

RISK, REGULATION AND RATIONALITY

Introduction

When I was first approached to give this lecture I felt both honoured and more than slightly nervous.

As a relative tyro in the Health and Safety world, I did not know Allan St John Holt well and I am not sure that the observations I shall offer today can do justice to his immense knowledge and experience.

I follow two distinguished lecturers, John Rimington and Lawrence Waterman. I am not sure I can match John's magisterial history and Lawrence's analysis of risk and the challenges faced by the health and safety profession.

So when I first had the phone call from Roger Bibbings I was hesitant. Roger was very persuasive and I have to confess that I agreed to give this lecture before I had thought of a title, or before I had thought of what to say.

So there you have it, Risk, Regulation and Rationality. A title that is both alliterative and also general enough for me to say whatever I want. I am not sure that I have followed Roger's suggestions for title and content

In fact the actual title I had suggested was Risk, Regulation and Rationality, Looking back to 2000 and forward to 2020. However, that is a pretty convoluted title and as John found when he gave his lecture there is always more to say about the past than the future.

Of course, if I had more time I could have come up with a much snappier and wittier title. Risk and Regulation 2010 to 2029 or the teen and twenty risk club.

I need to make one further point about the title. My original suggestion which seems to have reached the cutting room floor was to include the following phrase, "A personal view by Sir Bill Callaghan, former chair of the HSC".

I ought to warn you that the usual caveats apply, there is nothing as ex as an ex chair. When I stepped down from HSC three years ago, I told my Commission colleagues that I would follow their affairs at a respectful distance, and that I have done.

But I have not taken a trappist vow of silence and I am pleased to have maintained my links with the Health and Safety world. I chair the Board of trustees of the British Occupational Health Research Foundation, and from next year I will take over the reins from David Morris as chair of NEBOSH. I have helped organisations such as the British Safety Council and the Energy Networks Association.

I enjoyed my 8 years as chair of HSC, and I enjoyed the company of all those in industry, trade unions, government and in organisations such as RoSPA, BSC and IOSH who were dedicated to making Britain a safer and healthier place to live and work.

Not everything was pleasant. Dealing with the victims and bereaved following a serious accident was difficult, occasionally harrowing, and sometimes uplifting. I admired the perseverance of those wanting an answer as to why their loved one died. I admired the tenacity of those who campaigned to ensure that the same thing could not happen again.

One thing is clear to me and I hope to everyone listening to or reading this lecture: health and safety is about protecting people and that means dealing with the raw emotions following injury, illness or death.

We need to recognise that when we come to consider what is the rational policy response.

Looking back

Three big issues dominated my time at HSE: railways, *Revitalising* and risk. You will have gathered that I like alliterations. And for those of you who are worried that I am going to reflect uncritically, let me say that I spent too much of my time on railways, not enough time on *Revitalising Health and Safety*, and that I should have spoken out earlier and more forcibly on risk.

Railways

As many of you will know the Ladbroke Grove train crash happened on day two of my tenure at HSC. I had spent a happy day on the first Monday in October 1999 meeting HSE staff in Rose Court, including the Rail Inspectorate. I had arrived at Rose Court just after 8 am on the Tuesday. I was reading one of the first documents in my in tray, about the inquiry into the Southall train crash which had just commenced its work in earnest.

Twenty minutes later I looked out of the window and saw a plume of smoke in the west and a few minutes later the phones started ringing, officials converged on my room. By the end of the first day I had a number of meetings with the Deputy Prime Minister, John Prescott, and announced a public inquiry. At the end of the first week I had had numerous other meetings with the DPM and the Minister of Transport, two meetings with the Prime Minister and two with Lord Cullen, visited the crash scene and talked to Inspectors and chaired a live press conference to announce HSE's initial findings.

The Hatfield rail crash happened a little more than a year later to be followed by the Selby train crash in February 2001 and the Potters Bar crash in May 2002 and the Grayrigg derailment in February 2007.

I want to briefly look at these incidents through the prism of risk, rationality and regulation, though I will exclude the Selby crash as it is clear the cause of the crash was in no way due to operations of the railway. I know that there are some purists who argue that there is no such thing as a genuine accident; they argue that every incident has a root cause and therefore every incident is preventable. I do not agree: it is difficult to see that the measures to prevent another incident such as the Selby crash are practicable.

