A Useful Guide to Risk Assessment

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Acknowledgement

James would like to thank Nigel Brace for much of what he knows about Risk Assessment!

Contents

Introduction

Life is a risky business. Our homes are full of potential hazards – electrical appliances, gas cookers and boilers, glass mirrors, doors and windows. Often the biggest dangers around the home are things we don't even think about – stairs being the obvious example. Take a look at this excerpt from a report produced for the Health and Safety Executive in 2005:

In the UK there are nearly as many deaths each year from accidents in the home as from traffic accidents. Falls account for over half of these accidental deaths, and half of the deaths from falls relate to stairs. There are an estimated further one quarter of a million non-fatal accidents on stairs in the home each year, which are serious enough to cause the victim to visit their GP or hospital accident and emergency department. It has been calculated that this rate of falls is equivalent to a domestic accident on stairs every 2.5 minutes

I (Steve) have two sons, aged 8 and 11, who, as soon as they get up in the morning, start chasing each other around the house, including up and down the stairs. Mindful of the statistics I got up this morning to tell them not to run on the stairs and nearly tripped over the lap-top lead trailing across the floor of their bedroom! My eleven year-old has just started secondary school and insists on walking there on his own, which involves crossing one busy main road and negotiating a corner that vehicles fly around at high speed. He's a sensible boy and he's careful, but many of the drivers are not.

Given that we encounter all these risks from such an early age you might think that risk assessment should be taught as a life skill, but it's not one that either James or I have ever seen on a school syllabus, and it's certainly not part of the national curriculum. Instead it's a subject which has been consigned to the dreaded ghetto of Health and Safety, to be covered on workplace training sessions involving hundreds of PowerPoint slides which are shown while the target audience yawn, scratch and dream of the better lives they might have been leading if only they'd won the National Lottery last week.

Risk Assessment is certainly an important aspect of ensuring our health and safety both at work and in the home, but its significance is far wider than that. When talking about business politicians often talk about the need to 'reward the risk takers', but the entrepreneurs who become successful are not those who are reckless, but those who manage the levels of risk. The millionaire investors on 'Dragon's Den' do not invest in businesses which will lose their money, and are often scathing about would-be entrepreneurs who fail to demonstrate a basic understanding of business finances, such as the difference between profit and

turnover. Investing in these people's businesses is too risky, so they don't leave the den with the dragons' money.

So the ability to assess risk is as crucial to your business's financial success as it is to ensuring the health, safety and wellbeing of your workforce. Other areas where risk assessment is essential include ...

- **Business continuity planning** – ensuring that your business will continue to function in the event of a crisis.
- **Succession planning** – managing the risks of key personnel moving on or retiring by planning who will succeed them.
- **IT Security** – minimising the risk of confidential or sensitive data falling into the wrong hands.
- **Quality management** – ensuring that your business processes are efficient, effective and compliant with standards such as ISO 9001.
- **Environmental responsibility** – managing your business's environmental impact so that it complies with legislation and the environmental standard ISO 14001.
- **Legislative requirements** – not just in the field of Health and Safety but other areas covered by law including financial legislation such as the Bribery Act 2010, and employment legislation such as the Equality Act 2010.

Given the wide ranging importance of risk assessment as both a life and a business skill, we believe that the current silo mentality of treating it primarily as a Health and Safety issue needs to change. In this Useful Guide we will cover how to identify, assess and manage risk in its broadest sense. We will illustrate our points with case studies, and while many of these relate to Health and Safety, the principles apply much more widely. Underpinning all of this is our belief that we need a cultural shift that will bring about a new approach to risk assessment, reflecting its importance to the way we live and work today.

You may print the Useful Guide and write your answers to the exercises and Action Points at the end of each chapter on the printout. If you prefer to work on your computer you can down load an MS Word version of the exercises and Action Points from this link …

http://www.pansophix.com/resources/a-useful-guide-to-risk-assessment-toolkit.doc

Chapter 1 - Defining Risk

The tragic earthquake, tsunami and resulting damage to the nuclear reactors at Fukushima early in 2011 gave fresh impetus to the debate about the risks associated with nuclear power. Every night TV news programmes showed the dramatic latest developments in the struggle to regain control of the four reactors. Looking to the future, 'experts' talked grimly of the risks of significant radiation leaks, and the potential threat to human life. Arnold Gundersen, a former nuclear industry senior vice president, stated ...

'Fukushima is the biggest industrial catastrophe in the history of mankind.'

Later in the year the issue was revisited by the BBC's 'Bang Goes the Theory' series. The programme considered the gap between the ***genuine risk*** of death due to exposure to radiation, and the ***perceived risk*** of death due to exposure to radiation. Professor Gerry Thomas, Chair in Molecular Pathology at Imperial College, London, provided the following statistics ...

- Smoking caused 107,000 deaths in the UK in 2009
- Road accidents caused 2,222 deaths in the UK in 2009
- Approximately 106 people die in the UK every year as a result of falling out of bed
- The nuclear accident at Chernobyl resulted in 122 deaths as a direct result of exposure to radiation (i.e. acute radiation sickness and cancers)

Turning to Fukushima, Professor Thomas stated ...

'There won't be a death toll from radiation at Fukushima, because they did all the right things. They read the book and acted exactly as they should have done.'

There are two significant aspects of these findings ...

1. There is often a significant gap between genuine risk and perceived risk. We all watch the news and worry about the impact of a nuclear meltdown, when our time would be better spent thinking about how we can minimise the risks inherent in driving about in our cars. Which brings us to the second key aspect of the findings ...

2. We can minimise the degree of risk by doing 'the right things' – as Professor Thomas tells us they did at Fukushima.

Later on in this Useful Guide we will consider the process of analysing risk, to ensure that we are focusing our time, attention and money on tackling genuine

risks as opposed to perceived risks. But before we get to that we need to take a little time to define our terminology.

Imagine that you are the editor of a dictionary. Using no more than eight words for each of them, write down your definitions of the following terms:

Term	Definition
Safety	
Danger	
Hazard	
Risk	

Just to make sure you can't immediately see our definitions – and because it's relevant to our point about the gap between genuine risk and perceived risk – here's another story that caught our eye from the news.

In October 2011 a father was approached by security staff after taking pictures of his four year-old daughter eating ice cream at the Braehead Shopping Centre in Glasgow. He was asked to delete the pictures, and when he refused (he had already posted them on Facebook!) the security staff called the police.

Unsurprisingly, there are differences between the father's and the shopping centre's accounts of the incident. But even in their attempts to provide a rational explanation for their security staff's actions the shopping centre unwittingly highlighted the gap between genuine risk and perceived risk ...

Like most shopping centres, we have a 'no photography' policy in the mall for two reasons. First, to protect the privacy of staff and shoppers. as we are sure shoppers would not want strangers taking photographs of them or their children while they were in the mall.

Secondly and sadly, we live in a world of potential threats from terrorists and everyone is being urged by the police to be vigilant at all times. It is not uncommon for those intending to make some kind of attack to take photographs of their intended target as part of their planning before the event.

(Braehead Shopping Centre Press Release, October 2011)

The statement suggests that the security staff acted on the basis of perceived risk – either a potential terrorist threat or risk to the safety and wellbeing of a child. As with the 'nuclear threat' these are areas of risk which have a high profile in modern Western culture and the media which reflects it, leading to a perception of risk which is distorted in relation to the genuine level of risk. In this instance it would appear that the staff involved were ill-equipped to assess the level of genuine risk involved, leading to a heavy-handed response which was ridiculed by the same media which must share responsibility for generating it.

In order to manage risk effectively, we must first be able to assess it – and the first stage in doing that is defining it. Which brings us back to the four terms and their definitions ...

Our definitions are as follows:

Term	Definition
Safety	Freedom from danger or risk.
Danger	Exposure to harm, risk or peril.
Hazard	Inherent harmful properties.
Risk	Probability of being harmed (to humans or the environment).

In our shopping centre example, centre management would probably claim that the security staff were acting with the intention of ensuring the ***safety*** of its customers, i.e. ensuring that they were free from danger or risk. They perceived that the man taking photographs of his four year-old daughter constituted a ***danger***, exposing the customers to harm, risk or peril.

