

Working Paper 32

New Strategies for Safety Regulators: Beyond Compliance Monitoring

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March 2005

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Acknowledgement: My ideas about the role of the regulator have been influenced by numerous discussions with Peter Wilkinson, and I am indebted to him, in ways of which I am hardly aware, for various ideas expressed in this paper.

Introduction

It is often assumed that the role of regulatory agencies is to bring about compliance with regulation. This makes sense in some contexts. For example, consumer protection agencies aim, among other things, to ensure that traders comply with regulations prohibiting misleading advertising. It may be a matter for the courts to decide whether something is misleading or not, but the law is relatively clear and the concept of compliance is relatively unproblematic.

In the case of safety regulation, however, matters are more complex. The focus in this paper will be on safety in an organisational context – for example, safety at work, or safety on public transport. I shall argue that in this context the meaning of compliance is often problematic and that a focus on securing compliance may not be enough to achieve the regulatory goal of safety. Safety regulators may need to go beyond monitoring and enforcing compliance. The purpose of this paper is to outline a number of ways in which they may do this.

What is distinctive about the regulation of safety is that it is the regulation of risk. Safety regulation cannot simply prohibit harm, as one might prohibit anti-competitive conduct. So-called ‘accidents’ are indeed accidents in the sense that they are unintended,¹ and it makes little sense to prohibit them. In these circumstances the aim of regulation can only to reduce the risk of harm, not to prohibit it.²

The point can be put another way. It is conceivable that an employer may have done all within its power to prevent harm, and that an accident may nevertheless occur as a result of an unforeseen and unforeseeable set of circumstances. Companies should only be guilty of an offence if they have not done what they should have done to reduce the relevant risk. It is this, not the harm, that is the offence.

What sort of regulatory tools are open to regulatory regimes, which seek to reduce risks to safety? One strategy is to enact and enforce preventive regulations, that is, regulations which specify things that should or should not be done, rules which, if complied with, will keep risk within acceptable bounds. Because such regulations prescribe detailed “do”s and “don’t”s, they are often described as prescriptive.

Road safety – the paradigm prescriptive regime

The paradigm case of a prescriptive safety regime operates in the context of road safety. The aim of the authorities is to reduce the risk of road accidents, and to achieve this aim they specify certain driver behaviour, such as driving in accordance with speed limits and refraining from driving with blood alcohol above a certain limit. Furthermore, the regulators in this context, the police, devote considerable resources

¹ It is sometimes argued that “accidents” are not really accidental since they have causes (for example, the Esso Longford trial judge; see my *Lessons from Longford: The Trial* (CCH: Sydney, 2002). However, this interpretation is at odds with the more common meaning of accident as an unintended and undesired outcome. In this article I shall use the term accident to mean unintended and undesired outcome.

² The analysis here draws on Hopkins, A (1994) ‘Compliance with what? The fundamental regulatory question (1994), *British Journal of Criminology*, pp 431-443.

to enforcing these rules and the evidence is that this effort is remarkably successful: police campaigns aimed at catching drunken drivers and at enforcing speed limits have a significant effect in reducing road fatalities.³ This is a prescriptive regime that works.

One specific feature of the regime is worth commenting on, to facilitate later comparison. The role of the regulator, the police, is one of deterring regulatory violations by the use of penalties. There is no expectation that police should use persuasion as a means of achieving regulatory compliance. Moreover, the focus is on deterring the regulatory violations, not on deterring the harm. While the police will always prosecute, if they can, following a serious accident, there is no presumption that such prosecutions have much effect in deterring dangerous driving, either by the driver prosecuted or by other drivers. Prosecutions after car accidents serve rather different purposes, such as satisfying public demand for retribution when someone is killed or seriously injured. The central preventive strategy in the road safety context is to identify and penalise violations that have not in fact resulted in harm.

The prescriptive regulation of industrial safety

Safety regimes in organisational contexts have also traditionally been prescriptive. Employee safety, for instance, was to be achieved by requiring employers to follow detailed sets of rules. The role of the industrial safety regulator was to ensure compliance with these rules. However, unlike the paradigm road safety regime, inspectorates did not typically seek compliance by penalising rule violators. Their first response to violations they discovered was generally to try to persuade violators to comply, even to negotiate for compliance, for example by giving violators time to comply. Only when they met with defiance did they resort to prosecution. The implication was that non-compliance was acceptable until an inspector challenged it; only after that might non-compliance lead to a penalty. This reliance on persuasion rather than deterrence goes back to the very outset of the industrial revolution.⁴

Apart from the issue of defiance, inspectorates in traditional prescriptive regimes have been more likely to prosecute when a violation has led to an accident, but here, as in the case of road safety, the real purpose of the prosecution is often retributive, aimed at satisfying public demand, rather than deterring further offences.⁵

Regulatory agencies offer various reasons for this generally conciliatory approach, largely to do with the scarcity of enforcement resources and the need to use them sparingly. They note, moreover that there are circumstances where compliance may not be possible or at least not practicable.⁶

Notwithstanding these reasons, the sociologists who first commented on this phenomenon saw it as a clear case of class bias, one law for the rich and another for the poor, or more precisely, one enforcement strategy for laws that applied to

³ <http://www.atsb.gov.au/road/res-abs/cr162abs.cfm>

⁴ Carson, W (1970) 'White-collar crime and the enforcement of factory legislation', *British Journal of Criminology*, Vol 10, pp 383-398.

