] it is now considered that when an undertaking is found guilty of manslaughter, individual directors etc will not be held liable.”²²

Then, at an HSC Board meeting on 14 October 2003, the Commission resolved not to undertake work to draft legislation imposing statutory duties on directors, but to continue with a wholly voluntary approach to promoting greater director responsibility.²³ Consequently, in January 2004 the Commission advised the Minister for Work that new legislation was not needed.²⁴ This was in spite of the fact that Action Point 11 of *Revitalising* required the HSC to advise Ministers on *how* – not whether – the law should be changed.²⁵

The Greenstreet Berman Survey

The decision not to introduce legislation imposing safety obligations on directors was recently justified by the Minister of State for Work, Jane Kennedy, in her oral evidence before the Work and Pensions Select Committee on the grounds that the effectiveness of the voluntary guidance had been demonstrated by the 2003 Greenstreet Berman study. The Minister claimed that the study showed that:

“directors are giving leadership and direction... the number of companies [where health and safety is directed at board level] had risen from 58 per cent to 66 per cent. We are making progress, the message is being heard by companies. So long as we are making progress, the need to further regulate has diminished.”²⁶

However this assessment of the survey is misleading in a number of ways. First, contrary to Jane Kennedy's claim that the Greenstreet Berman study demonstrates board level 'leadership and direction', the HSE has acknowledged that:

“It is clear from the research that the level of real Board involvement in some cases is fairly superficial – while health and safety may be on board agendas *direction and leadership is lacking*”.²⁷

Second, in addition to the fact that involvement for some boards was clearly superficial, the survey shows that, whilst the number of organisations reporting board level direction increased between surveys, the level of board involvement in relation to the some of the different tasks listed actually *decreased* – by 10 per cent in some cases – between baseline and follow-up surveys.²⁸

Third, the survey fails to establish that it *is* solely – or even mainly – voluntary factors that have prompted 66 per cent of the organisations surveyed to arrange for board level direction of health and safety for the following reasons:

- The survey found that respondents that were aware of HSC's voluntary guidance were only slightly more likely to have board level direction of health and safety than respondents that were unaware of the guidance.²⁹ This suggests that the HSC's voluntary guidance may not have been the main prompt for board involvement.
- When asked why their boards had assumed some responsibilities for OHS, a significant number of respondents reported that 'new legislation and/or health and safety laws' has prompted this.³⁰
- While the HSC/E's voluntary guidance ranked amongst the top five factors influencing board level direction, it was only rated as 'somewhat' of an influence, and in fact amongst the top 350 companies surveyed the 'fear of the company being prosecuted' was a stronger motivating factor than the HSC/E guidance in both 2001 and 2003.

- Finally, the research does not control for the fact that companies – particularly large and well-resourced companies – often attempt to pre-empt and/or prepare for new legislation by voluntarily putting in place the required arrangements before the legislation itself is introduced. So for instance, Gunningham cites one study reporting that it is not just actual legislation but also “*planned or threatened... legislation... [which] was the most frequently cited driver of company action.*”³¹ In view of the fact that Ministers were stating their intention in 2000 to introduce new laws on directors’ duties, it is probable that organisations’ anticipation of government action explains and underlies some portion of the reported levels of board direction of health and safety in both the baseline (2001-2002) and the follow-up (2003) surveys.

Fourth, the research was not designed to assess the relative merits of a voluntary as opposed to a mandatory approach to directors’ duties. In other words, it was not designed to answer the question: what works best? Research and reviews that attempt to answer this question indicate, overwhelmingly, that regulation and enforcement are the main drivers of management commitment to, and action on, OHS.

Fifth, the research findings are not robust since they are based on self-report surveys with no attempt made to validate respondents’ claims.

And finally, it is important to note that around one third of the large organisations surveyed reported that their boards had assumed *no* responsibility for health and safety, despite the fact that the majority of firms surveyed³² were aware of the voluntary guidance. Moreover, around 15 per cent of the organisations surveyed indicated that they had no plans to change this arrangement.

This means that even if the majority of directors of large organisations could be persuaded to voluntarily assume some responsibilities for health and safety, there will be a significant minority of directors that won’t assume any responsibilities and the HSE will be unable to do anything about it. Furthermore, if these directors choose to delegate all OHS responsibilities, and insulate themselves from knowing about safety problems within their companies, it may well be impossible to hold these directors to account.

This is problematic on a number of grounds, not least because the law is failing to provide a deterrent against directors that are wholly indifferent to the dangers posed by their companies. It is also of concern in that it creates a situation where the most conscientious directors (those who are scrupulous in keeping themselves informed about conditions of health and safety within their companies) are putting themselves at greater risk of prosecution than unscrupulous directors who fail to ensure that their companies comply with OHS law, and who deliberately insulate themselves from having any knowledge of problems or instances of non-compliance.

What the Select Committee on Work and Pension said on Directors Duties

“The Committee recommends that the Government reconsiders its decision not to legislate on directors duties and brings forward proposals for prelegislative scrutiny in the next session of Parliament.”(July 2004)

Conclusion

In conclusion, the Greenstreet Berman survey does not provide evidence that a voluntary approach is the most effective means of bringing about behavioural and cultural change. It does not, therefore, provide evidence to support the Government's and HSC's decision to pursue a voluntary approach to encouraging board level direction of health and safety. In fact, in some senses the survey data provides additional evidence for the contention that in the absence of legally binding duties there may be a tendency for company directors to adopt a superficial and supine approach to the management of health and safety in their companies, even where there is some level of formal board involvement.

Even if the 2003 research *did* provide robust evidence that the majority of directors could be persuaded to take on all of the responsibilities outlined in the voluntary guidance, there would still be a need to introduce legislation in order to close the current legal loophole which allows directors, if they so choose, to abrogate *all* responsibilities for ensuring that their companies comply with the law and operate safe systems of work.

There is, on the other hand, consistent evidence from both international and domestic research – including research that was commissioned by the HSE – which suggests that the imposition and enforcement of legally binding safety duties on directors would greatly increase HSE's chances of securing board level commitment to achieving higher standards of OHS performance. This evidence has led Gunningham to argue that the imposition of legal liability on key decision-makers, and use of the law to increase organisations' internal accountability, would provide a "bigger bang for the regulatory buck"³³ than many of the other interventions that national regulatory agencies currently deploy. In other words, statutory directors' duties are almost certain to have provided a more effective and efficient 'lever' than the other interventions HSE now intends to pursue and develop.

¹ See for example, Thomson-MTS (1993: 7-8; 89); Capel (1994); Wright (1998 and references therein); Gunningham (1999a and references therein); Brazabon (2000: 54-55); Baldwin and Andersen (2002); O'Dea and Flin (2003 and references therein).

² Thomson-MTS (1993: 8-9).

³ Thomson-MTS (1993: 89).

⁴ Baldwin R and Anderson R (2002: 27).

⁵ Health and Safety Executive (2000).

⁶ Gunningham (1999a: 3).

⁷ As pointed out by the Centre for Corporate Accountability (2004: footnote 47) in its evidence to a House of Commons Select Committee inquiry into the Health and Safety Commission and Executive, section 37 of the HSAWA does not impose positive duties on directors. It creates an offence that directors can commit. It does however impose an 'implicit' duty in that a director who is aware that his/ her company is committing an offence must act to rectify it. This is because a director can be prosecuted for conniving with the company to commit an offence.

⁸ Transport & General Workers' Union (2003: 7-8). The difficulty in prosecuting cases is particularly relevant where the conduct in question is not a positive act but a failure to act.

⁹ This is because the offence of manslaughter needs proof of a 'breach' of a 'duty of care', and one of the limbs of Section 37 of the HASAW Act 1974 is 'neglect' (Centre for Corporate Accountability 2004: footnote 49).

¹⁰ Hopkins (1999); O'Dea and Flin (2003: 10-11).

¹¹ Knight and Pretty (1998).

¹² Brazabon *et al.* (2000: 54-55).

¹³ DETR/HSC (2000: 26). Emphasis added.

¹⁴ Osborne and Zairi (1997: 54).

¹⁵ Gunningham (1999a: 13).

¹⁶ Brazabon *et al.* (2000: 55).

¹⁷ Wright *et al.* (2000: ix). Emphasis added.

¹⁸ Home Office (2000: 19-20). The document did not set out what it meant by 'contribution'.

¹⁹ DETR/HSC (2000: 26).

²⁰ DETR/HSC (2000: 26).

²¹ INDG 343.

²² Annex 1 of the letter dated 10 September 2002, from Valerie Keating, Head of Policy on Violent Offences, Home Office Sentencing and Offences Unit on 'Involuntary Manslaughter: Impact Assessment'.

²³ Health and Safety Commission (2003e: paragraphs 5.2 to 5.4).

²⁴ Work and Pensions Committee (2004: Q549).

²⁵ See Centre for Corporate Accountability (2004) for a further consideration of these issues.

²⁶ Work and Pensions Committee (2004: Q549 and Q554).

²⁷ Health and Safety Commission (2003b: 12).

²⁸ Centre for Corporate Accountability (2004).

²⁹ Wright *et al.* (2003: vii-viii).

³⁰ Wright *et al.* (2003); 29).

³¹ Gunningham (1999a: 12). Emphasis added.

³² 80 per cent.

³³ Gunningham (1999a: 38).

Chapter Three

Workforce Participation

This section reviews the available research on worker participation and considers the question of whether, in light of this evidence, the law should have been changed to increase and extend workers' rights to participation and consultation, or whether the HSC/E was correct to pursue a voluntary approach to this issue.

Research undertaken both in this country and overseas,¹ demonstrates that workforce consultation and participation have measurable and positive impacts upon workplace health and safety outcomes.² Moreover, the *magnitude* of the impact is greater than that recorded for any other intervention. For instance, Reilly et al. reported that workplaces with trade union safety representatives and joint health and safety committees have on average a 50% lower injury rate per 1000 employees than workplaces with no consultation mechanism,³ and Litwin reports an even larger difference with the accident rate amongst workplaces with a union presence that is 74% lower than workplaces where there is no union presence.⁴ In addition, researchers have attributed the reported success of new 'partnership' initiatives such as the PABIAC initiative⁵ and the 'Recipe for Safety' initiative in part to the central involvement of unions and to worker representation and consultation.⁶

Consistent with this evidence, Government Ministers initially appeared keen to extend and promote greater employee involvement and consultation on health and safety, and in 1998 Michael Meacher, who was at that time Minister for the Environment and responsible for the HSE, sought ideas from the HSC for enhancing the role of safety representatives. Consequently, the HSC published a discussion document in November 1999,⁷ which included proposals to harmonise the Safety Representative and Safety Committees Regulations 1977 and the Health and Safety (Consultation with Employees) Regulations 1996. The need for harmonisation was confirmed by HSE-commissioned research that showed that the 1996 Regulations were flawed and failed to ensure that employees were consulted on risks to their health and safety.⁸ Part of the problem appeared to be the degree of discretion afforded to employers. This was recognised by the HSE, who acknowledged that:

"There is evidence that the goal setting approach adopted in the [1996 Regulations] and specifically the right for employers to determine the method of consultation had not resulted in a significant increase in employee involvement, nor in the number of safety representatives."⁹

Another way of increasing the coverage of workforce representation and consultation, and a measure that was advocated by the trade union movement, was through the introduction of roving safety representatives. The HSC agreed to undertake pilot exercises to investigate the role of 'workers safety advisors' (their name for 'roving safety representatives') in workplaces where there was little or no employee representation and health and safety performance was poor.¹⁰ This was partly in response to the recommendation of a prior Select Committee inquiry that HSE should initiate such pilots.¹¹

In addition to considering how to increase the coverage of workforce representation and consultation, the HSE initially appeared to be interested in exploring ways of strengthening and extending the rights of existing safety representatives. For instance, the HSE undertook a 'fact-finding mission' to investigate worker provisions – available to safety representatives in Australia – designed to induce employer compliance with OHS legislation.

One such provision is the right of safety representatives to issue 'provisional improvement notices' or "PINs" – a right that UK trade unions have argued for on the grounds that the

effectiveness of safety representatives is compromised by the fact that employers are free to disregard their advice or warnings.¹² Safety representatives in Australia also have a legal right to 'stop the job' (prohibit work) in circumstances where they identify serious and imminent dangers.¹³ The HSE review concluded that:

"There can be no doubt as to the positive contribution of OHS [representative] enforcement – ie PINs and work stoppages. This is evidently the view held by WorkSafe Victoria, demonstrated by their endeavours to improve OHS rep support and dedicate considerable funding solely to an OHS rep strategy. Their current commitment stands out as confirmation that they support regulated worker empowerment... Australian reps are better placed than their UK counterparts, to overcome health and safety non-compliance in their workplaces. This has to be beneficial to the health, safety and well-being of Australian workforces... PINs and other OHS rep sanctions, supported by issue resolution legislation, appear to have much to offer the UK system of worker participation."¹⁴

However, in 2000, before the results of the HSE review had been published the HSC/E had virtually ruled out the possibility of introducing regulations that would allow worker representatives to issue PINs,¹⁵ instead stating that they would investigate the feasibility of supporting *non-statutory* 'Union Improvement Notices'. This was on the basis of their belief that PINS might be 'bureaucratic', 'difficult to match with the modern partnership approach', and 'resource intensive'.¹⁶ These beliefs are contradicted by the HSE review, which found that PINs actually offered potential benefits to the HSE in terms of the efficient use of regulatory resources since:

"The rep sanctions appear to provide genuine opportunities for workplaces to manage health and safety internally, without recourse to HSE, freeing up HSE to concentrate on proactive initiatives and the enforcement of recalcitrant employers. And the issue of resolution arrangements provide HSE with the option of becoming involved only when a health and safety dispute arises and issue resolution measures are exhausted, ie when internal negotiation fails."¹⁷

Moreover, the review provided strong evidence that employers' fears that safety representatives would 'misuse' PINS were misplaced. Australian regulators and trade union representatives maintained that PINs were used sparingly and as a last resort – a view which was not challenged by any of the employer or trade association representatives the researcher met.¹⁸ Confirmation of this anecdotal evidence was found in the fact that during the State of Victoria's health and safety week (when OHS would be expected to attract a particularly high profile) WorkSafe staff were alerted to 98 PINs. All but nine of these were affirmed – and those nine were cancelled for failures to consult.¹⁹

Despite such reassurances, this new and favourable assessment of the impact of PINs did not appear to prompt a rethink on the part of the HSC/E. This may have been because the HSC/E were hoping that provisions in the draft harmonised Regulations, which imposed a new duty on employers to respond to safety representatives' concerns, might address the problem in their advice and warnings being ignored. However, at an HSC Board meeting on 11 November 2003, the Commission agreed a statement declaring support for greater workforce involvement in health and safety, but this statement was:

"founded on the belief that it would be better to concentrate efforts on non-regulatory measures to take forward the goal."²⁰

It is not clear why the Commission chose to adopt this approach, or whether the HSC/E have completely abandoned their intentions to introduce new regulations that would harmonise the 1977 and 1996 Regulations. The Commission assert in their November meeting that:

"While the statement could make the case for legislation there remained strong arguments for non-regulatory measures too."²¹

Although the Commission failed to specify what those arguments were, it may have been influenced by the fact that some Government Departments had expressed concerns that the draft proposals were:

“old-fashioned, unnecessarily bureaucratic and prescriptive and [were] likely to result in considerable burdens on business.”²²

Once again, these arguments are contradicted by the available evidence, which indicates that one of the problems with the 1996 Regulations is the wide discretion left to employers on how to consult their workforce (see above). Presumably the prescriptive detail contained in the draft regulations was an attempt to address this problem. In addition, evidence from the offshore oil industry – where employers have successfully resisted regulatory requirements to consult with and provide for the participation of the workforce – suggests that measures which rely on voluntarism fail to deliver genuine workforce involvement and may be met with scepticism and low levels of participation by workers themselves.²³

In conclusion, there is strong evidence that concerns of the CBI and certain Government Departments that the regulatory extension and strengthening of workers’ rights to consultation, participation and enforcement would be unnecessarily prescriptive and burdensome are erroneous. In fact, the evidence strongly suggests that there are potential benefits (most importantly in terms of improved workplace health and safety, but also in terms of lifting burdens on the HSE) to be gained from allowing safety representatives a tool that would allow them to enforce OHS requirements within their workplaces. The HSC’s current voluntary approach to these issues is, therefore, not based on ‘strong arguments’.

¹ James and Walters (2002). See also Walters and Frick (2000) and references therein.

² Reilly et al. (1995); Alder et al. (2000); Litwin (2000); Walters (2001); Stone and Holder (2003).

³ Reilly et al. (1995).

⁴ Litwin (2000).

⁵ Horbury et al. (2002).

⁶ Stone and Holder (2003: 16, 19) and Wright et al. (2004: 61).

⁷ Employee consultation and involvement in health and safety (DDE12).

⁸ Hillage et al. (2000).

⁹ Health and Safety Commission (2003d: 2).

¹⁰ Health and Safety Commission (2000).

¹¹ Health and Safety Commission (2003d: Annex C).

¹² Health and Safety Commission (2003d: 3). See also the website of the Hazards magazine <http://www.hazards.org/notices/index.htm> for further information on and arguments for the use of PINs by UK safety representatives.

¹³ Hazards 80, Oct/Dec 2002 pp14-15.

¹⁴ Page (2002: paragraphs 120, 142 and 144).

¹⁵ Health and Safety Commission (2000).

¹⁶ Health and Safety Commission (2003d: 3).

¹⁷ Page (2002: paragraph 145).

¹⁸ Page (2002: paragraphs 66-67).

¹⁹ Page (2002: 113).

²⁰ Health and Safety Commission (2003c: paragraph 7.1).

²¹ Health and Safety Commission (2003c: paragraph 7.3).

²² Health and Safety Commission (2003d: 2).

²³ Woolfson (2004 forthcoming).

Chapter Four

Conclusion

There is very strong evidence from the international and national empirical research that the introduction or threat of new legislation is a key driver of behavioural change, and that employers are unlikely to introduce measures that are not required of them by law. Therefore the recent reversals of government and HSC policies to develop and implement new legislation that would address current gaps or flaws in the regulatory framework contradict independently conducted international and national research.

In addition, the HSC has decided to engage with the Corporate Social Responsibility movement as a substitute for legal regulation¹ at a time when serious questions are being raised by many stakeholders about the ability of CSR to deliver meaningful and sustained improvements, with these groups arguing that CSR should only be seen as a stop-gap on the road towards legal regulation.

The U-turns in relation to both directors' duties and worker participation and consultation are particularly worrying for two reasons. First, as stated, there is general evidence that voluntarism does not work. Second, there is strong and specific evidence to suggest that both of these factors – namely, board level commitment and workforce participation – are crucial to improving OHS performance, and that the imposition of *legal* duties and additional rights, for directors and workers respectively, and the enforcement of those duties and rights, would be effective means of reducing injuries and ill-health in the workplace.

It is uncertain whether HSC's stance on these two issues reflects the position of the Better Regulation Task Force (BRTF) which has produced a number of reports critical of any knee jerk response to the 'automatic' use of law as a regulatory tool. In a foreword of a recent report, called 'Imaginative Regulation', the BRTF states that: "arguably the most important of all the options discussed in their report is the option not to intervene at all." The report also goes onto say:

"Prescriptive state regulation, which we call 'classic regulation' in this report, is where a law is passed to tell people what to do or what not to do. This may be primary legislation – where there is an Act of Parliament – or secondary legislation, often (confusingly) known as 'regulations'.....

Classic regulation is the traditional way for the State to seek to change behaviour. If there seems to be a need to intervene in a market; a new health risk needs to be addressed; there has been an accident or disaster and "something must be done", the first thought is usually "we need to regulate" We want to stop this from being the first thought. Too often this first thought becomes the only option. We want Departments to choose the best way of solving their problem. Classic regulation may prove to be the best way; but equally it may not."²

However, the BRTF does take a nuanced view in that it does make clear that legal regulation has, in many cases, its advantages, and that the important thing is to *consider* whether there are any alternatives to legal regulation rather than simply ruling it out.³ However, the HSE appears to be unaware of this and in its report to the Commission – which was accepted by them – the HSE stated:

"In considering the way forward, the Commission may wish to take note of the Better Regulation Task Force's guidance on policy development which indicates

that a voluntary approach should always be pursued rigorously in the first instance. It is only when this is shown to be inadequate that regulatory routes should be followed.”⁴

Nowhere, in this or any of its other reports, does the BRTF indicate that “a voluntary approach should always be pursued rigorously in the first instance.” It only proposes that alternative approaches need first to be considered.

There is nothing wrong, as such, with this approach as long as when making these decisions about “what is to be done” the following is considered: (1) the relative importance of obtaining the behavioural change and (2) whether the evidence suggests that a non-legislative approach will be successful and if so how this would compare to the success of a legislative approach.

Clearly, if behavioural change will save a significant number of lives or stop people from being seriously injured and the evidence suggests that voluntary approaches are unlikely to be successful but legal ones will be, then ‘classic regulation’ will be required. This is exactly the situation that exists with respect to directors duties and workers participation – yet the HSC decided to pursue ‘voluntary’ approaches. One must assume that the BRTF thinks that, before making a decision on ‘what is to be done’, government bodies should take into account the available research, the potential benefits of legal regulation and the drawbacks of a voluntary approach.

What the Select Committee said on Legislation

“The Committee does not believe that the strategy of ‘downplaying... further regulatory solutions’ is the right approach. The relative Departmental inactivity in these areas of possible legislation is regrettable and demonstrates a worrying lack of commitment. The Committee recommends that commitments to legislate made in Revitalising Health and Safety in 2000 should be honoured by a Government Bill in the next session of Parliament.”

¹ Health and Safety Commission (2003e: paragraph 5.2).

² Better Regulation Task Force (2003: 12).

³ The Prime Minister in an introduction to a Cabinet Office document stated: “New regulations should only be introduced when other alternatives have first been considered and rejected, and where the benefits justify the costs.” Cabinet Office (2003).

⁴ Health and Safety Commission (2003b: p.3, para 10).

PARTS TWO & THREE

Strategies to secure compliance with occupational health and Safety law

The rest of the report looks at the existing law and what the research considers to be the most effective way of ensuring that companies and organisations are in compliance with existing law.

This has become a key area of debate, as the HSC's new strategy sidelines the importance of 'conventional' enforcement techniques for more informal methods in which inspections, investigations, imposition of notices and prosecutions appear to play a less important role.

The research reviewed in Section One provides clear and consistent evidence that the existence of *legislation* is a key driver for UK business. However, there are a number of different ways in which regulatory bodies attempt to ensure that employers comply with the law.

Typically, core regulatory techniques include: a planned programme of inspection of individual premises; a system whereby certain reported instances of ill-health, injury, death and 'near misses' are investigated; and the use of improvement notices, prohibition notices or prosecution in certain cases where non-compliance is discovered.

Regulatory agencies also provide information and advice to employers through a number of mediums – mainly through the dissemination of written guidance or through face-to-face contact with employers (for instance during inspections). But they occasionally use other mediums – such as radio and television – in certain circumstances, for instance in the course of a campaign focusing on specific health and safety issues.

Different tools may be employed together in different combinations and in a variety of contexts in an attempt to achieve maximum impact. For instance, a particular campaign might include increased inspection and enforcement ('blitzes'), which are focused on specific industries or on specific health and safety hazards, and combine these with increased dissemination of information and regulatory guidance.

Also, inspectors will use a varying combination of 'carrot' and 'stick' (persuasion and advice combined with enforcement or the threat of enforcement) in their dealings with individual employers.

Typically in the UK, inspectors are expected to rely first on persuasion and advice, with formal notices and then prosecution used only when informal methods have failed and preferably as a last resort.

The HSC is however now saying that there needs to be a new strategy which "focuses on new ways of securing compliance voluntarily".¹ The key word here is 'voluntarily'. By this, the HSC do not mean securing voluntary compliance through persuasion and advice offered in the context of an inspection where there is always the possibility of enforcement should a company choose not to 'cooperate'.

The types of interventions aimed at achieving voluntary compliance described in HSC's new strategy statement, its evidence to the Select Committee and HSC's internal documents refer to the dissemination of information and the use of persuasion in contexts where there is no possibility of enforcement action by the regulator. For instance, the HSE is proposing that inspectors should be more involved with:

- establishing "strategic relationships with other organisations or groups who we can convince that improving health and safety will help them achieve their own objective;"
- engaging with "the most senior managers to enlist their commitment to achieving continuous improvement in health and safety performance;"
- encouraging "those at the top of the supply chain ... to use their influence to raise standards further down the chain"².

Within the context of these interventions, HSE inspectors are involved in 'conversations' with groups and individuals. There is no threat of inspectors actually enforcing the law through the imposition of notices or prosecution. The aims of these types of regulatory contact are to:

- 'educate' employers about specific health and safety hazards, what their legal duties are in relation to these hazards, and how they can meet their legal obligations;
- 'persuade' employers by demonstrating 'the moral, business and economic cases for health and safety'.³

A recent HSE discussion paper illustrates the shift that appears to lie behind HSE's new strategy:

"In terms of the balance of our efforts we want to put more emphasis on the 'educate and influence' aspects of our work and working in partnership with others (at all levels) who can help achieve the improvement in health and safety performance for which we strive. Encouraging our staff to use their authority and experience more on these activities means using a smaller proportion of our total front line resource for the inspection and enforcement aspects of our work."⁴

While some of the proposed strategies for achieving these aims are new – such as the use of intermediaries to lever small and medium enterprises – the basic paradigm is not. HSE has always put some emphasis on providing information and guidance to employers outside of an enforcement context, and has for many years attempted to persuade employers of the business benefits of improving their OHS performance. What is new, however, is the emphasis that the HSC is willing to give it.

The second and third parts of this report are concerned with which of the various compliance strategies are the most effective. In particular they will look at the relative effectiveness of strategies using formal enforcement – inspections, investigation, notices and prosecutions – compared with 'voluntary' approaches that are solely concerned with raising awareness, educating, and persuading employers that they need to make changes to comply with the law.

Part two looks at the effectiveness of 'formal enforcement' strategies and the implications these strategies have for the HSE. What the research shows pretty unambiguously is that these strategies are effective – and that they could be even more effective if levels of inspections, investigations, imposition of notices and prosecutions were increased.

Part three looks at the effectiveness of strategies seeking compliance without enforcement – for example, through use of campaigns, mailshots, and seminars.

PART TWO

The effectiveness of securing compliance through the use of inspection, investigation and formal enforcement

Chapter Five

The Health and Safety Executive (HSE) has described enforcement as:

“activities directly associated with ensuring duty holders discharge their legal duties. Techniques may include giving advice (written and oral), withdrawing approvals, varying licences, serving notices, issuing cautions, prosecuting. The term implies the possibility of escalation if the dutyholder does not act appropriately.”⁵

HSE and Local Authority (LA) inspectors enforce the law mainly in the context of preventative inspections and investigations of workplaces.

During *preventative inspections*, HSE and LA inspectors will assess the extent to which employers are complying with their legal duties and how effectively they are managing workplace risks. Where standards are judged to be inadequate, inspectors attempt to prompt employers to take remedial action by offering advice, or by imposing enforcement notices. If the breach is serious enough, or if the company has failed to comply with advice or enforcement notices in the past, the inspector should, in addition to taking remedial action, consider whether or not to prosecute.⁶

Prosecution following an inspection is intended to serve a number of different functions. For instance, it is intended to deter the particular organisation from breaching the law in the future and it also serves a more general deterrence purpose in that it indicates to other organisations that they can expect to be punished if they are found to have broken the law. It also, of course, serves the process of moral justice and criminal accountability.

HSE and LA inspectors also undertake *investigations* of workplaces following reports of a dangerous occurrence, injury, ill-health or death, or to investigate a complaint. The HSE has stated that:

“The aim of investigation is to identify the immediate and underlying causes of the circumstances in question and to take necessary enforcement action to ensure risks associated with the circumstances are controlled.”⁷

Inspectors have the same powers available to them in relation to investigations as they do in relation to inspections, and should use them in the same way – ensuring remedial action is taken, and considering whether prosecution is appropriate. However, because some form of harm, sometimes very serious, has taken place, inspectors are more likely to prosecute following an investigation than following an inspection.

The Evidence

Inspections and Investigations

In an HSE discussion paper referred to by Hillage *et al*, Cosman reviews a number of studies looking at the effectiveness of HSE’s inspection regime. One internal review conducted in 1991 found that planned inspections resulted in 70 per cent of inspectors’ requirements being met, although the sample was not thought to be statistically sound. Cosman concluded that the broad mix of techniques employed by HSE inspectors was ‘about right’.⁸

A later review of the international literature on a range of inspection regimes, undertaken by the Health and Safety Laboratory, found that: ‘almost all studies concluded that inspection works’. ‘Inspection activity’ was broadly defined by the authors to include all core regulatory activities such as planned inspections, reactive investigations and enforcement action (formal and informal).⁹ The review included a review study of the impact of enforcement by the

Occupational Safety and Health Administration (OSHA) in the US which found statistically significant reductions in injury rates attributable to inspections. These studies will be discussed in more detail below.