The key terms to define here are the remaining two – hazard and risk. To define these we will step away from the shopping centre and return to the example of driving a car; an activity which, as we have already established, caused 2,222 deaths in the UK in 2009.

In defining ***hazard***, we need to identify the inherent harmful properties associated with a car. These might include the risk of impact, flammability, and toxic gases (i.e. exhaust fumes).

Focusing on one specific hazard, that of impact, we can identify a number of factors which will affect the likelihood of it occurring. These include ...

- Visibility
- Weather conditions
- Road surface
- Tyres
- Driver capability
- Speed
- Maintenance of the car
- Capability of the car

It is these factors which enable us to assess the probability of being harmed – i.e. the level of ***risk***.

Put simply, assessing risk involves three stages ...

1. Identify the hazards
2. Define the risk
3. Apply safety measures

We can also express risk as a qualitative formula ...

Risk = Severity of harm (consequences) x Likelihood of exposure to hazard

This formula can be applied by using the Risk Assessment grid on page 31.

In December 2010 both James and I attended a Christmas lunch at a country pub in Sussex. It took me less than half an hour to drive there from my home, but while we were there it started snowing. By the time we left the weather conditions, road surface and visibility had deteriorated dramatically, making the risk of impact far more likely. Both the likelihood of exposure to the hazard and the potential severity of harm had significantly increased. The safety measure I took was to drive extremely slowly and carefully, and my return journey took one and half hours – three times longer than my outward journey. To remain truly safe I would not have taken the journey at all (and stayed in the pub for three days!).

It is important to recognise that while hazards remain fixed, the degree of risk is subject to change. This is illustrated by the following workplace examples ...

The Woodworking shop

The woodworking shop was a one man business, located in a large garage. The hazards included ...

- Machinery with sharp blades for cutting wood
- Dusty atmosphere
- Grease and grime

These hazards would be common to any similar environment, but the degree of risk was exacerbated here by the following factors ...

- Poor housekeeping – e.g. machines covered in dust, off-cuts and cuttings. A two foot band saw had no safety guard – it had been discarded as the mechanism for it jammed after becoming clogged with dirt.
- Poor ventilation – the LEV (Local Exhaust Ventilation) was blocked – also as a result of never having been cleaned.
- No defined walkways.
- Personal protective equipment, such as safety spectacles, not being worn.

The level of risk was already high due to these factors, but the new element in the equation which made it unacceptable was when the business owner decided to take on a trainee. The owner had a personal choice about the conditions that he chose to work in, but in bringing an inexperienced employee into this work environment he would be failing to meet his duty of care.

The Hairdressing Salon

One of the hazards in this environment is the toxic chemicals used in hair colouring. Customers are exposed to these at low levels over a period of several months, but employees have higher levels of exposure due to daily contact.

The factor that changed the level of risk in this situation was when one of the employees became pregnant. This led the owner of the salon to assess the risks to the employee and take the following measures ...

- Managing the amount of time the pregnant employee spent mixing colours.
- Ensuring proper ventilation in the areas where this took place.
- Getting another employee to mix the colours if possible.
- Monitoring the employee for signs of any adverse reactions to the chemicals.
- Putting in place a risk assessment process for pregnant employees.

This final point is an important one – the salon owner recognised that she had not anticipated the increased level of risk on this occasion, but took steps to

ensure that a proper risk assessment would be conducted when the same circumstances arose in the future.

Summary

In this chapter we have ...

- Established the wide-ranging nature of risk.
- Considered the gap between genuine risk and perceived risk.
- Defined some key terms, particularly the inter-relationship between hazard and risk.
- Identified three simple stages for assessing risk.
- Identified a formula for quantifying risk.
- Considered how the degree of risk changes, by looking at the changing circumstances in two work-based case studies.

Action Points

Look around your own workplace. Jot down your initial thoughts on ...

- The hazards which are present
- Risks arising from these hazards
- Measures you could take to reduce the level of risk.

Chapter 2 - The Legislative Context

In this chapter we will consider the legislative context for managing risk, defining your main responsibilities as an employer and setting the context for the legislation currently in place.

The origins of Health and Safety legislation lay in the **1802 Factories Act**. The aim of the Act was stated to be ...

'... the preservation of the health and morals of apprentices and others employed in the cotton mills and other factories.'

It is thought-provoking to look at the provisions of the Act from the perspective of today's health and safety culture. They included ...

- Factory owners must obey the law.
- All factory rooms must be well ventilated and lime-washed twice a year.
- Children must be supplied with two complete outfits of clothing.
- Children between the ages of 9 and 13 can work maximum 8 hours.
- Adolescents between 14 and 18 years old can work maximum 12 hours.
- Children under 9 years old are not allowed to work but they must be enrolled in the elementary schools that factory owners are required to establish.
- The work hours of children must begin after 6 a.m., end before 9 p.m., and not exceed 12 hours a day.
- Children must be instructed in reading, writing and arithmetic for the first four years of work.
- Male and female children must be housed in different sleeping quarters.
- Children may not sleep more than two per bed.
- On Sundays children are to have an hour's instruction in Christianity.
- Factory owners are also required to tend to any infectious diseases.

It is interesting to note that most aspects of the Act (which, despite the first point on the list, most employers ignored!) applied to the health and wellbeing – particularly the moral wellbeing – of child workers. In twenty first century Britain it would seem abhorrent to most parents to think of their children being exposed to the hazards and risks of factory life in this way; yet we are often happy to buy products manufactured in sweatshops using child labour in other parts of the world. As we will see throughout this Useful Guide, the cultural context is a key aspect of how we assess acceptable levels of risk.

The driving force of the Industrial Revolution was also its biggest hazard - the steam engine. In 1810 it was estimated that somewhere in the UK a boiler was exploding every week. This caused considerable levels of injury and death, but

the impetus for change came from the fact that it was expensive. Not only did workers have to keep being replaced – the costly machines did too! As a result of this relief valves were developed. Their use became a legal requirement in order to ensure consistency between factory owners – after all, why would you go to the expense of installing relief valves if your competitors were saving money by taking the risk of doing without them?

Acts of Parliament passed throughout the nineteenth and early twentieth century were brought together in the **Factories Act of 1937**. This was subsequently replaced by the **Factories Act of 1961**, which continues to have legal importance as cases of exposure to hazards such as industrial noise or carcinogens often extend back in time beyond the current legislation. In 1963 the **Offices, Shops and Railway Premises Act** extended the provisions of the 1961 Factories Act to cover other workplaces. This Act also continues to have retrospective legal significance.

The **1974 Health and Safety at Work Act** established the principle that employers have a *duty of care* for their employees' physical wellbeing. Psychological wellbeing did not become a consideration until the 1990s, as understanding developed of the impact of work on mental health conditions such as depression and stress.

While the Health and Safety Act established the core principles of good practice it also contained a number of caveats. As the Health and Safety Executive states ...

These duties are qualified in the Act by the principle of 'so far as is reasonably practicable'. In other words, an employer does not have to take measures to avoid or reduce the risk if they are technically impossible or if the time, trouble or cost of the measures would be grossly disproportionate to the risk.

In order to make this judgment an employer needs to identify hazards and assess risk. If the level of risk identified is significant then it must be addressed – and lack of funds is no excuse for not doing so.

The Act stressed the importance of risk assessment, and this forms a key aspect of the **Management of Health and Safety at Work Regulations 1992**. The regulations state ...

- Employers have to make suitable and sufficient assessments of the risks to health and safety of their employees – and the risks to health and safety of other persons which arise from his [i.e. the employer's] undertaking.

- Assessments should identify the measures necessary to control the risk identified.
- Assessments should be reviewed and recorded.

Only businesses employing five people or more are required to record the findings of these assessments in writing. This means that a small business such as the woodworking shop referred to in Chapter 1, where the risks are significant, is not legally required to have any written evidence of risk assessments having been carried out. However, where the risks are significant it is clearly good practice to record the risk assessment and its outcomes in writing.

In recent years a number of Acts of Parliament have been passed which have provisions relating to risk. These include ...