⁵ Hutter, B (1997) *Compliance: Regulation and Environment*, Clarendon Press, Oxford, p 221.

⁶ Hutter, op cit, p17.

employers, and another for the more conventional criminal law. The term white-collar crime was coined to describe violations of laws designed to regulate business.⁷

Another research tradition described this conciliatory approach to regulatory violations as a consequence of regulatory capture.⁸ This has been a useful concept in that it paved the way for some illuminating research on why some regulatory agencies seem more prone to capture than others. The research shows that “when regulatory agencies have close relations with a small number of regulated companies or regulated industries, they are less punitive, and when regulatory agencies confront big business, they are less punitive”.⁹

There is an important exception to the above conciliatory enforcement pattern. In the US, following the enactment of the federal OHS Act in 1971, a policy was adopted of penalising all regulatory violations that inspectors discovered. There is good evidence that this policy was successful in reducing accident rates. The penalties were essentially on-the-spot fines. What this means is that the use of on the spot fines can be expected to enhance regulatory effectiveness.¹⁰

There is general agreement that prescriptive regimes that have relied primarily on persuasion have been relatively ineffective in securing compliance with regulatory requirements. Braithwaite and others argue that while it may be appropriate for regulators to seek compliance initially by means of persuasion, regulatory regimes will only be effective if they are will to escalate quickly to more punitive responses in the event of resistance.¹¹

But lack of effective enforcement is not the only reason why prescriptive safety regimes have not delivered the hoped for safety benefits. There are other problems with prescriptive regulation in organisational contexts, which have led to a certain disillusionment with the approach. One problem is that prescription can never be complete. As industry and technology evolve, prescriptive regulation inevitably lags behind. This means that there will always be areas of activity that are not effectively covered by the existing regulations, and other areas in which the regulations are obsolete or inapplicable. Another problem is that prescription can give rise to a compliance mentality on the part of employers, which, paradoxically, may be detrimental to safety. The point is that some employers may seek to comply with the letter of the law without any real sensitivity to the risks that these rules are designed to control. Such employers are not motivated to find more effective or efficient ways of controlling risk. In short, prescriptive rules can discourage innovation in risk-management.¹²

⁷ Sutherland, E (1949) *White Collar Crime*, Dryden, New York.

⁸ Hutter, op cit p6.

⁹ Grabosky, P and Braithwaite, J (1986) *Of Manners Gentle: Enforcement Strategies of Australian Business Regulatory Agencies*, Oxford University Press, Melbourne, p203.

¹⁰ References to this research will be found in Hopkins, A (1995) *Making Safety Work: Getting Management Commitment to Occupational Health and Safety*, Allen and Unwin, Sydney, chapter 6.

¹¹ Ayres, I and Braithwaite, J (1992) *Responsive Regulation*, Oxford University Press, New York.

¹² Gunningham, N and Johnstone, R (1999), *Regulating Workplace Safety: Systems and Sanctions* Oxford University Press, New York, p 25. See also:

<http://www.minerals.nsw.gov.au/data/page/1696/gunninghampaper.pdf>, p7.

These problems are not beyond remedy,¹³ but the view is now widespread that compliance with prescriptive regulations may not be enough to achieve safety in an organisational context.

The general duty approach to safety

The preceding considerations have led to the emergence of a new regulatory approach in some countries, based on a general duty of care. This is an idea that has been taken from the common law and turned into a regulatory requirement. In the area of workplace safety, it requires employers to maintain a safe workplace, so far as reasonably practicable, or, in the language of risk, to reduce risks to a level that is as low as reasonably practicable. The approach was recommended in the Robens report in the UK in 1972 and the Robens principle has been adopted in many jurisdictions.¹⁴

In principle, this approach allows regulators to do away with prescriptive regulation and to impose on the duty holder the obligation to work out for itself how to comply with the requirement.¹⁵ This resolves the problems alluded to earlier. Nowadays the general duty of care is often formulated in risk management terms, as a requirement to identify hazards, assess risks and control those risks. It is also understood as requiring firms to have a safety management system.¹⁶ So-called safety case regimes go a step further by requiring that companies demonstrate to regulators that they satisfy these requirements. Despite these elaborations, the duty holder remains in principle free to decide just how it will comply.

In practice, duty holders need guidance on how to comply, and various quite prescriptive codes of practice and standards have been developed to meet this need. However, duty holders are not bound to comply with these requirements and regulators are in principle not able to enforce them.

