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## **Working Paper 55**

# **Multiple OHS Inspection Tools: Balancing Deterrence and Compliance in the Mining Sector**

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## Introduction

Effective enforcement is vital to the successful implementation of OHS legislation, and legislation that is not enforced, rarely fulfils its social objectives. This working paper examines the question of how mines inspectorates should go about the enforcement task in order to achieve policy outcomes that are effective (in terms of reducing the incidence of work related injury and disease) and efficient (in doing so at least cost to both duty holders and the regulator), while also maintaining community confidence.

Regulatory agencies, including mines inspectorates, have very considerable administrative discretion as to how they approach the enforcement task. In broad terms, they can choose between (or incorporate some mixture of) two very different enforcement styles or strategies: those of deterrence and “advise and persuade” (sometimes referred to as a “compliance” strategy).

The deterrence strategy emphasises a confrontational style of enforcement and the sanctioning of rule-breaking behaviour. It assumes that those regulated are rational actors capable of responding to incentives, and that if offenders are detected with sufficient frequency and punished with sufficient severity, then they, and other potential violators, will be deterred from violations in the future. The deterrence strategy is accusatory and adversarial. Energy is devoted to detecting violations, establishing guilt and penalising violators for past wrongdoing.

In contrast, an “advise and persuade” or “compliance” strategy emphasises cooperation rather than confrontation, and conciliation rather than coercion (Hutter 1993). As described by Hawkins (1984, 4):

A compliance strategy seeks to prevent harm rather than punish an evil. Its conception of enforcement centres upon the attainment of the broad aims of legislation, rather than sanctioning its breach. Recourse to the legal process here is rare, a matter of last resort, since compliance strategy is concerned with repair and results, not retribution. And for compliance to be effected, some positive accomplishment is often required, rather than simply refraining from an act.

Bargaining and negotiation characterise a compliance strategy. The threat of enforcement remains, so far as possible, in the background. It is there to be employed mainly as a tactic, as a bluff, only to be actually invoked where all else fails; in extreme cases where the regulated entity remains uncooperative and intransigent.

These two enforcement strategies are two polar extremes, hypothetical constructs unlikely to be found in their pure form. Which of these enforcement strategies will achieve best results (or, if both fall substantially short, what alternative strategy should be preferred), can only be answered through an evidence-based analysis of the international literature. Most of that literature focuses on one end of the enforcement continuum and asks: how effective is deterrence in achieving improved regulatory outcomes? A more modest literature examines the opposite pole of the continuum and documents the considerable flaws in a pure “advise and persuade”/compliance strategy. Both of these bodies of literature are analysed below.

## Assessing Deterrence

Proponents of deterrence assume that regulated business corporations are "amoral calculators" (Kagan & Scholz 1984) that will take costly measures to meet public policy OHS goals only when (1) specifically required to do so by law, and (2) they believe that legal non-compliance is likely to be detected and harshly penalised (Becker 1968; Stigler 1971). On this view, the certainty and severity of penalties must be such that it is not economically rational to defy the law. A distinction is made between general deterrence (premised on the notion that punishment of one enterprise will discourage others from engaging in similar proscribed conduct) and specific deterrence (premised on the notion that an enterprise that has experienced previous legal sanctions will be more inclined to make efforts to avoid future penalties). Both forms of deterrence are assumed to make a substantial positive contribution to reducing work related injury and death (Simpson 2002).

But does the evidence support the "common sense" view about the need for deterrence and, if so, in what circumstances? Is deterrence likely to have the same impact "across the board" or might this vary between, for example, large corporations and small and medium sized enterprises, or between "best practice" organisations and the recalcitrant? International and Australian evidence-based research, both in OHS and other closely related areas of social regulation, indicates that the link between deterrence and compliance is complex.

In terms of general deterrence, the evidence shows that regulated business firms' *perceptions* of legal risk (primarily of prosecution) play a far more important role in shaping firm behavior than the objective likelihood of legal sanctions (Simpson 2002, Ch 2). And even when perceptions of legal risk are high, this is not necessarily an important motivator of behaviour. For example, Braithwaite and Makkai (1991, 35) found that in the case of nursing home regulation, there was virtually no correlation between facilities' regulatory compliance rates and their perceptions of the certainty and severity of punishment for violations, except for certain minorities of actors in some contexts. Yet other well-constructed studies have found that "deterrence, for all its faults, may impact more extensively on risk management and compliance activity" than applying remedial strategies after the event (Baldwin 2004, 373).

