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The Impact of the Gretley Prosecution

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The Impact of the Gretley Prosecution¹

Critics of the Gretley prosecution claim that it has had dire consequences for the industry. It is said that people are no longer willing to take on positions of responsibility for fear of being prosecuted and younger people are no longer embarking on careers in the industry because of the legal risks involved. For instance, the Mine Managers Association of Australia made the following comment in a submission to the NSW Mine Safety Review of 2004.

"The overly punitive deterrent is causing an exodus of the more experienced and capable coal mine managers, together with other supervisory personnel from statutory positions. They are not prepared to accept the risk of prosecution when standards are impossible to meet. The qualified managers are moving to non-statutory and non-operational positions. Fewer candidates are seeking to obtain coal mining qualifications. Recent recruitment efforts by NSW coal mining companies have highlighted the acute shortage of experienced persons willing to take on supervisory and statutory roles in the industry"²

One observer has said, even more bluntly, that managers in the industry are in a state of "silent near-panic" as a result of the prosecutions³.

On the other hand the judge who sentenced the Gretley offenders did so in the belief that the sentences would have a general deterrent effect, that is, they would focus the minds of all those in positions of responsibility in the industry on the need to be as diligent as possible in controlling risks. This, it was presumed, would have a beneficial effect on safety in the industry.

These views about the presumed effects of the prosecution are in stark contrast but they are not inconsistent. It is conceivable that the prosecution could have had the effect of discouraging some people from accepting positions of responsibility and also made those who do occupy those positions more careful.

But is it the case that the prosecutions have discouraged people from accepting positions of responsibility, as industry spokespeople have claimed? And have those in positions of responsibility become more diligent in the management of risks, as the judge intended? These are empirical questions. I cannot hope to answer them definitively; to do so would be a major research project in its own right, beyond the scope of this book. But they are such important questions that they cannot be ignored. They deserve at least tentative answers here. Accordingly, I carried out a small piece of empirical work designed to provide those tentative answers.

The research design

The research strategy was to interview a small sample of coal mine managers in New South Wales to ask them about the effects that the prosecution had had on them and on those around them. Readers with an eye to research design will recognise immediately that this design has certain limitations; for instance, it does not reach those who have left management positions and therefore it cannot yield first hand

information about their motives. Nor is it the best way to demonstrate the existence of a shortage, or disentangle the factors that may have contributed to any such shortage. The Mine Managers Association itself alludes to two other contributing factors in the following passage

"the industry is enjoying a period of higher coal prices and undergoing expansion. The coal industry is rapidly moving towards a position of short supply of qualified and experienced persons willing to fill the statutory managers role... It is difficult enough to attract people into an industry generally regarded by the community in a negative light".

This passage suggests that the expansion of the industry is pushing up demand, and negative community perceptions of the industry are reducing supply, and it may well be that these two factors together play a greater role in creating whatever shortage there may be than does fear of prosecution. The present research design does not enable me to sort out these issues in any definitive way. Despite these limitations, the chosen research strategy can be expected to shed light on the thinking of *current* managers about the risks associated with their role. Moreover, it enables me to gauge directly the impact of the prosecution on management thinking about safety and hence to evaluate an important part of the rationale for prosecuting individuals.

Coal mining is carried out in NSW in both underground and open cut mines. Gretley was an underground mine and the question arose of whether to include both open cut and underground managers in the survey. Open cut mines tend over time to convert to underground methods as the depth of the seam being mined increases. Furthermore, there is a great deal of communication between managers of the two types of mine and the Gretley prosecution was as much talked about by open cut as by underground managers. It might be objected that open cut mines are not subject to the risk of inrush and hence the lessons of Gretley are not directly relevant to them. However, the deterrence message was not restricted to being more careful to avoid inrush. Nor is the threat of personal prosecution applicable only to underground mines. If the Gretley prosecution has had any of the effects claimed for it we would expect to find evidence of this in open cut as well as underground mines. For this reason the study covers both types of mine.

The number of mines in NSW is not constant from one year to the next, as some mines cease operation and others commence, but at the time of the survey there were approximately 139 coal mines in operation. One research strategy would have been to survey managers from all mines, either by phone or by mailed questionnaire, using multiple choice questions. This would have enabled me to draw conclusions about the percentage of managers who held particular views. However, questionnaire research of this nature elicits relatively superficial responses and I wanted to be able to explore the thinking of mine managers in more detail. Accordingly, I decided to conduct intensive, hour long, face-to-face interviews with a small and, as far as possible, representative sample. The sample was designed to cover several geographical regions of NSW. I was also concerned to include mines owned by large well know companies as well as mines owned by small or relatively unknown firms. Within these constraints mines were chosen more or less at random from a listing of mines contained in the NSW Coal Industry Profile⁵. Interviews were held on site, in managers' offices. Four managers whom I approached declined to be interviewed. In

the end I interviewed 13 managers in December 2005 and Jan 2006, approximately 9 months after the Gretley sentences were announced. Eight were from underground mines and five from open cut mines. It should be noted that mine managers are by no means the most senior people in their companies. There was always at least one and usually several layers of management above them in the corporate hierarchy. Nevertheless they are the people responsible for the day to day operation of the mine.