Duty of care regulation therefore poses a fundamental challenge to regulators. After an accident has occurred, it may be easy enough to establish that the employer had not complied with its duty of care. But in the absence of an accident, how is the regulator to decide if the duty-holder is in compliance? In a formal sense it is still open to regulator give a categorical answer – yes, the duty holder has gone through the risk

¹³ For a good discussion on the role of prescription see Breslin, P (2004) 'Performance versus prescriptive approaches to OHS in the Victorian construction industry, *Journal of OHS – ANZ*, 20(6), pp 563-571.

¹⁴ The EU *Framework Directive* (1989), Article 5, states as follows:

1. The employer shall have a duty to ensure the safety and health of workers in every aspect related to the work.....4. This Directive shall not restrict the option of Member States to provide for the exclusion or the limitation of employers' responsibility where occurrences are due to unusual and unforeseeable circumstances, beyond the employers' control, or to exceptional events, the consequences of which could not have been avoided despite the exercise of all due care.

The Robens principle is thus consistent with this Directive.

¹⁵ In reality, when general duty requirements are enacted it may be some time before prescriptive legislation is repealed or modified.

¹⁶ These requirements are referred to as process standards. In some circumstances, performance standards, which specify precise targets to meet, eg noise levels, may also be contained in regulations. See Bluff, E and Gunningham, N 'Principle, process, performance or what? New approaches to OHS standards setting, in Bluff E, Gunningham N and Johnstone R (eds) *OHS Regulation for a Changing World of Work*, The Federation Press, Sydney, pp 12-42.

management process or no, it hasn't. But this is clearly inadequate. The real questions for the regulator are how *well* the duty holder has carried out the risk management process and how *effective* its controls are. These are questions of degree, which do not allow of categorical answers. In short, from this point of view, it is not possible to give a simple answer to the question of whether or not a duty holder is in compliance. The very concept of compliance has to some extent lost its meaning.¹⁷

The problem comes painfully into focus in the matter of prohibition and improvement notices that are available to inspectorates in many Robens-inspired jurisdictions. Inspectors may prohibit an activity if there is an imminent danger to health and safety they may issue an improvement notice in less extreme circumstances.¹⁸ How is an inspector to decide whether there is an imminent danger? Under a prescriptive regime, the inspector might point to a regulatory violation as the reason for the notice, but in the absence of such a violation the inspector must fall back on subjective judgment of the level of risk.

In an empirical study of decision-making by inspectors, Hutter notes that many things affect their perceptions of risk. They may be influenced by guidance notes and codes of practice, by industry practice, by previous accidents they have investigated, by the knowledge that there is a readily available risk reduction remedy, eg a machine guard, and so on.¹⁹ In order to impose a prohibition order, then, an inspectors must make a judgment that the level of risk is unacceptable, a judgment which is informed by the inspector's expertise and which cannot be deduced simply from any regulatory requirement. The judgment about whether there is immediate danger, therefore, is not a judgment about compliance, except in the most formal sense; it is a judgment about risk. Whereas under a prescriptive regime, those drafting the prescriptive rules are making the judgments about risk and inspectors judge compliance with those rules, in a non-prescriptive regime it is the inspector on the spot who must make the judgments about risk. A non-prescriptive regime, in short, places far greater responsibility on its inspectors.

The UK Health and Safety Executive has recently issued an "enforcement management model" designed to assist with this problem. Inspectors are asked to determine the "risk gap", which is the difference between the actual and a benchmark or acceptable risk. The model states that:

The first step in determining the risk gap is to assess the levels(s) of actual risk arising from the dutyholder's activities. Inspectors should base this judgment on information about hazards and control measures informed by their training, experience, guidance and other relevant sources of information.²⁰

It is clear from this statement that the enforcement management model leaves the inspector in much the same situation described by Hutter.

¹⁷ In the case of performance standards, such as permissible noise levels, the idea of compliance remains perfectly meaningful. Indeed the idea of going beyond compliance takes on a particular meaning in this context, namely, achieving a performance better than that required by the standard. See Gunningham, N Kagan, R and Thornton, D (2004), 'Social license and environmental protection: Why businesses go beyond compliance', *Law and Social Inquiry*, 29 (2): 307-341

¹⁸ Hutter, op cit p 94.

¹⁹ Hutter, op cit pp 95-6.