Haines (1997), in another important study, suggests that deterrence, while important in influencing the behaviour of small and medium sized enterprises, may have a much smaller impact on large ones. The simpler management structures of small firms and the relative incapacity of key decision-makers within them to avoid personal liability, also make them much easier targets for prosecution. The size of the penalty may also be an important consideration: mega-penalties tend to penetrate corporate consciousness in a way that other penalties do not (Gunningham, Kagan & Thornton 2005).

In contrast, some at least of the earlier research did suggest a stronger link between tough enforcement and improved OHS outcomes. In particular, Lewis-Beck and Alford's (1980) detailed study of American coalmining regulation between 1940 and 1970 suggests that a significant reduction in fatalities follows serious attempts to enforce credible mine safety legislation. However, Lewis-Beck and Alford's methodology has been heavily criticised on the basis that a decline in productivity, not an increase in safety, accounts entirely for their observations (Ruffennach 2002).

In any event, the deterrent impact of tough enforcement may well be weaker today, at least in industries such as mining that have been subject to substantial regulation for a considerable period and/or are reputation sensitive. Significantly, Gunningham,

Kagan and Thornton's research (2005) on the heavily regulated electroplating industry and the brand-sensitive chemical industry found that the former believed (as a result of many years of targeted enforcement) that resistance to regulation was futile and they had little alternative but to comply, while the latter complied largely in order to protect their "social license to operate" rather than because of fear of prosecution. And, in both industries, almost half of respondents gave normative rather than instrumental explanations for why they complied. Many thought of themselves as "good guys", complying with regulation because it was the right thing to do.

Nevertheless, they struggled to disentangle normative from instrumental motivations, and wrestled with the temptation to backslide when legally mandated improvements proved very expensive. Many acknowledged that in the absence of regulation, it is questionable whether their firms' current good intentions would continue indefinitely – not only because their own motivation might decline but because they resented others "getting away with it". Strikingly, Gunningham, Kagan and Thornton (2005) found that hearing about legal sanctions against other firms prompts many of them to review, and often to take further action to strengthen, their own firm's compliance program.

From this it appears that in mature, heavily regulated industries such as mining, although deterrence becomes less important as a direct motivator of compliance, it nevertheless plays other important roles. In particular, for most respondents, hearing about sanctions against other firms had both a "reminder" and a "reassurance" function — reminding them to review their own compliance status and reassuring them that if they invested in compliance efforts, their competitors who cheated would probably not get away with it (Gunningham, Kagan & Thornton 2005). Thus general deterrence, albeit entangled with normative and other motivations, continued to play a significant role.

Turning to specific deterrence, the evidence of a link between past penalty and improved future performance is stronger, and suggests that a legal penalty against a company in the past influences their future level of compliance (Simpson 2002). Baldwin and Anderson (2002), for example, found that 71 per cent of companies that had 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". However, the literature also suggests that action falling short of prosecution (for example, inspection, followed by the issue of administrative notices or administrative penalties) can achieve "a re-shuffling of managerial priorities and a greater attention paid to safety and health improvement opportunities through out a worksite" (Baggs et al 2003, 491) even when those penalties are insufficient as to justify action in pure cost-benefit terms (Gray and Scholz 1993). This seems to be because such action is effective in refocusing employer attention on safety and health problems they may previously have ignored or overlooked. But routine inspections without any form of enforcement apparently have no injury reducing effects (Shapiro and Rabinowitz 1997, 713).

Against the positive contribution to OHS that deterrence can make in *some* circumstances, must be weighed the counter-productive consequences of its over-use or indiscriminate use. For "if the government punishes companies in circumstances where managers believe that there has been good faith compliance, corporate officers may react by being less cooperative with regulatory agencies" (Shapiro and Rabinowitz 1997, 718). Indeed, there is evidence that managers may refuse to do anything more than minimally comply with existing regulations (rather

than seeking to go beyond compliance to further improve OHS) and frequently resist agency enforcement efforts. In some cases, Bardach and Kagan (1982) demonstrate that what results is a "culture of regulatory resistance" amongst employers.