In contrast Southall, Ladbroke Grove, Hatfield, Potters Bar and Grayrigg were all preventable and in my view the measures that would have prevented them were practicable and indeed fall within the bounds of reasonable practicability. Contrast too the public attitude to Grayrigg with the public and press reaction to the other crashes.

There were no calls for public inquiries, no calls for retribution and for the heads of rail company bosses to be served up on a plate.

I put that down to one little word "sorry". After Grayrigg John Armitt, the Chief Executive of Network Rail apologised.

The contrast with the silence and evasion from Railtrack and the other companies involved following the other incidents is striking.

I return to my introductory point that health and safety can never ignore the human dimension.

I met the survivors and bereaved from Southall and Ladbroke Grove on a number of occasions. They wanted an explanation and were met with a bureaucratic stone wall; they wanted someone to say sorry and they were met with impersonal corporations determined never to admit liability.

Immediately after the Ladbroke Grove crash HSE imposed a number of prohibition and improvement notices on the signals outside Paddington and on other signals which had been frequently passed at danger. Railtrack appealed all those notices including the PN on Signal 109, the signal passed at danger by the Thames Train.

Remember too the excuses promulgated by Jarvis following the Potters Bar crash, with claims of sabotage, even though there was no evidence to support that.

Railtrack and Jarvis both paid a heavy economic price for these and other failings.

What struck me were the prevailing attitudes in the rail industry: that accidents happen, that rail travel is much safer than travelling by car, and that the best thing following an accident was to quickly clear up the mess and get on with it.

It is of course true that rail travel was and is one of the safest forms of transport. Indeed the trend through the 1980s and 1990s and over the last decade is for safety to have improved.

Was then the public's response and indeed HSE's response irrational? In particular was HSE irrational in insisting on higher standards? This put up the bill to the rail industry and, given the institutional arrangements, increased the cost to the Department of Transport and the tax payer.

The argument goes that this money could have gone to improving road safety and that many more lives could have been saved.

There must be some force in this argument. There are many relatively low cost measures that would improve road safety: lower speed limits and stricter enforcement, an absolute ban on drinking and driving, a minimum driving age of 21, cycles restricted to parks and velodromes, and an absolute ban on motorcycles.

But of course no one was arguing for such measures and as you go through my list you will see that I will have lost the Roger Bibbings vote as well as the Jeremy Clarkson vote.

The truth is that the public tolerate a higher level of risk for private travel on the roads than they do when they buy a train ticket, or for that matter a plane ticket.

I do not think that is irrational and later in this lecture I will return to whether it is possible to address the rationality criterion solely through statistics.

What then about the cost to the rail industry of improved safety measures? These have to be considered, but also the cost of failure. Rare but catastrophic high impact incidents damage corporate reputations, as well as human lives, as Railtrack, Jarvis, BP and others have learned to their economic cost.

Three other factors must be considered regarding the railways which have wider relevance to the general safety debate.

The first was the nature of Railtrack as it was. At HSE we estimated that 90 per cent of the risk on the railway was the responsibility of the infrastructure controller. However, by the beginning of the last decade Railtrack appeared to be more of a property company than a railway company, and though a vigorous policy of subcontracting it had lost much of the expertise to run the railway.

The establishment of Network Rail, with a clear leadership role and the reversal of the policy of subcontracting contributed to a significant improvement in safety management.

So a first key factor is the importance of leadership in good safety management.

A highly critical report commissioned by ORR and HSE published in the summer of 2000 had criticised Railtrack's management of its most basic asset, the track. It became crystal clear that in the wake of the Hatfield derailment Railtrack did not have information to make considered judgements about speed limits.

Hence the blanket speed restrictions which led to a near melt down of the railway system and the demise of Railtrack.

So a second key factor is that rational risk based decision making demands good information.

As the CAA and air traffic control organisations found in the wake of the Icelandic volcano earlier this year (whose name I can neither spell nor pronounce), the absence of hard data on the reaction of aircraft engines to various concentrations of ash made it difficult to make rational judgements.

It is worth noting that most insurers did not have the information to price the risk of volcanic ash disruption to air travel, as many travellers learned to their cost.