²⁰ <http://www.hse.gov.uk/enforce/emm.pdf>

Nevertheless, even in a non-prescriptive regime there remains a compliance monitoring role for regulators. First, there may be some remaining prescriptive regulation, which can be directly enforced. Second, regulators can monitor compliance with codes of practice and standards and draw the attention of the employer to cases of non-compliance, which they identify. Even though such non-compliance may not constitute a legal violation, employers will normally be motivated to comply, since in the event of an accident, non-compliance with a code or standard may constitute evidence of failure to exercise a duty of care. Third, inspectors in some regimes may audit the employer's safety management system, drawing cases of non-compliance to management attention. In safety case regimes, in which the safety management system has been in effect licensed by the regulator, non-compliance with the safety management system is technically a regulatory violation. In these circumstances, regulators are back to monitoring regulatory compliance with prescriptive rules, rules which are chosen by the employer but which once accepted by the regulator become regulatory requirements. Beyond this, regulators may even monitor for compliance with good industry practice, regardless of whether this has been codified in any way.²¹

It is essential that regulators maintain this compliance monitoring role, even in non-prescriptive regimes. But the purpose of this paper is to sketch ways in which they can go beyond this, ways in which they can encourage duty holders to improve their management of risk, independently of the issue of compliance. The focus will be on high-risk industries which are already quite extensively regulated, but where regulators are looking for ways to improve their effectiveness.

One activity invariably carried out by regulators that goes beyond compliance monitoring is the provision of information and advice. This is a traditional regulatory function. The aim of this paper, however, will be to identify new strategies, by drawing on contemporary research about how organisations operate and how accidents occur. The following strategies will be discussed:

- auditing the auditors
- proactive investigation
- supporting company safety staff
- advising on organisational design
- exposing performance
- promoting regulatory crisis

Auditing the auditors

Routine auditing rapidly degenerates into a tick-a-box exercise. Audit schedules typically ask questions like:

- Is there evidence that hazards have been identified?
- Have workers been trained?

²¹ The Australian National Offshore Petroleum Safety Authority states in its strategic plan that safety cases will be checked to ensure that they are consistent with "good oil field practice", p 6.

- Is personal protective equipment (PPE) available?
- Are procedures being followed?

Each of these questions is inadequate. Research on major accidents²² reveals that they have occurred because

- although many hazards had been identified, a crucial hazard had not
- although training had occurred, it was inadequate
- although PPE was available, it was not the appropriate PPE
- although procedures existed and were followed, they were not appropriate procedures

So the questions auditors should preferably be asking are:

- have *all* hazards been identified? or more realistically,
- how good is the hazard identification methodology?
- how good is the training?
- is the PPE fit for purpose?
- how adequate are the procedures?

These questions are far more challenging. They cannot be answered with a tick in a box, and answering them may require a great deal of work. But if the quality of auditing can be improved in this way, the quality of risk management will certainly improve.

There is clearly a role for regulators in encouraging auditors to ask more probing questions about the effectiveness of the organisation's risk management system. If the regulator can identify a significant hazard which has not previously been identified, or a procedure which auditors say is being followed but which on examination turns out to be of little value, the effectiveness of company auditing is brought into question. The more embarrassing the oversight, the better. If regulators regularly find problems that audits have failed to identify, the audit system can be expected to undergo continuous improvement. The strategy, then, is to traverse the same path as the auditor and identify things missed. It is, in short, to audit the auditor.

Proactive investigation

At its best, incident investigation aims to identify the system failures that allowed an incident to occur. Good incident investigations ask a series of 'why' questions that link the incident back to management failures and aspects of organisational culture.²³ Such investigations are time consuming and resource intensive and are usually only carried out following an incident where there has been significant injury or damage,

²² Appleton, B (2001) 'Piper Alpha' in Kletz, T *Learning from Accidents*. 3rd ed, Gulf, Oxford, pp 196-206; Hopkins, A (2000) *Lessons from Longford: The Esso Gas Plant Accident*, CCH, Sydney; Hopkins, A (2005) *Safety, Culture and Risk: The Organisational Causes of Accidents*, CCH, Sydney.

²³ Reason's swiss cheese model and Rasmussen's accimaps, provide two examples of how such investigations can be formalised. Reason, J (1997) *Managing the Risks of Organisational Accidents*, Ashgate, Aldershot; Rasmussen J (1997) 'Risk management in a dynamic society: a modelling problem', *Safety Science*, 27(2/3): 183-213. See also Hopkins (2000) op cit.

or following an obviously dangerous occurrence. They are essentially reactive investigations, after the event of concern.

It is also possible to deploy this style of investigation proactively, before any harm has occurred. Tiny matters, such as an isolation tag missing, or an undetected piece of corrosion, may not themselves involve harm, but they can be regarded as tell-tales, as warning signs, that the management system is not functioning quite as it should. By applying the same investigative style to these matters, although not necessarily the same resources, the inspector may uncover important ways in which the management system is failing, significant risks that are not being effectively controlled. In a sense the inspector is engaged in detective work, using whatever clues are available, to uncover what might be going wrong. The crime investigation metaphor may not quite apt because the whole point of a proactive investigation is to carry out the investigation before the crime occurs. Arguably, however, the very best detective work is of this nature.