The Regulatory Reform (Fire Safety) Order (RRFSO) 2005

The intention of the RRFSO was to provide one piece of integrated fire safety legislation for all commercial premises. Prior to the RRFSO fire safety was seen as primarily the responsibility of the local fire authority. They would visit, assess the premises, and if everything was found to be in order, issue a fire safety compliance certificate.

The RRFSO removed responsibility from the local fire authority, and transferred it to a 'responsible person' at the premises, charging them with having to prove that they have provided adequate and reasonable safety precautions specific to their premises.

The Corporate Manslaughter and Corporate Homicide Act 2007

The Corporate Manslaughter and Corporate Homicide Act 2007 means that ...

'for the first time companies and organisations can be found guilty of corporate manslaughter as a result of serious management failings resulting in a gross breach of duty of care' (www.hse.gov.uk/corpmanslaughter)

While there are no new duties or obligations under the Act, it is closely linked to existing health and safety legislation which, as we have seen, includes the responsibility of employers to conduct 'suitable and sufficient' risk assessments.

Penalties under the Act include unlimited fines, remedial orders and publicity orders. A remedial order will require a company or organisation to take steps to remedy any management failure that led to a death. The court can also impose an order requiring the company or organisation to publicise that it has been

convicted of the offence, giving the details, the amount of any fine imposed and the terms of any remedial order made.

The first conviction under the Act was in February 2011, when Cotswold Geotechnical was found guilty of the corporate manslaughter of Alex Wright, a 27 year-old geologist. He was investigating soil conditions in a 3.5 metre deep trench when it collapsed. Mr Wright died of traumatic asphyxiation.

The Crown Prosecution Service website records ...

'In convicting the company, the jury found that their system of work in digging trial pits was wholly and unnecessarily dangerous. The company ignored well-recognised industry guidance that prohibited entry into excavations more than 1.2 metres deep, requiring junior employees to enter into and work in unsupported trial pits, typically from 2 to 3.5 metres deep. Mr Wright was working in just such a pit when he died. '

(http://www.cps.gov.uk/news/press_releases/107_11/)

It should be noted that Cotswold Geotechnical have been fined approximately 10% of turnover for the next three years.

The Health and Safety Offences Act 2008

The Health and Safety Offences Act 2008 increased penalties and provided courts with greater sentencing powers. The main effects of the Act are to ...

- raise the maximum fine which may be imposed in the lower courts to £20,000 for most health and safety offences;
- make imprisonment an option for more health and safety offences in both the lower and higher courts;
- make certain offences, which currently can only be tried in the lower courts, be tried in either the lower or higher courts.

(http://www.hse.gov.uk/press/2009/e09011.htm)

The Equality Act 2010

The Equality Act 2010 consolidated the range of existing equal opportunities legislation. Under the Act it is unlawful for an employer to discriminate on the grounds of the following 'protected characteristics' ...

- Age
- Disability
- Race, religion or belief
- Gender
- Sexual orientation
- Gender reassignment

- Marriage or civil partnership
- Pregnancy and maternity

In order to guard against potential discrimination under the Act it is often necessary for an employer to conduct a risk assessment. We have already seen in Chapter 1 how the hairdressing salon conducted a risk assessment in order to ensure that pregnant employees were not being exposed to excessive contact with potentially hazardous chemicals used in hair colouring. Other examples may include ...

- Conducting stress risk assessments – particularly as the definition of 'Disability' under the Act covers mental as well as physical impairment
- Assessing risk when considering the 'reasonable adjustments' required to the workplace in order to safely accommodate disabled employees. Examples may range from providing equipment so that disabled employees can carry out their duties in a safe manner, to ensuring that appropriate evacuation procedures are in place for vulnerable groups such as wheelchair users, blind and deaf.

Conclusion

Given the plethora of legislation in this area it is hardly surprising that employers often find it hard to be clear about their responsibilities. Sometimes the requirements of different regulations appear contradictory. James was recently consulted by a shop owner who was enlarging the toilet at the back of the shop in order to accommodate wheelchair users, as required by the Equality Act. Access to the toilet was through a small kitchen area, and the Workplace Health and Safety Regulations 1992 state that there should be two doors between a toilet and a kitchen. But in this case installing a second door would have made the wheelchair access difficult, and furthermore would have hindered escape through the rear fire exit, which was required in order to comply with the RRFSO.

What was James's advice to the shop owner? You need to assess the risk. It is impossible to create a completely safe workplace, and it is impossible to comply with mutually contradictory regulations. So the onus is on the employer to conduct a 'suitable and sufficient' risk assessment, review and record their findings, then take 'reasonably practicable' steps to minimise the level of risk. If you can demonstrate that you have done this you are unlikely to fall foul of the regulations.

Summary

In this chapter we have ...

- Set the legislative context for conducting risk assessments.
- Identified the onus on employers to conduct 'suitable and sufficient' risk assessments.
- Identified that it is good practice for risk assessments to be recorded in writing – and a requirement under the Management of Health and Safety at Work Regulations 1992 if you have five or more employees.
- Established the principle that employers must take 'reasonably practicable' steps to avoid or reduce risks in the workplace.

Action Points

- Consider whether your workplace complies with the legislation. Note any action points required to address any gaps
- Is there any industry-specific legislation you need to take account of – e.g. legislation for the petro-chemical industry?
- Check your risk assessments – are they 'suitable and sufficient' to address the risks present in your workplace?
- Produce a written risk assessment if you do not already have one (use the template in Appendix 2).

Chapter 3 - Risk Awareness

When James makes a site visit one of the first indicators of levels of risk awareness he looks for is the state of the refrigerator. So when he visited a government department and found that people were storing packed lunches and milk in a fridge which had mould growing in it and a door that didn't close properly, he suspected that he would find more problems. He was right – his inspection revealed ...

- Slip, trip and fall hazards throughout the work environment
- Fire corridors being used for storage
- Lack of fire escape procedures and controls
- Poor management of asbestos – i.e. covering panels deteriorating and improperly sealed, so that each time a nearby door banged shut asbestos fibres were blown out into the corridor (it took a further four years for the asbestos to finally be removed!)

The **Consequences of Risk Exposure Model** puts the potential consequences of risk into four categories ...

1. People
2. Plant and processes
3. Environment
4. Product

We will look at each of these categories in more detail, identifying the nature of the risk and possible consequences.

1. People

Most UK employers like to claim that 'Our people are our most valuable asset'. This is consistent with the 1974 Health and Safety at Work Act, which, as we have seen, establishes the employer's duty of care. However, as we saw when we looked at the history of legislation in Chapter 2, this is a comparatively recent development. It is also quite specific to Western culture – legislators and employers in other parts of the world place far less emphasis on protecting

employees from risk. There are plenty of videos and pictures on internet sites such as YouTube which illustrate this.

Our attitude to this in the West is curious. Just as we turn a blind eye to the use of child labour in distant sweatshops to produce our designer label goods, we tend to treat videos of people engaged in hazardous construction projects as sources of entertainment. It's as though we only recognise the hazards as real if they are local. But before we get too smug about our enlightened approach to risk in the UK, its worth asking ourselves whether we are genuinely meeting our duty of care or just going through the motions. The examples we have already considered in – a man dying in a collapsed trench, a government department where asbestos remained a hazard for four years, the carpenter who wanted to bring an apprentice into a hazardous workplace – are not encouraging ones.

We would like employers to minimise risks to their employees because it's the right thing to do. But if they can't be persuaded to do that, then they need to be made aware of the consequences of taking those risks. As the model shows, taking risks with people's wellbeing leads to accidents at work, or, as in the case of prolonged exposure to substances such as asbestos, long term effects on people's health. Both of these are likely to have negative effects on business performance. Employees who have accidents or health problems are likely to be away from work, and lost work days will reduce production and increase costs. If it can be proven that the employer's negligence contributed to the accident or illness they will have to pay compensation, as well as risking longer term damage to their reputation as an ethical employer.

2. Plant and Processes

Sometimes the hazards that exist in a workplace are not immediately obvious. When James told me that a factory producing supplements for food products was full of explosive materials I was taken by surprise, but substances which in small quantities are safely used as stabilisers are far more dangerous when they are handled or stored in bulk.