Knowledge of the prosecution

Both hypotheses about the prosecution, that it has discouraged people for taking positions of responsibility, and that it has had the deterrent effect postulated by the judge, depend on the assumption that the knowledge of the case was widespread. My findings supported this assumption. All thirteen managers were aware of the Gretley case. All knew that miners had broken through into old workings, that the managers had relied on plans given to them by the Department and that these plans were in error. They also knew that two managers had been convicted and fined many thousands of dollars, although only one knew the exact figures. Just over half had believed before the sentencing that the defendants might be sent to prison. (In fact this was not a possibility for a first offence and none of the individual defendants had any previous convictions.) Gretley was indeed a case that captured the attention of the industry. Moreover, open cut mine managers were just as aware of the case, justifying the original decision to include them in the sample.

The remainder of this chapter is divided into two parts. Part A deals with the hypothesis that the prosecution has discouraged people from applying for positions of responsibility and the part B, with the deterrence hypothesis.

A THE DISCOURAGEMENT HYPOTHESIS

In view of the many public statements from the coal industry critical of the prosecution one might have expected mine managers would be in complete agreement that the prosecution of individuals had been unfair. The great majority of interviewees, ten out of thirteen, in fact took this view. However, one manager said that fatalities are always due to management system breakdowns for which someone must take responsibility, and that it was therefore appropriate that at least one Gretley manager had been prosecuted. Two other managers in my sample said they didn't know enough to express an opinion.

Given that the two Gretley managers were generally perceived to have been unfairly singled out for prosecution, it was likely that other managers would be feeling vulnerable. After all, if the prosecuted managers were not obviously bad apples, how could the good apples be sure that they would not be similarly targeted?

In order to explore this sense of vulnerability and its impact on willingness to take on managerial responsibility, respondents were asked: "did the Gretley prosecution cause you to think twice before accepting this job?" All but one of the managers had accepted his current position after the prosecution of the Gretley managers had been announced, so the question was appropriate in all but one case. Somewhat surprisingly, only three managers said that they had "thought twice". One had

accepted the job reluctantly and was looking for a way out. The other two deliberated carefully but concluded that the attractions outweighed the risks. Those attractions included working at a mine close to a metropolitan centre, the satisfaction of making career progress, and a higher salary.

Of the nine who "didn't think twice", most saw the job as a natural career progression. Certain personality attributes were also mentioned. According to one, the job required a degree of self-confidence: "you have to back your own abilities". A second said it was "not in his nature" to worry unduly. A third described himself as not by nature risk-averse. He was, for example, a rock climber, he had learnt to hang glide, and in his financial investment strategy was biased towards high risk/high reward investments. He can be contrasted the manager who had been in his current position since well before the Gretley prosecution. This long serving manager was responsible for an open cut operation. He had decided not to work in underground mines because of their additional hazards and he believed that working where he did reduced the risk of prosecution. His natural tendency was to avoid risks, he said, and he explained that he invested only in blue chip stock and budgeted conservatively. These comments raise the possibility that personality differences may influence the extent to which the prosecution impacted on managers and aspiring managers. This hypothesis could not be systematically evaluated here.

One of those who had not thought twice had changed his mind since taking the job. The mine had been poorly run prior to his appointment. On his arrival he was confronted by a government inspector who warned him, he said, that he would be prosecuted if he made a mistake. The inspector visited the site weekly to check on compliance. The new manager succeeded to turning things around and by the time of my interview the inspector rarely visited the mine. But the threat lingered and manager said that he did not expect to remain in the job indefinitely. It is clear, however, that this was a rather exceptional case. This man's fear of prosecution was a direct consequence of the explicit threats made by the inspector, rather than the Gretley prosecution itself. Of course, it was the Gretley prosecution that gave the threats their force.

This case suggests another hypothesis about why Gretley may have discouraged some people more than others from taking on positions of responsibility. The most affected people may be those for whom the threat has been amplified in some way by relevant others. The inspector was one such relevant other who had amplified the threat. Another example of this phenomenon emerged in my study. One of the prosecuted Gretley managers had subsequently had contact with employees in positions of responsibility at a mine in my sample. The manager of this mine told me at interview that these employees had later expressed concern to him about the possibility of prosecution. Again, the hypothesis of threat amplification was not one that could be tested in my study.

Whether or not they had thought twice, all thirteen concluded from the Gretley prosecution that they were at risk to some degree. However, most felt that while the risk of being unfairly prosecuted, should there be a fatality, was high, the risk of having a fatality remained low, as long as the safety management system at the mine was functioning effectively. Nearly all drew considerable comfort from how well

their systems were working. At least two managers in the sample were so confident in their systems that they viewed the risk of prosecution as insignificant.

There were several variations on this theme. One believed that his safety management system would protect him from fatalities, but that full compliance with all the regulations could never be assured and it was inevitable that he would one day be prosecuted for some minor violation. Another said that, if he did the best he could, he could live with it, no matter what the outcome.

Two managers believed that they were fundamentally more risk-aware than the managers at Gretley and that they would not have behaved as those managers did. Thus, while not believing that the Gretley managers should have been prosecuted, they were able to distance themselves from the Gretley managers and so to minimise their own perceived vulnerability.

We have seen, then, that three quarters of the managers in the sample had not hesitated to apply for their current jobs. Nor were any of the thirteen managers thinking of resigning because of the threat of prosecution, although two intended to move on when the opportunity arose. A substantial majority of the sample were not especially worried, indeed were quite optimistic about their situation, believing that their safety management systems minimised the risk of prosecution.

