THE ROAD TO THE 85 DB(A) NOISE FENCE IN QUEENSLAND: VALUES, POLITICS, AND PUBLIC POLICY

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ABSTRACT

For at least 14 years after the publication of minimum permissible exposure limits that would largely eradicate industrial deafness, statute legislation in Queensland remained unchanged and ineffective. Industrial deafness continued to occur. New legislation, introduced in 1989 and amended in 1993, and based on a *duty of care* responsibility incumbent on all, may remedy this situation. The new legislation is examined and comments are made about the values inherent in the new approach. It is concluded that public policy strategists may increase the likelihood of success if they ensure that the duty of care provisions (together with the general provisions of the Act) are backed up by innovative complementary economic , financial and marketing incentives.

1. INTRODUCTION

In the first half of 1994 in Queensland, the State Government legislated an 85 dB(A) fence as the industry standard for permissible exposure to continuous noise for an eight hour day, five day week. In addition, no worker is to be in the presence of impulse peaks in excess of 115 dB(A) unless they are wearing personal protective equipment which meets Australian standards. The 85 dB(A) fence, replacing as it did a previous level of 90 dB(A), is a more than halving of the sound pressure level which might prove more difficult to achieve in workplace environments than it did on the floor of Parliament House or Executive Council. As a cosmetic change, it could well be an emperor's suit of clothes, dazzling even to the most blind of observers: a clever Lilliputian tightrope act . As a genuine and sincere public policy strategy, it should largely eradicate industrial deafness in Queensland in the next decades.

In examining the 85 dB(A) story in Queensland, the next pages comment upon public policy generally and its closeness to values and politics. The position of industrial deafness in this age of sustainable development is treated specifically and used to raise speculative questions about the effectiveness of public policy in the prevention of industrial disease.

2. THE ROAD TO 85 DB(A)

2.1 The period of neglect: 1960 - 1989

Before the end of 1989, Queensland's Occupational Health and Safety Legislation was fragmented and confusing. Responsibility for OH&S was spread over a number of statutes and there was over regulation, with a plethora of rules and regulations, some of them out of date. There was an adversarial stance between government and unions and between unions and employer groups. There was something of an uneasy truce between government and industry. Although it can not be proved, there is an opinion that the government position was as follows: (1) union bash whenever this was likely to enhance re-election, (2) ensure the occurrence of occasional showcase incidents and big stick-waving forays into industry to save the appearances for occupational health and safety purposes, and (3) otherwise go slow on occupational and environmental health and safety in the belief that the lower costs thereby faced by industry would attract investment to Queensland from interstate and overseas.

There were further complications. There was no uniformity of approach or definition across the various statutes, and the statutes themselves were more the result of an ad hoc and haphazard response to perceived needs than to any systematic approach to accident prevention and loss control. There were gaps in coverage and no real auditing of whether or not the legislation caught new products, processes or systems. Cash payments made under *Workers Compensation Claims* were then (as now) made on a *no fault no blame basis*. The cash payments were generally not burdensome on industry with the result that payouts and increased insurance premiums appeared a cheaper option to some firms than options involving training and/or physical preventive changes to the working environment. In effect, the system frequently chose *compensation* over *prevention, cure* being disqualified by the very nature of industrial deafness itself.

In addition there was also some political use made of the OH&S question by unions. At times safety issues were used to win increased money payments rather than to prevent and eradicate industrial accidents and disease. Once penalty rates were won for dangerous situations there was less interest in having those situations remedied, especially if remedy would see the disappearance of the danger money itself.

Finally there was the modus operandi of the statutes themselves. At the time under discussion, the statutes were of the minimum standards/sanctions approach. Under this approach, minimum standards (or in their absence, legal sanctions) were specified in regulations accompanying the Act, inspections were made, and punishment may or may not have followed revealed breach of regulations or abuse of sanctions. Industry soon learned to obey the letter of the law, rather than perhaps the spirit of the law, and beyond that to act only when asked to by government. Sometimes action could be avoided for considerable lengths of time through the application of well proven and tried challenge strategy.