When James inspected the premises he identified two main hazards. The first of these was poor ventilation, leading to an accumulation of dust and the risk of a dust explosion. Once identified this was comparatively simple to address – the extraction fan was rewired so that the blades worked correctly, the filters were cleaned and a process was put in place to ensure that it would be properly maintained in future.

The second significant hazard was control of toxic chemicals. Again, once the problem had been identified the solutions were straightforward – keeping the chemicals in a lockable cupboard and separating them by type, so there was no risk of acids and alkalines coming into contact with each other. This also put in place a process of control in manufacture which would also have significant process quality benefits.

Exposure to these risks had serious implications for the company's plant and processes. Put simply, explosions are not good for business! Putting aside the risks to people, the consequences are likely to include the time and money costs of repairs, loss of output and interruption to business. If customers are reliant on your products or services they may go elsewhere, so the consequences for the business may be long and lasting. And last but not least, the HSE would probably get involved and keep a close eye on you in future.

Some threats to plant and processes may be external to the business – natural disasters or terrorism, for example. An employer cannot stop these things from happening, but they can put in place contingency plans so that in the event of a major incident the business will be able to continue operating. Central government and the major banks assess these risks and have action plans in place to ensure that they will continue functioning in the event of an emergency.

At the other end of the spectrum, even the smallest one person business needs to assess the risks to their plant and processes and have contingency plans in place so that the business can continue to operate. What if your premises burn down? What if all the data on the hard drive of your lap-top was lost? Are you backing up regularly?

3. Environment

It was when American politicians began referring to BP as BRITISH Petroleum that the company realised how much trouble they were in. U.S. politicians – particularly Republicans – have no great track record of regard for the environment, but here was an irresistible opportunity to establish some environmental credentials.

The Deepwater Horizon oil spill was a major incident. Eleven people were killed, and oil flowed into the Gulf of Mexico at a rate of 35,000 to 60,000 barrels a day, resulting in an oil slick covering 2500 square miles. While other companies were also involved in the drilling operation the U.S. government held BP to be responsible, and accountable for the costs of cleaning up the spill and compensating affected parties. BP agreed to create a $20 billion dollar response fund, and Chief Executive Tony Hayward was forced to stand down.

In the twenty first century, even oil companies are expected to pay attention to environmental risks. Failure to do so results in clean up costs, fines and, most significantly in the long term, damage to your personal and organisational reputation.

4. Product

It is surprising how common it is for everyday product items to be recalled by manufacturers as a result of risks being identified following their release upon an unsuspecting public. A quick check on the Internet has just revealed product recalls for cook-in sauces which may contain botulism, child car seats which may

be unsafe and electrical devices which may overheat and catch fire. For an up to date list check www.tradingstandards.gov.uk/advice/advice-recall-list.cfm.

It is right that manufacturers should be cautious, and that if any risks are identified that a product should be recalled. If consumers are harmed the consequences may include legal action, payment of compensation, loss of consumer confidence and loss of market share.

It is preferable, of course, to identify risks before releasing your product into the marketplace. While identifying risks at this stage may adversely affect profitability and output it will avoid the damage to consumer confidence which arises from identifying problems later on. Thorough production and product testing is therefore an essential part of risk management.

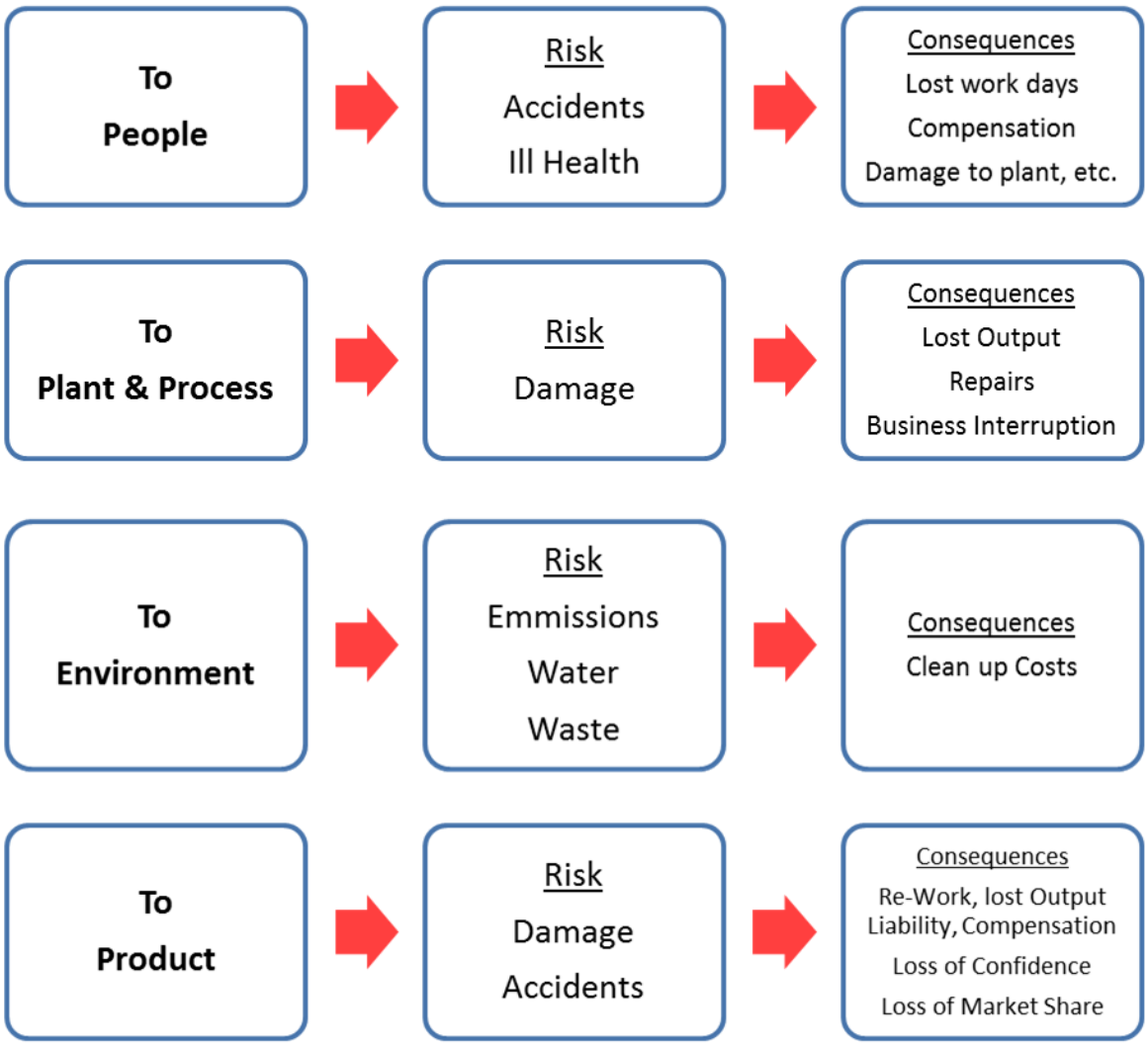
The Whole Model

There are some key points to note when we look at the Consequences of Risk Exposure Model as a whole entity. Firstly, all of the four areas of risk are interconnected. If you suffer damage in one of the areas, you will almost certainly suffer damage in one or more of the others. Secondly, if you suffer damage which is primarily evident in one of the four areas then that, at least in the short term, is likely to become your priority. It is probably fair to say that minimising environmental risks has become a greater priority for BP since Deepwater Horizon than it was before.

Thirdly, and finally, the common factor to all of the four areas is money. Failure to assess risk and being exposed to its consequences is an expensive business, and therefore damaging to any business.

The diagram on the following page shows the complete model, highlighting the risks and potential consequences in each of the four categories.