However, as noted earlier, the research strategy was not one that would bring me face to face with people who had been dissuaded from applying for mine manager jobs because of the threat of prosecution. I attempted to deal with this problem by asking my respondents for their perceptions of how other managers or potential managers were reacting. Only one said he knew of a manager who had retired early because of the threat. Another said that the previous manager at his mine had moved on in part, but only in part, because of the threat. A third said he knew some engineers who did not want to be managers because of the perceived legal threat. Several interviewees said that there were relatively few qualified people available to take on mine manager positions but that this was more a consequence of the rapid expansion of the mining industry than anything else. According to one, the industry's public position that the shortage was a result of fear of prosecution was a "furphy". Several managers noted that salaries paid to NSW coal mine managers had not risen in the way that might have been expected if the fear of prosecution was creating a serious shortage of people willing to take on the role. This point should perhaps be emphasised. Companies are perfectly at liberty to increase salaries to attract good people, just as has happened at higher corporate levels. Indeed the salary package being paid to one of the managers in the sample was considerably above the rest, reflecting the special challenges presented by this mine.

In summary, while there are certainly some individuals who have been discouraged from applying for jobs as mine managers because of the Gretley prosecutions, there was very little suggestion from my respondents that this in itself had generated problems for the industry. The fact is that there are still enough qualified people to fill the available mine manager positions and the great majority of these people are enthusiastic about being mine managers.

The issue of statutory positions

Before we can investigate the discouragement hypothesis in relation to positions of responsibility below the level of mine manager, certain special features of the way the industry is regulated must be noted. Coal mining is subject not only to the general Occupational Health and Safety Act in NSW, but also to industry specific legislation⁶. Under the specific legislation and its associated regulations, mine owners must create and fill certain positions, such as manager, electrical engineer, mechanical engineer and mine surveyor. These are referred to in the industry as "statutory positions". The regulations specify that these positions carry with them certain responsibilities. Many in the industry believe that occupying these statutory positions makes them particularly vulnerable in the post-Gretley environment. It is important to demonstrate here that this is not the case.

The issue of whether or not the defendants occupied statutory positions was almost irrelevant in the Gretley judgment. The defendants were not tried under the industry specific legislation but under the general OHS Act. The relevant provision of this Act specifies that individuals can only be convicted if they are "concerned in the management of the corporation". According to the judgment, the fact that a defendant was a statutory mine manager might reasonably be taken as evidence that he or she was concerned in the management of the *mine*, but not necessarily of the *corporation*⁷. That required further evidence. In the case of the Gretley managers, they were not only statutory mine managers, they were also General Mine Managers within the structure of the company that employed them. This implied that they had a broader range of duties associated with running the business, not just the functions specified under the industry specific legislation. It was evidence about this broader role that the judge relied on, more than anything else, in finding them to be "persons concerned in the management of the corporation".⁸

Similarly, the surveyor was found to be a person concerned in the management of the corporation, not because he held the statutory position of surveyor, but because of his pivotal role in corporate decision making. According to the judge, when a surveyor provided advice, "I have no doubt that advice would have a significant impact on decision making at the corporate level in relation to planned mining activity affecting the corporation as a whole". This is what made him a "person concerned the management of the corporation".

Finally, the judge determined that undermanagers, a step down from the manager in the mine hierarchy, though occupying statutory positions, were not persons concerned in the management of the corporation. Accordingly, certain undermanagers who had been charged, along with the managers, were acquitted¹¹. This decision in relation to the undermanagers demonstrates conclusively that the mere fact of occupying a statutory position is irrelevant in determining liability under the OHS Act.

Notwithstanding this analysis, one of the messages that many in the industry have taken from the Gretley prosecution is that statutory office holders are particularly at risk. The statement from the mine managers association quoted earlier reflects this perception. The claim was that "qualified managers are moving to non-statutory and non-operational positions". The Association gives no indication of how widespread

this is, but it is clear that managers who make such moves will not escape liability if they remain concerned in the management of the corporation.

Interestingly, most of the managers in the sample recognised that their exposure was a result of occupying managerial positions, regardless of whether they happened to be positions specified under the industry specific legislation. The only exception was the manager who had taken on his statutory position reluctantly and was looking for a way out. In his mind the legal risk related specifically to the statutory nature of the job. It is possible that individuals who have declined to accept positions as statutory managers have done so as a result of this misunderstanding. If that is so, the industry associations should be trying harder to educate members about the true nature of the legal risk they face.

The impact of the prosecution on subordinate statutory positions

Given the concern in the industry about the exposure of people in statutory positions below the level of mine managers, I asked my interviewees if they were aware of any resignations at these levels. Several said that there had been talk of resignation and one manager said he had had to persuade his electrical engineer that there was no good reason to abandon his statutory role. However, no manager was aware of a resignation that had actually occurred because of fear of prosecution.

I also asked about the difficulty of recruiting into these positions. Eight said that they had experienced no difficulty. One of these said, however, he had one qualified employee who had declined to apply for a statutory position. A ninth manager said that he had indeed had difficulty getting certain people to apply for promotion to statutory engineering positions and that he had had to explain to them that the fact that these were statutory positions made no difference to their legal liability. The remaining four managers said that they had experienced recruitment difficulties but that this was a consequence of an Australia-wide shortage of qualified people, especially engineers. Various observations were made about the cause of this shortage, principally that it was a consequence of the mining boom. Several managers believed that mining companies needed to develop recruitment strategies that included training. Finally, it was suggested that mining offered a life style that was increasingly unattractive in comparison with other available options.

In short, the situation with respect to statutory positions at levels below that of mine manager was that most mines were able to fill these positions without much difficulty, and managers who were experiencing difficulties did not attribute this to fear of prosecution but rather to a shortage caused by industry expansion.