The lead set by government, if the record is to be consulted, was quite poor. High levels of chemical remained in processed sugar, high levels of lead remained first in petrol, then in breast milk and then in the hard tissue of growing infants, and unprotected exposure to high levels of

noise remained in and around workshop floors. If 1974-75 and 1976-77 are taken for illustrative purposes (any period in the 70's and 80's would produce ballpark numbers) there were 25,954 days lost for 1202 occurrences of industrial disease over the 74-75 period and 43,718 days lost as a result of 1695 such occurrences for 76-77. Diseases of the ear accounted for 5.4 % and 8.7 % respectively of these occurrences. During this time, *Rule 11* of the now repealed *Factories and Shops Act, 1960-1970* specified the requirements of the law. *Rule 11* called up a *National Health and Medical Research Council* nomogram and publication which prescribed a 90 dB(A) come 85 dB(A) noise fence. In this nomogram a 0.33 factor would result in the 85 dB(A) fence and a factor of 1.0 would give the 90 dB(A). Although *Rule 11* specified a 1.0 factor, the specification was ambiguous in its prescription when interpreted against a general statement that was made about upper limits of 115 dB(A) and 150 dB(A) . There was very little inspection and policing during this period, very little preventive education and virtually no financial or procurement (purchase) policy incentives that would encourage preventive strategy at the industrial design stage. In short, a cosmetic legislative recognition of industrial deafness, together with the relatively unimportant status of noise as an occupational health issue, ensured little, if any, improvement in the rate of amelioration of the disease.

The public policy environment described above existed in the face of information and knowledge which clearly highlighted its insufficiency and it is necessary in this regard only to cite even a brief list of conventions and codes, to wit: *The Committee on Hearing, Bioacoustics and Biomechanics of the US National Research Council*, the *Japanese Industrial Hygiene Association* and the *American Conference of Government Industrial Hygienists*.

Given the vested interests in danger money on the part of the employees, and the penchant of employers for payment of increased premiums as a least cost profit maximising strategy, it is little wonder that the price mechanism went to work for the selection of *cure and compensation* over *prevention and cost reduction*. In effect the system ensured that *prevention* per se was placed in the too hard basket of *market failure* and this helped legitimise industrial accident and disease as something permanent and unavoidable in the modern industrial state.

2.2 The period of reform: 1989-1994

Towards the end of 1989 new statute legislation was introduced. It is worth while mentioning in passing that this legislation came into existence in the dying days of a government that had been in power for a very long time and which was desperate to remain in office. This government was subsequently found to have been corrupt and members of its Cabinet saw jail. Whether such turmoil and desperation was needed for such radically different legislation to be introduced will probably never be established: likewise the *real* story of its introduction. The new Act was not altered by the incoming government and whether this was due to pressure of work or for other reasons can not be easily determined. Certainly the new Act has had a substantial effect, and commentators put the case that, through the good work of the *Division of Workplace Health and Safety*, Queensland has taken the lead in workplace health and safety reform in Australia. It is quite possible that in the turmoil and change, Queensland got something quite more than it understood or that it bargained for. One review of the Act has taken place but it is too early to discern with confidence the nature of changes that may be made. How then was this Act different?

Many of the old Acts were repealed by the introduction of the *Workplace Health and Safety Act, 1989*. This Act was quite strong by comparison with previous Acts and it was different in philosophy and approach. First, although the legislation is civil rather than criminal, more substantial fines apply and jail sentences can be given. The *balance of probabilities approach* rather than the *beyond reasonable doubt* criterion is used to determine outcomes. Although prescription and policing remain, the new legislation brought with it a new philosophy. Government was no longer to be seen as responsible for occupational health and safety. Rather, government, along with employers, employees and the citizens themselves all have a duty of care to ensure health and safety in the workplace. *Regulations* generally are being replaced with *Codes of Practice*, and the inspectorate, although retaining its power to impose fines and issue notices, is also expected to educate and inform. *Standards* and *Codes of Practice* called up in the legislation become part of the law and in situations where the *Workplace Health and Safety Act* contradicts other acts the contradiction is resolved in its favour.