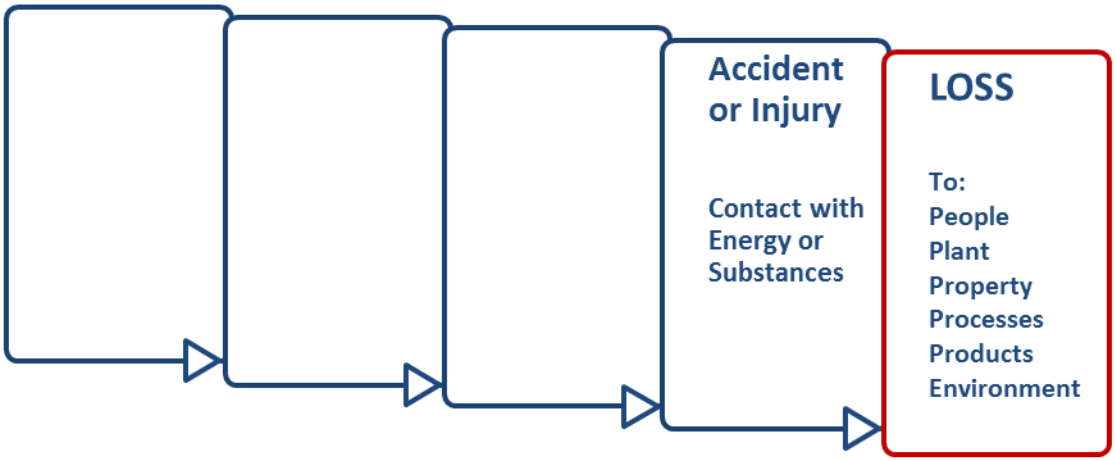
Consequences of Risk Exposure – Complete Model



Instead of responding to the consequences of risk it is clearly preferable to manage risks in order to prevent these consequences from arising in the first place. To help us to do this we can use the **Loss Causation Model.**

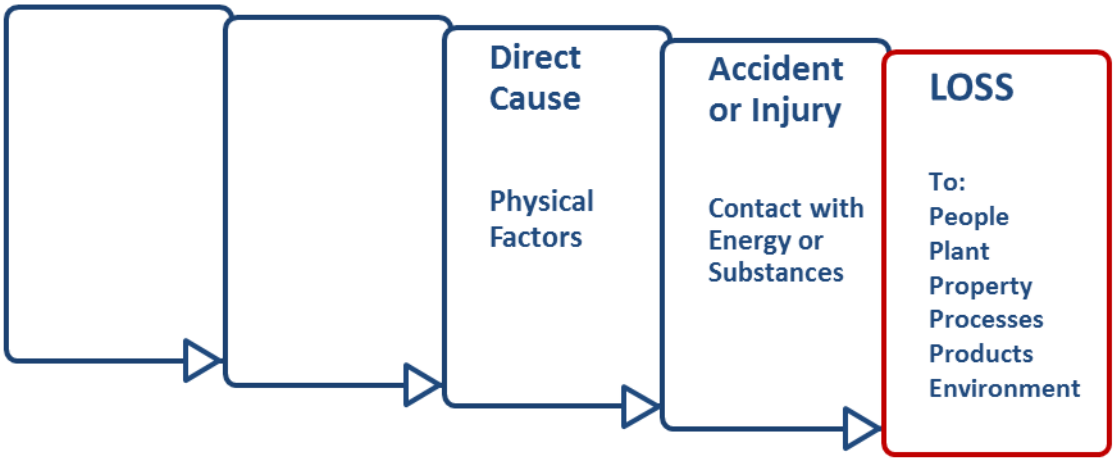
When an accident or incident occurs we need to find out why. This involves taking the incident as our starting point, then tracking back to investigate the causes.

Loss Causation Model Stage 1



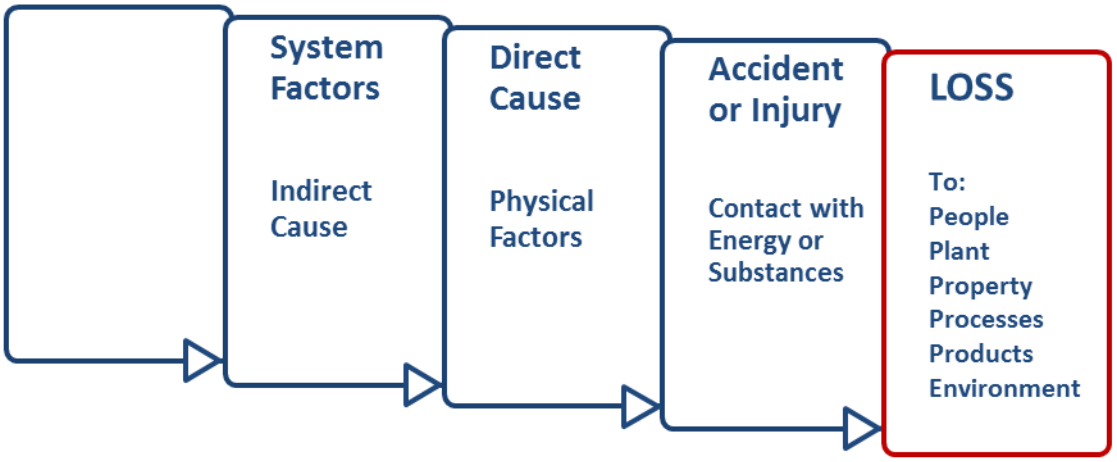
An incident occurs, leading to loss in one or more of the categories covered by the Loss Causation Model. The first indication we have of the problem is the incident itself – an accident which may have resulted in an injury to an employee. In order to find out why the incident occurred, we need to step back a stage and identify the causes.

Loss Causation Model Stage 2



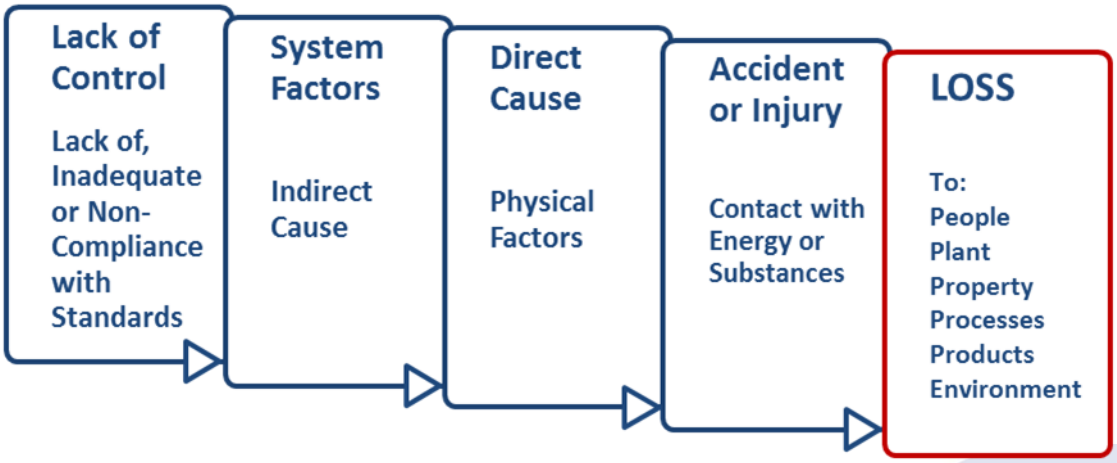
The direct causes of an incident are likely to be the physical factors in the workplace. Often we become so used to our working environment that we fail to notice things that, to an outsider, may be obvious hazards. James worked with an electronics company where it had become common practice to quickly run cables between people's desks rather than taking the time and trouble to install them properly. With 24 electrical sockets per desk this was a significant problem - James described moving around the working environment as being like a game of 'office hopscotch' – yet the employees themselves seemed oblivious to this apparently obvious hazard.

Loss Causation Model Stage 3



We also need to consider the indirect causes of an incident. In the example of the electronics company referred to at stage 2 there was no effective system of cable management in place. Another hazard that James often encounters when inspecting small machine shops is workers removing safety guards from their machines – as in the example of the woodworking shop referred to in Chapter 1. Here an accident might occur as a direct result of the safety guard not being in place, but the indirect cause would be the systems failure which allowed this to happen.

Loss Causation Model Stage 4



The final stage of the Loss Causation Model involves tracking back to identify the reasons behind a lack of effective control in the workplace. In the case of the electronics company the reasons for poor cable management involved people being allowed to develop poor habitual ways of working, which failed to safeguard the health and safety of themselves and their colleagues. In the case of the woodworking shop a sole trader had developed ways of working which

were questionable when they only involved him, and clearly unacceptable when they involved other people.