I thought the regulators made the right call, despite pressure from some in the airline industry for a very speedy solution.

This leads onto as third generic issue the relations between the regulator and the regulated. Without apportioning blame there is no doubt that relations between HSE and the rail industry were bad, and although I did not think the transfer of rail safety was desirable, it has allowed a fresh start for independent regulation to continue.

All regulators have a difficult path to tread, to be independent and objective on the one hand, but also to maintain the trust and support of the regulated, without succumbing to regulatory capture.

In my view HSE has managed that delicate balancing act well over the years and a mark of its success is that it has acquired new functions over the years. Another mark of its continuing success is that it has avoided a place in the bonfire of quangos.

Moreover, it has positioned itself well in the Lord Young review and I will return to that in the last section of this lecture.

Revitalising

When I was chair of HSC, I could be reasonably confident that participants in the Health and Safety Community would be aware of the DETR/HSC document *Revitalising Health and Safety*. Now I am not so sure.

The DETR is now no more, (as is its successor the DTLR), and many of the key participants in the 1999 discussions are no longer active in the Health and Safety world.

Revitalising Health and Safety was published in the summer of 2000 as a joint DETR/HSC document. It followed a consultation document published in 1999. With 44 action points and a 12 point Ministerial check list for improving Health and Safety in Government, it set out a wide ranging approach.

Many of the 44 action points followed a general consensus on the way forward, but some proved to be more controversial, for example Action point 11 on Directors Duties. Others were implemented in part and then subsequently shelved, for example common standards of reporting on health and safety issues. Others were implemented, but with a substantial delay, for example action Point 7 on legislation on greater sentencing powers of the Courts was only implemented (albeit through a private members bill) after I left the Commission.

You will be glad I am not going to discuss all 44 action points. Instead I want to concentrate on the targets for Britain's health and safety system; these were described as being at the heart of the strategy.

These targets were

To reduce the number of working days lost per 100,000 workers from work related injury and ill health by 30 per cent by 2010;

To reduce the incidence rate of fatal and major injury accident rates by 10 per cent by 2010; and

To reduce the incidence rate of cases of work related ill health by 20 per cent by 2010.

Well colleagues it is now 2010 and by a quirk of fate tomorrow is judgement day. In other words tomorrow is the day HSE publishes its statistics on fatalities, injuries and ill health, including judgements by HSE statisticians on whether the targets have been met.

And I would not dream of asking HSE for prior knowledge of the figures, even for distribution to this august audience. HSE statistics are "national statistics", in other words they meet the high standards set by the UK Statistics Authority. Improper advance disclosure could jeopardise that.

So you will have to wait for later to learn about progress or lack of it on the targets, but we can make some educated guesses. Last year HSE statisticians calculated that using the figures for 2008/09 we were probably on track to meet the days lost target, that we were on track to meet the fatal and major injuries target and that we were probably not on track to meet the ill health target.

Moreover, we now know both the fatal and major injury figures for 2009/10, though these may be revised in tomorrow's publication.

We know that in 2009/10 there were 151 fatal injuries to workers, a rate of 0.5%, compared with a figure of 180 workers killed in 2008/09, a rate of 0.6%. We know too from HSE's in year RIDDOR analysis that major injuries are down by 6 per cent in 2009/10, compared with the previous year and that all injuries are down by 8 per cent.

On this basis I would be surprised if the Revitalising target on fatal and major injuries were not met.

Let me re emphasise we must wait the full figures. But my view is that we ought to celebrate a considerable success story, one of the best records in the world.

I know there will be those who will want to paint a different picture. I note that the TUC is now regularly using a figure of 20,000 dying prematurely each year because of work activity. This, of course, is using a completely different form of measurement, including *inter alia* road traffic accidents and an estimate of deaths from cancers and other illnesses which may have had some work related element. I will return to this issue later, but note now that this does not invalidate the like for like international comparisons.

There are other caveats; the recession is likely to have reduced the number of fatalities and injuries. Moreover some of the improvement can be attributed to compositional factors, in other words the relative decline of heavy industries and the growth of the service sector.

On the other hand we should note that within particular sectors there has been a consistent improvement. The safety record in construction still has to be improved, as Rita Donaghy's excellent report shows. But the figures are clear: in 1999/00 the employee fatality rate was 5.5 per 100,000, in 2008/09 the rate was 2.6.