For the purposes of this working paper, perhaps the most important conclusion may be that those who are differently motivated are likely to respond very differently to a deterrence strategy. While it may be effective when applied to the recalcitrant and perhaps to reluctant compliers it will be counter-productive as regards OHS leaders (who respond badly to an adversarial approach Bardach and Kagan 1970) and irrelevant to the incompetent. But inspectors are for the most part, incapable of knowing the motivation of those they are regulating, with the result that a "pure" deterrence strategy may achieve very mixed results.

The broader message may be that the impact of deterrence is significant but uneven, and that unless it is used wisely and well, it may have negative consequences as well as positive ones. How to steer a middle path that harnesses the positive impact of deterrence, and targets it to those whose behaviour is most likely to be impacted by it, while minimising its adverse side effects, will be further explored later in this working paper.

## **Assessing Compliance**

Although the above section has cautioned against over-reliance on deterrence, there are also dangers in adopting a pure "advise and persuade"/compliance oriented strategy of enforcement, which can easily degenerate into intolerable laxity and fail to deter those who have no interest in complying voluntarily (Gunningham 1997; see Ritter 2004, Appendix 4). For example, pure "consultancy" visits, focusing exclusively on providing education and advice, appear to achieve little if any improvement in workers' compensation claims rates, whereas inspectoral intervention with an enforcement component correlates with a 20–25% improvement in such claims rates (Baggs et al 2003).

More broadly, there is considerable evidence that cooperative approaches may actually *discourage* improved OHS performance amongst better performers if agencies permit lawbreakers to go unpunished. This is because even those who are predisposed to be "good apples" may feel at a competitive disadvantage if they invest money in compliance at a time when others are seen to be "getting away with it" (Shapiro and Rabinowitz 1997).

The counter-productive effects of a pure compliance strategy are illustrated by Gunningham's study of the New South Wales Mines Inspectorate (1987) in its approach to the inspection and enforcement of legislation relating to the safe use of asbestos. The study documented how the inspectorate was not only loath to prosecute, even when faced with evidence of gross breaches of the asbestos regulations, but routinely warned mine management of prospective inspections, thereby enabling them to clean up and disguise many of the worst regulatory breaches. That analysis concluded that:

What the Mines Inspectorate provided at Baryulgil... fell far short of any ...optimum. Its approach might best be classified as "negotiated non-compliance", a strategy located at the compliance extreme of the compliance-deterrence continuum, a complete withdrawal from enforcement activity, a toothless, passive and acquiescent approach which, however attractive to the regulatory agency and to the regulated industry, has tragic consequences for those whom the legislation is ostensibly intended to protect (Gunningham 1987, 91).

While this study might be thought of as of mere historical interest, relatively recent events suggest that many of its warnings about regulatory capture and the consequences of an overly gentle approach to enforcement remain of considerable contemporary significance. For example the Gretley Report (NSWDMR 1998, 694) found that between 1990 and 1997 there had been some 33 deaths in the mining industry, many apparently involving gross negligence, but no prosecutions. This led Justice James Staunton to suggest the need for a substantial change of attitude within the Inspectorate. The Ritter Inquiry in Western Australia was similarly critical of a policy of de facto non-enforcement in that state (Ritter 2004, Appendix 4).

Again, the broader point is that a compliance strategy will have a different impact on differently motivated organizations. It may be entirely appropriate for OHS leaders, and the sort of negotiation that takes place as regards the development of a safety case in the Australian off-shore oil industry may work well when dealing with sophisticated organizations with high safety performance. But as the Baryulgil example demonstrates, it will manifestly not be effective in engaging with reluctant compliers or the recalcitrant, and only effective for the incompetent if it is coupled with education and advice. Once again, regulators who are unable to determine what sort of organization they are dealing with will be operating largely in the dark, and unable to use this strategy in the most constructive fashion.

### **The Enforcement Pyramid: Beyond Deterrence and Compliance**

Unsurprisingly, given the limitations of both compliance and deterrence as “stand alone” strategies, most contemporary regulatory specialists now argue, on the basis of considerable evidence from both Europe and the USA, that a judicious *mix* of compliance and deterrence is likely to be the optimal regulatory strategy (Ayres and Braithwaite 1992; Kagan 1994; Wright et al 2004). But how might such a mix best be achieved, and what would an ideal combination of cooperation and punishment look like?