Another of James's clients was a specialist machine shop which manufactured small three-dimensional objects to meet very precise specifications. It was accepted that in order to do this highly skilled and experienced machinists would sometimes remove the safety guards from their machines, and they were authorised to do so. However, the unintended consequence of this was a perception on the part of less skilled and experienced machinists that it was acceptable to work without safety guards, putting them at risk of accidents and potentially serious injury.

This final stage of the Loss Causation Model means that we have to consider the wider culture of the business – whether it is one where risk is taken seriously, where thorough assessments are conducted, controls are put in place and enforced on an ongoing basis– or whether it is a laissez-faire culture where the attitude to risk is lazy or casual.

The problem with the Loss Causation Model is that it starts from the point where loss has occurred. Obviously we would prefer it to be applied in such a way that the potential causes of loss are identified and addressed before they happen. In order to achieve this we need to be able to assess risk effectively, which we will look at in Chapter 4.

Summary

In this chapter we have identified the importance of risk awareness and considered two key models.

The **Consequences of Risk Exposure Model** puts the potential consequences of risk into four categories ...

1. People
2. Plant and processes
3. Environment
4. Product

The **Loss Causation Model** helps us to identify the direct and indirect causes of accident or injury, and to consider the wider lack of control which may lay behind them.

Action Points

Apply the **Consequences of Risk Exposure Model** to your workplace. Identify the risks and potential consequences in each of the four categories ...

1. People
2. Plant and processes
3. Environment
4. Product

What steps do you need to take to reduce the level of risk?

Follow the stages of the Loss Causation Model to identify the control and system factors which might lead to accident, injury or loss in your workplace.

Chapter 4 - Assessing Risk

Imagine that you own a farm, and that on the farm you have a large outbuilding. The outbuilding is a picturesque, rustic structure, with stunning views across the surrounding countryside. You no longer have any use for it as a farm building, but with a view to diversifying your business you think that it has potential for use as a wedding venue, accommodating between 60 and 300 people.

While you are required to conduct a risk assessment there may be no legal requirement for you to record your findings in writing. A written risk assessment is only required if you have five or more employees on site – no matter how many customers you may have. However, as a responsible and ethical employer you decide to conduct a full and proper risk assessment, and record your findings in writing.

The first stage in conducting a risk assessment is to **identify the hazards.**

This involves steps such as ...

- Walking around your workplace and identifying what could reasonably be expected to cause harm.
- Asking employees what they think – they may have identified hazards that are not immediately apparent to you.
- Consulting accident and ill health records – these may provide an indication of less obvious hazards.
- Consideration of long term hazards to health – as we have identified this is particularly important in the area of manual handling, where poor practice over a long period will eventually result in Musculoskeletal Disorders (MSDs).
- Checking manufacturers' instructions for equipment – as well as setting out how to operate equipment safely these often highlight potential hazards.

Having identified the hazards, the next stage of the risk assessment is to **decide who might be harmed and how.**

For each hazard you need to be clear about who might be harmed; it will help you identify the best way of managing the risk. That doesn't mean listing everyone by name, but rather identifying groups of people (e.g. 'caterers' or 'wedding guests'). In each case you can then identify how they might be harmed, i.e. what type of injury or ill health might occur.

Take a few moments to think about the outbuilding and its surrounding environment. What hazards might you identify, and – if the outbuilding is to be used as a wedding venue – who might be harmed and how? Note your answers in the table below.

Potential Hazards	Who might be harmed?	How?

Your answers might look something like this ...

Potential Hazards	Who might be harmed?	How?
Flammable materials – e.g. hay	Everyone	Fire
Explosive materials – e.g. LPG bottles	Everyone	Explosion
Access to building across farm	Contractors	When making deliveries.
	Guests	When arriving at wedding.
Uneven floors inside building	Guests	Slips, trips and falls when moving around wedding venue.
	Contractors	Slips, trips and falls when making deliveries and setting up venue.
	Caterers	Slips, trips and falls when serving refreshments.
Unstable building structure	Everyone	Building collapse.
Snagging hazards (e.g. nails)	Everyone	When moving around the venue.
Inadequate kitchen facilities	Caterers	Accidents when preparing food.
	Guests	Food poisoning if food is not prepared in a hygienic environment.
Noise	Caterers, guests & local residents.	Music etc

Once you have identified the hazards you need to **evaluate the risks and decide on precautions**. We will consider these two aspects separately.

Firstly, once you have identified a risk, you then need to **evaluate** it. There are two aspects to this ...

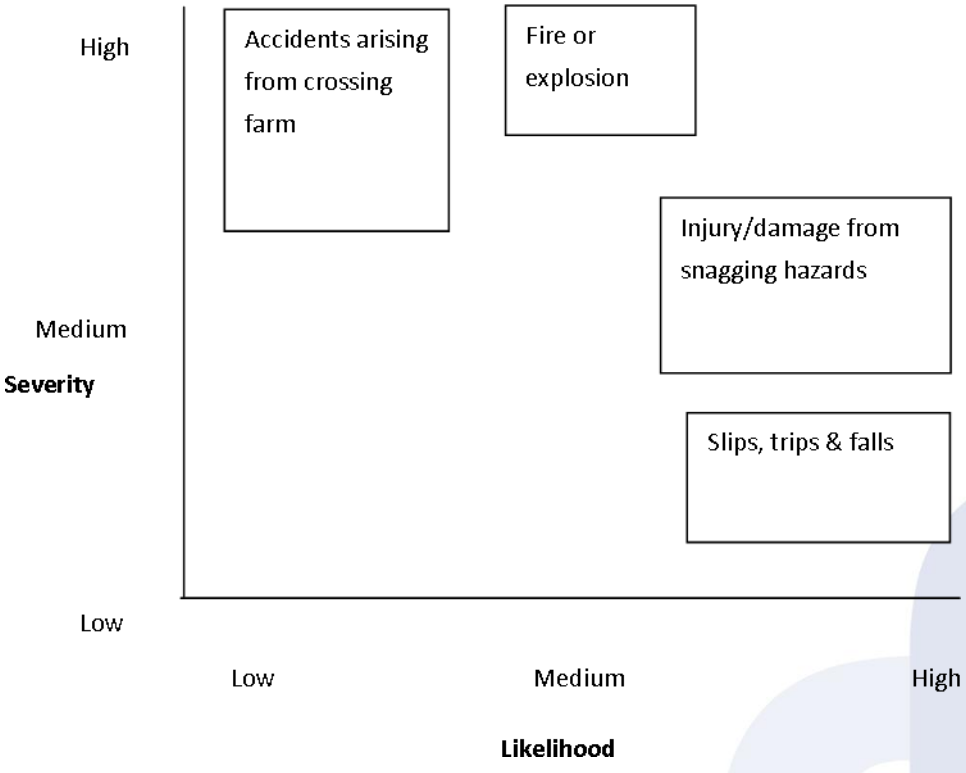
1. Severity
2. Likelihood

Continuing with our example of the farm building's potential use as a wedding venue, let's look at the severity and likelihood of some of the hazards we have identified ...

- Fire or explosion – if flammable materials such as hay or explosive materials such as LPG bottles are present – medium likelihood, high severity.
- Injuries or damage to clothing due to snagging hazards – high likelihood, medium severity.
- Slips, trips and falls on uneven floors – high likelihood, medium severity.
- Accidents arising from crossing a working farm – medium likelihood, high severity.

These can be plotted on a **Risk Evaluation Ranking Grid** ...