There is an important line of research that supports this approach. All accidents, major and minor, are preceded by warning signs, indications that something is amiss, which, if attended to, would have averted the accident.²⁴ Proactive investigation is really a strategy for taking these warning signs seriously and identifying ways in which safety management systems may be failing, before an accident occurs.

Proactive investigation of this sort has one major advantage over reactive investigation. After a harmful incident has occurred, individuals may be fearful of blame and likely to be less than cooperative. Moreover, the organisation itself may be as uncooperative as it possibly can, in order to avoid disclosing information, which might make it liable to legal action. Where an inspector carries out a proactive investigation, however, there is far less reason for companies or individuals to be fearful and far more likelihood that the investigation will be seen as an aid to prevention, rather than as a prelude to punishment.

Supporting company safety staff

Large organisations have internal staff with a specific responsibility for safety. This is part of the wider phenomenon of compliance staff in large organisation, whose job is to ensure compliance with regulations protecting shareholders, customers, workers the environment and so on. Many studies have shown that these internally located compliance professionals are vital for organisational compliance. The secret to their success is the degree of “clout” they wield. Where compliance staff have sufficient resources, where they have high status within an organisation, where there are direct lines of communication between compliance staff and chief executives, compliance professionals will have clout. They will wield more influence than the immediate line managers and in cases of conflict, their views will prevail.²⁵

²⁴ The starting point for this research is Turner, B (1978) *Man-Made Disasters*, Wykeham, London. This work is built upon by Weick, K. and Sutcliffe, K (2001). *Managing the Unexpected: Assuring High Performance in an Age of Complexity*, Jossey-Bass, San Francisco; and Reason (1997) op cit, among many others.

²⁵ Parker, C (2002) *The Open Corporation*, Cambridge University Press, Melbourne, pp 31,50,107,181,184.

One of the conditions for wielding clout is that compliance professions are supported in a variety of ways by the external environment and particularly by regulators. If company safety officers can appeal to regulators for support when they take an unpopular line, their clout is enhanced. If regulators seek them out and consult with them, and then champion their concerns at a higher level, their influence is expanded. Regulators therefore have an important role promoting the effectiveness of these internal change agents. The benefits are of course mutual. Inspectors who consult with company safety officers may be able to identify deficiencies in company systems far more quickly than if they have to identify these things for themselves. Creating an alliance with these internal compliance agents is therefore a valuable means of promoting better risk management.

Workforce health and safety representatives (HSRs) form a second safety-oriented group within the organisation that regulators should cultivate. Research shows that HSRs play a significant role in assuring safety²⁶ and it therefore behoves inspectors to do all in their power to enhance HSR credibility within the organisation by listening to them, and, where appropriate, championing their concerns. In addition, inspectors might ask senior managers on site if they know what their HSRs think about certain issues. Managers who lack this awareness could be chided about the effectiveness of their consultation procedures. HSRs are well positioned to know when things are not as they should be, and consulting them may be an efficient way for inspectors to zero in on things that require their attention.

Modern regulatory regimes are sometimes described as self-regulatory. This is not the place for a debate about the meaning of this term, but one precondition for successful self-regulation is the existence of specialised agents within an organisation whose function is to ensure the effective management of risk. Regulators can therefore increase the effectiveness of self-regulation by supporting the company's internal compliance agents.

Advising on organisational design

Various authors have noted that safety management systems have not yielded all the safety benefits that were originally expected and that too often these systems consist of little more than sets of manuals on shelves.²⁷ Something else is needed to breathe life into such systems and that something else is a safety culture.²⁸ The Norwegian government has taken the step of requiring petroleum companies to develop a safety culture. It has enacted a regulation which states: "The party responsible shall encourage and promote a sound health, environment and safety culture"²⁹ The Norwegian Petroleum Safety Authority recognises that "such a demand has never previously been expressed so directly in either Norwegian or international

²⁶ D Walters (2004) 'Workplace arrangements for worker participation in OHS', in Bluff, Gunningham and Johnstone, op cit, pp 66-93.

²⁷ Reason, J. (2000) 'Beyond the limitations of safety systems, *Australian Safety News*, April.

²⁸ For an extended discussion of this term see Hopkins, A (2005) *Safety, Culture and Risk*, CCH, Sydney.

²⁹ http://www.npd.no/regelverk/r2002/Rammeforskriften_e.htm#_Toc61775702

regulations” and it therefore offers guidance on what it means.³⁰ Its guidance notes draw on the definition of safety culture provided by James Reason.³¹ There are four elements in this definition: a safety culture is a reporting culture, a just culture, a flexible culture and a learning culture. These are to some extent self explanatory, with the exception of the idea of a flexible culture. In Reason’s formulation, flexibility is largely to do with how decisions are made. A flexible culture is one in which organisations assemble teams of people most equipped to make relevant decisions, rather than centralising decision making in one person. Promoting a flexible culture therefore involves promoting a particular style of decision-making.