In the UK, a comprehensive evaluation of the relative effectiveness of different contact techniques in bringing about positive action by employers was undertaken by the HSE and the University of East Anglia. The study found that in about 43 per cent of cases, inspections had prompted employers to either take or plan action to improve standards of Occupational Health and Safety (OHS).¹⁰

Enforcement Action

Overviews of the international and national research confirm that the threat and application of enforcement:

“is an effective means of securing compliance, creating an incentive for self-compliance and a fear of adverse business impacts such as reputational damage in all sectors and sizes of organisations, including major hazard sectors.”¹¹

The fear of loss of corporate credibility is reported to be an important motivator of management action amongst large firms or firms operating in high-risk, high-profile sectors.¹² But research also suggests that the prospect of reputational damage is itself often dependent upon the possibility of adverse regulatory enforcement action:

“Corporations and other organisations do not wish to be seen or perceived to be in breach of regulations. Thus, the existence and enforcement of regulations is a key aspect of creating reputational risk.”¹³

The reason for this is clear. The violations of the law would not come to public attention without regulatory inspections and investigations and the resulting use of enforcement notices and prosecution. Beyond these investigations and inspections, most dangerous occurrences, cases of injury, death or toxic exposures, or cases of serious regulatory violation would not be known to the general public. Therefore, the enforcement of regulations is virtually a precondition in creating reputational risk.

Finally, while the HSC claim that one of the drivers for their new strategy is their belief that: “Our traditional interventions may be less effective when dealing with health”,¹⁴ this is directly contradicted by HSE-commissioned research which was intended to form the basis for the new strategy. In their report *Building an evidence base for the Health and Safety Commission Strategy to 2010 and beyond*, Wright *et al.* conclude after reviewing the UK research that:

“Enforcement supported by advice and guidance is considered to be of equal benefit to health hazards, such as noise, passive smoking, manual handling and stress, as it is to safety risks”¹⁵

The Impact of Enforcement Notices, Prosecution and Deterrence

UK research on the control of noise hazards at work found that prohibition notices were an incentive to management provided they perceived that there was a significant risk of prosecution:

“As one senior manager put it ‘Management will only act if they think an issue is important. Somebody has got to make them think it is important and a manager’s priorities are only changed by two things: commercial pressures or fear; so it is prosecutions and prohibition notices which will make management act on noise’.”¹⁶

And in relation to the international research Gunningham writes that:

“there is considerable data to suggest that both the severity and certainty of punishment do influence injury rates, with the latter exerting a much stronger influence than the former.”¹⁷

Support for these findings comes from a number of methodologically rigorous studies of the impact of regulation on OHS outcomes in the US. For instance, Lewis-Beck and Alford conducted an analysis of American coal mine legislation between 1940 and 1970, and found that a major factor in reducing the level of fatalities was the size of the Federal government's budget allocation to health and safety regulation and the seriousness of enforcement measures taken.¹⁸ Lewis-Beck and Alford's findings were confirmed in a study by Perry, who concludes that:

"The research indicates that strong safety laws reduce coal-mine fatalities and that, if laws are strong, coal-mine fatalities decrease with increases in Federal spending on mine health and safety."¹⁹

And in one of the largest and most rigorous studies to have been undertaken on the impact of enforcement by the United States Occupational Safety and Health Administration (OSHA) on workplace injuries, Gray and Scholz analysed data on injuries and OSHA inspections between 1979 and 1985 for a panel of 6,842 large manufacturing plants.²⁰ Having controlled for potential biases, they found that inspections imposing penalties induced a 22% decline in injuries in inspected plants during the following few years.

Similarly, in a more recent analysis, Baggs *et al.* investigated the impact of OSHA enforcement and consultation activities on workers' compensation claims rates for all employers in Washington State. They found, after controlling for previous claims rate and average size, that claims rates for employers who had been subject to OSHA enforcement activity declined by 22.5% for fixed-site employers and by 12.5% for non-fixed-site employers compared to reductions in claims rate of 7% and 7.4% respectively for those employers with *no* enforcement activity. The differences in reductions in claims rates – between employers subject to OSHA enforcement and employers that were not – were statistically significant. Interestingly, the researchers also found that OSHA consultation activities (that is, activity where there was no threat or exercise of enforcement action) were not associated with a greater decline in compensable claims rates.²¹

These, and other studies,²² indicate that consultation activity and brief inspections not resulting in penalties have no injury reducing effects. Moreover, there are studies which show that inspections with no penalties may result in *higher* injury rates.²³

Robust findings that OSHA enforcement has a strong and positive impact on worker's health and safety are particularly interesting in view of the fact that a number of academic writers have criticized OSHA enforcement for being overly punitive and adversarial towards business. They argue that such an approach is both unnecessary and counter-productive since it risks losing the cooperation of industry and produces an instrumentalist response to compliance whereby companies will be motivated to address only the violations they have been cited for but will not be motivated to move beyond this minimal compliance.²⁴

OSHA's style of enforcement is contrasted with the more 'compliance-oriented approach' of the UK regulatory authorities, where inspectors seek to secure compliance primarily through persuasion and co-operation rather than through strict enforcement and legal sanctions.²⁵ Academics such as Bardach and Kagan in the US and Hawkins in the UK have argued that the compliance approach to regulation, which typifies regulatory practice in the UK, is more effective than sanctioning or deterrence-based strategies, but this has been disputed by Pearce and Tombs who point out that there is very little objective support for this proposition, and that what evidence there is comes primarily from regulators and the business community itself.

This is also the view of a recent OECD report, which concluded that these 'perception' studies were:

"based on anecdotal rather than systematic evidence and [seem] to depend partially on defining being 'in compliance' as being *substantially* in compliance, and ignoring smaller ongoing violations."²⁶

One exception to this, discussed in the OECD report, is a systematic quantitative empirical study of nursing home regulation, which showed that when inspection teams used co-operative strategies of trust and 'restorative justice' non-compliance was reduced by 39%

between the first and second visits. When inspection teams used purely negative and punitive approaches and did not also offer 'praise' and 'forgiveness', non-compliance increased by 39%.²⁷ This research has been interpreted by Wright *et al.* and by the OECD in its 2000 report as indicating that the minimum necessary enforcement action is associated with the greatest chance of long-term compliance.²⁸ However, it is important to note that this hypothesis is contradicted by the equally robust (and more numerous) outcome studies undertaken by Gray and Scholz and others.²⁹ Perhaps a better way of understanding these studies is to acknowledge that while deterrence-based enforcement is effective in securing compliance and has been shown to have a positive impact on actual health and safety outcomes, there will be exceptions to this rule and there may be some circumstances in which alternative strategies will produce better results.

Whilst this does indicate that regulators' should be able to exercise a degree of discretion in their dealings with business, and should have at their disposal an appropriate mix of regulatory strategies, this does not mean that regulators should rely primarily on informal measures as advocated by some commentators. For instance, Johnstone points to evidence of the dangers of an over-reliance on 'persuasion':

"Regulators are also beginning to accept that reliance simply on informal measures can 'easily degenerate into intolerable laxity and a failure to deter those who have no intention to comply voluntarily'... Indeed, Shapiro and Rabinowitz (1997: 722) point to evidence from a number of jurisdictions showing that 'cooperative approaches can decrease compliance if agencies permit law breakers to go unpunished'."³⁰

It is also interesting to note that a more recent 'perception based' study by Hawkins – who has traditionally been skeptical of the deterrent value of prosecution and formal enforcement – suggests that the notion of deterrence influence's HSE inspector's decisions in quite complex ways. Hawkins found first, that inspectors were more concerned with use of the threat of prosecution to secure compliance rather than as an instrument of deterrence (this is to be expected since inspectors could not be expected to know whether prosecutions have a deterrent effect); second that inspectors' primary consideration in deciding whether or not to prosecute was not whether it would be an appropriate response to the detected violation but how it would impact on their time and workload and whether there was a significant risk that the prosecution would fail since employers are now more likely to contest prosecutions; and third, that inspectors were critical of the level of fines imposed by the courts when they did choose to prosecute.³¹

What this demonstrates – and this perhaps explains findings from some of the earlier 'perception' studies – is that the a deterrence-based strategy is a less rational option on the part of inspectors when their resources are squeezed, employers become more bullish, and fines remain derisory.

Specific vs. General Deterrent Effects

Regulatory inspection and enforcement activity may have two different types of deterrent effect. The first is a 'general' deterrent effect, whereby increased levels of inspection and enforcement lead to increased compliance by all organisations whether they are subject to an inspection or not. The general deterrent effect depends on employers anticipating that they are likely to receive an inspection/investigation and are likely to be punished in the event of non-compliance. The higher the expectation of detection and punishment the greater the general deterrent effect will be. The second type of deterrent effect is specific to the firm that has been inspected. As a consequence of this 'specific' deterrent effect, individual firms will take action following a negative inspection possibly through the fear that a failure to comply with inspectors' requests will result in future prosecution.

Whilst Gray and Scholz found that each individual plant that is inspected and penalised in a given year experiences (on average) a 22 per cent reduction in injuries over the following three years,³² they also found that the *general* deterrent impact of OSHA inspections was much less, with a total reduction in injuries across the entire sample of only 2 per cent.³³ This was consistent with previous studies on the general deterrent effects of OSHA enforcement, which estimated that it brought about a 1.5% to 3.6% decline in the injury rates.³⁴

Gray and Scholz attempt to understand the large *specific* deterrent impact that they found in the following terms. They argue that OSHA penalties act as a 'wake-up call' by refocusing managerial attention on safety and health problems that may have been overlooked. They also speculate that:

"The initial focus on specific OSHA violations, though perhaps annoying to busy managers, triggers a broader review of performance that we suspect goes far beyond a legalistic response to OSHA standards."³⁵

And this is true even where the costs of these efforts may outweigh any future expected penalty.³⁶

This is consistent with Hopkin's study which reports that senior managers of large companies were normally unaware of visits by occupational safety and health inspectors when such visits did not result in any formal notices.³⁷ However, they did become aware of adverse inspection reports when their companies were issued on-the-spot fines or some other formal penalty. Similarly, Baldwin and Anderson's survey of executives of large UK companies found that 71 per cent of companies that experienced a punitive sanction reported that:

"such sanctioning had impacted very strongly on their approach to regulatory risks... For many companies, the imposition of a first sanction produced a sea change in attitudes".³⁸

Whilst the US data just discussed demonstrates a general deterrent effect, this effect is small relative to the specific deterrent effect, possibly due to the fact that the chances of inspection and detection of non-compliance are low. Nevertheless, there is other evidence to suggest that general deterrence 'works'. For instance, after reviewing the empirical studies from the US and Canada, Brown notes that:

"There is good reason to believe that penalties enhance compliance in the short term by threatening would be offenders with punishment, and in the long term by changing attitudes about what is morally acceptable behaviour."³⁹

Specific evidence for this is cited by Gunningham and Johnstone who note that:

"The State of Oregon increased its OHS penalties threefold from 1987 to 1992, together with other changes to its enforcement, prevention, and workers compensation programmes, and found that workers' compensation claims fell by over 30% and fatalities by over 21% from 1988 to 1992, even though employment increased by 10%. The incidence of lost workday cases fell by over 21% from 1988 to 1991."⁴⁰

In this country, Baldwin and Anderson report in relation to their survey of top UK executives, that 57 per cent of respondents indicated that sanctions against other companies had 'impacted their own management of risks "very strongly"'.⁴¹ There is also evidence to suggest that employers are:

"affected by the *cumulative effect* of numerous prosecutions against other companies and by hearing of the imposition of very large penalties or jail sentences."⁴²

In relation to the general deterrent effect of inspections, investigations and prosecutions, Gunningham considers whether the deterrent values of prosecution could increase in the event of a substantially increased likelihood of detection coupled with an increased penalty – or with the deployment of more effective penalties than fines. He concludes, on the basis of empirical studies from the US, Canada and Australia, that an increase in both the severity and certainty of punishment would increase the general deterrent effects of inspection and prosecution, though there is evidence that certainty of punishment exerts a stronger influence than severity of punishment.⁴³ In relation to this last point, however, Johnstone warns that this does not mean that the size of the penalty has no impact on compliance. Instead he argues that penalties which are too low may have little condemnatory force and may thereby reduce the deterrent effect of the law.⁴⁴

The effects of low levels of inspection, investigation, prosecution and insignificant penalties

While there is consistent and robust evidence, from this country and abroad, that enforcement is a key driver of compliance and that it has a positive effect on health and safety outcomes, the extent to which the enforcement activities of any regulatory agency operate efficiently, or even optimally, will in part depend upon employers' perception of the likelihood of non-compliance being detected and punished. This implies:

"that the actual or perceived level of direct contact with the regulator should be high".⁴⁵

A corollary of this, and a finding in national and international research, is that an increase in inspections, enforcement activity and penalties would prompt further improvements.⁴⁶

Research in the UK suggests that while the fear of enforcement can be an important motivator for UK employers, the HSC/E are significantly failing to maximise this deterrent effect. This is because current levels of inspection and investigation are low (see further below). which in turn means that the likelihood of detection and subsequent punishment is remote. It is also because penalties – in the form of monetary fines, which are the only penalties currently available to UK courts – are often too low to act as a deterrent. For instance, the study on occupational noise referred to above reports the view that:

"HSE inspectors are good but there are too few of them, and the fines are derisory. They should impose much more serious penalties".

Similarly, a study of industry compliance with the Manual Handling Regulations found that whilst fear of enforcement was a powerful motivator for large organisations,

"there is a perception that the likelihood of action is becoming less and less and it is questionable whether, due to a lack of enforcement, that these present a real threat to organisations."

The researchers therefore conclude that investing resources in increased inspection and enforcement activity might be the most productive way of improving compliance.⁴⁷

Finally, two HSE-funded studies of factors influencing health and safety performance in the construction industry found that the low level of enforcement visits and prosecutions, combined with insubstantial fines, failed to provide a sufficient deterrent and encouraged non-compliance with health and safety regulations.⁴⁸

In addition, a number of UK studies reveal a widely-held view (amongst employers as well as employees) that an *increase* in the likelihood and severity of prosecution – especially of key decision-makers such as directors and other senior officers – would provide the most effective prompt for employers to improve their OHS performance.⁴⁹ The following quotes from Brazabon *et al.* sum up this view:

"Many comments were made about the low number of inspections and prosecutions by HSE and hence the low probability that an organisation will be caught doing something illegal unless there is an incident to prompt inspection... [Fines] vary widely with some large companies fined small amounts which appear negligible and interviewees consider these will do nothing to deter the recurrence of the activity, whereas small companies receiving the same fine may be put out of business. Interviewees felt that a fine equivalent to 10% of profits would act as a significant deterrent to all firms".⁵⁰

"It is perceived that senior management do not fully exploit their potential to improve H&S... [It] is reported that senior management do not consider the risk of prosecution to be high. The number of regulatory visits carried out is perceived to be low and so the likelihood of an inspector finding non compliance, and this leading to a successful prosecution is seen as acceptable in some cases. It was commented that most visits from HSE follow accidents. This, combined with the

perceived low level of current fines, is reducing the deterrent of prosecutions. Most interviewees consider increased prosecution of directors, under corporate manslaughter, would lead to improvements in health and safety.”⁵¹

Uneven Enforcement

There is also evidence to suggest that a failure to enforce certain regulations, or even specific provisions within certain regulations, can lead to widespread non-compliance. For instance, studies of the construction industry suggest that the majority of clients lack commitment to occupational health and safety, and fail to comply with their legal obligations under the Construction (Design and Management) Regulations 1994 (CDM).⁵² Concern has also been expressed that designers commonly fail to comply with their duties under the CDM Regulations.⁵³ Interview and incident data suggest that this lack of commitment from clients and designers is a major cause of the industry’s poor OHS record.⁵⁴ For instance, three quarters of the respondents to the HSE’s 2002 discussion document *‘Revitalising Health and Safety in Construction’*, saw client’s lack of commitment to health and safety and negative influence at the tender stage as the main challenge to improved health and safety standards.⁵⁵

An analysis of prosecution data from the HSE’s enforcement database confirms the widespread perception that prosecutions of clients and designers under the CDM Regulations are relatively infrequent.⁵⁶ Between 1 April 1999 and 31 August 2004 the HSE prosecuted 1195 breaches of health and safety regulations where the defendants were involved in construction activity. 147 of these involved breaches of the CDM Regulations. Of these, there were 78 breaches where the duty holder prosecuted was a client and only 9 where the duty holder was a designer.

Recent survey data from the UK suggests that the lack of commitment exhibited by clients is caused, amongst other things, by the low level of prosecutions against clients for breach of their duties under the CDM Regulations, combined with insubstantial fines.⁵⁷ In addition, a National Audit Office (NAO) review of an HSE initiative to influence designers found that some designers themselves believed that only the issue of improvement and prohibition notices would generate improvements.⁵⁸ Consequently one of the recommendations made by the NAO is that HSE could increase the impact of initiatives by “increasing enforcement action with designers”.⁵⁹ As stated earlier, the low levels of prosecution under the CDM Regulations are surprising in view of the fact that earlier HSE-commissioned research had recommended that: the duties of clients should be made more explicit, that these duties should be strictly enforced, and that penalties for non-compliance should be substantial.⁶⁰

¹ Health and Safety Commission (2004a: 11).

² Health and Safety Executive (2003a).and meeting held by CCA with Head of HSE’s Construction Division.

³ Health and Safety Commission (2004a: 8).

⁴ Health and Safety Executive (2003a).

⁵ Health and Safety Executive (2003a).

⁶ See HSC’s ‘Enforcement Policy Statement’ 2000, and Enforcement Management Model.

⁷ Health and Safety Executive (2003a).

⁸ Cosman (1999), discussed in Hillage et al. (2001: 30).

⁹ (Hussain and Willday, 2000).

¹⁰ Rakel et al. (1999).

¹¹ Wright et al. (2004: vi), and see also Health and Safety Commission (2003a: Annex 3).

¹² Wright (1998).

¹³ Wright (1998: 32).

¹⁴ Health and Safety Commission (2003a: 3).

¹⁵ Wright et al. (2004: 73).

¹⁶ Thomson-MTS (1993a: 87).

¹⁷ Gunningham (1999a: 15). See also McQuiston et al. (1998).

¹⁸ Lewis-Beck and Alford (1980). Discussed in Gunningham and Johnstone (1999: 233, endnote 38).

¹⁹ Perry (1982: 303).

²⁰ Gray and Scholz (1993).

²¹ Baggs et al. (2003).

²² Hopkins (1995); Gray (1996); Shapiro and Rabinowitz (1997): 722.

- 23 Mendleloff and Gray (2003).
- 24 See for instance, Hawkins (1984 and 1990); Hutter (1988); Kagan (1984); Kagan and Scholz (1984).
- 25 Hawkins (1984); Vogel (1986); and Hutter (1988).
- 26 OECD (2000: 71). See also Johnstone (2003: 9).
- 27 Makkai and Braithwaite (1994), discussed in OECD (2000: 42, 72).
- 28 Wright *et al.* (2004: 13).
- 29 Gray and Scholz (1993), Gray (1996); Shapiro and Rabinowitz, (1997: 722); Baggs, Silverstein and Foley (2003; Mendleloff and Gray,(2003).
- 30 Johnstone (2003:15).
- 31 Hawkins (2002: 289; 297).
- 32 Gray and Scholz (1993: 198).
- 33 Gray and Scholz (1993: 198).
- 34 See for example, Viscusi (1986).
- 35 Gray and Scholz (1993: 200).
- 36 See also Weil (1996).
- 37 Hopkin (1995).
- 38 Baldwin and Anderson (2002: 10-11).
- 39 Brown (1992: 691).
- 40 Gunningham and Johnstone (1999: 233, endnote 40).
- 41 Baldwin and Anderson (2002: 11).
- 42 Johnstone (2003: 12).
- 43 Gunningham (1999: 15) and references therein.
- 44 Johnstone (2003: 13).
- 45 Wright (1998: 44).
- 46 See for instance Gunningham (1999a: 15) and Wright *et al.* (2004: vi).
- 47 Lancaster *et al.* (2001: 40).
- 48 Whittington *et al.* (1992); Brazabon *et al.* (2000).
- 49 See for instance, Thomson- MTS (1993a: 87-88); Research International (1998) cited in Wright *et al.* (2004: 16); Brazabon *et al.* (2000); Lancaster *et al.* (2001); Wright *et al.* (2000); King *et al.* (2004: x); Wright *et al.* (2004: vi).
- 50 Brazabon *et al.* (2000: 60).
- 51 Brazabon *et al.* (2000: 66). See also Wright *et al.* (2000: 56).
- 52 Brazabon *et al.* (2000: 62); Loughborough University and UMIST (2003: ix); National Audit Office (2004: 17).
- 53 Loughborough University and UMIST (2003); National Audit Office (2004: 18-20).
- 54 Brazabon *et al.* (2000: 62); Loughborough University and UMIST (2003: ix); National Audit Office (2004: 17-18).
- 55 National Audit Office (2004: 17).
- 56 Brazabon *et al.* (2000: 62).
- 57 Brazabon *et al.* (2000: 62).
- 58 National Audit Office (2004: 20).
- 59 National Audit Office (2004: 17).
- 60 Whittington *et al.* (1992: 116-117).

Chapter Six

The Implications for the HSC

Levels of Inspection and Investigation

The research reviewed above demonstrates that the prospect of enforcement action is a key driver for large and high risk operators, as well as smaller firms.¹ However, survey data from the UK suggests that the perceived levels of inspection and investigation are currently too low to provide optimal – or even adequate – levels of deterrence.²

This perception would appear to be well-founded, since only 1 in 20 premises nationally received at least one inspection during 2000/2001, though this ranged from 1 in 10 in construction to 1 in 36 in the service sector. In the same year 80% of major injuries were not subject to investigation including for example, the amputations of 3 arms, 7 hands, 2 legs, 1 ear and 400 fingers; 210 burns to eyes, 14 burns to the arm and 8 burns to faces; and 40% of the 3,214 injuries resulting from either 'contact with electricity', 'contact with moving machinery', 'high falls' or 'drowning/asphyxiations'.³

These worryingly low levels of inspection and investigation are the cumulative result of years of budget cuts and "financial restraints of increasing severity" imposed by successive Conservative Governments which, according to the former HSE director-general John Rimington, "no amount of cost-saving and 'business re-engineering' could match".⁴ Following the election of a Labour government, the HSE's administration budget was temporarily increased in real terms between 2000/01 and 2001/02. This allowed the HSE to recruit new inspectors, resulting in an increase in inspector numbers of over 25%.⁵ However, in November 2002 the HSE budget was effectively 're-frozen', and HSE staff were told that not only would there be no new recruitment but that vacancies would not be filled. According to the trade union PROSPECT, this will result in a fall in inspector numbers to below the level prior to the recent recruitment.⁶

According to respondents in many of the UK studies the best way of securing higher levels of compliance would be to increase inspections and investigations and enforcement activity. This would require a considerable increase in the level of resources put into front-line inspectors, but a budget freeze on HSE recruitment means that inspector numbers are, in fact, likely to *decline* over the next few years.⁷ The situation has been exacerbated by the Government's announcement in July 2004 to cut civil servants within the Department of Work and Pensions (which includes the Health and Safety Commission/Executive).⁸

The relative amounts of time inspectors are involved in pro-active inspections on the one hand and re-active investigations on the other has been a long standing pre-occupation of the HSE. In 1997/8 the HSE says that the balance was 70:30 in favour of inspections.⁹ As a result of the recommendations of a Select Committee report in 2000 which criticized the low level of investigations,¹⁰ the level of inspection decreased to allow for an increase in the level of investigation so that in 2002/3 the balance was 50:50. However "this was not felt to be the best balance" and as a result the HSE in 2003 – before the new Strategy, '2010 and beyond' was announced – decided to change the balance between the two to 60:40 in favour of inspections.

The effect of the new HSC strategy will almost certainly mean that the total time spent by inspectors on inspections and investigations will be less, so that even if the proportionate level of time spent on inspections - vis-à-vis investigations - will increase the *total* number of inspections is likely to remain the same or decrease.

At the same time, the proportionate increase in the number of inspections, will certainly mean the number of investigations will decrease, and the HSC have amended its investigation criteria further limiting the kinds of serious injuries that inspectors will be required to investigate. For instance, no scalplings will need to be investigated under the new criteria.¹¹ Many more types of serious injury – many of which are likely to have arisen out of unsafe conditions and systems within the workplace – will go completely uninvestigated.

This has worrying implications for prevention at both the general, and at the organisation-specific levels. At a general level the risk of reputational damage to companies is reduced since the role of the regulator in detecting serious safety failures and in allocating blame is diminished. At the organisation-specific level, companies may be less likely to take remedial, or sufficient, action in the absence of some sort of enforcement activity by a regulator, allowing dangerous conditions to persist.

There is clearly an overwhelming case to be made for far higher levels of inspection and investigation. This case can be made on the basis of three major reviews of the national and international research,¹² which consistently stress the need for high actual or perceived levels of contact between companies and regulators, and it can also be made on the basis comments made by UK employers themselves that current levels of enforcement are too low to provide a deterrent.

Levels of Prosecution

The research indicates that the threat and reality of prosecution are crucial motivators for health and safety compliance. Consequently, it is cause for concern that there was a 13% decrease in the number of prosecutions taken by HSE inspectors in 2002/3 compared to the previous year, from 1059 to 933; in fact there has been a year on year decrease in the number of prosecutions over the last four years.¹³

A recent analysis of HSE's prosecution data shows that only:

- about one third of all worker deaths and one sixth of all member of the public deaths;
- about one tenth of all investigated major injuries to workers and one twentieth of all investigated major injuries to members of the public; and
- about one twentieth of all investigated dangerous occurrences

resulted in a prosecution.¹⁴

The low levels of prosecution, particularly following investigations into major injuries and dangerous occurrences are worrying. The limiting factor here is not the level of evidence but the criteria set out in HSC's Enforcement Policy Statement about which types of incidents should result in a prosecution assuming sufficient evidence exists (i.e when it is in the "public interest" to prosecute).

So, for example, whilst the criteria requires that a prosecution should take place if there is evidence to show that a "death" was the result of a breach of the law, this is not the case in relation to major injuries or dangerous occurrences.

The research evidence would suggest that if the HSE wants to maximise the potential of investigations, it should widen out the criteria that justified prosecution action.

One of the issues that is often raised in relation to prosecutions is whether or not they are cost effective – since they take up a lot of inspector time. There is no question that prosecutions are expensive compared to other enforcement mechanisms. So for instance one senior HSE official is quoted as saying in a recent study by researchers from Oxford University that:

"We found in the efficiency scrutiny that the very simplest case where there was to all intents and purposes an open and shut case, where we had a guilty plea in a magistrates' court, then the resource input from HSE to that case was at least

five times greater than if one had simply written a notice. And that's the simplest circumstances. In other circumstances, the factor rises to 20-plus times. So there is a very big resource constraint on people doing prosecutions."¹⁵

However, it is important to note that in England and Wales, the HSE receives most of its costs back from those who are convicted (which in 2002/3 was 88%¹⁶). In 2003/4 the HSE received back 4.017m.¹⁷ This means that on average the HSE receives over £4,910 in costs per case prosecuted (including those where there were no convictions). This sum is likely to cover a significant amount of the costs of taking prosecutions.

However, the HSE does not get back its total costs and in Scotland, where the Crown Office undertakes the prosecution, it does not get back any of its investigation costs. The level of resources will therefore undoubtedly impact upon the level of prosecutions taken. In reality therefore the prosecution criteria set in the Enforcement Policy Statement do not reflect what would promote improved health and safety but instead reflect political decisions about HSC's budget.