I recall very well the arguments on the Commission in 1999 and 2000. Some described the targets as "brave". You will understand that is official speak for "you must be mad to agree to such a stupid endeavour". Others argued it would be well nigh impossible to achieve further safety improvements and that we had reached the point where the law of diminishing returns would set in.

I am glad that we resisted those pressures. Many also argued that the health and safety statistics were not robust enough to stand the target test. That was certainly true, particularly on occupational health. However, one welcome by-product of the targets was an improvement in statistics. Waiting for perfect numbers would have been a recipe for waiting for ever.

I did not spend enough time on *Revitalising*. I would have liked to have spent more time engaging with industry, both employers and employees and their representatives to encourage them to apply the targets to their own industries and firms. Obviously I spent some considerable time working with colleagues in sectors such as construction, electricity supply, quarrying, and paper and board, but in retrospect I could have done more.

The perennial challenge to the regulator is to encourage industry to own the health and safety problem and solution. It will never have enough resources to cover every base. The HSE's strategy "Be part of the solution" is therefore spot on.

Risk

At the time of drafting the bulk of this lecture Lord Young's review had not been published, but I read carefully his speech to the Conservative Party Conference and also listened to what he said at an IIRSM lunch.

And for those who listened carefully to Lord Young's briefings, his final report will have come as no surprise.

I was particularly struck by one of the points raised by Lord Young in his peroration at the IIRSM lunch. He concluded that when health and safety becomes a laughing matter, it is not taken seriously. I say Amen to that.

I am sure that all of us agree that health and safety is a serious matter. That is the reason I launched the get a life campaign in 2006. My regret is that I did not launch that campaign sooner.

It was clear then that the drip drip drip of "elf n safety gone mad stories" was not only damaging HSE's reputation, (and remember we do have thick skins) but more importantly was also damaging the work of safety reps, safety managers, respect for the regulatory framework, and potentially our health and safety record. I have heard too many jokes where the punch line ends with the phrase "then we had to do a risk assessment", leading to roars of derisory laughter.

I am pleased that my successor, Judith Hackitt, has continued the campaign for a sensible approach to health and safety and I am always pleased to look at the cartoons in HSE's myth of the month. Health and safety may be a serious business, but it is good to see that we can still have a sense of humour.

So you will not be surprised to learn that I wholeheartedly welcome Lord Young's report, *Common Sense – Common Safety*. It follows the arguments that Judith and I have been advancing, and to be honest says some of the things I would have liked to have said 4 years ago but drew back from.

I am very sympathetic to the view that a belief that there is a compensation culture (whether justified or not) is influencing behaviour.

I also strongly support the proposals for raising standards in the Health and Safety profession and in my new role as chair of NEBOSH I will obviously be taking a very close interest in this. Safety consultants should be qualified and I know that a proportionate approach is central to NEBOSH's syllabuses.

Health and Safety Looking Forward

Well enough about the past what about the future?

One point shines through the Young report: that is the enduring value of the 1974 Act and the value of the proportionate approach set out in that legislation. There is thus a firm foundation on which to build further improvements in health and safety.

Of course, challenges remain.

I set out my thinking on the challenges ahead in my Lowry lecture in 2007. In particular I highlighted:

Public Safety

Reasonable Practicability vs. zero risk

the positioning of health and safety

the scope for joined up labour market regulation

worker involvement and representation

the Hampton and better regulation agendas, and

delivering joined up advice, guidance and best practice on health and safety with management and productivity agendas.

Three years later those challenges have not gone away, and indeed may have intensified. For example, on worker involvement the continuing decline in trade union membership intensifies the challenge on worker representation, particularly in the private sector where the union membership rate is now 15 per cent. As I said in the Lowry lecture I regret that I could not build an agreement between the social partners on how to strengthen worker involvement in the non unionised sector.

Given the time I want now to deal with a limited number of issues. The first is to re-emphasise that we cannot take the safety improvements of the last decade for granted. They cannot be banked and forgotten. Moreover, in certain sectors, such as agriculture and waste, fatality rates are unacceptably high. We should guard against the thinking that certain sectors have inevitably high rates of injuries and illnesses and that we should accept these high rates as a fact of life, or should I say death. Remember the statistics for construction I mentioned earlier.