This last conclusion is significant. I had no direct evidence about the difficulty of recruiting people for the position of mine manager, because I had interviewed mine managers themselves and not the people who appointed them. However, in the case of statutory positions below the level of mine manager, I had interviewed a representative sample of the recruiters, and they had not experienced significant difficulties in recruiting people for these subordinate statutory positions. This constitutes quite robust evidence against claims about the dire consequences of the prosecution, in particular the claimed difficulty of recruiting to statutory positions below the level of mine manager.

Discussion

This survey suggests that the fears expressed by industry spokespeople that the prosecutions have caused an exodus from statutory positions are overstated. Exodus is a strong word, suggesting that people are leaving *en masse*. This study has not sought to quantify the extent to which people may have made such a move, but the comments made by interviewees do not suggest that the effect is large. What is clear from the survey is that there are still enough qualified and enthusiastic people to fill the available mine manager positions. It is also clear from this survey that the prosecution has not caused a recruitment problem below the level of mine manager.

This situation may change as the industry expands, and if the supply of qualified people available to take on positions of responsibility does prove insufficient, companies will be forced to increase salaries. Market forces can be expected to have this effect regardless of the origins of the shortage. Managers therefore stand to gain financially from any shortages and, from this point of view, their Association has nothing to fear.

A focus on the alleged impact of the prosecution on the availability of qualified staff detracts from what is in some respects a more fundamental issue, namely, the unfairness of prosecuting the Gretley defendants in the way they were 12. The Mine Managers Association locates this injustice in the fact that the prosecutions took place so long after the event and, more importantly, the fact that the company and its managers were prosecuted while the Department that made the mistake was not. In the language of its submission to the Mine Safety Review,

"The Company and individuals have been portrayed as villains and the role of the Department downplayed. Where is justice? Certainly not here." ¹³.

However, as shown in a previous chapter, the ultimate source of unfairness is in the way the test of reasonable practicability has been applied. This is where the critics should be taking aim.

B THE DETERRENCE HYPOTHESIS

We turn, now, to the second of the two hypotheses that this chapter is designed to evaluate. Before discussing the results of the present study it is appropriate to review some of the previous research on deterrence so as to highlight the significance of the findings here.

Research generally shows that prosecuting companies for health, safety and environmental violations improves corporate performance in these areas. Companies do not however react as "amoral calculators" comparing the likelihood and severity of punishment against the advantages of non-compliance. Their responses are more complex and less comprehensible from a strictly utilitarian point of view. For instance, Gray and his colleagues have shown that the imposition of a penalty for an OHS offence in the US is a shock that gains the attention of the penalised firm and to a lesser extent other firms in the industry, and that once attention is focussed in this

way firms make efforts to improve their performance¹⁵. Furthermore, the costs of these efforts to comply may far outweigh the penalties for non-compliance.

Recent work on the impact of punishment for environmental offences has extended our understanding of just how punishment induces compliance¹⁶. Three scholars, Gunningham, Kagan and Thornton, carried out a series of interviews with company environment managers that explored motivations for compliance and the impact of prosecution on their thinking. Their study will be outlined here because it serves as a point of departure for the present work.

The Environment Study by Gunningham, Kagan and Thornton

The researchers started by identifying "signal cases", that is, high profile environmental enforcement actions, in eight different industries in the United States. They then selected firms in those industries for interview.

Interviews were in two phases. In the first phase, environmental managers in 233 firms in the 8 industries were surveyed by telephone, using forced choice questions. The results are best summarised in the authors' words.

"The survey findings suggest that most respondents did not follow closely and remember news of legal sanctions against other firms in their industry, carefully calculating their responses accordingly. There was little evidence for the direct response to such knowledge predicted by what we labelled "explicit general deterrence" theory. Yet there was some support for what we labelled "implicit general deterrence" - the sense that the mere existence of official laws and regulations entail both some risk of punishment and a duty to comply. Thus almost all respondents could remember some salient legal actions against some firms at some time in the past. And a majority reported that hearing about legal sanctions against other firms had prompted them to review, and often to take further action to strengthen, their own firm's preventive programs. For most respondents, hearing about sanctions against other firms had primarily a "reminder" and "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" 17.

The concept of implicit general deterrence involves an important step away from the amoral calculator assumed in some other deterrence research¹⁸. It acknowledges that respondents feel a moral duty to comply, but it recognises that this sense of duty is contingent on the existence of a credible threat of prosecution. It is significant that regulatory research in other areas such as taxation compliance comes to very similar conclusions. Taxpayers are happy to comply with their obligations provided they think others are doing the same. Penalising tax evaders provides voluntary compliers with this reassurance. ¹⁹

The second phase of the environment study involved in-depth open-ended telephone interviews with 35 company representatives in two industries - the electroplating and the chemical industries. The firms in the electroplating industry were nearly all small. Overwhelmingly they believed that the threat of prosecution was a major motivator towards better environmental performance and almost half said that they had taken

action to improve environmental compliance in response to a punishment imposed on them (specific deterrence) or on some other company in the industry (general deterrence). The belief was widespread that resistance was futile, that sooner or later non-compliance would result in prosecution, and that the size of the penalties would be sufficient to threaten the viability of the business. But firms did not rationally calculate the costs and benefits of compliance; they complied with regulation because enforcement action had created a "culture of compliance, such that it becomes almost unthinkable to regulatees that they would calculatedly (as opposed to inadvertently) break the law"²⁰. For this reason the authors see the deterrent effect of prosecutions in this industry as implicit rather than explicit.