The fact that resource constraints currently – and may increasingly – impact upon prosecution decisions is particularly worrying in view of the fact that survey data from the UK suggests that the current low likelihood of prosecution is having a negative impact on compliance with health and safety, and that an increase in the likelihood and severity of prosecution – especially of key decision-makers such as directors and other senior officers – would provide the most effective prompt for employers to improve their OHS performance.¹⁸ For instance, two thirds of interviewees from amongst a statistically representative sample of UK businesses thought that an increase in the possibility of inspection and prosecution – especially of individuals – would provide the best prompt for employers to improve their management of occupational health hazards.¹⁹

Levels of Fines

The research indicates that the levels of fines is another important factor that determines how companies will comply with the law – the higher, the more effective. The HSE has recently reported that the average level of fine per case fell by 20% from £11,141 to £8,828 between 2000/1/2 and 2002/3.²⁰ It also reported that:

- The average level of fine per offence fell by 27% from £8,234 to £6,040
- The average level of fine per offence sentenced in the Crown Court fell from £26,961 to £17,632
- The average level of fine per offence sentenced in the magistrate Court was almost unchanged falling from £3,769 to £3,760
- The average level of fine relating to a case following a fatality decreased from £38,055 to £29,564

HSE research also shows that fines imposed on large companies following conviction for health and safety offences are “up to ten times lower” than the general level of ‘civil’ fines imposed by the Financial Services Authority (FSA). This is even when the fines follow workplace fatalities and companies with previous convictions.²⁰

It is interesting to note that whilst the HSE have indicated a lot of concern about the level of fines – which are primarily a factor that is out of their control – they are at the same time willing to reduce the number of investigations that would allow for identification of more conduct that results in prosecutions, and subsequently fines.

That aside, the HSC are right to be concerned since it is important that sentencing must have a more deterrent effect in order to maximise the impact of prosecutions.

The HSC has supported a change in the law that would raise the maximum fines available to magistrates courts and would allow courts to sentence individuals to imprisonment for most offences. And although a private members Bill has come to Parliament three times, each time it has failed because the Government has refused to give it parliamentary time.

However, the HSC and the Government have been less willing to look at alternative sentences to cash fines. In relation to the limited range of penalties and sanctions that the court has at its disposal, Wright *et al.* have argued that:

“As the fear of enforcement is a significant motivator for organisations, there may be value in exploring new types of penalties, charging regimes and enforcement strategies so as to maximise the deterrent effect of enforcement”.²¹

Although Action Point 9 of *Revitalising Health and Safety* required the Health and Safety Commission “to advise Ministers on the feasibility of consultees’ proposals for more innovative penalties”. the HSC/E has not undertaken any work in developing more imaginative and flexible penalties such as: on-the-spot fines, equity fines, adverse publicity orders, corporate probation orders, corporate community service orders, or the disqualification of culpable directors. HSC’s new strategy document, *A Strategy for Workplace Health and Safety in Great Britain to 2010 and beyond*, makes no reference to the development of more effective penalties.

Prosecution of Individual Senior Officers

The evidence shows that a strategy that focused on the conduct of senior managers and directors could be very effective in terms of deterrence. In 2002/3 HSE prosecuted 22 directors or managers of which 11 prosecutions resulted in a conviction. The average fine was £2,954. This compared to 24 prosecutions, 18 convictions and an average fine of £5,869 the year before.²² None of these prosecutions involved managers or directors of large or medium sized companies.

When considering that each year, the HSE undertakes investigations into about 400 deaths and 5000 major injuries, and inspects over 40,000 premises, the level of prosecutions of managers is not high and probably not high enough to have much deterrent impact.

The reasons for this low level are complex. In part it is to do with difficulties in the law – but, as has already been discussed in section one of the report, the HSC have refused to impose legal duties on Directors.

In part, it is again a resource issue. Investigating the conduct of directors is a time-consuming task – particularly when dealing with large companies with complex system of management. It can be difficult to collect the evidence against managers/directors of these companies, though the presence of legal duties on directors would of course make it much easier.

It should be noted that in 2000, HSC developed a new policy that requires inspectors when undertaking inspections and investigations to “consider the management chain and the role played by individual directors and managers”²³ and in 2003 gave instructions to inspectors on how this could be done.

Conclusion

Evidence from the international literature suggests that enforcement activity may be inefficient and lose its deterrent impact if levels of inspection and investigation and fines are too low. Evidence from UK survey data, and a consideration of current low levels of HSE enforcement and fines demonstrate that the HSE is failing to maximise the impact of its inspections, investigations and prosecutions. There is also consistent evidence from UK studies that by increasing the frequency of inspections and enforcement, the HSE could significantly increase levels of compliance with health and safety law. Part of the reason for HSE’s failure to optimise the impact of its enforcement activity in the past has been due to inadequate resources. However, it now appears that the HSE are voluntarily moving away from inspection, investigation and enforcement activities, and have stated that even with greater resources, they would not choose to increase levels of inspection/investigation. This is clearly contrary to the evidence, which strongly suggests that HSE could have a significantly greater impact through an *increase* in enforcement activity.

Select Committee on Work and Pensions, 2004

The evidence supports the view that it is inspection, backed by enforcement, that is most effective in motivating duty holders to comply with their responsibilities under health and safety law. We therefore recommend that the HSE should not proceed with the proposal to shift resources from inspection and enforcement to fund an increase in education, information and advice. (para 142)

¹ Wright *et al.* (2004: 11-12).

² Whittington *et al.* (1992); Thomson-MTS (1993); Brazabon *et al.* (2000); Wright *et al.* (2000); Lancaster *et al.* (2001: 40).

³ Centre for Corporate Accountability/Unison (2002). It should be noted however this was an improvement on five years earlier where only 10% were investigated. These figures relate to inspections and investigations by HSE field operations directorate only.

⁴ Rimington (2004: 23).

⁵ Centre for Corporate Accountability (2004: 4-5).

⁶ Centre for Corporate Accountability (2004: 5).

⁷ Centre for Corporate Accountability (2004).

⁸ The Department of Work and Pensions Select Committee recently concluded in August 2004 that the Government should consider the HSC/E a 'front-line service' and be protected from these proposed cuts.

⁹ Health and Safety Commission (2004c: Annex 3, para 3).

¹⁰ Select Committee on Environment Transport and the Regions (2000).

¹¹ Centre for Corporate Accountability (2004: 6-7).

¹² Wright (1998); Gunningham (1999) and Wright *et al.* (2004).

¹³ Health and Safety Executive (2003c).

¹⁴ Centre for Corporate Accountability/Unison (2002) The figures relate to prosecutions following deaths, major injuries and dangerous occurrences that took place in 1998/9.

¹⁵ Hawkins (2002: 319).

¹⁶ Health and Safety Executive (2003c). There were 818 cases which resulted in 726 convictions.

¹⁷ Private e-mail correspondence between the HSE and the CCA, 9 July 2004.

¹⁸ See for instance, Thomson-MTS (1993a: 87-88); Research International (1998) cited in Wright *et al.* (2004: 16); Brazabon *et al.* (2000); Lancaster *et al.* (2000); Wright *et al.* (2000); King *et al.* (2004: x); Wright *et al.* (2004: vi).

¹⁹ Wright *et al.* (2000: ix).

²⁰ HSE (2003c).

²¹ Centre for Corporate Accountability, "Corporate Crime Update" Summer 2004.

²² Wright *et al.* (2004: vi).

²³ HSE "Offences and Penalties Report" 2002/3.

²⁴ HSC's Enforcement Policy Statement (2000), para 41.

PART THREE

Securing compliance without enforcement

The evidence reviewed in part two shows that formal enforcement strategies work, but that current levels of inspections, investigations and prosecutions in the UK do not maximise their potential, and that the HSC should expand this part of its activities.

However that is not the approach that the HSC/E is taking – or indeed the approach the Government wants them to take. Instead, it appears to be going down a route which will involve less enforcement by requiring inspectors to provide information in contexts where there is no threat of inspectors issuing notices or/and pursuing prosecutions.

Since the evidence suggests that formal enforcement is a successful tool to secure employers' compliance and has a positive impact of health and safety outcomes, this does not seem to be a rational response to the evidence. However, it is possible that whilst formal enforcement works, seeking compliance 'voluntarily' may be as, or more, effective.

As stated earlier, the HSC has always spent some of its time engaged in strategies to secure compliance voluntarily, so this part of the report looks at how effective these strategies have proven to be and whether, despite the evidence that formal enforcement works, the HSC can still credibly argue that its new approach is evidence-based.

Part Three comprises of three chapters:

- Chapter seven is an assessment of the evidence on the effectiveness of education and information provision activities. As is explained, the effectiveness of this strategy depends on there being a positive relationship between employer awareness of what to do and employers actually doing it.
- Chapter eight is a short chapter that considers the effectiveness of developing strategic partnerships and relationships with key organisations.
- Chapter nine looks at whether there is evidence that employers find arguments that their profits and reputation will be harmed unless they comply with health and safety law persuasive, and if so whether this acts as an incentive for them to improve their occupational health and safety performance.
- Chapter ten is an assessment of a new proposal that certain employers might be granted 'autonomy' from routine preventative inspections.

Chapter Seven

Campaigning, and educational Activities

Campaigns

Two HSE-commissioned reviews of the numerous UK evaluations of awareness-raising campaigns came to slightly conflicting conclusions about their value. Wright *et al.* state that these evaluations have indicated that 'such work is effective in raising awareness, and awareness is an important factor in improving health and safety precautions'¹. However, Hillage *et al.* concluded that while there is evidence that HSE can 'reach' a significant proportion of employers, there is:

"very little evidence that being 'reached' by the campaign actually translates into action, let alone positive and demonstrable benefits in occupational health."²

Thus, even though campaigns may be associated with higher levels of awareness and knowledge as argued by Wright *et al.*, the evidence that this then impacts on organisational attitudes and behaviour is not strong. This is for two reasons. First, some evaluations simply showed little evidence of campaigns having led to action, although this is partly because of the methodological problems involved in showing this.³ Second, even where there is an association between awareness of a campaign and propensity to take action on occupational health and safety (OHS) this does not mean that the one caused the other. As Hillage *et al.* argue in relation to Wright *et al.*'s evaluation of the 'Good Health is Good Business' campaign:

"Aware organisations were more predisposed towards having an interest in health and safety issues in general, so the changes need not necessarily be attributed to the campaign."⁴

A further example of the weak link between awareness of a campaign and subsequent action can also be found in an evaluation of the HSC's voluntary guidance on directors responsibilities for health and safety which we have discussed earlier (see chapter two).

Magnitude and Quality of the Changes

Even if changes or differences in attitude and behaviour between aware and unaware organisations *could* be attributed with any certainty to the impacts of a particular campaign, there are still questions as to the size and quality of the changes observed.

A consideration of the evaluation of the 'Good Health is Good Business' (GHGB) campaign illustrates these points.⁵ The evaluation reports that, in relation to the impact of the campaign on employer *attitudes*, there were statistically significant differences between organisations that were aware of the GHGB campaign and unaware organisations as regards some (but not all) attitudes towards occupational health.

However, in absolute terms the size of these differences is extremely small. For instance, the researchers found a statistically significant difference in the extent of change in concern for employees' health between those organisation that were "aware" and those that were "unaware". On a scale of 1 to 5 (where 5 is "concern has greatly increased") "aware" organisations score 3.9 and "unaware" organisations score 3.6. The researchers also reported a statistically significant difference in the perceived balance of costs and benefits of

health risk management between “aware” and “unaware” organisations. On a scale of 1 to 5 where 5 is “*Benefits greatly outweigh costs*”, “aware” organisations had an average score of 3.5 and “unaware” organisations an average score of 3.3.” Arguably, therefore, the degree of difference between the two groups in terms of their attitudes towards occupational health was virtually negligible, and it is difficult to see what this difference might mean in practice.

In relation to changes in health risk management and work *practices*, the researchers found that “aware” organisations (on average) report making more improvements than “unaware” organisations. However, once again, the actual size of this difference was very small. On a scale of 1 to 4, (where 1 is “*not at all*” and 4 is “*significantly more improvements*”) “aware” organisations have an average score of 3.4 compared to 3.1 for “unaware” organisations.

In relation to the *types* of improvements organisations reported, the researchers found that whilst the majority of organisations (aware and unaware) reported changes to their risk management system, a higher percentage of “aware” organisations reported improving their risk management system (43% as compared to 31% for unaware organisations). There were no differences in the percentage of organisations that reported changes in relation to providing training and information (25% for each group), but a *higher* percentage of “unaware” organisations reported taking specific action to reduce exposures to, or risks from, a range of concrete health hazards (such as noise, RSI, VDU, handling, noise and substances). Twenty four per cent of unaware organisations took action in relation to specific hazards as compared to 17 per cent of aware organisations,⁶ and the differences do not appear to be explained by differences between the groups in the types and levels of hazards reported for each sector.⁷

This last finding – that in terms of reducing worker exposure to specific health hazards unaware firms appear to have performed better than aware firms – is surprising. But perhaps even more surprising is the authors’ interpretation of this. They write that:

“The lower frequency amongst “aware” organisations of making hazard specific improvements may be a positive feature, in that it may reflect a more systematic and all embracing approach to assessing and managing health risks”.⁸

However, the purpose of undertaking risk assessments is to identify and then take steps to eliminate or control those risks. Yet whilst aware organisations were more likely to undertake risk assessments and audits, little action to reduce or manage actual risks to workers’ health appears to have resulted from these. A possible interpretation of this is that aware firms were simply more likely to treat their risk assessments as a ‘paper exercise’.

Thus, even if it could be claimed that differences in attitude and behaviour were due to the GHGB campaign, rather than due to some other difference between aware and unaware organisations (such as greater awareness of, and responsiveness to health and safety issues in general), the *degree* of difference (in terms of attitudes and magnitude of improvements made) between the two groups does not appear to have been great. Moreover, from the little data we have,⁹ there are question marks over the types of improvements made (the *quality* of action taken) in relation to aware organisations.

This, of course, should be compared with the impact that inspections and the use of notices have been found to have (see chapter five).

Awareness amongst Small and Medium-Sized Enterprises (SMEs)

Although evaluations of these campaigns have shown them to be effective in that they reach a reasonable proportion of employers, Hillage *et al.* conclude that they have had:

“more limited success in reaching the real target audience (of employers with a hazard and limited knowledge of it or what to do about it)”.¹⁰

Since levels of knowledge and understanding are lower amongst SMEs the target audience would be small and medium-sized (but particularly small) enterprises. But the evaluations show that awareness of specific campaigns has been low amongst this group of employers.

For example, the 'Good Health is Good Business' campaign – one of the largest campaigns to have been launched by the HSE in recent years, which ran for 5 years – reached only 28 per cent of small companies, compared to 73 per cent of larger organisations.¹¹ Similarly, the 'Breathe Freely' campaign reached only one in four small companies as compared to two in five medium-sized companies.¹²

In relation to this question of audience, Hillage *et al.* observe that: "the evidence suggests that there is a significant element of 'preaching to the converted', i.e. those most likely to register awareness of the campaign are those most likely to be interested in and aware of health and safety issues." This in turn means that, "the additionality of such campaigns may be questionable, as many of those saying that they have taken action as a result of a campaign may have done so in any case, without HSE intervention. However, the campaign may have speeded up such action and/ or made it more extensive and/ or appropriate."¹³

Seminars and Mailshots

Whilst campaigns typically employ a variety of mediums to raise awareness, studies that have focused on specific techniques suggest that different awareness-raising mediums may be more or less effective. One of these studies was a two-year project, carried out by HSE's Field Operations Directorate (FOD) and reviewed by the University of East Anglia, to assess the relative effectiveness of seminars and mailshots as techniques for persuading employers to improve their standards of health and safety in the SME environment.¹⁴ Following different contact techniques, firms were visited by HSE inspectors who attempted to assess the quantity and quality of changes in knowledge, arrangements and precautions stimulated by inspections, seminars and mailshots.

In terms of 'quantity', seminars appeared to be very effective at stimulating action compared to mailshots. The proportion of HSE assessments associated with 'action taken' was considerably higher (47%) for seminars than for mailshots (9%), although results varied by sector. The level of 'action taken' following inspections was 43 per cent. This suggests that SMEs prefer direct contact with regulators over impersonal contact techniques such as mailshots. Further evidence for this finding comes from other studies.¹⁵

Whilst seminars appeared to be as effective as, if not more effective than, inspections in stimulating action in the study by Rakel *et al.*,¹⁶ there are a number of reasons why we should interpret these results with caution. First, seminars tend to attract businesses that may be more highly motivated to comply. Companies that are less motivated to comply are unlikely to attend such events. The converse is true for inspections, since HSE targets poorly performing firms.

This was a problem acknowledged by the researchers, and in fact the study confirms that 'more highly motivated' companies attended seminars, since it found that standards before the contact technique were lower amongst the inspection sample than the seminar sample.¹⁷ Inspections, therefore, may actually be more effective than seminars in securing compliance. And this suggestion is supported by other (albeit less methodologically rigorous) studies, which have ranked inspection-based advice as much more effective than seminars.¹⁸

Second, whilst the construction sector performed particularly well in relation to seminars and might therefore be considered as a future candidate for this type of activity, it was acknowledged by the researchers that insufficient data existed in relation to the *quality* of the action taken and therefore no judgement could be made as to whether the seminars had stimulated a sufficient quality of change.¹⁹ Also, there had not been a sufficient number of inspections undertaken within this cluster for researchers to compare the relative effectiveness of inspections with seminars for this industry sector. The research has not, therefore, excluded the possibility that inspections may be more successful than seminars in prompting action, and/ or produce a better quality of change.

An additional consideration for the HSE is that seminars are less likely to be attended by small firms than large ones.²⁰ They are therefore not an obvious solution to the problems HSE inspectors face in reaching small firms.

The relationship between knowledge and action

'Voluntary compliance' strategies are based on an assumption that most employers want to protect their employees from workplace risks but simply lack the relevant knowledge. Raising standards is therefore seen as being largely a matter of providing information and advice, rather than enforcing the law.

A key part of this question of the role of educational and advisory activities is the extent to which 'having knowledge' actually results in "action" that results in appropriate compliance with the law.

A number of studies have demonstrated that there is an association between the levels of knowledge employers' possess about OHS and employers propensity to take action.²¹ For instance, research on the impact of the Construction (Design and Management) Regulations found that whilst interviewees reported that the regulations were a major driver in improving health and safety standards it was also reported that lack of health and safety knowledge, particularly amongst clients and designers, was one reason for the limited implementation of the regulations.²² And Eakin identified lack of awareness of health hazards and legal requirements as a significant factor in the failure of some organisations to comply with the law or to improve their occupational health and safety performance.²³

While research does show an association between levels of knowledge and understanding and propensity to initiate OHS improvements, this relationship is far from perfect. A number of studies indicate that firm knowledge does *not* necessarily translate into firm action. For example, the study by Rakel *et al.*, discussed above,²⁴ found that non-compliance – across industrial sectors and in relation to specific health hazards – were present even when levels of knowledge and awareness were adequate. This was true, for instance, in relation to asbestos and chemical hazards, where levels of awareness amongst the firms inspected were judged to be extremely high, but where arrangements and precautions were judged to be inadequate. Rakel *et al.* observe that:

"This may be related to the intuitive wisdom that suggests that it is one thing to know about health and safety issues and another to translate this knowledge into action which might involve considerable expenditure."²⁵

Similarly, a comparative survey of OHS performance in the residential building sectors of Britain and Australia demonstrates that knowledge does not necessarily equate with action to improve OHS performance. Whilst British self-employed builders were found to have greater knowledge about OHS issues, this did *not* translate into greater regulatory compliance. Breaches of regulations were rationalised by employers in both countries on the basis of economic survival and minimal chances of detection.²⁶

Wright also found that even amongst employers with good levels of OHS awareness and knowledge, organisational action taken in relation to different health or safety hazards could be highly inconsistent, and that a 'genuine concern for safety' for instance, 'does not always lead to a concern for health management.'²⁷

This is illustrated by a study on industry attitudes towards noise-induced hearing loss. Thomson-MTS found that noise was not generally viewed as a priority hazard, and this was true even amongst managers reported as being "very health and safety conscious".²⁸ This was primarily because noise was seen by management as a hazard that did not have an immediate impact and was not life-threatening. Similarly, Brazabon *et al.* found that less priority is placed on managing health hazards than safety hazards in the construction industry.²⁹

Other studies have found that compliance is uneven in relation to separate provisions within a single set of regulations. For instance, after reviewing a number of HSE-commissioned studies, Hillage *et al.* conclude that many employers:

"did not fully comply with the regulations, despite being aware of them. In some cases it was specific details of the regulations that employers did not comply

with... Other studies found that while employers fulfilled some aspects of the regulations, they often did not take the required comprehensive action."³⁰

Hillage *et al.* specifically cite studies by Swan *et al.* (1998) and Lancaster *et al.* (2001), to support these conclusions. For instance, Swan *et al.* found that while there was a high general awareness of Control of Substances Hazardous to Health (COSHH) Regulations 1988, there was low compliance with Schedule 9 and the Approved Code of Practice (AcoP). Other studies similarly demonstrate that even where employers are aware of regulations, compliance is frequently incomplete and inadequate.

This seems to be particularly true in relation to risk assessments, where findings from a number of studies suggest that these are treated as a paper exercise. For instance, a study of causal factors in construction incidents by Loughborough University and UMIST found in relation to the 100 incidents studied that where risk assessments did exist these were largely "a paper exercise", often forming part of a method statement, which had a limited applicability to actual work circumstances.³¹ And Thomson-MTS found amongst ten case study firms, that of the nine companies that had carried out a noise assessment as required by the Noise at Work Regulations, only four were adequate in terms of complying with the legislation.³²

Further demonstration of the fact that compliance is often inadequate can be found in studies which show that, whilst organisations may technically comply with legislation, they will often choose to apply the easiest and/or the cheapest control methods instead of those that are recommended by guidance or regulations as providing the most effective, and therefore preferable, means of controlling, reducing or eliminating risks. For instance, various studies have found that:

- personal protective equipment (PPE) "is relied upon habitually as a substitute for risk elimination or reduction at source" in the construction industry;³³
- companies that use chemicals are most likely to rely on PPE or use of process controls (for example ventilation systems) to control risks, rather than substitution of a hazardous substance or using it in a safer form;³⁴
- most employers may provide workers with hearing protection but frequently fail to improve engineering control of noise because of the perceived costs involved.³⁵

What stops employers translating knowledge into action?

The studies reviewed provide ample evidence that even when employers possess knowledge and awareness of health hazards they may still fail to take action to improve their OHS performance, or even to ensure compliance with regulatory requirements. Interview data from the UK indicates that the extent and adequacy of compliance with health and safety legislation is contingent upon numerous commercial and organisational factors. For instance, Mayhew and Quinlan found in the residential building sectors of Australia and Britain that self-employed builders thought that complying with legislation would make them uncompetitive, and that breaches of OHS regulations were directly linked to attempts to minimise costs.³⁶ Similarly, Thomson-MTS found that senior management's attitudes towards hearing conservation:

"were influenced by overriding concerns with commercial factors: namely productivity, profit and public relations".³⁷

And whilst one or two senior managers saw hearing conservation as enhancing productivity and/or firm image, the majority stated that they would not take further action on limiting the risk of noise-induced hearing loss on the grounds that noise control measures would decrease productivity, and/or that such measures simply represented a cost with no obvious or immediate payback.³⁸

What these findings suggest is that even if the majority of employers believe that they have a moral duty to protect the health and safety of their workforce, this conviction is not strong enough to overcome either the imperatives of profit and production, or the distraction of other competing priorities.

Conclusion

Whatever factors prompt organisations to comply with OHS legislation, they will need reliable and authoritative guidance on how best to secure occupational health and safety improvements. Lack of knowledge about specific hazards and the best methods for controlling workplace risks make it virtually certain that employers will fail to take adequate measures to control risks to employees and members of the public. The evidence indicates that SMEs are, as employers, the organisations most likely to need information and guidance. But it also indicates that they present the greatest challenge to HSE, both in terms of being able to reach these organisations and in terms of being able to influence behaviour. As discussed above, awareness-raising campaigns have not proved to be a particularly effective way of reaching SMEs, since penetration of these organisations has been poor.

HSE is therefore now attempting to find ways of working through intermediaries to provide advice and guidance. This work is at an early stage, but some evaluations have been completed.³⁹ According to Wright *et al* results so far indicate that, in general, working with intermediaries may be an effective way of amplifying the effect of the HSE. However, they also point out that working via intermediaries in the context of SMEs “is challenged by the variable level of contact SMEs have with intermediaries”⁴⁰. It is also important to note that the relative effectiveness and resource implications⁴¹ of working through intermediaries in uncertain. There may simply be no easy solution to the problem of reaching SMEs, since research has shown that these employers prefer specific advice in the context of face-to-face contacts within the workplace.⁴²

Regardless of whether or not HSE is able to develop better ways of disseminating guidance, a review of the available evidence suggests that the provision of information and guidance by the HSE or some third party in the context of diminishing levels of inspection and enforcement, is unlikely to bring about the necessary improvements in standards of OHS. The available evidence also suggests that this observation holds true for the HSE’s new ‘partnership’ approach to securing compliance (see next chapter), with robust evidence of the success of such approaches only existing where HSE increased its inspection and enforcement activity. The reasons for this are as follows.

First, HSE’s argument that better education and improved dissemination of information will be enough to prompt behavioural changes amongst the *majority* of organisations is inconsistent with the available evidence. As Gunningham asserts, following his review of the international research:

“It is important to emphasise that education and information alone are likely to be insufficient motivators of CEOs/ business owners of SMEs. Capel has shown that, without management commitment, no quantity of information and resources will necessarily improve their workplace injury experience.”⁴³

As demonstrated in the preceding sections, the majority of individual studies and major reviews of the literature report that the main driver of management commitment to OHS improvement is legislation backed by the threat of enforcement, with considerable evidence that in the absence of regulatory compulsion, employers will not act. Specifically, one of the few studies to test the relative effectiveness of enforcement versus consultation activities in the US found that whilst enforcement action was associated with a reduction in worker compensation claims, consultation activity was not.⁴⁴ So whether or not employers feel a sense of moral obligation to their employees, legal regulation and enforcement are the main drivers of behavioural change.

Second, and in contrast to the evidence relating to regulation and enforcement, neither the UK evaluations of awareness-raising campaigns nor the study by Rakel *et al.* provide an adequate evidence base for HSE’s proposed shift towards a greater emphasis on educating and influencing employers at the expense of enforcement. Evaluations of awareness-raising campaigns do not provide strong evidence that firms are prompted to take action as a consequence of these campaigns. And even if action *could* be attributed to a campaign with any certainty, the available information suggests that neither the *magnitude* nor the *quality* of the attitudinal or behavioural change induced is particularly great. The study by Rakel *et al.*

provides stronger evidence that seminars may be effective in stimulating action. But there are a number of reasons why future action should not be based on the results on this single study.

First, seminars are only likely to attract more highly motivated companies. So seminars do not provide an effective medium for reaching the poor performers or small employers. Second, there are problems in judging the relative effectiveness of seminars as compared to inspections, since the seminar sample was self-selecting whilst the inspection sample was not. Also, the smaller number of inspections undertaken means that there was not sufficient data to compare the effects of inspections with seminars in relation to most of the different sectors. So whilst seminars appeared particularly effective at stimulating action in construction and agriculture, we do not know how this compares to the effects of inspections within these sectors. Also, since construction and agriculture have particularly high rates of death and injury relative to other sectors, it would be unwise, on the basis of such limited data, to substitute seminars or similar activities for inspections within these sectors.

Finally, even if employers *were* driven primarily by a conviction that it is morally right to protect the health and safety of workers, the assumption that information-based strategies will be enough to secure OHS improvements amongst the majority of organisations is based on a rather simplistic notion of firm behaviour. The evidence shows that occupational health and safety will generally be one amongst many other priorities competing for management attention and resources. And the consequences of this are apparent in the findings of many UK studies, which show that compliance is often patchy even when levels of knowledge and understanding are high. This indicates that knowledge is not enough – absent the threat and reality of enforcement – to secure adequate improvements in the health and safety performance of individual firms.

This does not mean that campaigns and educational activities are not important. But it does imply that these activities are at best a 'partial strategy'⁴⁵ that will only be effective if they occur in the context of consistent and frequent inspections backed by enforcement activity. Moreover, the study by Rakel *et al.* shows that information and guidance may be insufficient drivers even in the context of firms that *appear* highly motivated since the study showed that levels of action following both seminars and mailshots were *lowest* amongst those firms expressing a wish for more information.⁴⁶ Consequently, while it may be important to explore more effective methods for communicating with organisations, and especially SMEs, it is also crucial that this occurs within a framework where there is a credible level of enforcement.

¹ Wright *et al.* (2004: 36).

² Hillage *et al.* (2001: 24).

³ For instance Honey *et al.*'s (1997) evaluation of the 'Breathe Freely' campaign, Thomson-MTS (1993a: 7) and Hillage *et al.* (2001: 24).

⁴ Hillage *et al.* (2001: 23).

⁵ Wright *et al.* (2000).

⁶ Wright *et al.* (2000: 22, 98).

⁷ See Wright *et al.* (2000: 113-115).