It is clear, then, that the Norwegian regulation is seeking to have organisations redesign themselves in significant ways. They must develop better mechanisms for detecting and responding to information about things that may be going wrong, or about to go wrong, and they must develop different styles of decision making. These are fundamental features of the way an organisation operates, which go well beyond health and safety. Perhaps without realising it, the Norwegian regulators have added a new role to their repertoire, that of advising on organisational design. Research on so-called high reliability organisations³² has shown that safe operation is not just a matter of compliance with various regulations and codes; it is crucially dependent on organisational design. The new role that the Norwegian regulators have created for themselves is consistent with this insight.

Issues of organisational design have a particular bearing on the impact of internal safety staff. In the view of the earlier discussion this is worth addressing here in more detail. The best companies have safety staff at several different points of the hierarchy, with safety officers reporting directly to the most senior manager at that level, not via a human resources manager or some other intermediary.³³ There are also reporting links between the safety staff at various levels. A simplified version of this situation is represented in figure 1.

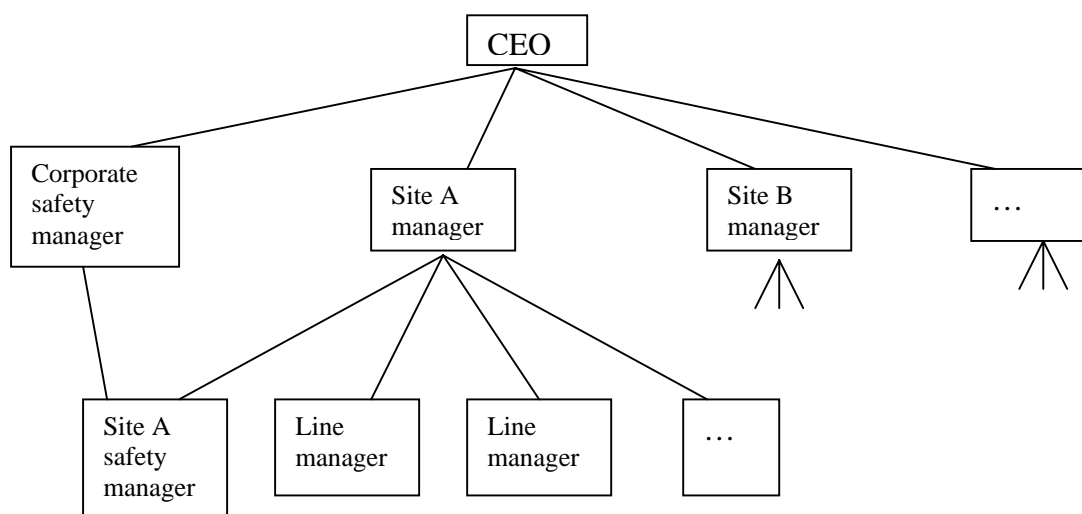
³⁰<http://www.ptil.no/NR/rdonlyres/A95D6036-8E42-43F3-9AFA-F422CD868A45/0/HEScultureNY.pdf>

³¹ Reason (1997), op cit.

³² Weick and Sutcliffe, op cit.

³³ Parker, op cit p 189.

Figure 1. Example of how safety managers are located in best practice companies



Let us spell out the implications of figure 1. If the site A safety manager feels that line managers are not responding to her concerns she can speak directly to the top manager at site A. If the latter does not respond, she can report this to the safety manager one level up, in this case, the corporate safety manager. This is a vital part of the structure, for it means that the site manager knows that her superior (the CEO in the figure 1) will be receiving independent reports about safety at her site. This is an excellent way of ensuring that the senior manager at each level listens attentively to any concerns a safety manager may have. Moreover, in best practice companies, the corporate safety manager visits sites on a regular basis and given that she is on a par with, or even outranks the site manager, her views carry great weight.

There is a role here for regulators to prod companies that do not have such arrangements to move in this direction. Again, the role is one of advising on organisational design.

Exposing performance

Good safety performance depends on the commitment of the top management. A crucial question from the regulator's point of view is how to motivate top management to make this commitment. One way to do this is to measure and publicise organisational performance with respect to various indicators. Managers are fiercely competitive about their performance, proud of good performance and embarrassed by poor performance. Such embarrassment leads to a redoubling of efforts to do better. All this is most obvious around performance indicators of production. But it is also evident in relation to certain safety indicators, in particular lost time injury figures. The limitations of the lost time injury frequency rate (LTIFR) as an indicator of safety performance are well known and will not be addressed here.³⁴

³⁴ See Hopkins (2000) op cit, pp 70-2.

A crucial feature of the LTIFR, however, is that it is a universal indicator that can be calculated across a wide range of establishments. This means that it can be used to make comparisons between sites, companies, and industries. No other safety indicator has such universal relevance. Because it can be calculated, it is, and when senior managers are compared on this indicator it has the expected effect. Those who do well determine to continue doing well, while those who do poorly are embarrassed into taking action to manage safety more effectively. It is a classic example of the observation that what gets measured, gets managed.³⁵ There are inevitably perverse effects as well. Managers determined to improve their performance figures may resort to managing the measure itself, for example, by finding ways to avoid classifying injuries as LTIs, but there is little doubt that competing to drive LTIFR downwards has a beneficial effect on safety.