So we will continue to require vigilance by employers and employees, leadership from the top of companies through to the first line supervisor, and involvement of workers and their representatives. We shall continue to need an adequately resourced inspectorate in HSE and local authorities.

A second set of issues concerns the scope of health and safety. There appears to be pressure to widen the scope of health and safety. It has become a very loose term. Signs and warnings abound warning us not to do things, or telling us that various facilities are closed, because of "health and safety". More seriously a number of organisations appear to want to widen the scope of health and safety by including work related road traffic accidents and illnesses where work may be a contributory factor.

In addition the public safety agenda appears to be widening the scope of health and safety to include conkers, MRSA, clinical negligence, falling trees and toppling gravestones, to mention a few.

I do not want to argue that all these issues are trivial. Many raise genuine issues of safety and health. For organisations such as Royal Mail and many other employers, safety on the roads is key risk that has to be managed. The impact of past exposures to asbestos is nothing short of a tragedy, as is the failure to provide compensation.

There is a danger of having too philosophical a discussion on what is health and safety. I am reminded of Herbert Morrison's answer to the question "What is socialism?" For the younger members in the audience Herbert Morrison was a senior Labour politician in the post war Attlee government. Morrison, who by the way is Peter Mandelson's grandfather, opined, "Socialism is what a Labour Government does".

In similar terms health and safety is what the Health and Safety Executive does, in other words those matters that are covered by the 1974 Act and subsequent legislation. The problem is the potentially wide ranging duties under Section 3 of the Act.

In interpreting legislation judges are often asked to make a purposive interpretation. I am not sure that the authors of the Act and Parliament intended that the Act should be used to deal with issues such as clinical negligence or the actions of the police in terrorism cases.

When I was at HSC I asked whether we could put effective boundaries around Section 3. The legal advice we received was that it would be very difficult, though we did give an indication, as I recall, that HSE would not intervene where there was another inspectorate or enforcing agency, for example the police in terms of RTAs.

But more often than not HSE was being drawn into the frame in the absence of any other form of enforcement, for example, in health. When the Health Care Commission was being set up I pressed the then Minister to give the HCC enforcement powers. That did not happen, but I am glad to see that the Care Quality Commission now has a wide range of formal and informal enforcement powers, which will avoid HSE being used as a regulator as last resort.

I am no longer an active participant in these decisions and it will be for others to decide, but I think there is a case to be made for revisiting section 3 and its interpretation.

One way forward would be to draw a sharper distinction between harm to the public caused directly by work activity, e.g., a scaffolding collapse that injures passers by, and harm that follows other events, e.g., falling trees following high winds. Such a distinction though might be difficult to draft in legal terms

Another way forward would be to develop clearer guidance on what is reasonably practicable, for HSE to give guidance on acceptable levels of risk and what reasonably practicable steps duty holders could take. However, the resource implications for HSE could be immense. But there are dangers in leaving the drafting of guidance to expert groups, as I found out when guidance drawn up by swimming pool and leisure experts was being described as HSE rules, e.g. that no parent could bring more than two children to a pool.

My view is that the present situation is unsatisfactory. I could not say so at the time, as Commissioners could not intervene in individual enforcement decisions, but I was concerned that HSE might prosecute the National Trust following the tragic death of a boy at Dunham Massey in 2005. As you know HSE decided in 2009 not to prosecute on the grounds that there was no realistic prospect of conviction for any breaches of health and safety law.

A contributory factor to the delay was that the initial investigation was in the hands of the police and it was some time before the files were handed over to HSE. There then had to follow careful examination of the facts of the case and HSE's policies in the light of the overall enforcement policy.

The four year delay was deeply unsatisfactory both to the parents of Timothy Sutton and to the National Trust.

Lord Young asked for a consideration of the 1974 Act to separate out play and leisure from workplace contexts and I would support that.

There is another area where careful thought has to be given to scope, and that is health issues. There is no doubt in my mind that occupational health was the Cinderella sister to safety, and little doubt in my mind that HSE was absolutely right to raise the profile of occupational health issues, such as Muscular Skeletal Disorders and Work Related Stress, as well as other issues such as noise, exposure to substances hazardous to health.