As for the chemical industry, small firms exhibited the same pattern of responses as the electroplaters. In the case of larger firms the authors found somewhat different effects. These managers were not concerned about the direct impact of fines on the business but were very concerned about impact of prosecution on company reputation. A conviction and fine meant bad publicity and this could influence customers as well as the views of the community in which the firm was located. Large firms are in effect granted a "social licence" by their host communities²¹ and bad publicity could turn the local community against them, jeopardising this licence. On the other hand, doing better than is required by regulation, "going beyond compliance"²², makes the social licence more secure. Notice, however, that on this account the threat of prosecution is just as vital in motivating compliance in the case of large firms as it is for small firms. The difference is that in the case of small firms, fines directly threaten financial viability, while for large firms the imposition of penalties damages company reputation in the eyes of the local community and raises the risk of a political response antagonistic to the company's interests. Overall, therefore, these data provide powerful support for the deterrence thesis, especially general deterrence, in relation to corporate environmental offences.

Deterrence in the context of risk-based legislation

The environment study used a "signal case" research strategy. Gretley is clearly a signal case for the NSW coal mining industry in that it sent shock waves throughout the industry, as discussed earlier. But there are significant differences between the Gretley case and the signal cases that formed the basis of the environment study. These differences are such that it cannot be assumed that the deterrent effects seen in other studies will be found here.

In order to identify the differences we need first to characterise in more detail the signal offences in the environment study. Seven of the eight were pollution offences in which companies discharged pollutants into the air and waterways in excess of the limits allowed by law. The eighth case involved violation of asbestos removal regulations. In all but one of the pollution cases the discharges were systematic and occurred over prolonged periods. They were deliberate or intentional offences. The asbestos offence also appeared to be deliberate. Only one of the eight cases was an accident, in the sense of being unintentional. This was a discharge that occurred because of pipeline corrosion. This is not to say that the firm was blameless: the piping hadn't been inspected for corrosion as it should have been.

A further aspect of these offences is that they overwhelmingly involved violations of prescriptive rules - performance standards about tolerable levels of discharge²³. Leaving aside issues of measurement, it is in principle clear whether a firm is in compliance with such rules: either the level of discharge is less than the allowable maximum or it is not.

Consider now the Gretely case. The relevant legislation required the mine to maintain a safe workplace, as far as reasonably practicable. This meant that companies and managers needed to assess risks and do whatever was reasonably practicable to control them. The court found that the company and its managers had not done all that they could reasonably have been expected to do to minimise the risk of inrush. These were not, however, deliberate or intentional offences.

Whether a firm is in compliance is not as clear in the case of risk-based legislation, such as applied at Gretley, as it is in the case of prescriptive regulation. The question of whether a firm has done all that is reasonably practicable to minimise the risk is a matter of judgment and often, only after a court has ruled on the matter, is there a definitive answer. In the Gretley case, managers thought they had done all that could reasonably be expected of them to deal with the known inrush hazard, by relying on plans of the old workings supplied by the Department. It was only after the event that it became clear that there was more they could and should have done. Jurisdictions where legislation requires firms to minimise risk may provide guidelines as to what this means in practice, with the understanding that compliance with these guidelines will be taken as evidence that risk has been reduced as far as is reasonably practicable²⁴. But there were no such guidelines in the Gretley case.

It is worth observing that the concept of going beyond compliance, which Gunningham discusses in the context of anti-pollution legislation, is not as applicable where legislation is focussed on reducing risks as far as reasonably practicable. No matter how praiseworthy a company's efforts to minimise risk, the very fact that it is engaged in such efforts implies that these efforts are reasonably practicable. From this point of view it is almost impossible to go beyond compliance. Of course, where risk-based legislation imposes performance standards or is supported by specific guidelines about what the authorities will regard as acceptable, it does become possible to go beyond compliance, just as companies can do in their response to pollution limits²⁵.

It is clear from this discussion that the meaning of deterrence in the two contexts under consideration is different. In the case of pollution offences, the aim is to deter people from doing what they know they should not do, namely, discharging more than the limit specified by law. In the case of risk-based legislation, there are no specific prohibitions to be observed. Rather, the legislation requires that firms take care to minimise risks. This is a far more nebulous goal. In the language of deterrence the legislation seeks to deter carelessness or negligence, but just what this means, and what firms and individuals must do to avoid a charge of negligent or insufficiently careful behaviour, is often far from clear. Whether enforcement action can effectively deter in the context of risk-based legislation is thus far more problematic than in the case of environmental prohibitions.

The issue of deterrence is further complicated by the extent to which prosecution is regarded as reasonable by relevant audiences. Where prohibitions are clear, those who choose to comply will think it reasonable to prosecute non-compliers. In these circumstances "penalising the bad apples helps keeps contingently good apples good". However, where it is not obvious beforehand what needs to be done to avoid prosecution, it is not possible to distinguish so clearly between good and bad apples. In these circumstances prosecution will be perceived as unfair by all those to whom the legislation applies. This might well undermine any potential of such prosecutions to deter.

Finally, the environmental study did not distinguish clearly between the deterrent effect on firms and the deterrent effect on individual decision makers in those firms. In the eight signal cases penalties were imposed on both firms and individuals. Moreover, interviewees spoke about the deterrent effect not only on their companies, but also on themselves, in that the fear of imprisonment was often mentioned as a motivator. This book is concerned with the issue of prosecuting individuals and so the focus here is on the deterrent effect on individual mine managers.