The general provisions of the Act make it clear that employers have a *duty of care* to maintain a safe working environment, to maintain equipment so that it is safe, to ensure that materials are handled and stored safely, to provide and maintain personal protective equipment in good condition, and to instruct and warn employees in all matters of safety.

In one sense, and only in a sense, the legislation reverses the maxim of *innocent until proven guilty* in that once an accident has happened or an industrial disease has occurred, there has been a *de facto* breach of the Act. However the Act operates under general provisions about *practicability* and *reasonability* and these have considerable influence over whether or not a charge will be brought for breach of duty of care. Whereas agriculture was recently included, mining is excluded. There are also provisions which catch *repair, installation*, and *engineering design*.

The new legislation is specific in its provisions about industrial noise and is an improvement over the old *Rule 11*. Under the new legislation where employees are exposed to a daily noise dose that exceeds 0.33 the employer will, where practicable, take action to reduce noise exposure to the allowable limits by engineering noise reduction and/or work scheduling. Where the employer is unable to comply with this requirement they will notify the Director of Workplace Health and Safety of the reasons and also of proposed programmes to be implemented for the purpose of compliance; and of hearing conservation programmes being proposed in the interim period. The Director may require at any time that the employer introduce a hearing conservation programme. Where noise in any area exceeds the 85 dB(A) fence as defined by the relevant Australian standard this area will be declared a *Hearing Protection Area* and signs will be erected at the boundaries of such areas so as to clearly define them. It is the employer's duty to ensure that no person will enter this area unless they are wearing certified hearing protection. No person is to be exposed to noise in excess of 115 dB(A) and the Director may order that the employer arrange for audiometric tests and medical examinations of workers at the workplace. Queensland in 1993 thus joined Japan, New Zealand and Singapore and caught up with the two Australian territories, all of which, by as early as 1987, had legislated for 85 dB(A). This level was, however, not enforceable in Japan.

The Act is interesting in the manner in which it deals with industrial noise. If adhered to it should largely eradicate industrial deafness. But there is a weakness. It allows *Hearing Protection Areas* as an interim measure and forbids persons not wearing protective equipment to enter those areas.

At the same time it admits the possibility on grounds of *practicability* and *reasonability* that some of these areas are likely to be permanent. At its most crucial test the new legislation is not unlike the old legislation. In the absence of genuine *duty of care* it must rely on policing and the enforcement of compliance in many factories by small numbers of inspectors. Lowering the noise fence will have no effect on those areas which could not be *reasonably* and *practically* dealt with under the higher level. On the other hand it could mean that there are more noise zones to police, not fewer. There may also be some unexpected heavy financial costs involved which, under *reasonability* and *practicability*, largely absolve industry from pursuing engineering controls in the short to medium term. While no doubt some noise will be *engineered out*, some noise will be *cemented in*. Given that the Act requires manufacturers to produce safe equipment, there appears to be a missed economic and financial opportunity that might be effective in those 5 decibels between 85 and 90. Government purchasing contracts and tax policy could favour those manufacturers who build quieter products.

It thus took some 29 years from the recognition of industrial deafness as a disease to usher in statute legislation that, if correctly administered, might largely eradicate it. But is good administration alone enough to ensure success?