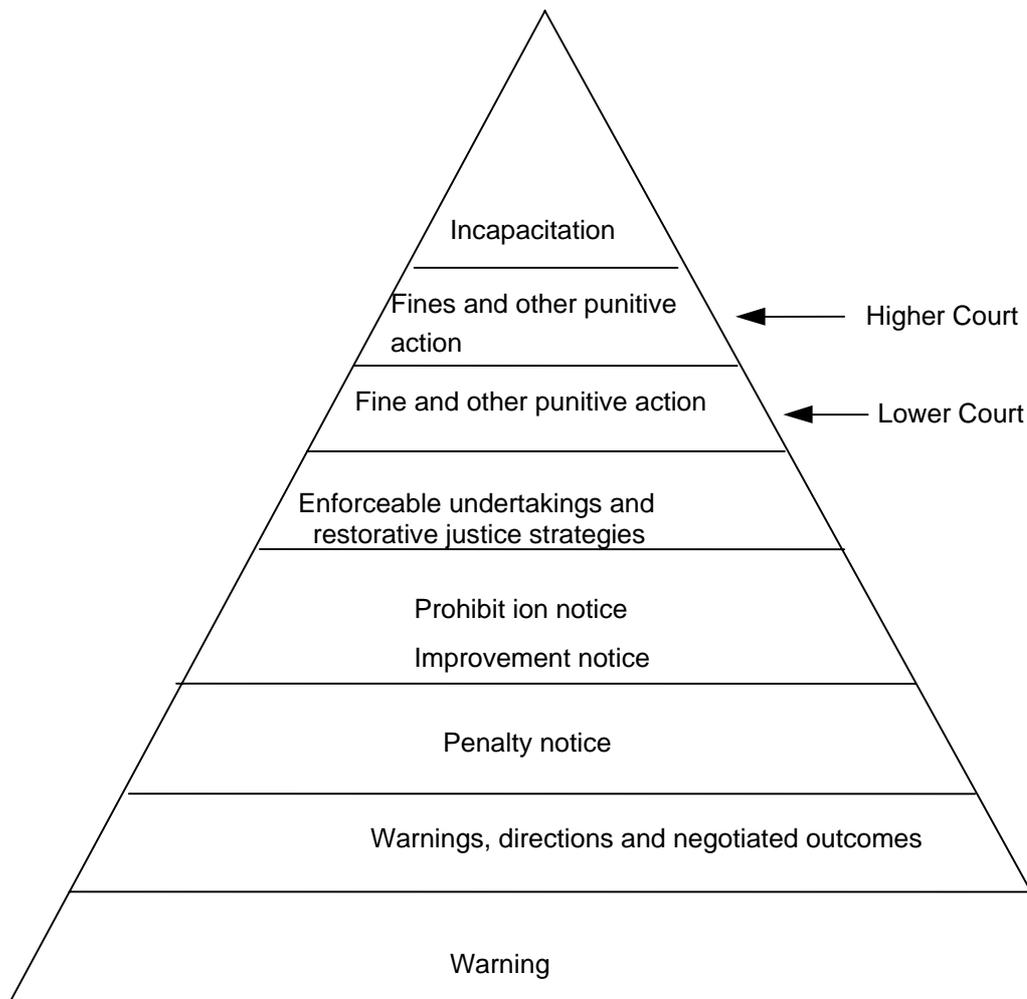
Because regulated enterprises have a variety of motivations and capabilities, it is suggested that regulators must invoke enforcement strategies that successfully deter egregious offenders, while at the same time encouraging virtuous employers to comply voluntarily and rewarding those who are going “beyond compliance”. Thus good regulation means invoking different responsive enforcement strategies depending upon whether one is dealing with leaders, reluctant compliers, the recalcitrant or the incompetent. However, the dilemma for regulators is that it is rarely possible to be confident in advance as to motivation of a regulated firm.