Unfortunately, performance in relation to other safety matters, such as the prevention of major accident events, is not so easily measured. Regulators need to find ways of exposing safety performance in these areas to similar competition. In the US nuclear power industry, scrams, that is, emergency shutdowns, are taken as an indicator that the plant was temporarily out of control and thus as an indicator of poor performance. Comparative data on scrams are assembled and publicised,³⁶ and managers are thus highly motivated to manage these issues more effectively. In the oil and gas industry, leaks are an indication of poor safety performance, and where data on leaks can be assembled and publicised managers will be highly motivated to do better. The challenge for regulator, therefore, is to find ways in which relevant data can be assembled and publicised and poor performers shamed into doing better. It should be noted that quantitative data are not essential for mobilising shame. Publicising the details of a single accident can impact on reputation and motivate better performance.

It is interesting to consider for a moment the behaviour of companies that operate both in impoverished states, where effective regulatory oversight may be lacking, and in wealthy states, which have a more developed regulatory apparatus. The prominence of the LTI measure means that sites within the same company compete with each other to minimise this figure, regardless of differences in the effectiveness of regulatory regimes, and the results from sites in developing countries are sometimes even better than the corresponding results from developed nations. Such results invite scepticism and views are divided on whether they can be taken at face value. Nevertheless, there is an important implication here. If global companies can be induced to compete internally and externally on the basis of other indicators, for example, in the oil and gas industry, number of leaks, then other aspects of safety management can be expected to improve, independently of the activities of regulators. It follows that one way regulators in the developed world can most effectively assist their colleagues in the developing world is to promote intra- and inter-company competition in relation to such indicators.

³⁵ Drucker, P (1955) *The Practice of Management*, Heinemann, London.

³⁶ Rees, J (1994). *Hostages of Each Other: The Transformation of Nuclear Safety Since Three Mile Island*, Univ of Chicago Press, Chicago.

Promoting regulatory crisis

The motivations that top managers have to comply with regulatory requirements are mixed. The evidence is, however, that the major motivations are fear of the regulatory and public relations consequences of non-compliance, rather than any disinterested altruism.³⁷ There is of course an intimate relationship between public opinion and enforcement in motivating compliance. Legal action against a company damages its reputation and it is often this rather than the strictly legal consequences that provides the real motivation. In turn, poor reputation can fuel public demand for tougher enforcement.³⁸

Moreover, the most common reason that companies set about improving regulatory compliance is the experience of a regulatory crisis or disaster.³⁹ In some cases it is difficult to disentangle the effects the regulatory response to an incident, from the effects of the incident itself. For example, a massive fire will generate bad publicity and impact on a company's reputation independently of the regulatory response. But even in these circumstances, the regulatory response can intensify the impact on the company and strengthen its motivation to avoid further incidents. Moreover, a conviction for a regulatory violation is of enormous assistance to those wishing to sue the company for damages and such civil actions may substantially escalate the crisis for the company.⁴⁰

All this suggests a role for the inspectorate in creating regulatory crises for companies. As noted above, regulatory action following a major accident can be expected to intensify the crisis for the company in various ways. However, even in the absence of a major accident, there are ways in which regulators can promote a regulatory crisis for organisations that do not appear to be sufficiently focused on safety. Such organisations may from time to time experience dangerous incidents that, in and of themselves, generate little or no publicity, and no certainly no crisis for the organisation. If the incident is a result of some flagrant safety violation the regulator is in a good position to generate a mini-crisis for the organisation by prosecuting it and exposing it to negative publicity. Similarly, if regulators issue improvement or prohibition notices they should publicise this action so as to gain maximum leverage. The failure to publicise regulatory action seriously undermines the potential impact of the action.

Regulators may need to be strategic about creating organisational crises. They may even need to orchestrate a public response in some way, for example by providing press releases. The aim must be to generate the crisis for the organisation that research shows is often necessary to stimulate real change.

Routinely prosecuting the same organisation in circumstances where minimal fines are being imposed will not generate the necessary organisational crisis. Indeed, the fines in these circumstances may be seen as no more than the cost of doing business. One very large company in Australia was prosecuted dozens of times in the 1970s and

³⁷ Parker, op cit, p 93.

³⁸ Gunningham, Kagan and Thornton, op cit.

³⁹ Parker pp 91 and 95

⁴⁰ Hopkins, A (2004), 'Outcome of the civil action against Esso arising out of the Longford explosion', *Journal of Occupational Health and Safety- ANZ*, 20(2): 127-130.