⁸ Wright *et al.* (2000: 40).

⁹ The data tell us nothing about either the adequacy of any action taken, nor whether the most significant health risks within each organisation have been addressed, nor whether firms were in compliance with specific health and safety regulations.

¹⁰ Hillage *et al.* (2001: 24).

¹¹ Wright *et al.* (2000).

¹² Honey *et al.* (1997).

¹³ Hillage *et al.* (2001: 34).

¹⁴ Rakel *et al.* (1999).

¹⁵ Wright *et al.* (2000); and Mayhew *et al.* (1997).

- 16 This was at an aggregate level. Results varied according to sector. For instance, for the Motor Vehicle Repair sector, inspection were more effective at stimulating action than seminars.
- 17 Rakel *et al.* (1999: v).
- 18 Wright *et al.* (2000); Vickers *et al.* (2003).
- 19 Rakel *et al.* (1999: 45).
- 20 Wright *et al.* (2000: 44).
- 21 See Hillage *et al.* (2001) and Wright *et al.* (2004) for overviews of these studies.
- 22 Brazabon (2000). The other reasons identified by interviewees were complexity of the regulations and the HSE's failure to adequately enforce the regulations.
- 23 Eakin (1992).
- 24 This was one of just a few studies that attempted to measure impacts in a way that did not rely entirely upon self-reporting by industry.
- 25 Rakel *et al.* (1999: 43).
- 26 Mayhew and Quinlan (1997).
- 27 Wright (1998: 10).
- 28 Thomson-MTS (1993a).
- 29 Brazabon *et al.*
- 30 Hillage *et al.* (2001: 26). Emphasis added.
- 31 Loughborough University and UMIST (2003: 70). See also Bomel Ltd (2004).
- 32 Thomson-MTS (1993a).
- 33 Loughborough University and UMIST (2003: ix).
- 34 Topping *et al.* (1998: 365). As the authors point out, this is the opposite of the approach required by COSHH which is "first to consider substitution, then adequate control of exposure by engineering means and then finally PPE".
- 35 Thomson-MTS (1993a).
- 36 Discussed in Wright (1998: 83-84).
- 37 Thomson-MTS (1993a: 86).
- 38 Thomson-MTS (1993a: 86-87). See also Dawson *et al.* (1988) who found that safety often takes a back seat to more commercial matters.
- 39 See Wright *et al.* (2004: 53-58). See also Gunningham (1999a: 48-49) for further suggestions on how regulatory authorities might use intermediaries for the dissemination of information.
- 40 Wright *et al.* (2004: 72).
- 41 Wright *et al.* (2004: 76).
- 42 Wright *et al.* (2004: 76).
- 43 Gunningham (1999a: 30), see also Capel (1991).
- 44 Baggs *et al.* (2003). Discussed in chapter five.
- 45 Gunningham (1999a: 38).
- 46 Rakel *et al.* (1999: 62-63).

Chapter Eight

Developing Partnerships

As stated in the introduction, HSC/E is hoping to increase its ability to 'influence' and 'encourage' employers to improve their occupational health and safety (OHS) performance by developing strategic partnerships and relationships with organisations, groups and individuals who occupy key positions within (or in relation to) particular organisations, or within particular supply chains. Once again, the emphasis is on securing compliance through co-operation and agreement rather than through enforcement of the law.

There is very little published evidence relating to the impact of such approaches in terms of targeting particular duty holders (such as clients in the construction industry) in part because they have not so far been pursued in a systematic way. There is some evidence that initiatives to persuade manufacturers and suppliers of industrial equipment to change to a safer design were successful.¹ However as observed by Hillage *et al.*, the precise role played by the regulator is not clear from the HSE's report. Nor does the report provide data on injuries to enable an assessment of the impact of the initiatives on actual outcomes.²

The National Audit Office has recently reported approvingly on HSE's initiatives to influence designers, clients and those at the head of the contractual chain on selected construction projects to improve OHS management. However, reports that these initiatives were successful have been entirely anecdotal and there is no evidence on health and safety outcomes.³ In addition, survey evidence from the UK construction industry indicates that the historical failure of clients and designers to prioritise health and safety has been due, in part, to the HSE's failure to enforce the law in relation to these duty holders. It seems odd, then, that the HSE appear to have rejected enforcement as a possible solution to clients and designers' non-compliance with the CDM Regulations.

HSE has also launched a handful of sector-specific collaborative initiatives, including the PABIAC initiative in the paper industry, the 'Step Change' initiative in the offshore oil industry and the 'Recipe for Safety' initiative in the food and drinks industry. Some evidence relating to these has been reviewed by Wright *et al.*, who claim that in each case:

"There is a strong body of evidence that these initiatives have met with significant success in a number of respects, including: significant quantitative improvements in injury rates; audited improvements in health and safety management arrangements; improved understanding of health and safety expectations; and improved levels of worker participation."⁴

However there is only one proper published evaluation of any of these initiatives, and this is of the Paper Board Industry Advisory Committee (PABIAC) initiative.⁵ This report provides evidence that the PABIAC initiative brought about improvements in health and safety management and culture in the individual mills involved. However, whilst the published evaluation of this initiative and the review by Wright *et al.* (2004) suggest that this is an example of successful voluntary compliance, an internal report by the HSE on the initiative makes clear that the HSE *increased* inspection and enforcement activity in relation to the 80-odd mills involved.⁶ This was, then, a case of partnership and intensive HSE leadership and guidance in the context of *increased enforcement*.

Evidence relating to the impact of the 'Step Change' initiative is mixed. Horbury *et al.*, refer to evidence of 'marked improvements in offshore safety performance in year four' of the Step Change initiative, and state that by March 2001 there had been a 43% improvement in the total injury rate and a 26% improvement in the fatal and major injury rate compared to 1997

– the year that the initiative was launched.⁷ However, a recent review of the major and fatal injury rate data, using a 3-year ‘rolling’ average of fatal and major injury rates per 100,000 workers, shows a long-term upward trend in the offshore incident rates since 1993 and:

“For the years of the Step Change program, since its launch in 1997, incident rates appear to have reached a plateau showing no significant safety improvements, following an initial increase in rates during the first years of Step Change, which may be a ‘reporting effect’.”⁸

We could find no published evaluation of the ‘Recipe for Safety’ initiative and are therefore unable to comment on Wright *et al.*’s assertion that the initiative was successful.

¹ Cosman (1999).

² Hillage *et al.* (2001: 31).

³ National Audit Office (2004: 18-21).

⁴ Wright *et al.* (2004: 59).

⁵ Horbury *et al.* (2002).

⁶ Health and Safety Commission (undated).

⁷ Horbury *et al.* (2002).

⁸ Woolfson (2004 forthcoming).

Chapter Nine

The business case for improving health and safety?

Evidence discussed in chapter seven suggests that the impact of education and campaigns are limited.

There is however an argument, which is discussed here, that employers could be persuaded to make positive occupational health and safety (OHS) changes if only they knew of the negative impacts – both in terms of costs and in terms of reputational damage - of failing to comply with health and safety law

If these arguments could be shown to be persuasive, then – assuming that you could make them widely known, which as we have seen above is not altogether easy – they could prove to be an effective motivating factor for change without the need for inspectors to enforce the law.

The HSE has, for a number of years, put considerable effort into persuading business of the economic case for improved OHS performance, primarily through the 'Costs of Accidents' survey and the 'Good Health is Good Business' campaign. And the HSC/E have recently confirmed that this strategy is to remain an important part of their future activity,¹ stating that one of the 'early deliverables' under the new strategy will be:

"The collection of further evidence to demonstrate the business case for health and safety and its publication, with case studies, on a new website in summer 2004."²

In the following sections we will review the various business factors that HSE consider might act as levers on employers to improve OHS, evidence relating to the likely impact of these levers and consider whether attempts to persuade industry of the business benefits of improved OHS performance have been successful to date.

Economic Benefits

Most of HSC/E's efforts to persuade employers of the business case have, to date, emphasised the economic and productivity benefits to be gained from improving occupational health and safety performance. However, confidence in the likely usefulness of such a strategy is seriously undermined by the bulk of the international and national research, which has shown that:

- There is no evidence that UK employers are motivated to improve OHS due to potential business benefits.
- There are numerous situations where safety does *not* pay.

Even where improved health and safety may make economic sense, there are a number of reasons why employers will either not recognise this or will not choose to pursue this benefit.

When safety does not pay (or does not pay fast enough)

In an overview of the literature, Wright found that whilst the research indicates that employers in the United States are motivated by the need to reduce the costs of ill-health and injury under certain circumstances, this finding is not replicated in the UK.³ Similarly, Hillage *et al.* conclude, after their review of the evidence, that

“Compliance with the law is generally a bigger motivator for employers than achieving business benefits.”⁴

For instance, an evaluation of the ‘Good Health is Good Business’ campaign, which aimed to persuade employers of the business case for occupational health improvements, reported that:

- only 1% of respondents cited the wish to avoid loss of business as a reason for initiating health and safety improvements;
- only 1% cited ‘productivity’ as a reason;
- no respondents cited evidence of adverse commercial impacts;
- and only 1% cited reducing costs.⁵

Wright concludes that:

“These contrasting findings can be related to differences in health care insurance and compensation arrangements. USA organisations directly incur a high proportion of the cost of injury and ill-health in the form of health and worker compensation insurance premiums.”⁶

By contrast in the UK, the costs of occupational injury, death and ill-health are borne mainly by victims, their families and the state, and not by employers.⁷ So whilst there may be isolated cases where safety pays,⁸ there will be numerous instances where safety does *not* pay.⁹ Wright therefore argues that:

“the economic model of voluntary self-compliance is unlikely to be of general relevance in the UK without a substantial change in the level and/or allocation of financial liabilities.”¹⁰

Also, where the costs of injury or ill-health *do* outweigh the costs of measures needed to prevent them, Johnson and Kaplan have shown how current accounting practices, which are designed to calculate ‘return on investment’ over a period of only one or two years, fail to accurately calculate the savings to be made from health and safety improvements, since such savings often only accrue over a period of several years.¹¹ Moreover, accounting practices simply reflect the fact that corporations are judged principally on a short-term basis. Thus it is not just accounting practice, but the short-term thrust of capitalist markets in general that further reduces the likelihood of long-term investment in health and safety – even where this would be economically rational.¹²

Organisational decision-making

The research suggests that there are two further reasons why – even in circumstances where safety does pay – we cannot assume that managers will make, or are in a position to make, rational decisions concerning investment in health and safety.

First, managers do not have access to perfect information, and even if they did they would not be able to process this information perfectly. This is referred to as ‘bounded rationality’. Hopkins argues that a consequence of bounded rationality is that managers “are not in a position to make decisions which are rational in any global sense. Instead they evaluate the information readily to hand, and choose from among the options already known to them. Decision making is rational within these bounds.”¹³

Since employers rarely have information concerning the cost-effectiveness of investing in OHS, they are unlikely to consider this as an option. Moreover, Wright *et al.* point out that the costs involved in retrieving this information may not be seen as worthwhile.¹⁴ This is consistent with Wright's observation that: "management will adopt business improvement techniques with which they are most familiar, such as automation and pay restraint, to the exclusion of other less familiar options, and will only consider further techniques if their performance target is not met."¹⁵

Second, Hopkins and Cutler and James, have demonstrated that managers do not make rational decisions about health and safety investment even in circumstances where they *do* have access to accurate information concerning the cost-effectiveness of investment and/or the likelihood of a particular event occurring. Both authors cite as an example the capsizing of the 'Herald of Free Enterprise' off the coast of Zeebrugge, which killed 192 people. A formal inquiry into the circumstances of the disaster found that senior managers of P&O Ferries were aware of the risk of capsize since they were aware that ferries had sailed with their bow doors open on previous occasions. Senior managers were also aware that there was a solution to the problem, since they had been urged by various ships' masters to invest in warning lights on the bridge of the ferries. These warning lights would have warned captains whether or not the bow doors were open. The costs of installing the lights would not have been excessive and certainly represented a cost-effective investment in relation to the costs of a ferry capsizing. However, managers refused the requests to install a warning system.

Hopkins explains this apparently irrational behaviour by arguing that, "no matter how costly a safety failure may seem for the company as a whole, top managers themselves may be shielded from any untoward financial consequences."¹⁶ Consequently, "The relative indifference to safety displayed by senior officers at P&O, which appeared quite irrational from the point of view of any overall cost-benefit analysis, may well have been quite rational in terms of the personal cost-benefit calculations implicitly made by these decision makers."¹⁷

Hopkins cites other major disasters (the Bhopal and the Moura Mine disasters) to demonstrate that safety failures do not necessarily have any 'costs' for key decision-makers (or even shareholders), even when the costs born by the organisation are huge. For example, immediately following the Bhopal disaster senior management were paid 28 million dollars in so-called "golden parachutes" as insurance against future takeover attempts. And in 1988 – just four years after the disaster – the company made record earnings per share. Hopkins therefore argues that whilst safety may 'pay' in the abstract sense, this is irrelevant unless it can be shown that safety pays for relevant decision makers. The case studies discussed by Hopkins demonstrate further the potential limitations of relying on financial arguments to motivate managers to take action of OHS. It is clear that in at least some cases (and perhaps in many cases) safety does *not* pay for key decision makers since they are shielded from any financial loss following safety failures.

Inherent dangers of the safety pays argument

Finally, even if employers (and individual senior managers) in the UK were to bear a greater proportion of the real costs of injuries and ill-health, there is a more general problem with encouraging an economic approach to occupational health and safety amongst UK firms. This is that the economic costs to employers incurred by accidents, injuries and ill-health do not necessarily correspond directly to the most significant health and safety risks. This means employers hoping to reduce costs will not necessarily expend money on health and safety where the risks to workers are greatest. For instance, Cutler and James point out that. "A financially driven approach must assume that employers would give priority to examining the case for investment where accident costs are highest." They then demonstrate that such an approach can lead to outcomes and patterns of investment that do not necessarily advance worker safety:

"The [HSE's Costs of Accidents] study estimates that the average costs of non-injury accidents are nearly three times those of injury accidents (£224 against £75). Thus, the pursuit of financial returns may target those accidents less likely to be linked to personal injury."¹⁸

Similarly, firms might make an economic calculation that lost-time injuries cost more (in productivity terms) than occupational diseases characterised by long latency periods and difficulty in proving that the condition was caused by work (such as lung cancer). In economic terms, it would be perfectly rational for employers to reduce expenditure aimed at minimising workers' exposure to carcinogens, even where this resulted in a significant risk to workers, and spend that money instead on reducing slips, trips and falls. Not only, therefore, might employers fail to safeguard workers in relation to the full range of health and safety hazards, but they might also prioritise less serious hazards over life-threatening diseases simply because the less serious hazards cost the firm more.

An example from the empirical literature is the case of the Esso Gas Plant explosion, which occurred outside Melbourne. Evidence suggests that management were conflicted between the need to control potential major hazards arising from business operations at the Longford plant, and the need to reduce the costs of lost time injuries. They chose to focus on the latter at the expense of the former, with disastrous results.¹⁹

There are then potential *dangers* to workers in advocating an approach based on economic calculation, since the logical extension of the HSE's argument is that "the rational employer should... prioritise the avoidance of accidents by reference to potential financial returns"²⁰ rather than by reference to the relative risks to workers health and safety posed by a range of existing hazards.

Reputational Risk

Whilst government agencies have not been particularly successful in persuading companies of the economic benefits of improved Occupational Health and Safety performance, it is now being suggested that regulators should concentrate on persuading employers that safety pays in terms of other (sometimes non-tangible) business benefits, which nevertheless ultimately affect the bottom line.²¹ There is some support for the contention that reputational risk motivates employers to comply with the law.²² For instance, an OECD report found that:

"many enterprises are motivated to comply with the law, or at least to appear to comply with the law, in order to maintain their legitimacy in the eyes of the government, industry peers, and the public... Hoffman's (1997) study of corporate environmentalism in the US petroleum and chemicals industry uses neo-institutional theory to explain why the growth in corporate attention to environmental issues did not follow trends in volume of new environmental laws and regulations nor growth in industrial expenditure on environmental issues as deterrence theory would predict, but rather rose and declined with public concern with environmentalism... Similarly Rees' (1997) study of the emergence of the US Chemical Manufacturers' Association, Responsible Care, self-regulatory programme also finds that it was the imperatives of institutional legitimacy that forced chemical companies to regulate themselves after the Bhopal accident, rather than a simple model of deterrence."²³

However, there are two problems with a straightforward acceptance that 'reputational risk' is a significant motivator of firm behaviour. First, as the OECD report acknowledges:

"a number of scholars who have researched in this area have pointed out that often a concern with legitimacy can motivate enterprises to manage their image of compliance, without necessarily complying substantively with the requirements of regulation".²⁴

Second, much of the evidence concerning the effects of public opinion come from studies concerned with industry initiatives in relation to environmental management whereas evidence on the extent to which reputational factors influence *health and safety management* have been mixed. For instance, an evaluation of the 'Good Health is Good Business' campaign found that only 2% of respondents (including both large organisations and SMEs) made improvements mainly due to the wish to improve company image and reputation. And only 1% of respondents cited shareholder, bank, or public pressure as the main reason for making improvements.²⁵

In contrast to this, two recent surveys indicate that reputational risk may be a driver for large firms. A 1999 MORI survey of 102 of the most senior directors in Britain, drawn from a representative sample of large companies, found that 79% of respondents cited health and safety as having a great or fair amount of tangible impact upon corporate reputation.²⁶ And Wright *et al.* report that amongst large organisations, concern about corporate responsibility and ethical image was the second top ranked influence determining board level involvement in health and safety management.²⁷

There is no clear explanation for these contradictory findings. Gunningham notes that much of Wright's evidence that concern for corporate credibility is one of the main drivers of management commitment to OHS is drawn from studies of firms operating in high risk sectors, such as chemical production and public transport. In such sectors, firms fear "that the adverse publicity, loss of confidence and regulatory attention subsequent to a serious incident will cause serious curtailment of operations, imposition of additional costs, loss of corporate credibility and loss of business/interruption of operations."²⁸ Gunningham argues that: "Corporate image may be less influential in sectors which do not have such concerns."²⁹

Thus, there appears to be some evidence that high profile firms in high risk sectors are most likely to be 'reputationally sensitive'. However, Wright has identified a range of circumstances that will diminish concern for corporate image even amongst high risk, high profile operators. These will be discussed further below. What is clear is that 'reputational risk' is highly contingent and will not motivate all organisations in all sectors all of the time.

To what extent then, and under what circumstances, might regulators be able to persuade employers that poor health and safety performance will damage their company's reputation and that this will pose a significant risk to their business? These questions will be explored below.

How does OHS performance impact upon corporate reputation?

Research by Smallman and John suggests that the 'poor OHS performance can lead to competitive disadvantage through impairing a firm's status in the eyes of one or more of its stakeholders',³⁰ but that *good* OHS performance does not generally enhance firm reputation or lead to competitive advantage. Thus, it appears that OHS performance generally only impacts on corporate reputation in a negative sense. This is consistent with Wright's interpretation of the data. Wright suggests that:

"the ultimate fear concerning adverse publicity and loss of public/customer confidence is that business activities may be curtailed".³¹

A number of implications flow from this. First, these findings suggest that, at present, concern for corporate reputation is unlikely to lead to improvements that go significantly beyond what is required by law. Second, a number of conditions must exist before reputational risk will begin to operate as a driver of OHS compliance:

- there must be a high chance that poor performance will be detected and broadcast;
- there must be an audience that will react to poor OHS performance,
- and finally there must be a significant chance that this audience reaction will result in the curtailment or interruption of business activity or some financial loss.

The circumstances and extent to which these conditions may exist are explored further below.

Detection and Blame

In the UK the detection of poor OHS performance not involving major injury or loss of life is, by and large, wholly dependent upon HSE inspections and investigations. *Some* individual fatalities, major injuries and serious 'near misses' may be picked up and reported by the media independently of HSE involvement, but many will not and reporting is likely to be restricted to the local press. Multi-fatality disasters will generally be reported by the national media independently of any HSE involvement.

However, even in the context of multi-fatality disasters, reputational damage and loss of customer/public confidence is only likely to occur after a regulatory body or public inquiry has found that a company bore full or part responsibility for the disaster, and made this finding public.³² In conclusion, major 'scares', fatalities, enforcement notices and prosecutions are all – in Wright's words – 'symbols of failure' that can impact negatively on a company's reputation. However, as Wright argues, the level of regulation, frequency of contact with regulators and perceived effectiveness of regulator activities are all crucial to the detection of corporate failure and the allocation of fault.³³

Audience Reaction and Business Impacts

The creation of reputational risk as a driver for corporate compliance is dependent on the existence of two further conditions:

- First, there must be (and employers must believe there to be) a high probability that one or more key 'stakeholders' will react negatively to the detection of any OHS failures. Key 'stakeholders' could be: the public; employees, shareholders, customers or regulators.
- Second, employers must believe that this negative reaction will have, or is likely to have, an adverse impact on business activity.

The extent to which, and the way in which, stakeholders can affect business activity will depend on who the stakeholder is and also on the context within which the firm operates. For instance, a negative regulatory reaction could result in a prohibition notice and, therefore, a temporary suspension of business activity. A negative reaction by customers could result in loss of confidence in the business and/or its product and a subsequent decline in market share. However, the evidence suggests that these impacts are far from certain, and are mediated by a number of other factors. Examples of some of these factors are given below in relation to various stakeholders:

Shareholder Reaction: Clearly a negative reaction by shareholders can affect business activity. Loss of shareholder confidence can lead to a range of economic effects, such as loss of shareholder value. The available evidence however suggests that shareholders are unlikely to operate as a driver for improved OHS performance on a day-to-day basis, since they are not generally proactive on the issue of health and safety. For instance, only 1% of respondents to a UK survey involving 1,902 organisations cited either shareholder, bank or parent company pressure as a reason for initiating OHS improvements within their organisations.³⁴ Similarly, recent research on OHS within the construction industry in the UK found that owners and shareholders were perceived by interviewees "to have little influence over health and safety".³⁵

On the other hand, shareholders might be expected to react strongly to large-scale disasters, making anticipation of shareholder reaction a greater motivator in high risk sectors. However, and perhaps surprisingly, the evidence suggests that shareholder reactions to disasters can have either a negative *or positive* impact on business activity. Knight and Pretty analysed the impact of fifteen major corporate catastrophes on shareholder value. They found that whilst the catastrophes initially had a significant negative impact on shareholder value there was, on average, an apparent full recovery in just over fifty trading days. The ability to recover did however vary considerably between firms. The authors found that for those firms that recovered by the fiftieth trading day,

"the average cumulative impact on shareholder value for the recoverers was 5% plus. So the net impact on shareholder value by this stage was actually positive."³⁶

In attempting to explain why shareholder value should, in some cases, actually increase following a major disaster, Knight and Pretty argue that:

"Although all catastrophes have an initial negative impact on value, paradoxically they offer an opportunity for management to demonstrate their talent in dealing with difficult circumstance."³⁷

It appears then that shareholders view health and safety management as distinct from the

management of 'core business'. They do not appear to believe that the one reflects on the other, and are more concerned with senior managers' ability to effectively manage the crisis. Therefore major disasters – even those involving loss of life – do not necessarily have long-term (or even medium-term) negative impacts on shareholder confidence, and in some cases actually offer senior managers an opportunity to *enhance* their reputations in the eyes of shareholders. Following Hopkins (see above), it is clear that we also need to ask in relation to reputational damage: 'for whom does safety pay'? These cases show that senior decision makers do not necessarily suffer reputational damage following a major catastrophe and may even benefit from it. Interestingly, Knight and Pretty class Union Carbide as a 'non-recoverer' six months after the Bhopal disaster. However, as we have seen, senior management benefited from the disaster in monetary terms, despite the loss of shareholder value (see above). So even when there is a negative shareholder reaction, there is no guarantee that management will be affected by this.

Customer and Supply Chain Pressure (4): Here again, the evidence suggests that customers rarely exert a positive pressure on employers to improve their OHS performance. Only 1% of respondents cited customer pressure as a main prompt for improvements in a recent survey of 1,902 organisations in the UK.³⁸ Similarly, Brazabon *et al.* report that:

"Pressure from stakeholders to improve health and safety is considered to be relatively low for most [construction] companies."³⁹

And Smallman and John report that:

"Customer influence is not a direct source of pressure for improvements in health and safety management."⁴⁰

Whilst there has been some consumer pressure exerted on brand name companies in relation to working practices and conditions within subsidiary companies or amongst their suppliers,⁴¹ these consumer campaigns have not tended to address working conditions or health and safety practices within companies located in the UK. Consumer awareness and concern about corporate health and safety performance is really only likely to become an issue within a limited range of contexts – for example in sectors where services may pose a risk to public safety, such as the rail, road or air transport industries. And even here, the extent to which consumers or customers can directly impact on business activities will be further limited in relation to public sector or monopoly operators. Wright points out that in these contexts any negative impacts on business will be dependent upon regulator intervention.⁴²

Wright also points out that the extent to which 'stakeholders' can exert customer or supply chain pressure by withdrawing their demand for a particular service will be circumscribed if supply of and demand for a service are 'inelastic'. For example, supply of a service may be inelastic if the service depends on a large, costly infrastructure that takes long periods to construct, such as rail services, or services that are difficult to substitute such as law enforcement services.⁴³ Here again, stakeholders will depend upon regulator or direct government intervention to impact upon the business. In inelastic markets, services cannot be readily substituted, but regulator and government action can nevertheless impact on business through, for instance, the imposition of additional costs (by introducing new regulations or imposing additional safety requirements), or through restrictions on operational/commercial freedom.⁴⁴

In relation specifically to supply chain pressure, there is no evidence that it currently acts as a general driver for improved OHS performance amongst employers.⁴⁵ For instance, no respondents to the survey referred to above cited competitor pressure as a factor motivating improved OHS performance,⁴⁶ and a study of health and safety in the construction industry reported that interviewees considered that the health and safety practices of competitors had *the least* influence over health and safety out of a number of possible influences.⁴⁷ This evidence suggests that, in general, employers do not believe that having a better health and safety record than their competitors will put them at an advantage in winning work, and this is consistent with Smallman and John's⁴⁸ finding that even amongst large firms, British directors do not believe that good OHS performance gives firms a competitive advantage.

In fact, there is some evidence that supply chain pressure can, and in certain sectors commonly

does, exert a negative influence on occupational health and safety practices. This appears to be particularly true in the construction industry, where the selection of tenders is driven by commercial criteria, principally cost.⁴⁹ One exception to this identified by Whittington *et al.*⁵⁰ was where the client was a petrochemical company. Whilst introduction of the Construction (Design and Management) Regulations 1994 (CDM) was intended to address this problem by imposing explicit safety duties on clients, subsequent research by Brazabon *et al.* suggests that most clients in the construction industry continue to feel that safety is not their responsibility, and fail to recognise the importance of good OHS performance at the contract award stage. This is supported by the fact that three quarters of the respondents to HSE's 2002 discussion document *Revitalising Health and Safety in Construction*, saw clients 'quickest – cheapest' approach as the main challenge to good health and safety standards in the industry.⁵¹

A common perception within the industry is that the regulations have failed to have the desired impact because they have not been rigorously enforced by the HSE, and in particular the provisions relating to the duties of clients.⁵² This is significant because earlier HSE-commissioned research recommended:

- that the liability of clients be made more explicit;
- that the legislation be strictly enforced;
- and that penalties for non-compliance should be substantial and, once liability had been established, be clearly directed at the client.⁵³

Mayhew and Quinlan⁵⁴ report that employers in the construction sector perceive that the low levels of enforcement *against other firms* also contribute to a situation where strict health and safety management puts firms at a competitive disadvantage. This is because 'cowboys' are allowed to get away with poor performance making it uncompetitive for other firms to raise their OHS performance.