If the regulator assumes all firms will behave as good corporate citizens, it may devise a regulatory strategy that stimulates voluntary action but which is incapable of effectively deterring those who have no interest in responding to encouragement to voluntary initiatives. On the other hand, if regulators assume all firms face a conflict between safety and profit, or for other reasons that they will require threatening with a big stick in order to bring them into compliance, then they will unnecessarily alienate (and impose unnecessary costs on) those who would willingly comply voluntarily, thereby generating a culture of resistance to regulation (Bardach and Kagan 1982).

The challenge is to develop enforcement strategies that punish the worst offenders, while at the same time encouraging and helping employers to comply voluntarily. The most widely applied mechanism for resolving this challenge is that proposed by

Ayres and Braithwaite, namely for regulators to apply an "enforcement pyramid" (see figure 1 below) which employs advisory and persuasive measures at the bottom, mild administrative sanctions in the middle, and punitive sanctions at the top. On their view, regulators should start at the bottom of the pyramid assuming virtue — that business is willing to comply voluntarily. However, where this assumption is shown to be ill-founded regulators should escalate up the enforcement pyramid to increasingly deterrence-orientated strategies (see Ayres and Braithwaite 1992; Gunningham and Johnstone 1999). In this manner they find out, through repeat interaction, whether they are dealing with OHS leaders, reluctant compliers, the recalcitrant or the incompetent, and respond accordingly.

Central to this model are the need for (i) gradual escalation up the face of the pyramid and (ii) the existence of a credible peak or tip which, if activated, will be sufficiently powerful to deter even the most egregious offender. The former (rather than any abrupt shift from low to high interventionism) is desirable because it facilitates the "tit-for-tat" response on the part of regulators which forms the basis for responsive regulation (ie if the duty holder responds as a "good citizen" they will continue to be treated by the inspectorate as a good citizen — Ayres & Braithwaite 1992). The latter is important not only because of its deterrent value, but also because it ensures a level playing field in that the virtuous are not disadvantaged.



*Figure 1 The enforcement pyramid set out above is illustrative of the sorts of carrots and sticks that an agency might wish to invoke as part of an escalating strategy of enforcement but it is not intended to be exclusionary. Many different mechanisms might be utilised under this general approach.*

The pyramid concept and variations on it (see Gunningham and Grabosky 1998; Gunningham and Johnstone 1999) are now well known and need not be further rehearsed in the present context. Instead, four broader points must be made.

First, Haines has suggested that "escalating and de-escalating of penalty may be far more complex than the proponents of pyramidal enforcement contemplate" (Haines 1997, 219-20). Not least, regulators who escalate sanctions may produce unintended consequences in companies "which in response to threat, aim to reduce their vulnerability to scrutiny, and so, to liability...When escalation of penalty occurs, motivation for corporate compliance shifts from co-operation and trust, to deterrence and mistrust" (Haines 1997, 119). In this way, chronically mistrustful organisations may be created. As she points out: "[b]uilding trust with organizations who have never experienced legal threat may be one thing, rebuilding trust may be an entirely different matter" (Haines 1997, 120).

Second, as Christine Parker has argued:

strategic compliance-oriented enforcement strategies do not ensure that regulators' messages of encouragement of compliance reach an audience equipped to understand or effectively respond to them. The application of the pyramid must eventually lead to the creation of a pool of compliance expertise in the corporate world, otherwise efforts to respond to regulatory messages will be ineffectual" (Parker 1999, 223).

In essence, a pyramidal response will not be enough unless information flows effectively from regulator to regulated and there is a capacity for a genuine dialogue to take place. If for example, the regulator sends a signal at a low point in the enforcement pyramid to senior management who, preoccupied with production and other pressures, fail to appreciate its significance, or respond with tokenism or creative compliance then little will have been achieved. Certainly it is important to engage with senior management – without their "buy in" no substantive OHS action may be possible. But such engagement may only prove practicable through a trusted intermediary such as a compliance professional, capable of harmonising regulatory goals and organizational norms. Parker argues that for this reason it may be particularly important to nurture compliance professionalism (for example, through associations of safety professionals) in order both to create allies in the safety enterprise and a community with which regulators can communicate. Sometimes they alone have both an understanding of the key OHS issues, and a capacity to put the "business case" for resolving them, in credible terms, to senior corporate management (see Rees 1988).