1980s for industrial safety violations, with no apparent effect. The company generally pleaded guilty, which avoided any need for its senior people to appear in court, and I was told by a company spokesman that it did not regard these prosecutions as “pivotal events”. The regulator in this case had no concept of creating a crisis for the company; indeed it continued to allow the company to carry its own workers’ compensation insurance, a privilege available to large companies in Australia that are able to demonstrate a good safety management!⁴¹

The role of personal liability deserves special mention here. There is plenty of anecdotal evidence that when senior executives realise they might be personally liable if something goes wrong they devote far more effort to ensuring compliance.⁴² Evidence of another kind concerns the differing corporate responses to environmental and OHS offences in Australia. For decades, now, directors have been exposed to personal liability under environmental statutes and company lawyers have been warning them of their exposure. There has been no similar exposure under OHS law until more recent times. Correspondingly the evidence is that directors have been far more concerned about their environmental responsibilities than about their responsibilities under OHS law.⁴³

Criminology makes a distinction between specific deterrence, the impact on the individual punished, and general deterrence, the crime prevention effect on other, potential offenders. In the OHS context the evidence is that targeting corporations can have a deterrent effect on the companies prosecuted, by creating a crisis to which they must respond, but there is little evidence of an effect on other companies.⁴⁴ In contrast, the threat of personal liability seems to work as a general deterrent in that it has an observable impact on individuals who have not themselves been prosecuted.

The issue of personal liability of senior officers is a contentious one and those prosecuted may feel quite aggrieved that they should be held personally responsible for events which occurred far away and about which they had no direct knowledge. If the law is regarded purely as an instrument of retribution, that is, as a means of allocating just deserts, then this sentiment is understandable, but if the law is seen as having a preventive function, then holding senior officers liable appears far more justifiable - the evidence is that it works! There is of course a moral issue here: is it appropriate to punish people for the purpose of having an impact on others? This is not the place to canvas this issue; suffice it to say that the law has traditionally answered this question affirmatively. Industry leaders sometimes claim that personal liability will lead to an exodus of good people from industry, but there does not seem to be any evidence that this has occurred.

Prosecuting the most senior officers of a very large company is one way in which regulators can broaden the crisis for the organisation. If the site at which the offence took place is organisationally and geographically remote from corporate headquarters, the personal impact of prosecuting the company or one of its subsidiaries may be

⁴¹ Hopkins (1995), op cit, pp 100-1.

⁴² For example, see Parker, op cit p 93.

⁴³ Hopkins (1995), op cit, p105; for more detailed discussion see Gunningham and Johnstone (1999), op cit, p 215.

⁴⁴ See Johnstone, R (2004) ‘Rethinking OHS enforcement’, chapter 6 in Bluff, Gunningham and Johnstone, op cit.

minimal. But when senior officers are prosecuted, the ripples spread quickly throughout the whole company and even through out the industry. This has been the experience in relation to the prosecutions of mine officials following the Gretley coal mine disaster in NSW. Managers at all levels in the company that owns the mine are now much more aware of their personal duty of care.

There is one additional matter that regulators need to bear in mind in resorting to personal liability. The greatest leverage is obtained by targeting officers at the top of the company, people who are making major spending decisions and who are in a strong position to influence outcomes. Prosecuting at lower levels simply looks like scape-goating. The Gretley prosecutions have generated resentment for this reason.

The preceding analysis has been deliberately couched in terms of promoting *crisis*, rather than enforcing compliance, because there is no direct connection between crisis and compliance⁴⁵. Regulatory crises do not automatically lead to improved health and safety outcomes. The point is that a regulatory crisis for an organisation represents a window of opportunity during which the company will be susceptible to change. It is an opportunity, in particular, for company safety staff, who may have been battling against commercial pressures, to bring about the changes they have been seeking. It is also an opportunity for inspectors to promote organisational and others changes they see as needed. From this point of view, promoting regulatory crisis is a tool available to regulators seeking to kick start companies on the road to change.

Conclusion

This paper has argued that the advent of general duty legislation makes the task of the regulator far less clear-cut than it was under prescriptive regimes. No longer are duty holders simply required to comply with specific rules; instead they are required to manage risk. I have suggested that in practice there are still rules to followed, rules, that may be formulated as codes of practice or industry standards. Rules may even be implicit in the notion of 'good industry practice'. In reality, therefore, regulators are still involved to some extent in monitoring and enforcing compliance with rules of various sorts.

Monitoring compliance in this way is crucially important, but this paper seeks to identify strategies that go beyond compliance monitoring, by drawing on recent research on the causes of accidents and the nature of organisations. The strategies identified include: auditing the auditors; proactive investigation; supporting company safety staff; advising on organisational design; exposing performance; and promoting regulatory crisis. These are all ways in which regulators can encourage companies to improve their management of risk, ways that are not focused on identifying non-compliance with rules of any sort. It is in this sense that we can speak of going beyond compliance monitoring.

⁴⁵ I owe this important insight to Parker, op cit. p 99.