Where supply chain pressure *has* been found to exert a positive influence over health and safety performance, this has been in highly regulated sectors, "reinforcing the benefit of continued regulation and enforcement in the major hazard sectors."⁵⁵

Public Reaction: The public are generally in a similar position to customers in inelastic, public sector or monopoly markets in that they are unable to directly impact on business activity and therefore depend upon the intervention of the regulators or government. For instance, Wright argues that the fear, for employers, is that "public or political reactions can nonetheless impact operations via the actions of regulating bodies, where such regulators are thought to be able to have a substantive impact on the organisation."⁵⁶

Public reaction to poor health and safety performance is again only likely to arise where the activities of the organisations are perceived to pose a risk to public safety – for example, in relation to the chemical or nuclear industries – or in some cases where activities are seen to pose a risk to the environment. For example, Brazabon *et al.* report in relation to the construction industry that: "Opinions about whether high profile projects are always well managed vary widely and many instances of problems on this type of project were quoted. Interestingly, reputation risk is considered to be important for prestigious projects, but it is thought that the priority is given to environmental issues rather than health and safety."⁵⁷

Inherent Dangers of Reputational Pressures

Wright *et al.* warn that there may be a flaw in the use of 'reputation risk' as a lever, in that organisations may 'only manage those aspects of health and safety that they believe they will be judged on', and perhaps neglect more serious risks.⁵⁸ An emphasis on 'reputational risk', then, has the same potential pitfalls that were discussed in relation to arguments concerning the economic case for improved OHS. Examples of these dangers can be found in the empirical literature. For instance, Thomson-MTS found that where noise control measures were motivated by management's need to improve public relations:

"this involved reducing the levels of environmental noise in order to avoid affecting residential or public areas nearby; it did not significantly lower noise levels within the workplace."⁵⁹

Wright *et al.* also suggest that major hazard operators may attempt to reduce injury rates whilst overlooking the control of rarer, but potentially catastrophic, risks, or that organisations with nuclear operations may focus on radiological risks to the exclusion of conventional OHS risks.⁶⁰ In other words, as Wright argues:

“it is possible that, if left unmanaged, ‘reputational’ driven health and safety management may lead to an incongruent/skewed allocation of effort.”⁶¹

Reputational Risk and the Role of the Regulator

Whilst reputational risk is generally regarded as a lever to promote *voluntary* compliance, it is clear that the activity of *regulators* is fundamental to the creation of reputational risk. To summarise, regulatory action is often a precondition to the creation of reputation risk in the following respects:

- 1) For reputational risk to act as a significant motivator, employers must believe that there is a high probability that health and safety failures will be detected, publicised and condemned. This implies that levels of HSE inspection and investigation should be high, and that prosecutions or other types of enforcement action should be widely publicised.
- 2) Regulatory enforcement action that has commercial ramifications, or a significant adverse impact on business activities, is crucial to ensure that negative reactions by stakeholders act as a lever in circumstances where those stakeholders cannot directly affect demand or control management of an operation. Furthermore, businesses must *perceive* that there is a real threat that regulators will take robust action in such situations.
- 3) The evidence suggests that supply chain pressure only operates as a positive lever for improved OHS performance in the context of highly regulated, safety critical sectors.⁶² In sectors like construction, HSE enforcement action against clients would appear to be necessary before supply chain pressure will act as a positive force, and is also necessary to prevent clients exerting a negative influence over health and safety practices.⁶³
- 4) Enforcement is also fundamental to the creation of a level playing field so that expenditure on OHS does not put firms at a competitive disadvantage.⁶⁴

Finally, even if the activity of regulators were not essential to the *creation* of reputational risk, it would continue to be essential to *counterbalance* its effects. This is because reputational risk frequently does not provide the kind of pressure that will lead to equal action on all aspects of health and safety, or even to the prioritising of those areas of greatest risk.⁶⁵ Inspection and enforcement by regulators therefore remain vital to ensure that significant risks to health or rare, but potentially catastrophic, risks are not overlooked.

Conclusion and Implications for HSE’s ‘Business Case’

As stated at the beginning of this section, the HSE has recently confirmed its commitment to persuading employers of the business case for OHS, despite ample evidence that UK employers are not, in fact, motivated to improve OHS by business considerations. HSE may be persisting with this approach in part because a recent study by Greenstreet Berman recommended that, “further work in promoting the business case is needed”.⁶⁶ The following reasons were given:

- (1) That the low frequency of organisations citing commercial reasons for improving health risk management could be interpreted as evidence that they remain unaware or unconvinced of what is nevertheless a strong business case;⁶⁷
- (2) That there are a number of elements to the business case, each of which can be appraised separately and differently by employers.⁶⁸

However, Wright *et al.* also report the results of a recent evaluation of the ‘Good Health is Good Business Campaign’ which found that the majority of organisations perceive ill-health

to cost “a little” or “nothing significant”, and conclude that: “Given that the majority of organisations... believe that they measure the costs of ill-health well or very well, this appears to represent a reportedly ‘well-informed’ opinion”.⁶⁹ In other words (and as Wright *et al.* acknowledge elsewhere in their report) it may be the case that ill-health does *not* in fact cost employers a significant amount in most circumstances. Moreover, the discussion in the previous section suggests that there are potential dangers in encouraging employers to base action around OHS on economic calculations, since these can lead to skewed action, and even to action that does not promote the health and safety of workers.

In relation to the argument that there are a number of separate elements to the business case beyond the economic argument, the evaluation of the GHGB campaign found that only 8% of employers who were aware of the campaign (that is, who had been presented with the ‘business’ arguments for improved occupational health management) reported that they were prompted to make improvements due to business impacts, and this included *all* elements of the business case and not just the economic case. Moreover, only 10 per cent thought that evidence of business impacts would prompt them to do more.⁷⁰ Therefore it appears that employers are not greatly motivated by other business factors, such as PR, customer pressure or supply chain pressures (see above).

Furthermore, it should be stressed that reputational risk provides only a partial lever. Not all firms are reputationally sensitive and it is clear that even amongst those that are, reputational risk does not always provide a sufficient motivation to maintain or achieve good standards of OHS. Neither does it provide motivation in relation to those aspects of OHS that companies feel they will not be judged on publicly. This means that at best, reputational risk will result in uneven attention to OHS, with regulation needed to apply pressure to manage those risks that do not give rise to reputational concerns.

It should be clear from the preceding discussion that:

- Poor health and safety performance does not always damage an organisation’s reputation in a way that will have a negative impact on its commercial position.
- The range of contexts in which organisations might be motivated by concern for their reputations or by other business considerations to improve OHS appears to be quite limited.
- Even if business levers and reputational risk acted as significant motivators of voluntary compliance and improvement in most situations, the activity of regulators would still be key, for the following reasons:
 - o inspection and enforcement are key to detection and the allocation of blame, and
 - o inspection and enforcement are vital to correcting to skewed effects of business and reputational pressures.

Fear of loss of corporate credibility, therefore, depends on a system of frequent and widespread inspection and investigation to create a high probability of detection. It also depends on a perception that regulators will not tolerate, and will take vigorous enforcement action in the face of persistent failures to adequately control risks. The evidence suggests that current levels of HSE inspection, investigation and enforcement are too low to create a high level of concern for reputational damage.

Making the Moral and Social Case

The current Chair of the HSC has stated that, “if we want long-term gains we need hearts and minds, not grudging acceptance”.⁷¹ It must be said that the HSC/E has so far put much more effort into winning ‘minds’ (through promotion of the business case) than it has into winning ‘hearts’ (through presentation of the moral and social case). A shift in emphasis towards presentation of the human costs of work-related injuries, ill-health and death would be welcome. In comparison to the focus on reputational and economic risks, arguments based on the moral case for improved OHS performance are less likely to prompt a skewed response from employers.

Also, presentation of the moral and social case to a more general audience would be expected to bring benefits in terms of creating support for and acceptance of new legislation, HSE enforcement activity, and the need for HSE to be adequately resourced. It might also help to create an environment where accusations of over-zealous enforcement and burdensome and unnecessary regulatory restrictions are given little credence.

However, presentation of the moral and social case is undermined by inadequate resourcing and under-enforcement of existing regulations since it conveys an impression that Government does not take violation of health and safety law seriously. Campaigns to 'win hearts' in other contexts – for example in relation to the unacceptability of domestic violence or speeding – report that a combination of educational techniques and a 'zero tolerance' approach to enforcement of the law have been most effective. Perhaps the same lessons could be usefully applied in the context of occupational health and safety.

Reputational Risk and Other HSE Initiatives

Where fear of adverse publicity and loss of corporate credibility is a significant motivator for large, reputationally sensitive firms, or firms operating in high-risk sectors, the evidence suggests that there are other regulatory and legal strategies that are likely to be effective. These include: mandatory occupational health and safety performance reporting; formal 'adverse publicity' orders; the regular and widespread naming and shaming of non-compliant and dangerous organisations and their directors.⁷²

HSC/E has gone some way towards developing new levers that might be expected to motivate large employers' concern for their image and credibility. For instance, the HSC/E have developed a Health and Safety Performance Index for use by investors and insurers, challenged top 350 FTSE firms to publicise their health and safety performance in Annual Reports, and created an offences database that can be accessed directly by the public.

However, recent HSC/E initiatives may be failing to fully take advantage of companies' reputational fears. For instance, the publication of health and safety information in Annual Reports is an entirely voluntary initiative and as such may not provide a sufficient incentive to companies to improve their performance. In relation to the publication of HSE's prosecutions and notices database, the HSE contemplated and then rejected the option of publishing a league table which ranked offenders either according to number of convictions per year or according to size of fines.⁷³

The HSE expressed a number of reservations concerning the publication of a league table, including concerns that a league table could "harm investment and contract success (especially in relation to SMEs)", and that publication of a league table "risks general criticism and a bad reaction from industry... on the basis that we are fostering a culture of blaming employers and pursuing them in an oppressive manner." Instead the HSE opted to publish convictions on a continuous basis on their website. The HSE prosecutions and notices database can hardly be said to entail a public 'shaming' of the worst health and safety offenders since offenders are not ranked, and it does appear from the reservations expressed by HSE that shaming offenders was precisely what the HSE wanted to *avoid*. It is also interesting to note that whilst it has been proposed that the HSE should undertake "further work to increase the exercise of client pressure",⁷⁴ the HSE also appear to be more concerned about *harming* contract success for individual companies through the publication of adverse health and safety information.

Promoting the Positive?

Since research suggests that poor health and safety performance may negatively impact on a company's reputation, but that the converse is not true – that is, good health and safety performance does not currently offer a competitive advantage to firms⁷⁵ – it has been argued that strategies should also be devised to publicise and reward good performance.⁷⁶ There are already a number of such initiatives at both national and European levels. However, the question of what performance to award is absolutely crucial and one problem with these initiatives has been that companies awarded for good OHS practices in one area have subsequently been found to be *poor* performers in relation to some other aspect of OHS.

For instance, when BP Grangemouth received a European-wide award for its management of psychosocial risks, the company was publicly praised by HSC through press releases and on its website. However, BP Grangemouth had only recently been roundly criticised by the HSE and the Scottish Environment Protection Agency for a series of management failures resulting in life-threatening accidents at the Grangemouth complex. Such contradictions create cynicism and undermine the validity of awards, particularly where the breaches have caused death, serious injury or ill-health. For instance, the Piper Alpha Families and Survivors Association were shocked and distressed when they learnt that Occidental Caledonia had 'earned a special pat on the back' by RoSPA. The company had received a 'silver sword for making the working environment safer for employees'.⁷⁷ Schemes that award good performance should attempt to ensure that companies' performance is *genuinely* and *consistently* good in relation to the full range of health, safety and environmental issues.

¹ Health and Safety Commission (2004a: 8).

² Health and Safety Commission (2004a: 16).

³ Wright (1998).

⁴ Hillage *et al.* (2001: 40).

⁵ Wright *et al.* (2000: 104).

⁶ Wright (1998: iv).

⁷ Wright (1998: 17-18), and Davies and Teasdale (1994) who demonstrate that firms incur no more than 15% of the cost of workplace injuries and ill-health in the UK.

⁸ Note though that Cutler and James (1996: 759) argue that the HSE's 1993 research report *The Costs of Accidents at Work* actually fails to establish the cost-effectiveness of avoiding the case study accidents since no data were gathered on the expenditure required to avoid them!

⁹ See for instance Hopkins (1995); Cutler and James (1996) and references therein; Gunningham (1999a) and references therein.

¹⁰ Wright (1998: 32).

¹⁰ Johnson and Kaplan (1987).

¹² Rappaport and Flaherty (1991) discussed in Gunningham (1999a: 19).

¹³ Hopkins (1999: 148).

¹⁴ Wright *et al.* (2004: 14).

¹⁵ Wright (1998: 10).

¹⁶ Hopkins (1999: 150).

¹⁷ Hopkins (1999: 151).

¹⁸ Cutler and James (1996: 758).

¹⁹ O'Dea and Flin (2003: 14).

²⁰ Cutler and James (1996: 758).

²¹ O'Dea and Flin (2004: 11); Wright *et al.* (2004: 29-33).

²² Wright (1998).

²³ OECD (2000: 70-71).

²⁴ OECD (2000: 71).

²⁵ Wright *et al.* (2000). See also Brazabon *et al.* (2000).

²⁶ Smallman and John (2001).

²⁷ Wright *et al.* (1993).

²⁸ Wright (1998: 12).

²⁹ Gunningham (1999a: 17).

³⁰ Smallman and John (2001: 237).

³¹ Wright (1998: 20).

³² Wright (1998: 104).

³³ Wright (1998: 13).

³⁴ Wright *et al.* (2000: 104).

³⁵ Brazabon *et al.* (2000: 54). See also Wright *et al.* (2003: 51).

³⁶ Knight and Pretty (1998: 5.) Emphasis added.

³⁷ Knight and Pretty (1998: 6).

³⁸ Wright *et al.* (2000: 104).

³⁹ Brazabon *et al.* (2000: 62).

⁴⁰ Smallman and John (2001: 235).

⁴¹ For example the No Sweat campaign.

- 42 Wright (1998: 13).
- 43 Wright (1998: 22).
- 44 Wright (1998: 22).
- 45 Wright (2004: 33).
- 46 Wright *et al.* (2000: 104).
- 47 Brazabon *et al.* (2000: 54).
- 48 Smallman and John's (2001).
- 49 Whittington *et al.* (1992); Mayhew and Quinlan (1997); Brazabon *et al.* (2000). Another problem with the extensive use of sub-contractors is that responsibility for complying with health and safety requirements can be passed along the contractual chain. This problem was also identified in the rail industry where it was judged that these relationship create a "cascading effect on non-compliance". (Cullen: 2001b: 54).
- 50 Whittington *et al.* (1992).
- 51 National Audit Office (2004:17).
- 52 Brazabon *et al.* (2000: 62).
- 53 Whittington *et al.* (1992: 116-117).
- 54 Mayhew and Quinlan (1997).
- 55 Wright *et al.* (2004: viii).
- 56 Wright (1998: 22).
- 57 Brazabon *et al.* (2000: 54).
- 58 Wright (2004: 31-32).
- 59 Thomson-MTS (1993a: 88). Emphasis added.
- 60 Wright *et al.* (2004: 32).
- 61 Wright *et al.* (2004: 32).
- 62 Wright *et al.* (2004: 33).
- 63 Brazabon *et al.* (2000).
- 64 Mayhew and Quinlan (1997).
- 65 Thomson-MTS (1993a); Wright (1998); Brazabon (2000: 54).
- 66 Wright *et al.* (2004: viii).
- 67 Wright *et al.* (2004: 41).
- 68 Wright *et al.* (2004: 20).
- 69 Wright *et al.* (2004: vii).
- 70 Wright *et al.* (2000).
- 71 Health and Safety Commission (2004a: 3).
- 72 Gunningham (1999).
- 73 Health and Safety Executive (1999) 'Naming and Shaming Offenders: The Preparation of League Tables of Those Prosecuted', HSE Board Discussion Document B/99/222, 20 October 1999.
- 74 Wright *et al.* (2004: 75).
- 75 Smallman and John (2001).
- 76 Gunningham (1999: 42).
- 77 Woolfson *et al.* (1996:292).

Chapter Ten

'Earned Autonomy'

The previous discussion suggests that the majority of firms have neither the motivation nor the capability to effectively self-regulate. And that even when firms can be motivated by economic considerations, concerns for their reputation or supply chain pressures, these levers do not ensure that attention or resources are consistently or adequately directed toward the control of *all* the hazards that face workers or members of the public.

Nevertheless, some commentators have argued that whilst the majority of firms are not motivated to achieve high standards of occupational health and safety (OHS), there may be a minority of employers who have implemented effective systems of health and safety management and who are sufficiently motivated to self-regulate with minimal regulatory intervention. Consequently, it is argued that regulators should adopt different strategies to suit the different levels of motivation and competence exhibited by different organisations. For instance, Gunningham and Johnstone argue that to 'reward' good performers, to encourage companies to go beyond mere compliance with minimum standards, and in the context of limited regulatory resources, regulators should adopt a differentiated and targeted approach to intervention, and that one of the ways of doing this would be to introduce a 'twin track' approach to regulation.¹

Under the twin track approach regulators would continue to undertake routine preventative inspections of, and enforcement action in the event of serious non-compliance against 'poor performers' or firms that do not possess the resources or competence to adopt a systems approach to OHS management (track one). However, 'good' OHS performers who adopt a systems-based approach to OHS management² would enter into partnerships with the regulatory agency "in a manner that involves substantial self-regulation"³, and in which primary responsibility for finding solutions to OHS problems would rest with the organisation itself (track two). Whilst 'track two' companies would be subject to some regulatory oversight under the scheme proposed by Gunningham and Johnstone, this would largely be limited to an auditing of the company's safety management system (SMS) and its initial implementation.⁴ In other words, regulators (or private, third party auditors) would monitor 'systems compliance' rather than compliance with the range of specific OHS standards.

Gunningham and Johnstone also argue that since not all employers are similarly motivated to, or capable of, adopting a management systems approach to OHS, imposing legislation that mandates the adoption of a systems approach would be inappropriate and possibly counter-productive, as well as resource intensive for the regulatory agency. Instead they suggest that incentives – which could include offering logos, abbreviating or reducing the likelihood of inspections and reducing penalties if prosecutions take place – should be offered to the 'good performers' to encourage them to adopt a safety management system and participate in 'track two'.⁵

It is important to note that the Health and Safety Executive (HSE) already has a hazard rating system for prioritising and targeting inspections,⁶ which is based both on the nature of the risks facing workers in particular workplaces and also on HSE's judgment of the propensity of a particular employer to comply voluntarily with health and safety requirements. The HSE has also shifted towards greater monitoring of systems compliance in relation to specific sectors – most notably chemicals, major hazard installations and offshore oil.⁷ What some commentators are now proposing is that HSE should withdraw from inspecting selected employers altogether. For instance, RoSPA and the CBI, have argued that HSE's current *informal* approach to differentiated intervention should be formalised, with 'higher performers put on trust' to self-regulate without HSE intervention.⁸ RoSPA has argued that such an approach would allow for more efficient allocation of scarce HSE resources, by enabling inspectors to concentrate their efforts on poorly performing firms.

Whilst appearing to offer advantages in terms of a more efficient use of inspection resources, such an approach would also be consistent with the current Government's commitment to lighten the burdens on business through 'targeted deregulation'.⁹ It appears that HSC/E are now seriously considering this possibility, and have recently published an internal discussion document in which they suggest how certain employers might be exempted from routine inspection. The HSE describe such an approach as 'earned autonomy':

"meaning that the performance and standards of a particular duty holder are good enough to earn them autonomy from routine intervention by the regulator."

The paper notes that:

"An approach on similar lines has been operated by OSHA in the US for the last 20 years in their 'Voluntary Protection Programme'".¹⁰

Only certain companies would be offered the chance to participate in this scheme, but how would these organisations be selected? HSE has suggested that such duty holders might be expected to possess some of the following:

1. An internal health and safety management system conforming to some standard and subject to regular internal or third-party auditing that would be paid for by the organisation.
2. 'Good'¹¹ performance in relation to a specified measure such as injury rates.
3. Effective systems for employee involvement.
4. Involvement of directors by making a named main board director (or equivalent) responsible for health and safety.
5. Effective systems for engaging with third parties.¹²

A number of assumptions underlie these proposals. First, we must assume that there are indeed some organisations that have already achieved, or are capable of achieving, effective internal self-regulation through systematic management of OHS and that this will continue in the absence of routine regulatory inspection and intervention. Second, since it is acknowledged that there will be some enterprises that lack a genuine commitment to OHS but will attempt to gain the administrative or public relations benefits of earned autonomy by adopting 'paper systems',¹³ we must assume either that the selection criteria HSE uses will 'screen out' such companies, or that third party oversight will provide a reliable mechanism for identifying 'paper compliance' once companies have been granted earned autonomy status. And third, we must assume that adoption of 'earned autonomy' will indeed allow for more effective use of the inspectorate's resources.

In the following sections we will consider to what extent the empirical evidence supports these assumptions.

OSHA's Voluntary Protection and Cooperative Compliance Programs

Gunningham and Johnstone state that: "an example of how self-regulation can be made to work in practice is that of the Voluntary Protection Program"¹⁴ (VPP). OSHA's Voluntary Protection Program began in 1982 and was offered to companies considered to have exemplary health and safety records and which agreed to abide by certain conditions – including the adoption of a systems-based approach to OHS management.¹⁵ The schemes rely on various incentives to encourage the participation of 'good performers', including the awarding of stars and logos to participating companies and exemption from routine OSHA inspections.¹⁶ As of 1999, the VPP program included 516 companies, employing more than 300,000 workers.¹⁷

A similar experiment in self-regulation, but one that applied only to firms with exemplary safety records within the construction industry, was California's Cooperative Compliance Program (CPP). The program focused on seven large construction projects, each employing between 250 and 4500 workers. Participating companies agreed to establish joint labour-management safety committees that would carry out many of OSHA's regulatory functions, whilst routine OSHA inspections were discontinued.¹⁸ A rather different sort of initiative was the "Maine 200" program, which differs from VPP and CPP in that it was aimed at the 200 companies with the state's *highest* levels of injuries. Participating companies worked cooperatively with OSHA to develop health and safety programs to identify and abate hazards and self-report identified hazards to OSHA. In return, firms were not prosecuted for any safety hazards or violations that came to light during the process, and were only subject to traditional inspection and citation in response to worker complaints, accidents and referrals.¹⁹

It is important to note that even though OSHA introduced its first Voluntary Protection Programs (VPP) over twenty years ago, a report by the US General Accounting Office (GAO) published this year concluded that there had never been a systematic evaluation of either their individual or their relative effectiveness.²⁰ The evidence that does exist in relation to the impact of these programmes is contradictory.

Participating firms and OSHA have claimed that VPP companies are achieving significant reductions in their injury rates.²¹ And a report by the OECD refers to 'evidence' that firms participating in the Maine 200 Program in the United States achieved an overall reduction in compensation claims of 47.3% between 1991 and 1994 (as compared to a reduction of 27% amongst all Maine employers).²² However, an analysis of the Maine 200 program commissioned by OSHA paints a more complicated picture. While OSHA reported that by 1995 employers had identified and reported hazards at a rate 14 times greater than would have occurred under traditional OSHA enforcement, Mendeloff makes three observations which cast doubt on the significance of these results.²³ First, half of the identified hazards came from four particular firms in the paper industry, all of which were unionised. Therefore the impressive level of hazard identification may not have been representative and may have been a consequence of strong trade union organisation and action on health and safety. Second, there was little information about the severity of the hazards identified in the companies' self-surveys, so it was difficult to assess how they compared to the type of problems detected through traditional enforcement. And finally, whilst the companies claimed to have corrected around 68 per cent of the hazards identified, OSHA had no means of verifying this claim since all information on hazard identification and abatement came from the companies themselves.²⁴

In relation to assertions that companies participating in OSHA's VPP, CCP and Maine 200 programs achieved impressive reductions in reported injury and illness rates, Needleman notes that:

"the decline in workers compensation claims that accompanied the Maine 200 program can be explained in many different ways, some of them inconsistent with worker safety."²⁵

In particular, there is evidence that reductions in workers compensation claims associated with VPP, CPP and Maine 200 may have been achieved through the internal suppression of reporting, and by placing workers on 'light duties', rather than through genuine reductions in lost time injuries and ill-health.²⁶ The AFL-CIO reports that many of the firms achieving VPP status have instituted internal systems whereby workers receive rewards or prizes when they do not report injuries and/or are threatened with and receive punishment if they do report injuries.

An example of this is the "Accident Repeaters" program, which is based on the assumption that occupational injuries result from the unsafe acts of individual workers rather than from unsafe work environments. Any worker who reports two injuries in a period of two years will be placed on the Accident Repeaters program. The next injury they report is followed by counselling on how to be a safe worker or perhaps by compulsory attendance on a safety awareness-training program. Any injuries that are reported after this may be followed by a

warning, suspension and finally dismissal.²⁷ This belief that incidents are caused by the unsafe acts of workers, and the existence of punitive internal systems are also predominant features of specific safety management systems (see below). In addition, the AFL-CIO have found that some companies participating in the Maine 200 program achieved reductions in their injury rates by shutting down departments within the organisation that had the highest injury rates and contracting their work out to other companies.²⁸

In conclusion, while the HSE's proposals for 'earned autonomy' are modelled on OSHA's incentive-based programs and put forward on the basis of similar budgetary arguments,²⁹ no adequate systematic evaluation of these programs exists.³⁰ Moreover, the evidence that does exist is conflicting as regards the impacts of these programs on workers' health and safety and suggests that there may be inherent problems in monitoring and evaluating outcomes. This is because narrow performance indicators, such as lost time injuries, are not necessarily accurate indicators of an organisation's health and safety performance, and also because other outcome data – such as the number and severity of hazards identified and corrected – is reported by the individual organisation itself and may not be verifiable. Potential difficulties with the auditing and evaluation of 'earned autonomy', as well as more general questions concerning the regulation of such a scheme, will be discussed further below. However, first we will consider the more general empirical evidence that exists in relation to the impact of systems-based approaches to OHS management and whether these have the potential to create genuinely self-regulating organisations.

Evidence Concerning the Impact of Systems-Based Approaches

Since one of the conditions for achieving 'earned autonomy' status might be that organisations have adopted a safety management system that conforms to some specified standard, it is important to consider:

- First, whether there is evidence that having a SMS does actually bring about improvements in OHS outcomes – namely reduced rates of injury, disease and death.
- And second, whether there is evidence that introduction of a SMS stimulates a sufficient level of self-regulation and improvement to justify the withdrawal or diminishing of regulatory intervention.

The Development of Safety Management Systems (SMSs)

The development of specific OHS management systems (or SMSs) is based on the notion that the systematic and proactive management of OHS is more likely to bring about improvements to health and safety than reactive, *ad hoc* measures to address specific hazards:

“Employers are being asked to move from policies that were often little more than ad hoc solutions to an array of known hazards to a more articulated set of structures and procedures for identifying, assessing, and controlling OHS risks.”³¹

Saksvik and Quinlan note that the terms 'systematic occupational health and safety management' (SOHSM) and 'occupational health and safety management systems' (or SMSs) are often confused, but that formal *OHS management systems* are:

“best viewed as a wide array of programmatic measures employers may adopt voluntarily or in an effort to meet SOHSM requirements.”³²

The development of formal SMSs is also a product of the development within management theory and practice of a systems approach to product quality and the related concepts of 'quality assurance' (QA) and 'total quality management' (TQM).³³ TQM, as defined by the European Foundation for Quality Management, is:

“The way the organisation is managed to achieve business excellence based upon fundamental principles, which will include: customer focus, involvement and empowerment of people and teams, business process management and prevention based systems, continuous improvement.”³⁴

Whilst the original focus of TQM was on the manufacture of products and customer satisfaction, OHS management systems are an attempt to apply the philosophy and principles of TQM to the management of OHS. For example, Gunningham and Johnstone have stated that:

“The SMS is in essence a specific application of the generic TQM model.”³⁵

A number of individual ‘off-the-peg’ SMSs have been developed by commercial enterprises and organisations such as the British Standards Organisation (BSO), although no international standard yet addresses OHS specifically. Individual SMSs include: BS 8800 developed by the BSO; the BSC 5-Star system; the International Safety Rating System; and the DuPont Safety System.³⁶ These SMSs are highly specified programmes that are privately developed, and then promoted and sold to employers through the market-based activity of consultants, corporations and voluntary associations. Market-based SMSs are the type of management system adopted under voluntary or incentive-based schemes such as the earned autonomy scheme proposed by the HSE, and should be distinguished from mandated forms of OHSM, such as the Scandinavian ‘Internal Control’ reforms, which are backed up by legislation and legal enforcement.³⁷

Problems with marketed SMSs

Whilst Nielsen³⁸ concludes that hierarchic assumptions³⁹ underlie all of the main variants of OHSM systems, there are nevertheless significant differences between forms of mandatory (or regulated) OHSM and voluntary SMSs in terms of the respective roles envisaged for the workforce and management:

“Regulated OHSM constitute a direct outcome of political decisions and usually include workers’ right to participate (to be informed, consulted and occasionally to decide) in the management of OHS... However, most voluntary OHSM systems define top-management as the (one and only) actor. Such systems instruct management on how to control the OHS issues of their firms. The instructions may include recommendations to consult with their workers, but typically the consultation process does not entail any sharing of decision-making power. The very structure of these OHSM systems is instead imported from top-down management approaches and is difficult (though not impossible) to combine with worker participation and local initiatives.”⁴⁰

For instance, the DuPont Safety system, which originates from within the DuPont company and is internationally marketed to other firms through DuPont’s consultancy subsidiary, envisages workforce co-operation largely in terms of workers’ compliance with company rules.⁴¹ Similarly, the ISO-like standards envisage only a marginal role for the workforce. For example, the British Standard 8800 refers only twice to negotiations between management and the workforce: first, to state that management should secure the commitment of employees to the OHS policy through consultation, and second, in relation to communication, it is stated that a company should, “*when beneficial*, develop and maintain a system that involves and consults employees”.⁴² Nichols and Tucker explain that the problem with SMSs that fail to allow for genuine workforce participation is as follows:

“The one clear conclusion that all those who have analysed [the British Workplace Industrial Relations Survey] data have arrived at is this: *the worst of all health and safety arrangements is for management alone to deal with health and safety.*”⁴³

Another problem with many of the marketed SMSs, particularly those developed and promoted by American consultancies and companies, is that they have a ‘behaviourist’ bias.⁴⁴ For instance DuPont maintains that: “96 per cent of safety incidents are directly caused by the actions of people, not by faulty equipment or inadequate safety standards”.⁴⁵ Consequently a large component of the DuPont safety management system involves behavioural training, surveillance of the workforce and a strict internal discipline system for workers found to have violated company health and safety rules. The problem with this behavioural bias, and the kinds of control systems that accompany it, is that it is largely acknowledged by regulatory agencies worldwide and by independent academic researchers that fatalities, injuries, ill-health and dangerous occurrences are ultimately caused by unsafe systems of work, plant and equipment and not by the acts of individual workers.