Third, the concept of "responsiveness", which is so central to pyramidal enforcement strategies, needs to be fully articulated. Nielsen for example, distinguishes five different ways of being responsive: short –memory responsiveness, long-memory responsiveness, attitude-responsiveness, dialogic-responsiveness, and subjective performance responsiveness (Nielsen 2006). Advocates of pyramidal enforcement would argue that breach-narrow and past-focused approaches to responsiveness are inadequate and that what is needed is a form of responsiveness capable of engaging with "the broader cooperative or non-cooperative behavior and/or attitude of the regulatee. Regulatees showing the will and ability to self-regulate should be rewarded with less harsh regulation" (Nielsen 2006, 397–8, Ayres and Braithwaite 1992, 19).

Fourth, in many industries there are insufficient repeat interactions between regulator and regulated as to make a pyramidal approach viable in practice (Gunningham & Johnstone 1999, 123–129). Moreover, as Richard Johnstone (2003, 18) has argued:

for the pyramid to work in the interactive, "tit for tat" sense envisaged by its proponents, the regulator needs to be able to identify the kind of firm it is dealing with, and the firm needs to know how to interpret the regulators' use of regulatory tools, and how to respond to them (Black 2001: 20). This requires regulators not only to know what is entailed in effective compliance programs and systematic OHSM approaches, but also to have a sophisticated understanding of the contexts within which organisations operate, and the nature of an organisation's responses to the various enforcement measures.

All this, as Johnstone points out, is a tall order. The result is likely to be that the less intense and the less frequent is the level of inspection, and the less knowledge the regulator is able to glean as to the circumstances and motivations of regulated firms, the less practicable it becomes to apply a pyramidal enforcement strategy.

Although the first three concerns are often capable of being addressed, the fourth often is not. Indeed, if repeat interactions are not possible then some commentators have concluded that the entire enforcement pyramid has little practical application (Scott 2004). While this might arguably be correct in particular circumstances, it is manifestly incorrect as regards hazardous industries such as mining which have traditionally been subject to a high degree of regulation. Large companies at least, can expect a substantial number of inspections each year (for example, most sizable mines get visited about every six weeks in New South Wales) and a level of regulatory scrutiny that enables inspectors to gain considerable knowledge about their behaviour and motivations.

For these firms in particular, a tit for tat strategy is entirely credible and the enforcement pyramid can provide a key conceptual underpinning to an effective range of inspection and enforcement tools. For such enterprises, it encapsulates the virtues of responsive regulation: regulation that takes account of, and responds to, the regulatory capacities that already exist within regulated firms. In doing so, it offers a strategy whereby regulators can successfully deter egregious offenders, while at the same time encouraging and helping the majority of employers to comply voluntarily. And unlike industries such as building, where a duty holder may see a multiplicity of different inspectors each with a different set of expectations (May & Wood 2003) the mining industry involves regular contact between a single inspector (or small number of inspectors) and the duty holder. This provides ideal conditions for responsive regulation.

In this context it should be noted that the enforcement pyramid can be applied as much to a safety case regime (in which case enterprises are held to the terms of their safety case agreement with the regulator, who can apply a pyramidal approach to how they implement those terms) as it does to regulation under a traditional statutory approach.

But where regulators make only occasional visits to mines (as may be the case with small companies, and in relation to contractors and sub-contractors in some circumstances), and where the reach of the state is seriously constrained, then the pyramid has more limited application. Here, many capable and experienced regulators ask: "given all the circumstances, which enforcement technique is most likely to result in a lasting improvement in safety, while retaining the confidence of stakeholders" (Kruse & Wilkinson 2005, 5). Such regulators would conceive of their

choices not in terms of a pyramid, but rather in terms of a segmented circle, from which they will simply choose the most appropriate regulatory tool from a variety of options. That is, the regulator's best option may be to simply make a judgment as to a company or individual's willingness and capacity to comply with the rules, and match their enforcement style with the image of their targets (Hawkins 1984; WorkCover NSW 2005; Westrum 1996). In doing so, they usually reserve coercive sanctions for a small minority of perceived "bad apples" (Makkai and Braithwaite 1994).