3. VALUES, POLITICS AND PUBLIC POLICY

The change from legislation based on *regulation and policing* and on *government* as leader, to legislation based on *duty of care* responsibility, laissez-faire compliance, *Codes of Practice*, and *standards* and *common law precedent* as leader is quite a substantial change in values. However, values changes of this kind are continually occurring in the big sweep of the pendulum or more rapidly and violently under political whim. Whether the new values legislation will result in improvement over the old values legislation remains to be seen. Likewise the change in values inherent in the movement of OH&S in general (and noise in particular) from *market failure* to the realm of the *profit motive* must be given time to play itself out before informed comment can be made. But there is a different kind of question that must be asked about values and politics and their influence on the effectiveness of public policy. Some background information must first be provided.

From 1960 until 1989 in Queensland (a period of 29 years) legislation with respect to industrial deafness remained virtually unchanged in the face of the continuation of this preventable disease. Even before 1960 Litter(1) had sounded the warnings and throughout the 60's and 70's it was shown beyond doubt what levels of noise exposure would cause industrial deafness: Murrell(2), Burns and Robertson(3). Furthermore prestigious organisations well known in public policy circles had, by the mid 70's, produced criterion, standards and measuring devices which would allow policy makers to prescribe, define and measure safe noise environments: ACGIH (4), CHABA(5), BOSH(6), ILO(7). *The National Health and Medical Research Council* in Australia was calling for an 85 dB(A) fence as early as 1976. Thus for some 14 years, legislators in a stable and prosperous state, in a long term and safe government, failed in the public policy eradication of industrial deafness.

What caused this failure? Was it natural dullness on the part of the legislators? Was it studied cunning in the legislative cosmeticisation of a simple to understand but difficult to prevent industrial disease.? Was it poor (or more to the point silenced) technical advice? Was it a general lack of education? Was it a poorly developed sense of *duty of care* on the part of government, employers and workers alike?. Was it ignorance on the part of the medical profession, or a lack of courage on their part to speak out?

Undoubtedly one may settle on any number of these explanations according to conviction and/or prejudice. But the fact remains that employers, employees and government, through awards made within the established industrial court system, and through an exchange of money, agreed to legitimise unhealthy and unsafe working environments. This *honour among thieves* thankfully, can not be continued under present arrangements. But it does beg the question of whether public policy strategy can succeed (irrespective of its being technically brilliant and administratively perfect or not) if there is an absence of *sincere duty of care*. The new legislation adopts *duty of care* as its core element and in so doing recognises *care* as a necessary precondition to laissez faire self policing action of the kind desired.

Dare one ask the most scandalous of questions? Is *homo sapiens* capable of *duty of care* in practice rather than in the ideal? John Donne's(8) most elegant statement of the *duty of care* is seductive in its essence but demanding in the maintenance.

> No man is an Iland, intire of itselfe; every man is a peece of the Continent, a part of the maine; if a Clod be washed away by the Sea ..... as well if a Promontorie were, as well as if a Manor of thy friends or of thine own were: any mans death diminishes me, because I am involved in Mankinde; And therefore never send to know for whom the bell tolls; It tolls for thee.

Is a legislation based on such fineness of human spirit likely to be viable? One must hope so. And hope is sustained by knowledge of the more earthy policing and compliance elements that remain as back ups. Whether the 85 dB(A) fence will eradicate industrial deafness in Queensland is a hope and challenge of the future.

4. CONCLUSION

It has been suggested above that a well understood and preventable industrial disease has flourished in Queensland for the last 30 years and that this is due in part to inadequate public policy and poorly drafted legislation. The implications of this for more difficult public policy disease challenges is raised in passing. New legislative initiatives introduced in 1989 and refined in 1993 tighten up the legislation and rely on a *duty of care* responsibility. Doubt is raised about the ability of people to always put their good *duty of care* intentions into practice and this implies that full use should continue to be made of the policing and compliance provisions that remain in the new legislation. Although the legislation makes much of not giving the people the noise in the first place, ie of *engineering out* the noise at the design stage, it does not appear to have exploited

financial and economic strategy options to this end. This omission is peculiar in the age of sustainable development.

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