A related concern is the use of simple numerical indices like lost-time injury rates (LTIs) to measure performance. First, these performance indicators tend to exacerbate the problem of management focus on the modification of workers' behaviour rather than on eliminating or reducing hazards exposure.⁴⁶ Second, such indicators do not 'count' occupational health risks that are not associated with absenteeism, such as long-term health hazards. These health risks are a significant problem in the chemical, oil and other high-tech industries – which are precisely the industries most likely to purchase proprietary SMSs⁴⁷ – yet they will not be reflected in the low injury and illness rates reported by firms like DuPont. Finally, as discussed above, there are reports in the empirical literature that companies adopting the DuPont or similar systems discourage injury reporting through internal reward and punishment schemes, and manipulate statistics on injuries and ill-health by putting ill or injured workers on light duty (or no duty) so that they do not appear in the lost-time injury statistics.⁴⁸ *In other words, behavioural-based OHSM systems may actually lead to the suppression of evidence that would otherwise trigger an inspection.*⁴⁹

Empirical studies concerning the impact of OHS management systems

One notable finding following a review of the literature is that although the concept and supposed benefits of SOHSM and OHS management systems have become widely accepted by academics, policy makers and regulatory agencies, it is nevertheless the case that:

“empirical studies have been few and critical evaluation of health and safety management systems... has been limited.”⁵⁰

The evidence that does exist is distinctly mixed. Whilst some studies indicate that individual companies with SMSs have improved OHS performance, and that some industries within some countries have been successful in adopting a systems-based approach, the research has also identified problems of paper compliance, internal pressures not to report injuries and ill-health, and worker disempowerment.⁵¹

Gunningham and Johnstone, while acknowledging the “paucity of empirical evidence”⁵² and the fact that findings are mixed, nevertheless maintain that there is evidence that the best results in OHS are likely to be achieved by those who adopt a SMS⁵³ and point in particular to a report by the Industry Commission of Australia, research by Gallagher, and Norway's experience with 'Internal Control'.⁵⁴ Gallagher, for instance, found:

“strong positive linkages between developed health and safety management systems and good health and safety performance, as measured by compensation claims incidence rates.”⁵⁵

On the other hand, several studies have found *no* association between implementation of a systems-based approach to management and improved safety performance or improved corporate compliance. For instance, Nichols and Tucker report that:

“a study of the International Safety Rating system used in South African mines found that more than eighty percent of gold and coal mines achieved the highest ratings – four or five stars. Yet, there was no correlation between star ratings and either fatality or reportable injury rates.”⁵⁶

Similarly, following a review of the empirical literature on the impact of internal compliance structures⁵⁷ in deterring corporate illegality Krawiec (2003) concluded that:

“little evidence exists at all concerning the effectiveness of internal compliance structures as a means to reduce socially harmful conduct... [T]he evidence that does exist is decidedly mixed, with many of the most methodologically sound studies indicating the lack of effectiveness of such structures.”⁵⁸

Of particular note, a longitudinal comparison of the presence of internal compliance structures and the incidence of OSHA violations amongst 108 large US corporations found that internal compliance structures that closely mirrored the US Sentencing Guidelines' recommendations had *no* impact on corporate violation of OHS law. In fact, the study's one robust finding was that:

“the more firms incorporate ethics into their organizational practices, the more likely they are to have wilful and repeat OSHA violations.”⁵⁹

This led the authors to speculate that organisations were using internal compliance programs as window dressing to deflect attention from wilful corporate illegality.

Understanding the mixed evidence

1. Implementation failure and conflicts between safety and production

In theory, SMSs that are based on the principles of TQM and the idea that promotion of the integration of health and safety management into all levels of management decision-making will deliver improved OHS outcomes. One assumption underlying the systems model is that as soon as deviations from best practice are identified, the enterprise will automatically act to correct these.⁶⁰ In practice, however, there is nothing to guarantee that such systems will be properly implemented or that, when faced with a conflict between production and safety, enterprises will prioritise safety. As Nichols and Tucker have observed:

“Systematic OHS management may conflict with the operation of, or the priority accorded to, systematic management in *other* aspects of a firm’s activity. The battle for health and safety is, in practice, a battle over priorities... For example, in the name of quality, the pursuit of optimum performance in the production process may mean intensification of labour. No impartial court exists within firms to pull the stick back in favour of quality health and safety to counter the effects of this.”⁶¹

Some of the mixed evidence, then, can probably be explained by the fact that companies do not always do what they say that are going to do. According to Gunningham and Johnstone implementation failure will result where top management are not genuinely committed to the process and attempt to introduce systems at low cost, without effective analysis and planning.⁶² Research commissioned by the HSE has identified significant barriers to the genuine control and assurance of ‘quality health and safety’ and continuous health and safety improvement within organisations. In their study of firms known to be advanced in their use of TQM, Osborne and Zairi found little evidence that these firms applied the principles of TQM to their management of OHS, even where they had implemented an OHS management system. The main barrier identified by the researchers to the natural extension of TQM to the management of OHS was the fact that OHS does not form part of an organisation’s core objectives.⁶³ Gunningham and Johnstone explain the problem as follows:

“In its generic form, TQM is driven by customer demands... And since companies which meet customer expectations are likely to be more successful than those who do not, the use of TQM can readily be integrated with the enterprise’s core objectives. But in the case of OHS it would be remarkable if the customer were to consider OHS in manufacture as an important consideration for the products they purchase, leaving a precarious link between OHS, customer demand, and quality management.”⁶⁴

2. The influence of industry sector and organisational size

There is some evidence to suggest that positive outcomes are more likely to be achieved by larger organisations and/or organisations in certain industrial sectors. For instance, Nichols and Tucker discuss an HSE study of 23 leading UK firms which found that:

“about half of them had adopted a so-called ‘Fully Integrated Quality Management System’, that is, a system in which all aspects of management are subordinated to quality controls, including health, safety and environment. Nearly all participants in the energy and chemicals sectors were found to fall into this category, which might suggest an association between their adoption and potential high profile and high risk environmental damage.”⁶⁵

The suggestion that SMSs are more likely to be adopted successfully by firms in high risk, high profile and technologically-advanced sectors is supported by other research. For instance, whilst some studies of the Norwegian ‘Internal Control’ (IC) reforms, which mandated the

systematic management of health, safety and environmental risks,⁶⁶ indicated that IC worked well for the Norwegian offshore oil industry, case studies of IC in other sectors (newspaper, sawmills, steel, and local communities) reported disappointing results.⁶⁷ Similarly, research shows that larger firms have made more progress in implementing IC than smaller firms.⁶⁸ One reason why the adoption of SMSs tends to be confined to larger firms in technologically-advanced sectors may be to do with the fact that the implementation and auditing costs of such systems may be prohibitive for smaller firms.⁶⁹ Another reason that has been advanced is that the intrinsic motivation to control risks in high risk sectors will be greater, due to the fact catastrophic events may have significant economic, regulatory and public relations consequences.⁷⁰

However, while some studies report that the introduction of IC in the Norwegian offshore oil industry was associated with a reduction in injuries⁷¹ and while Norway's offshore oil industry is generally offered as evidence of the potential benefits to be gained from a systems-based approach,⁷² research on the impacts of the safety case regime⁷³ in the *United Kingdom's* off-shore oil industry indicates that, at best, it has been associated with no improvement. In addition concerns have been expressed in the context of the UK's offshore oil industry about internal reward and punishment programs – similar to those introduced by US companies participating in VPP-type schemes – which put pressure on workers and contracting companies not to report lost time injuries.⁷⁴ In view of these and other cross-national differences Frick *et al.* have hypothesised that:

“the contextual setting – the OHS infrastructure – may be more important in explaining the outcomes of OHS strategy than its precise procedures and tools.”⁷⁵

In other words, differences between countries with respect to their political, economic, regulatory and industrial relations contexts may explain these divergent findings. Exploring the nature of these differences can help us to identify those factors that are associated with, and seem to have influenced, positive outcomes within individual sectors and organisations.

3. The importance of cross-national differences and the wider political economy

Studies of the progress that companies had made in implementing Internal Control in Norway showed that one year after mandatory regulations were introduced, 66 per cent of firms has not even prepared for the introduction of IC. SMEs had proved a particular problem. Gunningham and Johnstone claim that the results for those companies that *had* implemented internal control were much more encouraging, with over 50 per cent completing assessments, implementing measures making action plans, and reviewing and revising their IC systems.⁷⁶ However, it should also be noted that after reviewing the available evidence on IC in the seven years following the regulation's introduction, Gaupset concluded that while about half of Norwegian enterprises had adopted IC, many employers were failing to translate formal procedures into actual action.⁷⁷

It appears therefore that IC in Norway has been a qualified success, although little research on the impact of IC on actual health and safety outcomes has been undertaken beyond the progress observed in Norway's offshore oil industry (see below). However, Saksvik and Quinlan warn that: “caution is required in extrapolating the experience of a country like Norway to others”⁷⁸ since the political, regulatory and industrial relations contexts in Norway are distinct from those found in other countries – and particularly the UK. A number of commentators ascribe the country's relative success to the fact that Norway also has one of the most stringent labour laws in the world in the form of the Work Environment Act, and to the fact that Norwegian industrial relations have been characterised by a tradition of co-operation, by high trade union membership density and complete collective bargaining rights. These, in turn, support the existence of strong and effective workplace OHS committees and worker safety representatives.⁷⁹

In view of the overwhelming evidence that workforce participation has a positive and measurable impact on OHS outcomes (see chapter 3), perhaps the most significant differences between Norway and countries like the United Kingdom, Australia and the United States are first, that trade union membership has been declining in the UK, Australia and the US, and second that “the Norwegian framework is more conducive to worker involvement”.⁸⁰ For instance, Saksvik and Quinlan note that:

“In Norway the mandated model is explicitly tripartite and workers and their representatives have clear rights although in practice these rights are not always exercised. The Australian hybrid approach has promoted a largely bipartite model (i.e. agency and employer) of OHSM. Worker involvement is less clearly articulated and has been undermined by inadequate enforcement and the erosion of collective industrial relations... What is especially striking about the SOHSM models in developed countries such as Australia (and Britain) is the marginal role accorded to legislatively mandated workplace committees and [employee health and safety representatives] despite recurring union calls for greater worker involvement.”⁸¹

In Norway, the foundations for genuine worker participation – generally acknowledged to be crucial to the success of any OHS management system⁸² - are significantly stronger than they are in many other jurisdictions and may have been an important positive influence on attempts within individual workplaces to implement successful OHS management systems.

This is consistent with the conclusions reached by Ryggvik, who argues that it would be simplistic to assume that the introduction of IC is the sole explanation for safety improvements in the Norwegian offshore oil sector during the 1980s.⁸³ Whilst it appears that safety *did* improve during the latter half of the 1980s, Ryggvik stresses that two key factors were “instrumental in maintaining the necessary standards”.⁸⁴ There were: the application of continuing *external* pressure by the regulatory body (the NPD) and continuing *internal* pressure from the workforce. From the outset the role – and active intervention – of the NPD was crucial. Between 1981 and 1985, the NPD had to work hard to overcome the oil and drilling companies’ resistance to implementing internal control. In the end the NPD was forced to threaten that future concessions would not be granted to companies which had failed to adequately implement IC. Ryggvik writes:

“The concession-based policy was effective as long as the Norwegian continental shelf was an attractive exploration territory. In the 1980s the Norwegian sector was precisely that.”⁸⁵

In relation to the role that was envisaged for the NPD, it was also clear from the outset that companies would not be left to self-regulate without regulatory intervention. In fact the name of the IC measure was changed from ‘own’ control to ‘internal’ control precisely to avoid the impression that the authorities had handed over supervisory power to the companies.⁸⁶ And Ryggvik argues that the exercise of both regulatory and worker control continued throughout the latter half of the 1980s and was crucial to the success of the reforms:

“The sanctions imposed by workers and the NPD against the companies have been vital in ensuring an element of follow up control. The ability and willingness of the offshore workforce to go on strike for demands arising from safety issues, the use of the right to stop production by safety representatives and the sanctions imposed by NPD on companies which do not meet requirements have all been decisive on occasion.”⁸⁷

These findings support Nichols’s contention that three strategies are needed to secure improvements in OHS: first, employers must be encouraged to integrate health and safety more closely into broader organisational decision-making (that is, adopt a systematic and integrated approach to OHSM); second, the whole process should be subject to strong external monitoring and enforcement by the state; and third, it should also be subject to *internal* regulation through the involvement of employees.⁸⁸

However, it is clear that in the UK declining trade union membership and inadequate legislative provision for workforce participation⁸⁹ weaken the opportunities for effective internal regulation by employees. Moreover, and in the absence of strong workplace organisation, employees in individual workplaces will be less able to resist top-down approaches to SOHSM that (wrongly) equate systematic control of OHS with the exercise of managerial control over the unsafe acts of workers. As Nichols and Tucker have noted, analysis of the WIRS data suggests that such approaches could result in *adverse* outcomes for workers’ health.⁹⁰ Finally, whilst Ryggvik’s study of the impact of IC on North Sea oil

installations provides evidence of the importance of strong regulatory intervention and enforcement action, the whole purpose of the earned autonomy proposals are that HSE will withdraw from the routine regulatory intervention and inspection of those companies selected for inclusion. In the next section, then, we will consider whether there is more general evidence that some firms will successfully self-regulate in the absence of routine regulatory inspection.

Is there evidence that some employers can be trusted to self-regulate?

As discussed above, a number of assumptions underlie HSE's discussion of 'earned autonomy'. In relation specifically to HSE's proposals that certain duty holders be allowed to self-regulate without regulatory intervention, we must assume that implementation of a SMS by 'good performers' (further assuming that these can be reliably identified) will achieve the following:

- That it will indeed bring about the integration of OHS management into all management procedures and processes,⁹¹ creating enterprises that are self-regulating, self-critical, and that pursue continuous improvement in relation to their OHS performance.⁹²
- That in the absence of regulatory inspection, or in the context of diminished regulatory oversight and pressure, internal self-regulation and management commitment and attention to health and safety will be maintained over the long term, in the face of competing priorities and in the context of less favourable economic circumstances.

What empirical evidence is there to support these assumptions? We are aware of only one formal experiment in the UK of the kind currently being considered by the HSE, which has been discussed by Smith and Tombs (1995):

"In the mid-1980s the construction company Costain was exempted from active inspection by the HSE, on the grounds of their having a safety management structure and an accident record which was superior to that of most of the rest of the construction industry. Factory inspectors were subsequently instructed not to visit Costain's sites."⁹³

Smith and Tombs report that the Costain experiment was short-lived. The death of an employee on site, and subsequent protests by trade unions and the media led to the experiment being dropped. Whilst no definitive conclusions can be drawn from the episode, it does raise concerns either that the HSE are not able to reliably identify the good performers, or that good performers that systematically manage OHS are not immune from serious safety failures.

Is it possible, however, to find more general evidence that some firms in the UK may be capable of self-regulation? A review of the empirical literature suggest that individual organisations in high profile, high risk and technologically-advanced sectors will be the most likely candidates for self-regulation. First, according to Gunningham and Johnstone, these firms will be more capable of implementing successful OHS management systems.⁹⁴ Second, it has been argued that these enterprises will also have the highest levels of intrinsic motivation to proactively manage OHS hazards. For instance, Wright (1998) concludes on the basis of his review of the empirical research that it is possible to predict with reasonable certainty those firms that are likely to be highly motivated and proactive with regard to managing OHS, and those firms that are likely to have low levels of motivation.

'Proactive' firms will typically be high profile organisations operating in higher risk sectors, especially where the health and safety of customers or members of the public is regarded to be a significant risk and/ or where commercial fortunes are sensitive to adverse regulator, public or customer opinion. They are more likely to be operating in a sector where demand and supply is elastic, or where there is a potential for substantive regulatory intervention, and where sub-standard performance is likely to be detected and acted upon by enforcing

bodies, pressure groups and/or the media. They are also more likely to be large organisations since large firms have greater access to resources and professional advice.⁹⁵

If Wright's model is correct, then firms that display the characteristics outlined above might be trusted to self-regulate and will be likely candidates for 'earned autonomy' status. Although firms in these sectors will not necessarily have adopted a highly specified SMS, it is nevertheless the case that systematic management of particular hazards and processes is mandated through regulations that apply to the offshore oil, nuclear, chemicals and rail industries. Individual organisations in each of these sectors must produce a safety case, which should include details of the management systems that operators have in place to prevent and mitigate major accidents, and to manage and control risks to the health and safety of staff and the public. In addition, in regulating these firms HSE already rely heavily on auditing their management systems and interviewing personnel based on that system.⁹⁶ These sectors therefore provide a good 'testing ground' for the assumptions outlined above.

However, evidence from a number of major disasters and from regulatory experience with the high hazard sectors in the UK fails to support *either* the proposition that organisational behaviour can be reliably predicted or the proposition that high risk, high profile firms are capable of achieving levels of internal self-regulation that would justify withdrawal of regulatory oversight and intervention. First, Wright's predictive model is not supported by evidence that emerged during the Cullen inquiry into the Ladbroke Grove rail crash, which revealed that Railtrack's management were aware of the high and increasing number of signals passed at danger (SPADs) in the Paddington area, but failed to take decisive action.⁹⁷ Similarly, and as previously discussed, senior managers at P&O were aware of the risk of ferries sailing with their bow doors open, but failed to take any action to address this risk even though an obvious and relatively inexpensive solution had been brought to their attention.

Both these companies were high-profile firms, operating in sectors where safety failures posed a potential risk to the public. Supply and demand for ferry services is relatively elastic, and whilst demand was relatively inelastic in the case of Railtrack, there was nevertheless the potential for substantive regulatory intervention. In addition the rail industry had had recent experience of major disasters, a factor that, according to Wright, should be associated with higher levels of motivation.⁹⁸ Both these disasters, and the management failures that lay behind them, demonstrate that management behaviour cannot necessarily be predicted and that management cannot always be relied upon to act either rationally, or in a way that prioritises safety in the face of competing priorities and pressures.⁹⁹

Nor does the empirical evidence necessarily support the contention that the levels of intrinsic motivation in organisations in certain sectors are sufficiently high to warrant the withdrawal of routine regulatory oversight and inspection. For instance, Wright *et al.* (2004) conclude, on the basis of their review of the international research, that it is extremely *doubtful* whether self-regulation occurs:

"without the proactive direction, support and real prospect of enforcement by the regulator even amongst major hazard organisations that recognise the business consequences of major accidents."¹⁰⁰

According to Wright's (1998) generic model, firms in the chemical manufacture, construction and nuclear power industries would be expected to have the highest levels of intrinsic motivation to proactively manage health and safety.¹⁰¹ However, Wright *et al.* (2004) point to the impact of the Nuclear Installations Inspectorate's reports on BNFL, UKAEA, and British Energy, "each of which led to major programmes of change", and argue that this demonstrates the necessity and effectiveness of regulatory intervention even in highly mature, major hazard sectors.¹⁰²

In fact, an HSE safety audit of Dounreay concluded that many of the problems identified in the audit were rooted in the fact that the industry had been self-regulating for almost 36 years.¹⁰³ This evidence from the UK's nuclear power industry suggests that adequate standards of safety may not be achieved in the absence of regulatory oversight and intervention. So whilst there may be plausible reasons for assuming that some organisations will be more highly motivated than others, this does not necessarily mean that those organisations are capable of effective self-regulation.

It may be that the evidence discussed above could be explained by reference to company specific factors, and Wright does argue that the 'general relationships' he describes "should be used only as a guide to the focus of sector level initiatives, with the strategy adopted for organisation-specific inspections moderated by consideration of observed behaviours".¹⁰⁴ A number of problems can be anticipated in relation to the proposed criteria for selecting individual firms for earned autonomy status and these will be discussed in the following section. For the moment it is important to note that in the UK the opportunities for obtaining reliable knowledge about individual firm behaviour are extremely limited. As Smith and Tombs observe:

"Such knowledge presumes either a long-standing rigorous programme of basic inspection or a highly interventionist form of regulatory knowledge and information gathering. Neither of these conditions currently exist in the UK."¹⁰⁵

Not only might it be difficult for HSE to obtain accurate knowledge about individual firm behaviour, it would also be impossible for HSE to ensure that 'good behaviour' continued in the absence of routine inspections and in the event of a less favourable economic environment. This is a significant concern since it is acknowledged that 'organisational virtue' is highly contingent and subject to flux in changing economic circumstances. For example, Haines found that:

"while cultural influences may be capable of arising independently, in fact they tend to have effect only if economic circumstances have generated "breathing space" within which they can work."¹⁰⁶

And Ryggvik's study of the Norwegian offshore oil industry demonstrates that the existence of SMSs within organisations is not a guarantee that good health and safety performance will be maintained in the context of less favourable conditions. Ryggvik notes that during the 1980s oil production in the North Sea was running at full speed, and oil companies could therefore afford to satisfy regulatory and workforce demands for improved safety while still securing profits far above average. However, once the price of oil fell, and the favourable underlying conditions began to change during the 1990s, expenditure on safety was cut massively, companies downsized, the use of contractors increased, and maintenance work was affected. Gas leaks and other safety incidents that occurred during the 1990s appear to have been a direct result of cost-cutting measures and decreased attention to safety. Meanwhile, Ryggvik notes that there has also been a recent increase in offshore fatalities.¹⁰⁷ It appears then, that some sort of regulatory oversight and intervention is crucial to ensure that changing circumstances do not result in a deterioration of health and safety standards.

In the following sections some of the issues and potential problems raised in the previous discussion will be explored in more detail. In particular we will consider the implications of the empirical evidence for how a system of 'earned autonomy' might be administered.

Potential Problems with Regulating 'Earned Autonomy'

As we have seen, there is no empirical evidence to support the claim that there are companies in the UK capable of achieving and maintaining a level of health and safety performance that would justify the withdrawal of regulatory oversight and inspection. On the contrary, and according to Wright *et al.*, the empirical evidence suggests that self-regulation is highly *unlikely* to occur without the threat of enforcement and proactive direction and intervention of the regulator – even amongst high risk, and technologically sophisticated organisations.¹⁰⁸

Assuming, however, that our (and others') interpretation of the empirical evidence is incorrect, we would still argue that the evidence suggests there may be intractable problems relating to the implementation and monitoring of such a scheme and that it is unlikely even to deliver the benefits that HSE hopes to gain from it (namely budgetary savings).

To come back to the question posed by the HSE in their discussion document, what should count as 'good performance' and how can it be identified at the level of the individual firm level?

Health and Safety Management System

A fundamental prerequisite of the incentive-based approach suggested by Gunningham and Johnstone is for 'track two' companies to have implemented a SMS with prescribed minimum components.¹⁰⁹ As stated above, the HSE are also considering whether one criterion should be that the organisation has a OHS management system that could be measured against some standard.¹¹⁰ However, as we have seen from the evidence discussed above, adoption of a formal SMS does not, in and of itself, guarantee improved health and safety performance, let alone guarantee the quality of performance that would be necessary to grant a company 'autonomy' from regulatory inspection and intervention. Therefore, while the existence of a SMS may be a condition for earned autonomy status in the belief that it will help good performers to achieve an adequate level of internal self-regulation, it is not an effective tool for identifying 'good performers'.

More concerning is evidence that in some cases SMS may exert a *negative* influence on health and safety. Nichols and Tucker have argued that in countries like the UK, where neo-liberal policies are in ascendance and trade unions are in retreat, there may be a tendency for firms to adopt (and for workers to be unable to resist) OHS management systems that stress management control of workers' behaviour, result in victim-blaming and fail to address the real causes of occupational injury and ill-health. Gunningham and Johnstone acknowledge that certain kinds of SMSs – such as the DuPont Safety system and SMSs based on ISO 9000 or 1404 – are unlikely to secure real health and safety improvements,¹¹² and suggest that authorities should require that organisations implement a SMS with prescribed minimum components. However, it is not clear how this will prevent organisations from implementing the wrong kind of SMSs. Gunningham and Johnstone's minimum criteria¹¹³ closely resemble HSE's guidance, *Successful Health and Safety Management*, (HSG65), which in turn is entirely compatible with hierarchic, behavioural-based SMSs.¹¹⁴ This is demonstrated by the fact that Royal Mail turned to DuPont's Safety and Environmental Management Services division in order to achieve compliance with HSG65.¹¹⁵

While no international audit has been done to assess how many companies have adopted the various proprietary SMSs, there is evidence to suggest that the number of employers adopting the marketed systems are multiplying, and that they are sold to medium and large employers, often in petrochemical and other high-risk industries.¹¹⁶ And there are three facts that suggest that firms seeking to comply with regulatory guidance or firms seeking certain administrative or public relations benefits will turn to SMSs like the DuPont system.

First, commercial organisations and consultants aggressively promote these products. Second, it is precisely these types of SMS that are likely to prove popular with management since they emphasise management control and provide relatively easy tools to measure progress. And third, even though employees are frequently unhappy with such systems, it appears that they are usually unable to resist them.¹¹⁷ This was true even of the historically strong and highly organised Norwegian offshore oil workers when workers perceived that the adoption of the DuPont and International System of Ranking Safety (ISRS) systems by a number of oil companies had undermined their rights to participation under the Work Environment Act.¹¹⁸ These examples illustrate that marketed SMSs may also become prevalent in countries that have mandated forms of OHS management.

Injury and ill-health incidence rates

The HSE have also suggested that firms could be considered for earned autonomy status on the basis of ill health and injury (presumably major and fatal injury) incidence rates. However, there are a number of problems with these as a predictor of effective OHS management.¹¹⁹ First, and as acknowledged by the HSE, the small numbers employed in SMEs make the data on incidence rates unreliable as a measure of company performance. The HSE have therefore suggested that lost-time or sickness absence might be preferable measures. But research on trends in occupational injury and death show that reported lost-time incidents are an unreliable predictor of health and safety conditions within the workplace and may actually fall at the same time as major injury and fatality rates rise.¹²⁰ The same is likely to be true for sickness absence, with a recent survey by the TUC showing that three out of every four employees had been to work when ill during the past year.¹²¹

Second, even if low injury rates genuinely reflect effective *safety* management, they cannot (as we have seen) guarantee that individual employers are effectively managing health hazards. For example, whilst DuPont is acknowledged to have extremely low lost-time injury and illness rates relative to the rest of US industry, Ruttenberg and Huggins (1981) cite evidence – including OSHA citations for wilful violations relating to excessive asbestos exposure and NIOSH reports of excess cancers at particular DuPont plants – to suggest that DuPont has neglected occupational health issues.¹²²

Nor can low injury rates provide assurance that individual enterprises are effectively managing the risks of a major incident. For example, the Esso gas plant explosion and the case of BP's Grangemouth complex – both discussed in the previous chapter – illustrate the dangers of using injury or sickness rates to judge general OHS performance. A study of the Esso plant reveals that one of the causes of the explosion was the fact that management was more concerned with reducing the economic costs of lost-time injuries than the consequences of a major incident.¹²³

Similarly, the Westray mine in Canada had won a prestigious national safety award based on low recorded injuries just a few months before it exploded in 1992.¹²⁴ And whilst BP Grangemouth won a European-wide award for its management of psychosocial risks, it had in the previous year been prosecuted by the HSE and fined £1 million following three life-threatening incidents occurring at the complex within the space of a month. A report by the HSE found that managers had failed to detect “deteriorating performance” and failed to abide by the law.¹²⁵ These examples suggest that management initiatives on health and safety will not necessarily correspond to areas of greatest risk, but may be directed towards hazards that are perceived as involving an immediate financial cost to the company, or towards hazards that are perhaps seen as easy or cheap to address.