Specific deterrence

I consider, first, the deterrent effect of the prosecution on the individuals prosecuted. One of these individuals was the manager at the time of the accident and a second was manager two years earlier, at the time that the departmental plans had first been accepted as accurate. The third was a surveyor who had accepted the accuracy of the plans. The sentences were handed down in 2005, some nine years after the accident occurred, and the judgment contains information about the impact of the events to that time on these individuals.

It is not easy to disentangle the effect of the prosecution from the effect of the accident itself. Managers who experience a fatality on their watch often report that their lives have been changed forever, regardless of any subsequent legal proceedings. It is clear however that the legal proceedings in this case intensified these effects. Those prosecuted had suffered greatly. Moreover, all three had undergone various "rehabilitative measures". The two mine managers had completed risk management courses and the surveyor had attended various lectures and retraining seminars for surveyors. The judge's view was that all three had learnt their lesson and needed no further deterrence. The penalties he imposed were justified on other grounds - desert and general deterrence²⁷.

There is a further consequence of these events that should be mentioned here: one manager determined never again to take on the responsibility of managing a mine²⁸. His decision took effect from the time of the accident and was a consequence of his own sense of failure, rather than of the prosecution which, at that time, had not even been contemplated. Rather than motivating this individual to perform his managerial responsibilities with greater diligence, the prosecution simply confirmed his decision to abandon such responsibilities altogether. From the point of view of specific deterrence, prosecution in the case of this man was entirely counter-productive.

General deterrent effects

The general deterrent effects, it will be remembered, are the effects on other, relevant audiences. My sample of mine managers is such an audience. In order to identify the general deterrent effects of the Gretley prosecution it is appropriate to start with managers' views about the sources of safety.

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All respondents believed that safety was a top priority at their mine and that the industry as a whole was highly safety conscious, especially in recent years. However they differed slightly in their explanations. Eight of the thirteen mines were operated by large, well known companies that exercised quite detailed control over mining activities. The managers of these mines all said that their own focus on safety was driven more by the corporate leadership than their own legal liability. As one said, the view of corporate management that "no accident is acceptable" was in itself a powerful motivator. Another noted that the company CEO had closed a mine overseas that had had three fatalities, sending a powerful message about priorities to all mines in this multi-national corporation. A third described how the CEO of his company had paid a personal visit to the mine after it reported three high potential events, that is, near misses. The CEO had expressed concern to the manager that he might be "chasing coal" at the expense of safety. The manager was able to convince the CEO that the three reports were a consequence of improved reporting rather than increased risk. The manager noted however that the visit had made them even more safety conscious and that the injury rate had dropped after the intervention of the CEO.

None of this is to say the threat of personal prosecution is irrelevant. Some of the managers in this group observed that the focus on safety so evident from their corporate leadership was in part a consequence of the concerns at these higher levels about personal liability. Moreover, these interviewees were well aware of their own legal exposure in the event of a serious accident. It was always in the back of their mind, they said. They all recognised that the more effectively they managed safety the less likely they were to fall foul of the law in the way the Gretley managers had. One of the managers in this group described the Gretley prosecution as a message that society had sent to the mining industry about the importance of safety. Prior to Gretley, he said, the industry in NSW had exhibited a culture of risk taking. He himself had once taken short cuts that would not be tolerated today. In this respect, he said, the Gretley prosecution had been beneficial.

Not all the mines in the sample were operated in a hands-on way by large, safety conscious companies. In three cases there was very little corporate structure above the managers and in two cases the mine was owned by a large foreign company that had virtually no corporate presence in Australia and left its Australian mine managers to operate as they saw fit. I shall call these mines "autonomous" in what follows. The managers of these autonomous mines all said they felt supported by their mine owner when they raised safety issues, but that there was no particular impetus to safety coming from this source. Three of these five managers said that fear of prosecution was a significant motivator. Perhaps the strongest expression of this was a manager who said: "my main aim in life is not to get prosecuted". On the other hand, a fourth manager in this group denied that the threat of prosecution had any effect on his attitude to safety. What drove his commitment, he said, was the desire to avoid a

fatality, which he knew to be a personally shattering experience for a manager. The fifth manger in this group of autonomous mines told me he did not fear prosecution because he was very sure of the safety systems that he had in place. His commitment to safety stemmed, he said, from previous employment in very safety conscious multinational.

By way of summary, the Gretley case created a fear of being personally prosecuted and many managers reported that this fear helped focus their minds on safety. It was not the only source of safety consciousness, nor even the most important, but it was clearly influential.

Some detailed effects

The preceding conclusion is rather broad brush in nature. In order to identify deterrent effects more precisely, managers were asked whether the Gretley prosecutions made them more likely than they might otherwise have been to take certain actions. Those actions, and the number answering affirmatively, are indicated above the dotted line in the table below.

Table 1 Actions more likely to be taken as a result of Gretley prosecution

stop production for safety reasons consult with superiors	0/13 0/13
consult with work force	1/13
double check things	3/13
write things down	7/13
discipline violators	5/10

These figures suggest that the prosecution did have some specifiable effect on the behaviour of managers, although perhaps not as much as might have been expected given the earlier conclusion about the way the prosecution had focussed their minds on safety. In part, the reason for this is that it was stressed to interviewees that the question was not whether they were likely to do any of these things, nor whether they were more likely to do these things than previously, but whether the prosecution had made them more likely to do them. This instruction biased respondents against answering affirmatively. This would have been particularly so for managers who see their own senior executives as the primary safety driver. The influence of this primary driver could be expected to mask the influence of all other factors. So it was that all managers told me that they would stop production for safety reasons, and could give examples of doing so, but they did not attribute this behaviour to the Gretley prosecution. Three mine managers did say that they double checked things more often as a result of the prosecution. All three were managers of autonomous mines. It is possible that because these managers were not being driven in the direction of safety by their own superiors, they were more aware of the influence of the prosecution itself.