But even where regulators find it impractical to use the pyramid in its entirety, it may nevertheless be useful in determining which regulatory tool to employ in a given instance (that is, at what point in the pyramid would it be appropriate to intervene, given the characteristics of the regulated entity and the degree of risk or type of breach (Gunningham and Johnstone 1999, 124-125). This involves a hybrid approach – somewhere between the dynamic and ongoing nature of a full "tit-for-tat" responsive regulatory strategy and the sort of static proportional response contemplated, for example, by the UK Health and Safety Executive's enforcement management model (HSE 2002). In particular, and in contrast to the HSE approach, it involves gleaning as much information as possible from the previous history and track record of the duty holder, from such indicators as their housekeeping arrangements and their managers' attitudes, as to inform an at least partially responsive approach as to where in the enforcement pyramid to intervene.

Finally, the pyramidal approach "has the great merit that when shown the various pyramids, many regulators and policy-makers immediately seem to understand them descriptively and offer examples" (Scott 2004). That is, connecting the theoretical construct of the pyramid to the concrete and practical experience of regulators is not a substantial problem, although their conception of it is usually more static than responsive.

## **From Theory to Practice**

Notwithstanding the value of the enforcement pyramid to inspection and enforcement in the mining industry, it has had only a very modest impact in practice. An attempt to formalise a pyramidal approach to enforcement is to be found in the Nationally Co-Ordinated Protocol on Enforcement in the National Mine Safety Framework (MCMPR 2004, Strategy 4). However, this is still in its draft form and understandably lacks sufficient specificity or connection to state level enforcement options. Not least, it does not identify the key elements of a compliance policy and as a result, does not facilitate states comparing their own (often limited and outdated) compliance policy with best practice under a pyramidal approach. In consequence it will not ensure concerted and consistent inspectoral action to implement pyramidal principles across the different jurisdictions. Nor does it seek to build upon best practice internationally, by, for example, taking account of the framework developed by the British Health and Safety Executive under its Enforcement Management Model which relates enforcement options to the degree of risk posed by the contravention in question (Johnstone 2004, 168-170). Nor is reference made to recent advances in sanctioning policy (MacCrory 2006).

Turning to the States and "on the ground" practice, little training or guidance seems to be offered to mines inspectorates on enforcement strategy in general, or on pyramidal techniques in particular. For example, according to the 2005 Mine Safety Review in New South Wales "individual inspectors vary the mix of application depending on their own personality and philosophy" (Wran and McClelland 2005).

However, New South Wales does have a coherent framework for setting and communicating expectations, for developing goals and for enforcement and investigations (Morrison & Regan 2006, Wran and McClelland 2005, Appendix 17). It also invokes an escalating approach which seeks to match enforcement response to type of firm. Adapting the work of Weick (1987) and Reason (1990) firms are classified as ranging from the "vulnerable" (for whom sanctions are appropriate), to "rule followers" (for whom direction is important), to the "robust" (to be encouraged), the "enlightened" (partnering); and "resilient" (champions). This is a valuable approach in terms of identifying "which arrow to select from the quiver" but it still falls short of the responsive, tit for tat strategy that lies at the core of pyramidal enforcement and is static rather than dynamic.

In Queensland inspectors also have considerable latitude as to how they go about administering the law (ACiL 2005). This is unfortunate and much might be gained from developing more sophisticated compliance policies than those currently available, which do not clearly identify how inspectors should go about choosing between different enforcement tools or how to determine an appropriate response in particular circumstances (see, for example, NRM 2001); Mineral Resources (NSW) 1999; Wran and McClelland 2005). A review of current policies was foreshadowed in 2005 (NRM 2005) but had not been completed at the time of writing. In Western Australia, the current enforcement policy does at least set out principles of enforcement, enforcement criteria and criteria to be applied in determining whether to prosecute (DOCEP (WA) 2005), while the Queensland Compliance Policy includes a guide for determining appropriate administrative action (NRM 2001).

However, in neither Queensland nor Western Australia has there been any attempt to develop a sequenced or responsive strategy incorporating gradual escalation up an enforcement pyramid. The Western Australian enforcement and prosecution policy (DOCEP 2005) simply asserts that "enforcement action will be responsive, timely and in proportion to risk and potential impact". Nor is any guidance provided, where a responsive strategy is not practicable, as to how to determine the appropriate level at which to enter the enforcement pyramid (for example, degree of risk, quality of OHSM and so on). However, the Queensland Department of Natural Resources and Mines (as it then was) has indicated that it would be developing a new compliance policy "consistent with the effective application of an enforcement pyramid approach" (NRM 2005, 7). In doing so, it could do far worse than have regard to the approach recommended in the UK by the McCrory Report, which advocates a Compliance Code supporting a risk based approach to regulation with a statutory underpinning (McCrory 2006).