Initial Risk Evaluation Ranking Grid

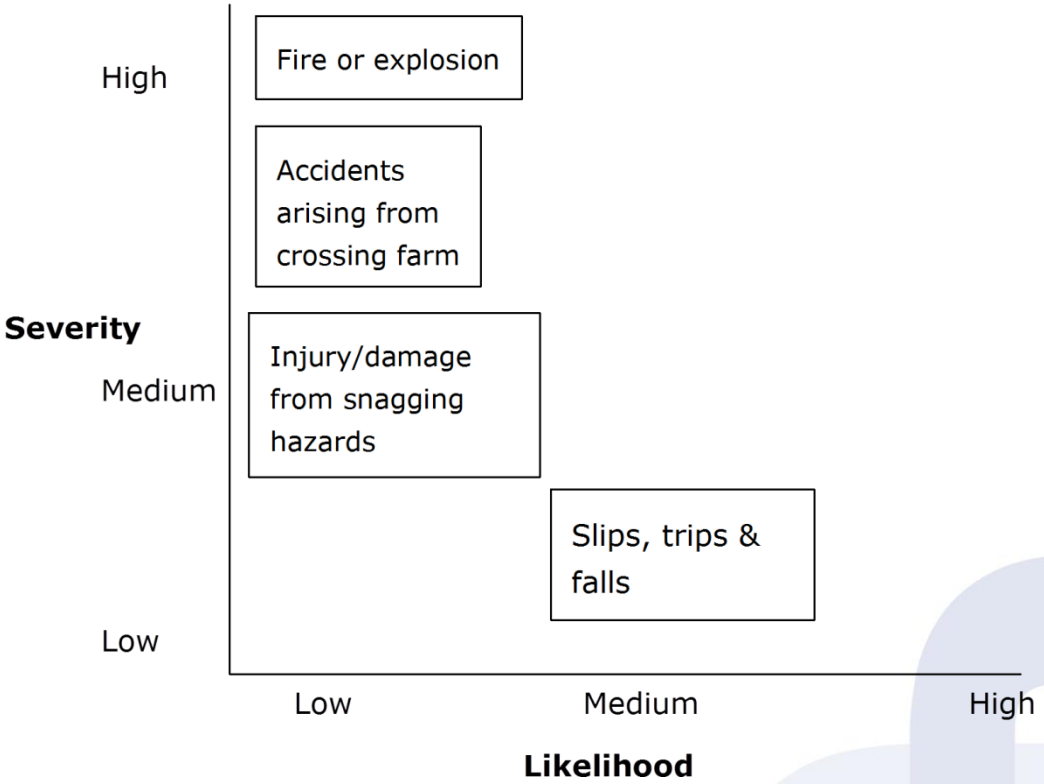


The law requires you to do everything 'reasonably practicable' to protect people from harm. Where the severity of the risk or the likelihood of the risk is high, it is essential that steps are taken to remove the hazard altogether, or control the risk so that harm is unlikely. Employers are expected to consider two key questions ...

1. Can I get rid of the hazard altogether? An example here would be removing potentially flammable or explosive materials from the area in and around the building. Snagging hazards could be removed from the wooden supports.
2. If not – how can I control the risks so that harm is unlikely? For example, the uneven floors could be marked to make it clear where there are changes in levels, thereby reducing the risk of slips, trips and falls. The risks associated with crossing a working farm would be minimised by establishing a clearly marked access route, and fencing off unauthorised areas.

If these steps are taken then our revised risk assessment grid will look like this ...

Revised Risk Evaluation Ranking Grid



Note that it is generally easier to reduce likelihood than severity. In a wooden structure fire will remain a hazard, and its consequences will always be severe.

However, the likely severity of the impact of a fire can be reduced by having clearly signposted fire exits and well established evacuation procedures.

Note also that it will not always be possible to completely eliminate the likelihood of risk, or even to reduce it to 'low'. In a rustic setting where large numbers of people are dancing, drinking and generally moving about, slips, trips and falls will remain a hazard, but the likelihood can be reduced through effective control measures.

Having evaluated the risks and decided on precautions, the next stage is to **record your findings and implement them.** The written record will often be short and simple – your aim should be to produce a working document, in a format and language which makes it accessible to the people who need to use it. The HSE will expect your risk assessment to be 'suitable and sufficient'. This means that you will need to be able to demonstrate that ...

- A proper check was made.
- You asked who might be affected.
- You dealt with all the significant hazards, taking into account the number of people who could be involved.
- The precautions are reasonable, and the remaining risk is low.
- You involved your staff or their representatives in the process.

Finally, you need to regularly **review your assessment and update it if necessary**. The work environment is never static. To the person who puts it down leaving a box in a designated walkway may seem trivial, but it will have a significant impact on the level of risk. Risk assessments should be regularly reviewed to identify new and changing hazards, but to be truly effective it must be a continuous process for business owners and employees at all levels.

This process for conducting a risk assessment follows the five steps set out by the HSE ...

1. Identify the hazards.
2. Decide who might be harmed and how.
3. Evaluate the risks and decide on precautions.
4. Record your findings and implement them.
5. Review your assessment and update if necessary.

The full HSE guidance on conducting risk assessments can be downloaded from http://www.hse.gov.uk/pubns/indg163.pdf

Moving away from our farm-based example, the table on the next page sets out some of the hazards which you may find in your workplace. Please note that it is

not intended to be an exhaustive list – a good look around your own workplace may well identify further hazards that we have not listed here. Nor would we expect all of these hazards to be present in every workplace – although you may be surprised by what you find!

Hazard	Example
Slipping/Tripping hazards	Poorly maintained floors, carpets or stairs. Watch out for cables.
Manual Handling	E.g. lifting, carrying, lowering, pushing, pulling, etc.
Fire	Flammable materials, ignition sources.
Chemicals	Battery acid, glues, pains, cleaning materials.
Moving parts of machinery	Mower blades, drills, shredder teeth.
Working from heights	Ladders, step ladders, cherry pickers, mezzanine floors, roofs.
Noise	Machinery or process.
Electricity	Poor wiring, wear and tear.
Poor lighting	Workstations, escape routes.
Vehicles	Fork lift trucks, deliveries, car parks.
Dust	From grinding, power saws.
Fumes	Welding.
Low temperature	Working outside in winter, cold stores.
Pressure systems	Steam boilers, compressors, air-conditioning systems.
Ejection of materials	From plastic molding machines.

To help you conduct your own risk assessments we have included the following documents as appendices to this Useful Guide ...

Appendix 1 – Health and Safety Review Sheet. This enables you to check whether you have taken the reasonable steps expected by the HSE to ensure that your workplace is safe.

Appendix 2 – General Risk Assessment pro-forma. This provides a structured form for you to use when conducting risk assessments and recording your findings

While we endorse the HSE's five step approach, we question whether this alone is sufficient to equip managers and business owners to conduct robust risk assessments. We will explore the many obstacles to effective risk assessment in Chapter 6, before exploring a new approach to risk assessment in Chapter 7. But before we get to that we need to consider a more fundamental question – once you have assessed the risks, what do you do next?

Summary

In this chapter we have considered the HSE's five steps for conducting a risk assessment ...

- Identify the hazards
- Decide who might be harmed and how
- Evaluate the risks and decide on precautions
- Record your findings and implement them
- Review your assessment and update if necessary

We have identified some of the hazards which are commonly found in the workplace, and considered how to identify the **severity** and **likelihood** of harm being caused.

Finally we have provided a checklist for you to use when carrying out your own inspections.

Action Points

- Follow the steps set out on page 30 to identify the hazards in your own workplace. Does following these steps systematically help you to identify more hazards than your initial assessment following Chapter 1?
- For each of the hazards identified, write down who might be harmed and how.
- Plot the hazards on a risk evaluation grid. What is your highest risk? What steps can you take to reduce the level of severity or likelihood of accidents occurring?
- Apply the risk assessment checklist to your workplace

- Complete the Health and Safety Review checklist (Appendix 1)

Chapter 5 - Risk Management

Risk management is an innate skill that we all have at birth, or we would not survive to tell the tale. However, somewhere along the line we suppress this skill, or maybe we have to, to go about our everyday life. In the context of work we need to switch it back on and manage the process that flows from it. To help to manage the process of managing risk at work it is helpful to have a prescriptive path to begin with. As you become more skilled, in a skiing analogy, going 'off piste' may become more fun!

If you are new to risk management we suggest the following ...

Identification

The previous chapters cover many aspects of the identification process, and we will return to this in Chapter 7. The key is the capturing of the hazards, e.g. What risks do I have? Where are they? This is all about looking at your environment and seeing it with a fresh pair of eyes, attuned to hazards and risk.

All too often in a risk assessment process we do not go looking for the hazards and remain completely oblivious to them until something goes wrong. When looking at accidents that have happened, it mostly seems obvious that this was an accident waiting to happen ...