The strongest effect revealed in the list above is the increased tendency to write things down. Much of the motivation here was about self-protection in the event that

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managers find themselves in court. Written evidence that they had given certain safety instructions, or had warned workers about certain things, or had "closed out" (i.e. carried out) recommendations from audits and incident investigations would enable them to demonstrate that they had acted with "due diligence", as required by law. But regardless of this self-protective motivation, putting things in writing in this way makes it more likely that they are actually done. Here, then, is one very concrete benefit of the prosecution.

The particular actions listed above the line in Table 1 were in part designed to get respondents thinking in these more concrete terms. After probing these matters, interviewees were asked whether they could identify any other particular effects of the prosecution. One that came to light in this way was an increased tendency to take formal disciplinary action against workers found to be violating safety requirements. Because this issue emerged only after interviews had begun, it was raised with only ten respondents (see below the dotted line in Table 1). Five of the ten reported an increased tendency to discipline workers using a formal three stage disciplinary process, culminating in suspension or termination if necessary. Some of these managers noted that in the past, in the interests of industrial harmony, there had been a tendency not to discipline rule violators. But they now believed that failure to take action when they encountered violations by workers might be construed as condoning those violations, should the matter ever come before a court. In order to protect themselves against such an interpretation it was necessary to take formal action, which of course was recorded in writing.

At first sight such a response might seem almost perverse, appearing to the transfer to workers the responsibility that the legislation imposes on managers. However, all the managers who reported disciplining employees in this way also reported that they had the full support of union officials. Provided the rules were clear and were enforced in a consistent fashion, the union supported disciplinary action, especially when violations put the lives of others in danger. All parties recognised that consistent enforcement of safety rules was vital if a culture of safety was to be established and maintained. A union submission to a government inquiry is quite explicit on this matter. It argues that companies that do not effectively enforce compliance with safety rules should be found guilty of negligence in the event that someone is killed as a consequence²⁹. Here, then, was a somewhat unexpected outcome of the prosecution. Fear of personal liability was driving managers to respond more effectively to employee violations, with consequent benefits for safety.

A final outcome of the prosecution mentioned by four interviewees was that companies were now asking managers to involve company lawyers in the investigation of any accident. It should be noted, however, that this development, is not a response by mine managers to the threat of personal liability, but a company response to the new era of prosecution ushered in by the Gretley case. There appeared to be two distinct strategies. The first was to formally place the investigation in the hands of the company's lawyers. Then, if government inspectors ask to see a report, lawyers can refuse to hand it over on the grounds that this violates lawyer/client confidentiality. The second strategy was to send draft reports to lawyers so that they could advise on what needed to be left out to avoid self-incrimination. Interviewees complied somewhat reluctantly with these new policies because they believed that censoring reports in this way damaged relationships with local

inspectors. Any such censorship of accident reports must be seen as an undesirable outcome of the Gretley prosecution, if anything, detrimental to safety³⁰.

Discussion

Previous research has demonstrated that prosecuting companies and their managers for health, safety and environment offences has a significant deterrent effect, both specific and general. This previous work focussed on deterrence in relation to prescriptive rules. These findings do not necessarily apply in the context of risk-based legislation. What needs to be done in order to comply with risk-based legislation is not as clear cut and hence what managers need to do to avoid prosecution cannot be clearly specified. Whether prosecution in these circumstances can have a deterrent effect is thus an empirical question unanswered by previous research.

The Gretley case was a prosecution for failure to comply with risk-based legislative requirements. Dealing first with the issue of specific deterrence, the accident itself had a profound effect on those concerned and the prosecution had no discernable additional deterrent effect on these individuals. Nor did the sentencing judge intend any such effects; the defendants had long ago learnt the necessary lesson, she said. This highlights a problematic aspect prosecuting for failure to take sufficient care in circumstances where that failure has led to fatalities. If specific deterrence is the goal, such prosecutions are redundant. The authorities would be better off prosecuting cases where managers are failing to exercise sufficient care but no one has yet been injured. Johnstone calls these pure risk prosecutions to distinguish them from cases is which the prosecution is a response not only to the ineffectively controlled risk but also to the harm done by the failure to effectively control the risk³¹. Where managers have been careless but their carelessness has not resulted in death or injury, there will be no incentive to take greater care unless the courts impose negative consequences. These are the circumstances in which risk-based prosecutions are likely to have discernable specific deterrent effects. I shall return to the idea of risk-based prosecutions below.

Turning to the general deterrence effects of the Gretley prosecution, this study has found that there were indeed such effects. These were of two kinds. First, respondents reported that the threat of prosecution was always in the back of their minds and that this was one factor, although often not the most important factor, keeping them focussed on safety. Secondly, respondents reported some very concrete effects, in particular, an increased tendency to write things down and an increased tendency to discipline employees for violations. While the motive for this concrete behaviour was explicitly self-protection, the outcome was enhanced safety. Accordingly, such actions can reasonably be counted as positive outcomes of the prosecution.