In any event, many stakeholders argue that there is a substantial gap between the formal policies and their implementation (Wran and McClelland 2005) and that enforcement action is tailored almost exclusively to the seriousness of the particular breach, as opposed to "track record" and attitude.

Finally, there is the challenge of ensuring that regulators who have a cultural aversion to escalating up the pyramid — as appears to be the case in Queensland and Western Australia — are willing to shift where appropriate to a tougher, more inquisitorial approach. Here, insights may be gained from Julia Black's (2005) work relating to the Australian Prudential Regulation Authority. She shows how APRA deliberately created a more pre-emptive and effective interventionist approach to regulation which involved requiring different inspectorial stances — normal, oversight, mandated improvement and so on — depending upon the firm's risk profile. She shows how APRA is "attempting to structure the discretion of supervisors and in particular to force them out of a cooperative approach where they might otherwise be

reluctant to be more intrusive" (Black 2005, 18). Thus the strategies for targeting inspection and enforcement — particularly those based on risk profiles — can be effectively connected to a responsive and pyramidal enforcement strategy.

## **Conclusion**

Neither compliance nor deterrence has proved effective or efficient enforcement strategies. The evidence suggests that a compliance strategy, whilst valuable in encouraging and facilitating those willing to comply with the law to do so, may prove disastrous against "rational actors" who are not disposed to voluntary compliance. And while deterrence can play an important positive role, especially in reminding firms to review their compliance efforts and in reassuring them that if they comply, others will not be allowed to "get away with it"; its impact is very uneven. Deterrence is, for example, more effective against small organisations than large ones and better at influencing rational actors than the incompetent. Unless it is carefully targeted, it can actually prove counterproductive, as when it prompts firms and individuals to develop a "culture of regulatory resistance", or to take a defensive stand, withholding information and failing to explore the underlying cause of accidents for fear that this information will be used against them in a court of law.

Responsive regulators have found that they will gain better results by developing more sophisticated strategies which employ a judicious blend of persuasion and coercion, the actual mix being adjusted to the particular circumstances and motivations of the entity with whom they are dealing. A valuable heuristic, in thinking about how best to tailor enforcement strategy to individual circumstances, is that of the enforcement pyramid. This embraces a "tit for tat" approach that rewards virtue while punishing vice and in which the regulator is responsive to the past action of the regulated entity. Thus although it is not possible for the regulator to be confident at the outset, of a duty holder's motivation, or whether they are an OHS leader, a reluctant complier, a recalcitrant or incompetent, this will gradually become apparent through the tit-for-tat strategy of pyramidal enforcement.

The enforcement pyramid approach is best suited to the regulation of large organisations with which the regulator has frequent interactions. However, it can also be of use in determining which enforcement tool is most suited to the particular circumstances of a smaller enterprise with which they have infrequent contact. Here, its value is in providing guidance as to which arrow to select from the quiver, rather than to how best to conduct a series of repeat interactions.

Unfortunately, notwithstanding the virtues of a pyramidal response, regulators in the mining jurisdictions would appear to be given little training about which enforcement tools are best suited to particular circumstances, or any broader framework to enable them to make rational choices based on judgments about the particular characteristics and motivations of the firms with whom they are dealing. The result is that individual inspectors exercise considerable discretion as to how they approach inspection and enforcement and there is great variation as to how they approach their role. Given the considerable evidence that is available about both the pitfalls of some approaches, and the virtues of others, this is unfortunate, and is likely to lead to the widespread use of enforcement techniques that are neither efficient nor effective in the particular circumstances in which they are being used.

The regulators role is in any event made more difficult by the limited number of enforcement tools at their disposal. Although the range of such tools has increased in recent years, there remain significant gaps in the enforcement pyramid. The principal

regulatory tools, their limitations and the need a more sophisticated toolkit, are the subject of a separate Working Paper.

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