By any measure ill health is costing British employers considerable sums of money, as well as individual workers suffering. However, there is more variability in the Occupational Health statistics and you will note that I have made no predictions about tomorrow's figures.

I am pleased that BOHRF has been able to help employers and unions to deal with occupational issues by offering practical guidance, based on systematic evidence reviews and how to prevent asthma, MSDs and stress.

However, I do think that there are great dangers in grossing up occupational health statistics to include everything that might have a work connection. For example although it is true that work related stress is associated with increased incidence of coronary heart disease, there are also many other factors which have to be considered, such as hereditary factors, diet, smoking, diabetes, lack of exercise. And it is difficult to see what the employer's legal responsibility in all of this is and also what is the role of HSE as a regulator.

There is nothing wrong in employers promoting a healthy diet and healthy living. But if I were still at the TUC I would be very worried about employers interfering in their employees' private lives, and if I were still at HSE I would be worried by the prospect of prohibition notices being served on cafes and canteens that serve fry ups and bacon sarnies.

Of course public health issues are important, but there is a dividing line between public health issues and occupational health, even though it can get blurred. You will know that the legislation on smoking in public places was driven by public health legislation rather than HSWA. When the Commission looked at this in 2000 we could not justify a ban on grounds of reasonable practicability.

I want to conclude by returning to the issue of risk and rationality. I lost count of the number of times HSE was accused of taking a disproportionate view of risk, sometimes because we were accused of over regulating and sometimes because we did not regulate enough. The view was that we should develop the tolerability of risk approach to come up with a number, a risk of death that could be applied to all sectors and activities.

The House of Lords Economic Affairs Committee very much took this approach when Geoffrey Podger and I gave evidence to them in 2006. It was a very distinguished gathering and felt more like an economics viva. Some of the peers wanted to put a number on reasonable practicability, a clear numerical definition.

Given the amount that has been written on risk, the next few paragraphs may seem perfunctory.

Let me take two examples outside the realm of health and safety. First let me discuss the

National Lottery. Let me declare an interest I play the lottery twice a week. Am I irrational? At one level I must be. Leaving aside the odds of winning, the national lottery is an unfair bet. Unlike the office sweepstake only part of the pot goes to winners, the rest goes to “good causes” and Camelot. The fact is that I do not miss the few pounds I spend on the lottery each week, but I would greatly value winning. So I approach the high probability of losing a small amount differently from the low probability of winning. In economic terms the marginal disutility of losing one pound cannot be equated with the marginal utility of winning a million pounds.

I suspect that we see harm caused by work in similar terms. We are more concerned by the isolated and rare low probability high consequence events than the more common low consequence events.

Are we wrong to adopt this preference? I do not think so. Are we irrational? No.

See if you can guess who said this.

“If there’s a one per cent chance that Pakistani scientists are helping al-Quaida build or develop a nuclear weapon, we have to treat it as a certainty in our response.....It’s not about our analysis, or finding a preponderance of evidence. It’s about our response.”

The answer is Dick Cheney, in November 2001.

Cass Sunstein has written a fascinating book *Worst-Case Scenarios* which deals with how we deal with such tricky issues such as terrorism and climate change and the adoption of precautionary approaches rather than cost benefit analysis. He is critical of our alleged irrationality.

But rational choice theory only gets us so far. There are political and policy choices to be made. There are issues of justice and distribution to consider.

I am not here to defend Dick Cheney, only to note that it is misleading to assume that we, as citizens, are indifferent to various sources of harm. Moreover it would be wrong to say we should be. For example, to compare the harm from the terrorist attacks of September 11 2001 with say deaths on the American roads is more suited to the scientific endeavours in the kingdom of Laputa than it is to the real world.

I am not arguing that we should throw rationality and statistics out of the window. Far from it. HSE’s success over the last 36 years, and it is a success story which should be underlined and not undermined, is due to the fact it has grappled with the tricky issues of risk and regulation in a proportionate way. Despite many controversial issues, HSE has maintained the confidence and support of the employers, employees and successive governments. Compared with the experience of other regulators that is no mean feat. It has recognised public sensitivities about hazardous activities, but it has recognised too the balance of cost and benefits.

Long may it continue.

24/10/2010