However the general deterrent effects of the Gretely prosecution do not seem to have been as great as those reported by Gunningham and colleagues. Part of the reason for this is that the lessons of the prosecution were not clear to other managers (apart from the need to control the risk of inrush more effectively). Managers in general were uncertain of precisely what they could do to eliminate the risk of prosecution. Where there are detailed performance standards or other prescriptive rules, managers know

when they are in compliance and do no feel threatened when non-compliers are prosecuted. Indeed, they feel reassured by such prosecutions. Where managers cannot be sure that they are in compliance, prosecution hangs menacingly over the head of everyone.

The pure risk prosecution advocated above is one solution to this problem. Such prosecutions do not rely on the benefit of hindsight to establish that the risk is inadequately controlled. The failure must be obvious in the absence of any harmful incident. In these circumstances only the truly negligent will be prosecuted. Those who have taken action to deal with such obvious risks will feel assured rather than threatened by such prosecutions. In this way the general deterrent effects of prosecution can be maximised.

¹ This paper is part of a larger project on the Gretley prosecution – see earlier papers in this series.

² Submission from the Mine Managers Association of Australia to the Wran Mine Safety Review, 2004, p9

³ See "Colliery bosses cowed", Newcastle Herald, January 16, 2006, p 13

⁴ op cit p 10

⁵ Department of Mineral Resources, 2004 New South Wales Coal Industry Profile (NSWDMR: St Leonards, 2004)

⁶ Coal Mines Regulation Act 1982; Coal Mine Health and Safety Act 2002.

⁷ S para 890, 886

⁸ S para 897, 902, 903

⁹ S para 941

¹⁰ S para 950. Foster argues that this is a mistake. "The impeccable analysis of the law concerning the meaning of the phrase 'concerned in management' offered earlier in the judgment seems to be contradicted by this finding." Foster N, (2005), "Personal liability of company officers for corporate OHS Breaches: Section 26 of the OHS Act 2000 (NSW)", *Australian Journal of Labour Law*, 18: 107-135, p 123.

¹¹ S para 910, 918

¹² As noted in an earlier chapter, the prosecution might not have seemed so unfair had it been launched on the basis that the defendants failed to take effective action after they began to suspect that the plans might be error.

¹³ op cit, p5

¹⁴ Kagan R & Scholz, J (1984) "The 'criminology of the corporation' and regulatory enforcement strategies", in K Hawkins and J Thomas eds *Enforcing Regulation* (Boston:Kluwer-Nijhoff) pp69-72", ¹⁵ Gray W & Scholz J (1991) "Analysing the equity and efficiency of OSHA enforcement", *Law and Policy*, 13(3):185-214

Gray W & Scholz J (1993) "Does regulatory enforcement work? A panel analysis of OSHA enforcement", *Law and Society Review*, 27(1):177-213

¹⁶ Gunningham, N, Thornton, D & Kagan, R (2004a) "Motivating management: Corporate compliance with safety, health and environmental regulation", Working paper 30, National Research Centre for OHS Regulation, Australian National University, Hwww.ohs.anu.edu.auH

Thornton D, Gunningham N, & Kagan R (2005) "General deterrence and corporate environmental behaviour", *Law and Policy*, 27(2):262-288

¹⁷ Gunningham, N, Thornton, D & Kagan, R (2004a), op cit p5

Thornton D, Gunningham N, & Kagan R (2005) "General deterrence and corporate environmental behaviour", *Law and Policy*, 27(2):262-288

¹⁸ Viscusi, W (1979) "The impact of occupational safety and health regulation", *Bell Journal of Economics*, 10:117.

¹⁹ M Levi (1988). *Of rule and revenue*. Berkeley: University of California Press.

See also Ayres I & Braithwaite J, (1992) Responsive Regulation: Transcending the Deregulation Debate, Oxford: Oxford UP, p 26

²⁰ Gunningham et al, (2004a), op cit p 23

- ²¹ Gunningham N, Kagan R & Thornton D,(2004b) "Social License and environmental protection: why businesses go beyond compliance" Law and Social Inquiry 29(2) Spring, pp308-341
- ²³ For a discussion of performance standards see Bluff, E and Gunningham G (2004) "Principle, process, performance or what? New approaches to OHS standards setting", pp12-42 in E Bluff, et al, OHS Regulation for a Changing World of Work (Sydney: The Federation Press)

²⁴ Bluff and Gunningham, op cit p 20

²⁵ See further, Hopkins A (forthcoming) "Beyond compliance monitoring: New strategies for safety regulators" *Law and Policy*²⁶ Thornton et al , (2005), op cit p266

- ²⁷ McMartin v Newcastle Wallsend Coal Company Pty Ltd &ors [2005] NSWIRComm 31 (11 March 2005)
 ²⁸ That is, a producing mine. He agreed to manage for a short time a mine that had been effectively
- mothballed and was not producing coal. See para 189 of McMartin v Newcastle Wallsend Coal Company Pty Ltd &ors [2005] NSWIRComm 31 (11 March 2005). The other manager continued to take on management positions, see paras 231,2
- ²⁹CMFEU, "Submission to the Green Paper on Revision of Health and Safety Legislation in NSW Coal Mines", Final Report, October 2000, p46
- ³⁰ Hopkins A, "A corporate dilemma: to be a learning organisation or to minimise liability", working paper 43, National Research Centre for OHS Regulation, Australian National University, Hwww.ohs.anu.edu.auH
- ³¹ Gunningham N & Johnstone R, (1999) Regulating Workplace Safety: Systems and Sanctions (Oxford Univ Press: Oxford), pp207-209