Resources

The primary impetus behind the HSE's consideration of earned autonomy appears to be budgetary. However, there are good reasons to believe that earned autonomy will not deliver the ‘savings’ needed to enable HSE to significantly increase its contact with ‘poor performers’. Indeed there is evidence that the scheme may actually consume *more* resources than routine inspections do. While budgetary arguments were a main motive behind OSHA's introduction of VPP, the Californian CPP actually consumed enormous resources, involving ten times more OSHA staff than traditional inspections.¹²⁶ Similar resource problems arose in relation to Maine 200, which according to Needleman:

“badly strained the resources of Maine's Area Office, cutting in to the agency's other work and overloading the staff in ways that made them wish it have been called ‘Maine 100’.”¹²⁷

This was the case even though OSHA had withdrawn from routine inspection of participating firms. Moreover, in view of the fact that changing circumstance can have an adverse effect on health and safety performance, some sort of continuing regulatory oversight would be crucial. Recognising that oversight and vetting of SMSs are likely to impose considerable burdens on regulatory agencies, Gunningham and Johnstone suggest that this auditing function could be performed by a suitably qualified third-party, with the audit paid for by the organisation.¹²⁸ This suggestion is consistent with the proposal put forward by the HSE in their discussion document.¹²⁹ Potential problems with this proposal will be discussed below.

Assuming for the moment that problems with selecting firms for earned autonomy status are overcome, and assuming that auditing is an appropriate form of oversight and that this could be carried out in a way that consumed less regulatory resources than traditional inspections, precisely how *much* money was saved would depend on the number of companies selected for earned autonomy status. Evidence is lacking about the extent to which individual employers within the UK have adopted the kind of fully-fledged SMSs that might be required by the HSE as a basis for achieving earned autonomy status.¹³⁰ However, the evidence that does exist suggests that such firms are few and far between.¹³¹ The most likely contenders would be organisations in the high-risk sectors, but the nature of the activities carried out by these firms means that the consequences of failure may be deemed too great.

Gunningham and Johnstone argue that the research indicates that successful enterprises are also able to cope with the requirements of a systems-based approach, irrespective of industry sector.¹³² They conclude that whilst not all enterprises would be able to implement a SMS successfully, there is nevertheless evidence that at least *some* enterprises would benefit from such an approach and should therefore be encouraged to voluntarily adopt a SMS through the use of incentives. It may be that there are 'good performers' in other sectors that could be trusted to self-regulate, as Gunningham and Johnstone maintain. However, on the basis of available evidence from the UK these are not likely to exist in great enough numbers to secure significant budgetary savings. In Denmark, where the Danish Labour Inspectorate has also been struggling with inadequate resources, a new system of targeted inspections has been introduced. Firms that are identified by the Inspectorate as 'motivated and able to develop independent systematic management of occupational health and safety' are classified as 'category 1' and will only be subject to random inspections in one or more departments to ensure correspondence between the documented systems and practice. However, the authorities expect that *less than 50 firms out of the approximately 250 000 Danish firms* will be classified as category 1 firms.¹³³

In view of HSE's chronic under-funding, there is a real danger that HSE will withdraw from regulatory inspection whether or not firms have achieved a genuine and sufficient degree of good performance to justify the consequent risk to workers and the public:

"Government resources for OHS enforcement have never been close to sufficient, so that regulators must set priorities and use the scarce resources available to them efficiently. There is a distinct danger that the OHSM system approach to regulation will make a virtue of necessity and become an excuse for further diminishing the resources available for adequate enforcement on the false belief that we have in fact achieved self-reliant and safe workplaces."¹³⁴

Regulatory oversight and third party auditing of 'earned autonomy'

There is a considerable danger that firms will simply produce paper systems without following this up with genuine activity to control OHS hazards.¹³⁵ It is therefore essential that a regulator is able to distinguish between paper compliance and real compliance, but this might not be an easy task. As Frick observes in relation to Internal Control:

"Compared with other systems of quality control, IC is – and can, with the inherent limitations of regulation, only be – simply specified and audited, while its OHS goal is complex... *Only management can ensure that the procedures of IC are actually used to improve OHS.*"¹³⁶

The auditing of systems compliance risks overlooking the actual state of health and safety that prevails in any organisation. This is a significant concern since, as we have seen, SMSs, and in particular behavioural-based systems, may actually lead to the suppression of evidence that would otherwise trigger an inspection. In addition, it may not detect the deterioration of safety on the shop floor that can result from falling profitability or changes in the business environment in which firms operate.¹³⁷ Because of these dangers, Gunningham and Johnstone have argued that firms that have adopted a SMS and are exempted from regular inspections should be subject to periodic audits. They, and other commentators, have also suggested that an effective auditor must do more than look at paper systems and must develop a 'triangulated' approach to auditing SMSs in which an initial audit of the paperwork is followed by interviews with key personnel and inspections of selected areas of the plant.¹³⁸

There are, however, two problems with suggesting that the difficulties of auditing paper systems can be overcome in this way. First, it is not at all clear that in practice regulators *are* distinguishing between paper and real compliance. Gunningham and Johnstone assert that:

"Early experience with monitoring the systems of self-insurers and major tenders in the construction industry, suggests that inspectors/auditors can readily identify company systems failures."¹³⁹

However, the case of Esso's Longford gas facility in Australia, which exploded in 1998 and which had self-insurer status suggests that this is not always true. Saksvik and Quinlan observe that:

"As a self-insurer, Esso had to meet the equivalent of SafetyMAP. The US-parent derived 11-point Operations Integrity Management System at the plant made no reference to work organization or worker input. The resulting Royal Commission found that these omissions, and nor inappropriate action by an operator as inferred by Esso, significantly contributed to the incident... However, there is also a serious question as to why government inspections failed to identify these deficiencies. It appears agencies are often satisfied with the fact that the employer has a system, rather than asking questions about its effectiveness until a serious incident such as Longford occurs. This has been identified as a major problem in Norway too."¹⁴⁰

There are further examples of regulators failing to detect company failures to adequately manage OHS hazards. For instance, in the US a plant owned by a subsidiary of the Union Carbide Corporation had been exempted from OSHA inspections on the basis of its reported accident record. Following a leak of aldicarb oxime from the plant in August 1985, OSHA conducted wall-to-wall inspections of the plant which led to 221 charges, 130 of which were for 'willful' violations. Inspectors also found that the plant's *real* accident rate, rather than the rate that had been reported to OSHA, was substantially higher than the US chemical industry average.¹⁴¹ These examples cast some doubt on the ability or will of regulators to effectively audit SMSs.

Second, assuming that the proposals for 'triangulated' periodic audits suggested by commentators could solve these problems, such audits would pose unacceptable burdens on under-resourced regulatory agencies and undermine the purpose of 'earned autonomy' which is for the regulators to withdraw from proactive intervention. Recognising this problem, Gunningham and Johnstone have proposed that the function of regulatory oversight could be performed by a third party OHS professional, paid for by the company.¹⁴² In essence then, regulatory oversight of earned autonomy would be privatised. However, this would create a contractual relationship between the company and the auditing firm that would mirror the kind of relationship that companies have with their financial auditors. And it is precisely the problems inherent in this type of private contractual relationship that researchers have identified as a causative factor in the financial frauds of the 1990s. The nature of the problem is this: financial auditors are supposed to ensure that a company discharges its duties to the company's shareholders and creditors. However, auditors are compromised by a:

"fundamental tension that all auditors necessarily face. This arises because neither the existing nor prospective corporate creditors and shareholders... pay for the audit. The effect is that auditors' independence, as well as their ability to demand the production and satisfactory explanation of basic commercial and financial data, is potentially undermined 'simply by accepting [the] audit engagement'... since future income from auditing is dependent on the renewal of existing contracts for service."¹⁴³

Gunningham and Johnstone have suggested ways around this problem. First they suggest that auditors could be nominated by the regulatory authority from a pool of auditors, thus minimising the chances that auditors will produce 'good' reports that do not reflect actual practice just to ensure that they are reappointed by the firm. However, this does not solve the problem since OHS professionals are likely to be selling other services outside of their role as proxy regulators – for instance, consultancy and training services. As a consequence of this, third party auditors may still feel compelled not to produce negative reports for fear of gaining a reputation – for being adversarial or uncooperative – that would threaten other parts of their business. This problem has also been identified in the area of financial auditing, since accounting firms have evolved into multi-disciplinary professional service organisations with audit, tax and consulting divisions.¹⁴⁴ Gunningham and Johnstone also suggest that regulatory authorities could 'audit the auditors'.¹⁴⁵ However, in the current environment where regulators are hard-pressed to carry out even basic inspections and investigations, this does not seem like a tenable option.

Conclusion

Proposals that some companies should be trusted to self-regulate so that over-stretched inspectorates can concentrate their resources on poorer performers is based on an assumption that good performers that systematically manage OHS are capable of achieving a level of internal self-regulation that would justify withdrawal of proactive regulatory intervention and inspection. However, it is clear that adoption of an OHS management system does *not* necessarily lead to improved performance or effective reduction of health and safety hazards. Indeed, there is robust quantitative evidence from the US that internal compliance systems are positively associated with OSHA violations, and research which indicates that behavioural-based management systems that focus on narrow performance indicators may have an adverse impact on workers' health and safety and distract management attention from the control of major catastrophic events.

While some of the conflicting evidence can be explained in terms of individual firm characteristics and industry sector, it is clear that the outcome of shifts to a systems-based approach depend to a significant extent upon underlying political, economic and regulatory conditions. Empirical studies have identified two factors that appear to be of key importance: (1) the extent to which the wider legislative and industrial relations framework supports strong and effective workforce participation and (2) the existence of a strong, independent and well-resourced inspectorate that is able to invest considerable time and effort into supporting the implementation of a systems-based approach and into monitoring companies that have adopted such an approach. And the evidence suggests that both mandatory *and* voluntary (or incentive-based) schemes tend to consume more resources than traditional preventative inspection programmes.

With respect to the first factor, a number of commentators have observed that the political, regulatory and industrial relations contexts that prevail in the UK are associated in the empirical literature with negative SMS impacts. In particular, neither the current legislative and industrial relations framework, nor the wider political climate in the UK are supportive of effective worker participation. Moreover, there is evidence that even in countries like Norway, where legislation supports strong and effective workforce participation, the emphasis that SMSs place on management control may be undermining the ability of the workforce to protect itself and creating a bias towards individualised OHS-interventions that focus on the behaviour of workers rather than on work organization, even where regulatory agencies give formal recognition to the importance of 'safe places' rather than 'safe persons'.¹⁴⁶ In relation to the second factor, it is clear that the HSE do not intend to invest more resources into supporting 'earned autonomy' than they now invest in routine inspection. Proposals for firms to pay for private, third party audits are problematic because of the conflicts of interest inherent in such relationships.

Finally, even assuming that all the problems we have identified in successfully administering such a scheme – problems with identifying the good performers, problems in distinguishing between paper and genuine compliance, and problems of maintaining effective regulatory oversight – could be overcome, reviews of the empirical evidence suggest that it doubtful whether self-regulation occurs absent proactive regulatory intervention and the threat of enforcement. Gunningham and Johnstone have argued that there is 'considerable evidence' that:

"an SMS approach can have substantial results in terms of reducing workplace injury and disease" amongst "those enterprises which take SMSs seriously, in particular, by having senior management commitment and concern for direct worker participation in decision making, investing in the necessary initial resources, and accepting that deep-seated change does not happen overnight."¹⁴⁷

However, while it is undoubtedly true that some companies are more successful at systematically managing OHS than others, it does not follow from this that these organisations have either reached or can maintain a level of internal self-regulation that would justify 'autonomy' from regulatory oversight and control. In fact, the empirical evidence suggests that effective systematic management, and the prioritising of workers' health and safety, will not be maintained in the event of less favourable economic conditions or falling

profitability. In the absence of regulatory oversight, deteriorating conditions within companies would not be detected unless they resulted in an actual event – such as a major injury or death. Risks to workers’ long-term health are unlikely to be detected at all under the scheme proposed by the HSE.

In the absence of strong evidence that such a scheme can be introduced without significant risk to workers’ and public health and safety, and in view of the fact that such a scheme if properly implemented is likely to consume *more* resources than are currently spent on traditional inspections, we believe that earned autonomy is neither a safe nor a viable regulatory strategy.

¹ Gunningham and Johnstone (1999). See also Genn (1993); Gunningham (1999a: 42); Gunningham (1999b); Johnstone (2003).

² Gunningham and Johnstone (1999: 38-39) describe a systems approach as one that “involved managing OHS, product quality, or any other problem, in terms of systems of work rather than concentrating on individual deficiencies. That is, it involves the assessment and control of risks and the creation of an inbuilt system of maintenance and review. Its focus is on the organisational structure, responsibilities, practices, procedures, processes, and resources for implementing and maintaining OHS management.”

³ Gunningham and Johnstone (1999: 106).

⁴ Gunningham and Johnstone (1999: 142).

⁵ Gunningham and Johnstone (2000: 138).

⁶ Centre for Corporate Accountability (2002: 59); Gunningham and Johnstone (1999: 110).

⁷ Woolfson *et al.* (1997); Gunningham and Johnstone (1999: 149).

⁸ RoSPA (2004) National Occupational Safety and Health Committee Submission to the House of Commons Work and Pensions Committee inquiry into the work of the Health and Safety Commission and Health and Safety Executive. London: RoSPA.

⁹ HM Treasury (2004: 3.52).

¹⁰ Health and Safety Executive (2004).

¹¹ ‘Good’ here is a relative term since the HSE are proposing that a minimum hurdle might be that organisations have incidence rates better than the average for their industry.

¹² Health and Safety Executive (2004).

¹³ Gunningham and Johnstone (1999: 89).

¹⁴ Gunningham and Johnstone (2000: 141).

¹⁵ Participants must have self-inspection, hazard assessment and hazard correction procedures in place; involve workers in the program; must be able to show how hazard assessment findings are incorporated into planning decisions, training programs and operating procedures; and agree to provide to OSHA its self-investigation and accident investigation records, safety committee minutes, monitoring and sampling results, and annual health and safety program evaluation (Gunningham and Johnstone, 2000: 142; Needleman, 2000: 74-75).

¹⁶ Needleman (2000).

¹⁷ Needleman (2000: 75).

¹⁸ Needleman (2000: 75).

¹⁹ Needleman (2000: 77).

²⁰ GAO (2004).

²¹ See for instance OSHA (1989) and Jeffress (1998).

²² OECD (2000: 26).

²³ Mendeloff (1996).

²⁴ Discussed in Needleman (2000: 77-78).

²⁵ Needleman (2000: 84). Emphasis added.

²⁶ Lessin (1997); Lessin (2004a); Lessin (2004b).

²⁷ Lessin (2004a).

²⁸ Lessin (2004b).

²⁹ Frick and Wren (2000: 40).

³⁰ OECD (2000); GAO (2004).

³¹ Saksvik and Quinlan (2003: 91).

³² Saksvik and Quinlan (2003: 81).

³³ Gunningham and Johnstone (1999: 39-39); Frick and Wren (2000: 24); Nichols and Tucker (2000: 290).

³⁴ Cited in Osborne and Zairi (1997: 1).

³⁵ Gunningham and Johnstone (1999: 41).

³⁶ Gunningham and Johnstone (1999: 43); Frick and Wren (2000: 27); Nichols and Tucker (2000: 291).

- 37 The Norwegian Internal Control Regulation defines 'internal control' as "all systematic measures that an enterprise has to implement in order to ensure that an activity is planned, organised, carried out and maintained in accordance with requirements in work environment legislation and regulation." (Gaupset, 2000: 329-330).
- 38 Nielsen (2000).
- 39 That is, that safe workplaces depend on management control.
- 40 Frick *et al.* (2000: 6).
- 41 Nichols and Tucker (2000).
- 42 Nielsen (2000: 110). Emphasis added.
- 43 Nichols and Tucker (2000: 293). See also, Walters and Frick (2000).
- 44 Saksvik and Quinlan (2003: 92).
- 45 Cited in Wokutch and VanSandt (2000: 389).
- 46 Frick *et al.* (2000: 6-7).
- 47 Frick and Wren (2000: 26).
- 48 Nichols and Tucker (2000); Wokutch and VanSandt (2000: 374; 381-382); Lessin (1997).
- 49 Nichols and Tucker (2000: 307).
- 50 Gallagher (1997: 2). See also Krawiec (2003) who finds a similar lack of empirical support for internal compliance structures.
- 51 Gunningham and Johnstone (2000: 136). See also Frick *et al.* (2000); Frick and Wren (2000); Nichols and Tucker (2000); Saksvik and Quinlan (2003).
- 52 Gunningham and Johnstone (2000: 145).
- 53 Gunningham and Johnstone (1999: 141).
- 54 Gunningham and Johnstone (1999: 43-44; 2000: 136, 137-138).
- 55 Discussed in Gallagher (1997: 2).
- 56 Nichols and Tucker (2000: 299).
- 57 Although not aimed specifically at health and safety management, internal compliance structures of the kind proposed by the US Corporate Sentencing Guidelines 1991 are meant to establish internal systems of responsibility and control which ensure corporate compliance with respect to the full range of their legal obligations. They are: "a form of internal management control system; they specify and communicate objectives, monitor performance, and motivate employees by linking rewards with desired behaviour" (McKendall *et al.*, 2002: 372).
- 58 Krawiec (2003: 510).
- 59 McKendall *et al.* (2002: 380).
- 60 Gaupset (2000: 333).
- 61 Nichols and Tucker (2000: 292).
- 62 Gunningham and Johnstone (1999: 45-46).
- 63 Osborne and Zairi (1997).
- 64 Gunningham and Johnstone (1999: 46).
- 65 Nichols and Tucker (2000: 291).
- 66 The Norwegian Internal Control Regulation defines internal control as all systematic measures that an enterprise has to implement in order to ensure that an activity is planned, organized, carried out and maintained in accordance with requirements in work environment legislation and regulation (Gaupset, 2000: 329-330).
- 67 Flagstad (1995). See also Gunningham and Johnstone (1999: 76) who note that "this study is consistent with the individual observations of inspectors themselves that while IC continues to work well for off-shore oil... for other high risk and sophisticated industrial sectors such as chemicals, and for already successful enterprises, performance overall had so far been disappointing".
- 68 Gunningham and Johnstone (1999: 76); Gaupset (2000: 341); Lindoe and Hansen (2000: 437).
- 69 Gunningham and Johnstone (1999: 89; 93); Health and Safety Executive (2004).
- 70 Wright (1998).
- 71 Lindoe (1992) and Lauridsen (1995).
- 72 Gunningham and Johnstone (1999 and 2000).
- 73 Which includes a requirement to implement a SMS (Gunningham and Johnstone 1999: 72).
- 74 Woolfson *et al.* (1997); Woolfson (forthcoming). See also Scott (2004).
- 75 Frick *et al.* (2000: 9).
- 76 Discussed in Gunningham and Johnstone (1999: 76).
- 77 Gaupset (2000: 343).
- 78 Saksvik and Quinlan (2003: 92).
- 79 Beck *et al.* (1998); Lindoe and Hansen (2000); Walters and Frick (2000); Saksvik and Quinlan (2003).
- 80 Saksvik and Quinlan (2003: 91).
- 81 Saksvik and Quinlan (2003: 91).
- 82 Walters and Frick (2000).
- 83 Ryggvik (1998).
- 84 Ryggvik 1998: 27).
- 85 Ryggvik (1998: 20).
- 86 Ryggvik (1998: 16).
- 87 Ryggvik (1998: 27).
- 88 Discussed in Nichols and Tucker (2000: 291-293).
- 89 See for instance James and Walters (1997); James and Walters (1999: 83-105); and James and Walters (2002).
- 90 Nichols and Tucker (2000).
- 91 Gunningham and Johnstone (1999: 51).
- 92 Gunningham and Johnstone (2000: 144).
- 93 Smith and Tombs (1995).
- 94 Gunningham and Johnstone (1999: 94).

- 95 Wright (1998: 28-29). See also Genn (1993).
- 96 Gunningham and Johnstone (1999: 93).
- 97 Cullen (2001a)
- 98 Wright (1998: 24).
- 99 For further evidence see the discussion in Chapter 9.
- 100 Wright *et al.* (2004: x).
- 101 Wright (1998: 24).
- 102 Wright *et al.* (2004: 12).
- 103 Health and Safety Executive (1998) Safety Audit of Dounreay 1998. Sudbury: HSE Books
- 104 Wright (1998: 25).
- 105 Smith and Tombs (1995: 625).
- 106 Haines (1997: 31).
- 107 Ryggvik (1998: 27-32).
- 108 Wright *et al.* (2004: x).
- 109 Gunningham and Johnstone (2000).
- 110 Health and Safety Executive (2004).
- 111 Nichols and Tucker (2000).
- 112 Gunningham and Johnstone (1999: 50-51).
- 113 Gunningham and Johnstone (1999: 144-145).
- 114 Nichols and Tucker (2000: 294-296).
- 115 Nichols and Tucker (2000: 294).
- 116 Frick and Wren (2000: 26).
- 117 Nichols and Tucker (2000), although see also Horbury *et al.* (2002) on the PABIAC initiative where it appears that the unionised workforce was able to resist the behavioural-based systems that management attempted to introduce.
- 118 Ryggvik (1998: 25).
- 119 Some of these problems are acknowledged by Gunningham and Johnstone (1999: 110-111).
- 120 Nichols (1989). See also NOHSC (1999: 4.2.2) for studies on lost time injuries as an unreliable indicator of the effectiveness of OHSM systems).
- 121 Hazards Jan/ March 2004, Issue 85, page 5.
- 122 Discussed in Wokutch and VanSandt (2000: 382-383).
- 123 O'Dea and Flin (2003).
- 124 Wokutch and VanSandt (2000: 374).
- 125 <http://www.hazards.org/safetycrimes/whyhseiswrong.htm>
- 126 Rees (1988).
- 127 Needleman (2000: 78).
- 128 Gunningham and Johnstone (1999: 150).
- 129 Health and Safety Executive (2004).
- 130 Nichols and Tucker (2000: 291).
- 131 Osborne and Zairi (1997).
- 132 Gunningham and Johnstone (1999: 94).
- 133 Karageoriou *et al.* (2000: 276).
- 134 Nichols and Tucker (2000: 308).
- 135 Gunningham and Johnstone (1999: 155-156); Gaupset (2000: 344).
- 136 Cited in Gunningham and Johnstone (1999: 89).
- 137 Ryggvik (1998); McKendall *et al.* (2002).
- 138 Gunningham and Johnstone (1999: 160); Bluff (2003); Johnstone (2003).
- 139 Gunningham and Johnstone (1999: 156).
- 140 Saksvik and Quinlan (2003: 96).
- 141 Pearce and Tombs (1997: 88).
- 142 Gunningham and Johnstone (1999: 150; 2000: 142).
- 143 Fooks (2003: 20).
- 144 Fooks (2003: 20).
- 145 Gunningham and Johnstone (2000: 142).
- 146 Saksvik and Quinlan (2003: 92).
- 147 Gunningham and Johnstone (1999: 43; 52).

PART FOUR

Conclusion

Chapter Eleven

Conclusion

The Health and Safety Commission has recently stated that it is aiming for a future in which “the regulators are no longer the principal drivers for improvement”.¹

But whilst the HSC may want the HSE to take a back seat, the evidence shows, overwhelmingly, that it is *regulation* – including the threat of credible enforcement – which is the primary driver motivating organisations to improve their occupational health and safety (OHS) performance in the UK. Moreover, a review of the evidence does not suggest that this is likely to change, since it is highly improbable that the current business environment in which companies operate will change significantly. Attempts to substitute voluntary codes of conduct, knowledge, business benefits, reputational risk, supply chain pressures, and partnerships for HSE inspection and enforcement activity are likely to fail for the following reasons:

- 1) Voluntarism has not been successful in achieving improvements in human rights, environmental or health and safety management by business.
- 2) The evidence shows that knowledge and awareness do not necessarily translate into full or even adequate compliance with regulatory requirements.
- 3) Economic and other business factors do not currently operate as a driver for UK business.
- 4) Even if business factors became a significant driver, there are inherent dangers in employers pursuing an economic approach to OHS management.
- 5) The existence of reputational risk is dependent on regulatory activity – specifically on high levels of contact between regulator and regulated, and on high and predictable levels of enforcement action in the event of serious non-compliance.
- 6) Health and safety management driven by reputational risk or by other business factors (including cost assessments) is likely to lead to skewed action on OHS, which may not correspond to degrees of risk. Therefore regulatory inspection and enforcement is necessary to ensure a consistent approach.
- 7) However well-intentioned an employer might be, the evidence suggests that competing pressures and priorities frequently draw management attention away from OHS issues. Inspection and enforcement are needed to provide management with a ‘wake-up call’.

Thus, far from being able to substitute these levers for traditional regulatory activity, the evidence suggests that inspection and enforcement activity are key to the future success of all of the alternative strategies HSE hopes to develop. For instance, the evidence suggests that supply chain relationships do not currently operate as a pressure for improved health and safety performance, *except in highly regulated sectors*. Similarly, the PABIAC initiative brought about improvements in health and safety culture and health and safety management across the paper industry,² and may have brought about a decrease in the sub-sector’s major injury rates. But this was in the context of intense involvement by the HSE – characterised by increased levels of inspection and enforcement as well as increased levels of advice.

This is not to say that there is no need for change. The evidence suggests that there is considerable scope for improving industry’s compliance with occupational health and safety

law. For example, a study in the UK by the Eagle Star insurance group revealed that only 30 per cent of the firms surveyed fully complied with health and safety legislation.³ Also, any consideration of current levels of preventable death, injury and ill health in the UK clearly indicate a need for further action.

However, HSE's approach to securing improvements should be based on what the empirical evidence suggests is most likely to work. And the evidence suggests that, first and foremost, considerable achievements could be secured by significantly increasing current levels of HSE inspection and enforcement. There is also strong evidence to suggest that the imposition of personal liability on key senior decision-makers would greatly increase senior management commitment to, and action on OHS. Finally, there is strong evidence that introducing regulations to extend and strengthen employees' right to consultation and participation, and the creation of enforcement tools for worker safety representatives, would have a large and measurable impact on rates of occupational injury and ill health.

These, therefore, should be the priority areas for HSC/E attention, effort and resources. This also implies that new strategies – such as the development of partnerships – may prove to be valuable complementary interventions, but that they should add to, and not replace, core inspection, investigation and enforcement activity by regulators. In short, if any of these alternative levers are to have a positive effect, they can only do so *within* the framework of a well-resourced, politically supported and thus credible, deterrence-based enforcement strategy.

¹ Health and Safety Commission (2004: 14).

² Horbury *et al.* (2002).

³ Discussed in O'Dea and Flin (2003: 8).

Appendix

Select Committee on Work and Pensions

Some relevant recommendations from the Select Committee on Work and Pensions which undertook an inquiry into the work of the HSE and reported in July 2004

The Role of Legislation

The Committee does not believe that the strategy of 'downplaying... further regulatory solutions' is the right approach. The relative Departmental inactivity in these areas of possible legislation is regrettable and demonstrates a worrying lack of commitment. The Committee recommends that commitments to legislate made in Revitalising Health and Safety in 2000 should be honoured by a Government Bill in the next session of Parliament. (para 55)

Director Duties

The Committee recommends that the Government reconsiders its decision not to legislate on directors duties and brings forward proposals for prelegislative scrutiny in the next session of Parliament. (para 60)

Strategy for Achieving Compliance

The evidence supports the view that it is inspection, backed by enforcement, that is most effective in motivating duty holders to comply with their responsibilities under health and safety law. We therefore recommend that the HSE should not proceed with the proposal to shift resources from inspection and enforcement to fund an increase in education, information and advice. (para 142)

Issue of Resources

The Committee received some evidence that HSE could make better use of the resources it has and such arguments need to be examined carefully by HSC/E. However, the overwhelming view was that HSE is a high quality organisation, constrained by inadequate resources, seriously adversely affecting its ability to deliver adequately core activities such as inspection, which have a direct impact on ensuring compliance. We endorse the view of Prospect that the number of inspectors in HSE's Field Operations Directorate should be doubled (at a cost estimated by them as £48 million a year after 6 to 7 years). We recommend that substantial additional resources are needed in the next three years. (para 82)

Level of Inspection/Investigation

The number of proactive inspections is also low. HSC/E told us that 6.4% of premises within the remit of HSE's Field Operations Directorate were inspected in 2003/04. Ms Mary Boughton of the Federation of Small Businesses told us that 'the majority of small businesses never have an inspection.' Dr Janet Asherson, of the CBI told us that 'statistically, enforcement and inspection across the piece of all British business is a rare event.' The Committee is concerned both at the low level of incidents investigated and at the low level of proactive inspections and recommends that resources for both are increased. (para 150)

To read more about what the select committee said, go to:

<http://www.corporateaccountability.org/HSE/selcom/2004/main.htm>

References

- Alder A., Tipping A. and Meldrum A. (2000) *Examples of effective workforce involvement in health and safety in the chemical industry*. Health and Safety Contract Research Report 291. Suffolk: HSE Books.
- Ashby S.G. and Diacon S.R. (1996) Motives for occupational risk management in large UK companies, *Safety Science*, 22:229-243.
- Ayres and Braithwaite (1992) *Responsive Regulation: Transcending the Deregulation Debate*, Oxford: Oxford University Press.
- Baggs J., Silverstein B., and Foley M. (2003) 'Workplace Health and Safety Regulations: Impact of Enforcement and Consultation on Workers' Compensation Claim rates in Washington State', *American Journal of Industrial Medicine* 43: 483.
- Baldwin R. and Anderson, R. (2002) *Rethinking Regulatory Risk*, London: Enterprise LSE.
- Banks A (2000) 'A Labour Viewpoint on Workplace Codes of Conduct', *Human Rights Dialogue* Fall 2000, 2(4): 12-14. Benjamin M (2000) 'An Interview with Medea Benjamin', *Human Rights Dialogue*, Fall 2000, 2(4): 7-8.
- Better Regulation Task Force (2003), "Imaginative Regulation".
- Bluff E. (2003) *Systematic Management of Occupational Health and Safety*, Working Paper, National Research Center for Occupational Health and Safety Regulation, Australian National University.
- BOMEL Ltd (2004) *Improving health and safety in construction. Phase 2 – Depth and breadth. Volume 1 – Summary report*. HSE Research Report 231.
- Bottomley, B. (1994) *Means of Encouraging Best Practice in Occupational Health and Safety: Part 1. Positive performance indicators, beyond lost time injuries*, Worksafe Australia, NOHSC, Sydney.
- Braithwaite (1985) *To Punish or Persuade, Enforcement of Coal Mine Safety*, Albany: State University of New York Press.
- Braithwaite J. (1987) 'Negotiation Versus Litigation: Industry Regulation in Great Britain and the United States', *American Bar Foundation Research Journal* 2 & 3: 559-574.
- Brazabon P.A., Tipping et al. (2000) *Construction health and safety for the new Millenium*, Health and Safety Executive Contract Research Report 313. Suffolk: HSE Books.
- R.M Brown (1992) 'Administrative and Criminal Penalties in the Enforcement of the Occupational Health and Safety Legislation', *Osgoode Hall Law Journal* 30(3): 691.
- Bunt K. (1993) *Occupational Health Provision at Work*, HSE Contract Research Report 57.
- Cabinet Office (2003), Guidelines for Regulatory Impact Assessments.
- Capel D. (1994) *Management of OHS in the Australian Meat Industry*, Final Report, Sydney: Meat Research Corporation.
- Carson W.G. (1970a) 'White Collar Crime and the Enforcement of Factory Legislation', *British Journal of Criminology*, 10: 383-398.
- Carson W.G. (1970b) 'Some Sociological Aspects of Strict Liability and the Enforcement of

Factory Legislation', *Modern Law Review*, 33: 396-412.

Centre for Corporate Accountability/Unison (2002) *Safety Last? The Under-Enforcement of Safety Law*.

Centre for Corporate Accountability (2004) *Evidence to the Select Committee on Work and Pensions: The Work of the HSC/E*. Memorandum by the Centre for Corporate Accountability, February 2004.

Christian Aid (2004) *Behind the mask. The real face of corporate social responsibility*.

Confederation of British Industry (2004) *CBI Submission to the House of Commons Work and Pensions Select Committee, Inquiry into the Work of the Health & Safety Commission & Health and Safety Executive and the Effectiveness of Current Arrangements to Promote High Standards of Health and Safety*. London: CBI.

Cosman (1998) 'The Case for the Prosecution – Policy v Prejudice', paper presented at the conference on 'Prosecution by Regulatory Bodies', Oriel College Oxford, 23-25 September 1998.

Cosman M. (1999) *Proving Inspection Works*, A Discussion and Options Paper.

Cullen P.C. (2001a) *The Ladbroke Grove Rail Inquiry*, Part 1 Report. Sudbury: HSE Books.

Cullen P.C. (2001b) *The Ladbroke Grove Rail Inquiry*, Part 2 Report. Sudbury: HSE Books.

Cutler T. and James P. (1996) 'Does Safety Pay? A Critical Account of the Health and Safety Executive Document: 'The Costs of Accidents'', *Work, Employment and Society* 10(4): 755-765.

Dalton A. (1998) *Safety, Health and Environmental Hazards at the Workplace*, London: Cassell.

Davies R. and Elias P. (2000) *An Analysis of Temporal and National Variations in Reported Workplace Injury Rates*. IER.

Davies N.V. and Teasdale P. (1994) *The costs to the British economy of work accidents and work-related ill health*. London: HSE Books.

Dawson S., Willman P., Clinton A., and Bamford M. (1988) *Safety at Work: The Limits of Self-Regulation*, Cambridge: Cambridge University Press.

DETR/ HSC (2000) *Revitalising Health and Safety. Strategy Statement*, London: DETR.

Duong T (2000) 'Codes of Conduct Don't Work: A View from the Factory Floor', *Human Rights Dialogue*, Fall 2000, 2(4): 5, 19.

Eakin (1992) 'Leave it up to the workers: sociological perspectives on the management of health and safety in small workplaces', *International Journal of Health Services* 22(4): 689-704.

Flagstad K. (1995) *The Functioning of the Internal Control Reform – Case Studies in Small and Medium-sized Enterprises*. Doctoral thesis. The Norwegian Institute of Technology, Trondheim.

Frick K., Jensen P.L., Quinlan M., and Wilthagen T. (2000) 'Systematic Occupational Health and Safety Management – An Introduction to a New Strategy for Occupational Safety, Health and Well-Being', in Frick K., Jensen, P.L., Quinlan M., and Wilthagen T. (eds) *Systematic Occupational Health and Safety Management: Perspectives on an International Development*. Oxford: Pergamon.

Frick, K. and Wren J. (2000) 'Reviewing Occupational Health and Safety Management – Multiple Roots, Diverse Perspectives and Ambiguous Outcomes', in Frick K., Jensen, P.L., Quinlan M., and Wilthagen T. (eds) *Systematic Occupational Health and Safety Management: Perspectives on an International Development*. Oxford: Pergamon.

Gallagher C. (1997) 'Health and Safety Management Systems: An Analysis of Systems Types and Effectiveness' <http://www.nohsc.gov.au/OHSInformation/NOHSCPublications/misc/gallagher/3h06>. Accessed 21 July 2004.

- GAO (2004) *Workplace Safety and Health. OSHA's Voluntary Compliance Strategies Show Promising Results, but Should Be Fully Evaluated before They Are Expanded*. Report to the Chairman, Subcommittee on Workforce Protections, Committee on Education and the Workforce, House of Representatives. GAO-04-378.
- Gaupset S. (2000) 'The Norwegian Internal Control Reform – An Unrealized Potential?', in Frick K., Jensen, PL., Quinlan M., and Wilthagen T. (eds) *Systematic Occupational Health and Safety Management: Perspectives on an International Development*. Oxford: Pergamon.
- Genn H. (1993) 'Business Responses to the Regulation of Health and Safety in England', *Law and Policy*, 15(3).
- Gray W.B. (1996) *Construction and analysis of BLS-OSHA matched data: final report*. Washington DC: US Department of Labour.
- Gray W.B. and Scholz J.T. (1993) "Does Regulatory Enforcement Work? A Panel Analysis of OSHA Enforcement" *Law & Society Review* 27(1): 177.
- Gunningham N. (1999a) *CEO and Supervisor Drivers: Review of Literature and Current Practices*. Report to NOHSC, Sydney.
- Gunningham N. (1999b) 'Integrating Management Systems and Occupational Health and Safety Regulation', *Journal of Law and Society* 26(2): 192-214.
- Gunningham N. and Johnstone R. (1999) *Regulating Workplace Safety: Systems and Sanctions*, Oxford: Oxford University Press.
- Gunningham and Johnstone (2000) 'The Legal Construction of OHS Management Systems', in Frick K., Jensen, PL., Quinlan M., and Wilthagen T. (eds) *Systematic Occupational Health and Safety Management: Perspectives on an International Development*. Oxford: Pergamon.
- Haines F. (1997) *Corporate Regulation: Beyond 'Punish or Persuade'*, Oxford: Clarendon Press.
- Hanson M.K., Tesh K., Groat S., Donnan P., Ritchie P. and Lancaster R. (1998) *Evaluation of the Six-Pack Regulations 1992*, HSE Contract Research Report 177.
- Hawkins K. (1984) *Environment and Enforcement: Regulation and the Social Definition of Pollution*, Oxford: Clarendon Press.
- Hawkins, K. (1990) 'Compliance Strategy, Prosecution Policy and Aunt Sally', *British Journal of Criminology*, 30(4): 444-466
- Hawkins K. (2002) *Law as Last Resort. Prosecution Decision-Making in a Regulatory Agency*, Oxford: Oxford University Press.
- Health and Safety Commission (undated) *THE PABIAC INITIATIVE – THE WHY'S, WHEREFORE'S AND HOW'S*. An Interim Report on An Initiative to Reduce the Level of Accidents in the Papermaking Industry in the UK between 1998 and 2001.
- Health and Safety Commission (2000) 'HSC announces new regulations for worker consultation', HSC press release CO72:00.
- Health and Safety Commission (2003a) 'A Strategy for Workplace Health and Safety in Great Britain to 2010 and Beyond', Health and Safety Commission Paper, HSC/03/145, 9 December 2003.
- Health and Safety Commission (2003b) 'Corporate Responsibility and Accountability for Occupational Health and Safety: A progress report on HSC/E initiatives and measures', Health and Safety Commission Paper HSC/03/105, 14 October.
- Health and Safety Commission (2003c) Health and Safety Commission Minutes 11 November 2003. HSC/03/M11.

Health and Safety Commission (2003d) 'Securing effective employee involvement: Draft consultative proposals for harmonised regulations and other measures to promote greater employee involvement to ensure health and safety at work', Health and Safety Commission Paper HSC/03/83, 15 July 2003.

Health and Safety Commission (2003e) Health and Safety Commission Minutes, HSC/03/M10, 14 October 2003.

Health and Safety Commission (2004a) *A Strategy for workplace health and safety in Great Britain to 2010 and beyond*. Suffolk: HSE Books.

Health and Safety Commission (2004b) 'Becoming a Modern Regulator', Health and Safety Commission Paper HSC/04/53, 6 April 2004.

Health and Safety Commission (2004c) "Evidence to the Select Committee on Work and Pensions".

Health and Safety Executive (1999) 'Naming and Shaming Offenders: The Preparation of League Tables of Those Prosecuted', HSE Board Discussion Document B/99/222, 20 October 1999.

Health and Safety Executive (2000) *Successful Health and Safety Management*, HSG 65. London: HSE Books.

Health and Safety Executive (2003a) 'Regulation, Enforcement, Inspection and What We will Do', Paper to the HSE Board October 2003.

Health and Safety Executive (2003b) *Improving Health & Safety: Some Developments and New Approaches to Incident Investigation Management and A Revision of the Incident Selection Criteria*.

Health and Safety Executive (2003c) Offences and Penalties, 2002/3.

Health and Safety Executive (2004) *Strategy 2010 & Beyond: Areas Where HSE & LAs Will Not Be Proactive*. Discussion Paper.

Hillage J., Honey S. et al. (1997) *Health & Safety and Business performance in small firms*, IES CN 2247, Code 1898, Brighton.

Hillage J., Kersley B., Bates P., and Rick J. (2000) *Workplace consultation on health and safety*. HSE Contract Research Report 268.

Hillage J., Tyers C., Davis S., and Guppy A. (2001) *The Impact of the HSC/E: A Review*, Contract Research Report 385 for the Health and Safety Executive. Suffolk: HSE Books.

HM Treasury (2004) Prudence for a purpose: A Britain of stability and strength. Economic and Fiscal Strategy Report and Financial Statement and Budget Report, March 2004. HC301. London: The Stationary Office.

Home Office (2000) *Reforming the Law of Involuntary Manslaughter: The Government's Proposals*. May 2000.

Honey S., Hillage, J. et al. (1996) *The Costs and Benefits of the Noise at Work Regulation 1989*, Health and Safety Executive Contract Research Report 116. Suffolk: HSE Books.

Honey S., Hillage J. et al. (1997) *Evaluation of the 'Breathe Freely' Campaign*, Brighton: IES.

Hopkins A. (1995) *Making Safety Work: Getting management commitment to occupational health and safety*. Sydney: Allen & Unwin

Hopkins A. (1999) 'For whom does safety pay? The case of major accidents', *Safety Science*, 32: 143-153.

Horbury C., Collier D., Wright M., Hawkins J., and Rakow T. (2002) *The effectiveness and impact of the PABIAC initiative in reducing accidents in the paper industry*. HSE Contract Research Report 452.

- Hussain T. and Willday, J. (2001) *Literature Review on Proving Inspection Works*, HSL.
- Hutter, B. (1988) *The Reasonable Arm of the Law? The Law Enforcement Procedures of Environmental Health Officers*, Oxford: Clarendon Press.
- Hutter B. (1997) *Compliance: Regulation and Environment*. Oxford: Clarendon Press.
- James P. and Walters D. (1997) 'Non-Union Rights of Involvement: The case of health and safety at work', *Industrial Law Journal*, 26: 35-50.
- James P. and Walters D. (eds.) (1999) *Regulating Health and Safety at Work: The Way Forward*. Institute of Employment Rights, London.
- James P. and Walters D (2002) 'Worker representation in health and safety: Options for regulatory reform', *Industrial Relations Journal* 33(2): 141-156
- Jeffress C. (1998) *Assistant Secretary, Occupational Safety and Health Administration: Statement before the Subcommittee on Oversight and Investigations, Committee on Education and the Workforce, U.S. House of Representatives; May 8, 1998*. Government Printing Office, Washington, D.C.
- Johnstone R. (2003) *From Fact to Fiction – Rethinking OHS Enforcement*, Working Paper 11, National Research Centre for OHS Regulation, the Australian National University.
- Johnson H.T. and Kaplan R.S. (1987) *Relevance Lost: The Rise and Fall of Management Accounting*. Boston, MA: Harvard University Press
- Kagan, R.A. (1984) 'On Regulatory Inspectorates and Police', in Hawkins, K. and Thomas, J.M. (eds) *Enforcing Regulation*. Boston: Kluwer-Nijhoff Publishing.
- Kagan R. and Scholz J. (1984) 'The criminology of the corporation and regulatory enforcement strategies' in Hawkins K. and Thomas J. (eds) *Enforcing Regulation*, Boston: Kluwer Nijhoff Publishing.
- Karageorgiou A., Jensen, P.L., Walters D., and Wilthagen T. (2000) 'Risk Assessment in Four Member States of the European Union', in Frick K., Jensen, PL., Quinlan M., and Wilthagen T. (eds) *Systematic Occupational Health and Safety Management: Perspectives on an International Development*. Oxford: Pergamon.
- King S., Dyball M., and Wright T. (2004) *HSC strategy to 2010 and beyond – consultations with hard to reach groups*, Research Report 197. Suffolk: HSE Books
- Knight R.F. and Pretty D.J. (1998) *The Impact of Catastrophes on Shareholder Value*, Oxford University Business School. The Oxford Executive Research Briefings.
- Krawiec K.D. (2003) 'Cosmetic Compliance and the Failure of Negotiated Governance', *Washington University Law Quarterly* 81(2): 487-544.
- Lancaster R.C., Jacobson-Maher et al., (2001), *Second Evaluation of the Manual Handling Operations Regulations (1992) and Guidance*, Entec UK Ltd, Health and Safety Executive Contract Research Report 346. Suffolk: HSE Books.
- Lauridseb O. (1995) *Arbeidsmiljø, samarbeide og ledelse – en undersøkelse av interkontroll som strategi for sammenkøpling av paradigmen partssamarbeid of sikkerhetsledelse*. (Occupational health, participation and leadership – a study of internal control as a strategy to link the paradigms of co-determination and safety management). PhD thesis. Denmark Technical University, Lyngby.
- Lessin N. (1997) *MASSCOSH Critique of the Maine 200 Program*. Presentation and the annual meeting of the American Public Health Association, November 9-13, Indianapolis.
- Lessin N. (2004a) Personal Communication, 22 March 2004.
- Lessin (2004b) Personal Communication, 23 March 2004.

Lewis-Beck M.S and Alford J.R. (1980) 'Can Government Regulate Safety: The Coal Mine Example', *American Political Science Review* 76: 745.

Lindoe P.H. (1992) *Internkontroll – Krypress mellom byråkratisk kontroll og aktiv medvirkning* (Internal Control – Conflicting interests between bureaucratic control and active participation). Doctoral thesis. The Norwegian Institute of Technology, Trondheim.

Lindoe P.H. and Hansen K. (2000) 'Intergrating Internal Control into Management Systems: A Discussion Based on Norwegian Case Studies', in Frick K., Jensen, P.L., Quinlan M., and Wilthagen T. (eds) *Systematic Occupational Health and Safety Management: Perspectives on an International Development*. Oxford: Pergamon.

Litwin A.S. (2000) *Trade unions and industrial injury in Great Britain*, LSE Centre for Economic Performance.

Loughborough University and UMIST (2003) *Causal factors in construction accidents*, HSE Research Report 156.

Mayhew C., Ferris R., and Harnett C. (1997) An Evaluation of the Impact of Targeted Interventions On the OHS Behaviours of Small Business Building Industry Owners/Managers/Contractors, NOHSC, Sydney.

Mayhew C. and Quinlain M. (1997) 'Subcontracting and occupational health and safety in the residential building industry', *Industrial Relations Journal* 28(3): 192-205.

T.H. McQuiston, R.C. Zakocs, and D. Loomis (1998) 'The Case for Stronger OSHA Enforcement – Evidence from Evaluation Research', *American Journal of Public Health* 88: 1022.

Mendeloff J. (1996) *A Preliminary Evaluation of the "Top 200" Program in Maine*. Report to the Office of Statistics, Occupational Safety and Health Administration, Department of Labour, Washington D.C.

Mendeloff J. and Gray W. (2003) 'The Effects of Establishment and Inspection Characteristics on the Impacts of OSHA Inspections in Manufacturing, 1992-1998', mimeo, 2003.

McKendall M., DeMarr B. and Jones-Ridders C. (2002) 'Ethical Compliance Programs and Corporate Illegality: Testing the Assumptions of the Corporate Sentencing Guidelines', *Journal of Business Ethics*, 37: 367-383.

National Audit Office (2004) *Health and Safety Executive. Improving health and safety in the construction industry*. London: The Stationary Office.

Needleman C. (2000) 'OSHA at the crossroads: conflicting frameworks for regulating OHS in the United States', in Frick K., Jensen, P.L., Quinlan M., and Wilthagen T. (eds) *Systematic Occupational Health and Safety Management: Perspectives on an International Development*. Oxford: Pergamon.

Nichols T. (1989) 'On the analysis of size effects and 'accidents' – a further comment', *Industrial Relations Journal* (Spring): 62-65.

Nichols T. and Armstrong P. (1973) *Safety or Profit*, Bristol: Falling Wall Press.

Nichols T. and Tucker E. (2000) 'OHS Management Systems in the United Kingdom and Ontario, Canada: A Political Economy Perspective', in Frick K., Jensen, P.L., Quinlan M., and Wilthagen T. (eds) *Systematic Occupational Health and Safety Management: Perspectives on an International Development*. Oxford: Pergamon.

Nielsen K.T. (2000) 'Organization Theories Implicit in Varioud Approaches to OHS Management', in Frick K., Jensen, P.L., Quinlan M., and Wilthagen T. (eds) *Systematic Occupational Health and Safety Management: Perspectives on an International Development*. Oxford: Pergamon.

NOHSC (1999) *Planned Approaches to Health and Safety Management*. National Occupational Health and Safety Commission, Sydney.

O'Dea A. and Flin R. (2003) *The Role of Managerial Leadership in Determining Workplace Safety Outcomes*, HSE Research Report 044. Suffolk: HSE Books.

OECD (2000) *Reducing the Risk of Policy Failure – Challenges for Regulatory Compliance*.

Osborne J. and Zairi M. (1997) *Total Quality Management and the Management of Health and Safety*, HSE Contract Research Report 153.

OSHA (1989) *Safety and health program management guidelines; issuance of voluntary guidelines*. Federal Register, 54, 3904-3916, Occupational Safety and Health Administration, Washington D.C.

Page S (2002) *Sharing Solutions. Worker Participation in Health and Safety: A review of Australian provisions for worker health and safety representation*. Health and Safety Executive.

Pearce, F. and Tombs, S. (1990) 'Ideology, hegemony and empiricism: compliance theories of regulation'. *British Journal of Criminology*, 30(4): 444-466.

Pearce, F. and Tombs, S. (1991) 'Policing Corporate 'Skid Rows': A Reply to Keith Hawkins', *British Journal of Criminology*, 31(4): 415-426.

Pearce F. and Tombs S. (1997) 'Hazards, Law and Class: Contextualizing the Regulation of Corporate Crime', *Social and Legal Studies* 6(1): 79-107.

Perry C. (1982) 'Government Regulation of Coal Mine Safety: Effects of Spending Under Strong and Weak Law', *American Politics Quarterly* 10: 303.

Purvis M. and Bauler J. (2004) *Irresponsible Care: The Failure of the Chemical Industry to Protect the Public from Chemical Accidents*, Washington, D.C.: U.S. Public Interest Research Group Education Fund.

Rakel H., Gerrard S., Langford I., and Shaw K. (1999) *Evaluating the Impact of Contact Techniques*, HSE Contract Research Report 212.

Rees J. (1988) *Reforming the Workplace: A Study of Self-Regulation in Occupational Safety*. Philadelphia: University of Pennsylvania Press.

Reilly, Paci and Holl (1995) "Unions, Safety Committees and Workplace Injuries", *British Journal of Industrial Relations*, June 1995.

Research International (1998) *Health and Safety on the Farm*. An unpublished evaluation report for the Health and Safety Executive.

Rimington J. (2004) 'The politics of health and safety in the UK. Part 3: threats and achievements', *Occupational Health Review* 107: 23-27.

Ryggvik H. (1998) 'Why Norway was Different', in Beck M., Foster J., Ryggvik H. and Woolfson C. (eds) *Piper Alpha Ten Years After: Safety and Industrial Relations in the British and Norwegian Offshore Oil Industry*. Universities of Glasgow and Oslo.

Saksvik P.O. and Quinlan M. (2003) 'Regulating Systematic Occupational Health and Safety Management' *Relations Industrielles / Industrial Relations* 58(1): 81-107.

Scott K. (2004) 'Cost-cutting jeopardises North Sea rigs', *The Guardian* Monday April 26.

Shapiro S.A. and Rabinowitz R.S. (1997) 'Punishment versus Cooperation in Regulatory Enforcement: A Case Study of OSHA', *Administrative Law Review* 713.

Sigman A. (1992) 'The state of corporate healthcare', *Personnel Management* February 24-31.

Smallman C. and John G. (2001) 'British directors perspective on the impact of health and safety on corporate performance', *Safety Science*, 38: 227-239.

Smith D. and Tombs S. (1995) 'Beyond Self-Regulation: Towards a Critique of Self-Regulation as a Control Strategy for Hazardous Activities', *Journal of Management Studies*, 32(5): 619-636.

Stone N. and Holder M. (2003) *Draft statement on principle on worker involvement and consultation on occupational health and safety*. Health and Safety Commission Paper HSC/03/143.

Swan J., Oakley K. et al. (1998) *An evaluation of the impact in the workplace of the COSHH regulations 1994 Schedule 9 and Biological Agent Approved Code of Practice*, HSL IRL/M/99/01 Sheffield.

Transport & General Workers' Union (2003) *The case for a new corporate killing law and for health and safety duties to be placed on company directors: A report by the T&G*.

Taylor R. (1996) 'Prevention rather than cure', *Health and Safety at Work – A Financial Times Guide*, The Financial Times Surveys Department, November 1996.

Thomson-MTS (1993a) *A Study of Attitudes to Occupational Noise and Industrial Deafness*. Volumes 1 & 2, HSE Contract Research Reports 54. Suffolk: HSE Books.

Thomson-MTS (1993b) *A Study of Attitudes to Occupational Noise and Industrial Deafness*. Volume 3, HSE Contract Research Reports 55. Suffolk: HSE Books.

Topping M.D., Williams C.R. and Devine J.M. (1998) 'Industry's Perception and Use of Occupational Exposure Limits', *Annals of Occupational Hygiene* 42(6): 357-366

Vickers I., Baldcock R., Smallbone D., James P., and Ekanem I. (2003) *Cultural influences on health and safety attitudes and behaviour in small businesses*. HSE Contract Research Report 150.

Viscusi W. Kip (1986) 'The Impact of Occupational Health and Safety Regulation', *Rand Journal of Economics* 17: 67.

Vogel, D. (1986) *National Styles of Regulation: Environmental Policy in Great Britain and the United States*. Ithaca: Cornell University Press.

Walters D. and Frick K. (2000) 'Worker Participation and the Management of Occupational Health and Safety: Reinforcing or Conflicting Strategies?' in Frick K., Jensen, PL., Quinlan M., and Wilthagen T. (eds) *Systematic Occupational Health and Safety Management: Perspectives on an International Development*. Oxford: Pergamon.

Weil D. (1996) 'If OSHA is so bad, why is compliance so good?' *RAND Journal of Economics* 27(3): 618-640.

Whittington C., Livingston A. and Lucas D.A. (1992) *Research into Management, Organisational and Human Factors in the Construction Industry*, HSE Contract Research Report 45.

Woolfson C., Foster J. and Beck M. (1997) *Paying for the Piper. Capital and Labour in Britain's Offshore Oil Industry*. London: Mansell.

Wokutch R.E. and VanSandt C.V. (2000) 'OHS Management in the United States and Japan: The DuPont and Toyota Models', in Frick K., Jensen, PL., Quinlan M., and Wilthagen T. (eds) *Systematic Occupational Health and Safety Management: Perspectives on an International Development*. Oxford: Pergamon.

Woolfson C. (2004 forthcoming) 'Step Change: A step backwards?' in Woolfson C. and Beck M. (eds) *Corporate Social Responsibility Failures in the Oil Industry*. Baywood, Amyville, USA.

Work and Pensions Committee (2004) *Uncorrected Transcript of Oral Evidence. Health and Safety Inquiry*. Wednesday 19 May 2004, Rt Hon Jane Kennedy and Mr Gareth Williams. To be published as HC 456-vii.

Wright M. (1998) *Factors motivating proactive health and safety management*, Health and Safety Executive Contract Research Report 179. Suffolk: HSE Books.

Wright M., Lancaster R., and Jacobson-Maher C. (2000) *Evaluation of the Good Health and Good Business Campaign*, Health and Safety Executive Contract Research Report 272. Suffolk: HSE Books.

Wright M., Marsden S. and Holmes J. (2003) *Health and Safety Responsibilities of Company Directors and Management Board Members*, Health and Safety Executive Research Report 135. Suffolk: HSE Books.

Wright M., Marsden S., and Antonelli A. (2004) *Building an evidence base for the Health and Safety Commission Strategy to 2010 and beyond: A literature review of interventions to improve health and safety compliance*, Health and Safety Executive Research Report 196. Suffolk: HSE Books.



The Centre for Corporate Accountability is a not-for-profit organisation concerned with the promotion of worker and public safety. It focuses on the role of state bodies in the enforcement of health and safety law and the investigation and prosecution of work-related deaths and injuries. It has charitable status.

Centre for Corporate Accountability, 4th Floor, 197/199 City Road, London EC1V 1JN
Tel: 020 7490 4494 Fax: 020 7490 7191
info@corporateaccountability.org www.corporateaccountability.org

Registered Charity Number 1105658