- The pallet in a walkway that trips up an individual
- The fire extinguisher hidden out of sight which is therefore not available when needed.
- The smoke alarm without batteries.
- The scalpels on a bench without covers or control.

So identification is not as simple as would immediately seem. Thought is required in order to overcome the familiar and see the hazards.

Evaluation

This is the mental exercise of working through the hazards and assigning a risk to that hazard. How serious is the risk in real terms? How will it affect your staff? How will it affect my project or activity? These are just a few of the questions you will need to ask.

Evaluation by its nature is a judgement call and when this is based on known numerical data it is open to considerable debate. This is a question of balancing the hazard and the likelihood of the outcome from that hazard affecting you in some way. Most hazards can kill! People can get out of bed, slip on a piece of clothing and die from the fall. Tragic whilst this is for the individual and their

relations it is thankfully a rare occurrence. We therefore have to take into account the likelihood of a hazard actually materialising as an incident in our evaluation. This will be based on factors such as ...

- Our location
- The industry
- The age we live in
- Whom might be present

This is not a perfect process – some hazards will still be missed, and sometimes there will be serious consequences which may result in legal action. However, it will act in your favour if you can demonstrate that you have thought this through in a rational manner and documented the outcome. Not to carry out the exercise is an offence. To carry it out and get it wrong is human!

Quantification

Think of areas that are quantified, e.g. have numerical measurement systems, in life and in Health & Safety?

- Electricity,
- Noise,
- Radiation,
- Light,
- COSHH,
- Pressure vessels,
- Temperature
- Humidity;
- Etc.

In these areas it is easier to make a judgement call, a question of a yes or no answer on acceptability. Often these items have regulations or guidance limitations that can be quoted. Even so, you may still have to make a qualitative judgement that overrides the numbers. For example, it may be that a set of steps have an appropriate level of light in relationship to the regulations. However, it may also obvious that, due to other complicating factors, a higher light level would be beneficial to highlight the hazard and the increased risk. This also applies to sudden changes in level, e.g. ramps.

A lot of the areas you will look at will also have a qualitative dimension. We therefore require a mechanism for "evaluation ranking" about probabilities, such as the risk evaluation grid covered in Chapter 4, allowing us to manage all of these judgement calls.

We also need to take into account at this point that we are not only concerned about the risk of injury to personnel, but other potential loss or damage to property, machinery and even reputation.

Elimination

This one sounds easy - you just "don't do it!" In practise it is rarely so straightforward.

Manual handling of a load, e.g. a washing machine up a staircase is never easy. This can be made more difficult by the stairs themselves and the occupants of a building. It may be that there is absolutely no alternative to this procedure. However, there are now stair walkers that will take the load up the stairs and eliminate the risk.

In other cases eliminating the risk is more complicated. Asbestos is the best material for insulating pipes and protecting structural metal from high temperature that we know. However we are now paying a high price for this. We now have nearly 4,000 deaths a year that are directly attributable to Asbestos usage. This figure will not peak for a few years to come. So very rightly we have been changing this to other materials. The problem is that to achieve the same effect we require more of other materials and they often come with inherent risks of their own.

It was not that long ago that you could purchase MEK {Methyl Ethyl Ketone ($CH_3C(O)CH_2CH_3$) or Trike {Trichloroethylene (C_2HCl_3) to use as a general solvent. These two chemicals have a significant effect on us and have both been removed from general use. The problem is that the nice smelling alternatives just don't work as well!

At this point we should add "don't do it" also means not giving it to someone else like a contractor. The responsibility would remain with you and would not eliminate the issue at all.

Reduction

Cement used to come in large heavy bags. Even in his (long gone!) youth James found these challenging to move around - probably why his shoulder and back give him trouble now. In this case the industry has reduced the manual handling issue by reducing the bag weight down to 10 Kg which, when carried by a trained, healthy, appropriate individual, pose no significant risk.

Increasingly we find that individuals in offices no longer carry boxes of five reams of paper around the building. The boxes are delivered to the stationary

cupboard where they are emptied to shelves as reams. The reams are moved on a trolley to the point of use, thus reducing the load being lifted.

This does not just apply to manual handling, but many other Health & Safety issues, e.g. reducing the concentrations or volumes of chemicals, or for electrical work the levels of voltage. Construction sites now run a strict policy of only 110 volt portable appliances. This is an active risk reduction activity which means that, due to the increased likelihood of electrocution from the work activity, by restricting the voltage to 110v the likelihood of any significant injury from that electrocution is reduced.

In all of these examples we are aiming to mitigate the risk by reducing the hazard or the risk from the activity.

Control

Control the risk. Again this seems simple enough, but you need to make a judgement as to how far and what is reasonable. In engineering shops there are occasions where it is impossible to carry out the task on a lathe with the original guards in place. The answer is not, as is so often done, to remove the guards and carry on! If it is actually not possible to carry out the task and the guard most be removed then the risk MUST be balanced by other controls, e.g. ...

- an experienced operator should carry out the task.
- a secondary guard such as a magnetic type could be used.
- the area around the operation should be cleared of other personnel.

This is not a comprehensive list of everything required but an example of what might be used to balance the risk. How would you rebalance the risk? Don't forget that it is essential that all guards are replaced as soon as the task in hand is completed. Never leave a machine in an unguarded state.

Control means to manage, not to be controlling. This should be a review of the hazards and the remedial actions that can be put in place to 'appropriately minimise the risk'.

Monitoring

Whether we like it or not monitoring and supervision play a key role in the management of hazards and risk. James had the misfortune of meeting a company owner who was bitterly complaining that an employee had removed the guards from a large bed plane and subsequently planed off his thumb. The owner had sent all personnel, quite rightly, on a machine course. This was unfortunately a general course and not in the workplace. The operator in question removed the guards as they got in the way of moving the wood

through the machine in a speedy manner. The owner had made no attempt to check that the staff understood the training, their responsibilities, the safety aspects of each machine used and ensuring an appropriate level of safety and its management. In other words the owner had let the staff just get on with it. It was very apparent that the individual in question required significant supervision and should never been left alone to carry out this task in the first place.

Far too often we see machines, e.g. lathes, being used by all that are in the workshop. They all have access, nobody stops them and tasks are allocated on the basis of who is free rather than who is capable to carry them out. This inevitably leads to tasks being carried out by individuals who are inappropriately skilled. On a recent visit James was stunned to see a junior employee place a secondary chuck in a lathe, mount the work in the lathe with no guards or safety systems in place, e.g. a mounting rod through both chucks or an equivalent. When he intervened and asked for the appropriate safety systems to be put in place he was met with derision.

> "But I always do it this way."
>
> "Has the chuck ever come off?"
>
> "Well yes - it FLEW off last Saturday and bounced across the workshop!"

The immediate retort of the management was 'That idiot!'. To be fair to the 'idiot' he has always been encouraged to use the machine and is obviously lacking in the skills to do so safely. His peers even joke about how he should not be allowed to use the lathe. There is no supervision, monitoring or even basic housekeeping in evidence. So in reality whilst he may be an 'idiot' he is by no means the biggest idiot in the building. Any form of Health & Safety culture would have significantly reduced the risk to the individual and others around him. This is a cultural issue and in many cases the issue stems directly from the attitude of the owner or managing director (an issue we will return to when we consider the importance of effective leadership in Chapters 7 and 8).

It is worth remembering that you may well have other data which when monitored will provide opportunities and pointers for improvement, such as your accident book and your attendance records.

Assessment

Like all good management processes, Health & Safety risk assessment and risk management require you to ensure that you close the loop. We all need to measure progress and our success in ensuring that we are progressing in the right direction. Risk management is not - and must never be - an enthusiastic

rush of adrenaline followed by a return to the status quo! You must have a mechanism of ongoing assessment and review. This may start with a fresh assessment and lots of fanfare and cost but it must, in order to be meaningful, be embraced as part of the normal processes of the organisation.

We would always advise that the formal assessment of risk is an annual process. It is not required to be so by law. The law states;

> Any assessment ... shall be reviewed ... when ...
>
> a) There is reason to suspect that it is no longer valid ...
> b) There has been significant change ...
> c) [the employer intends to]... employ a young person

This implies that if nothing changes there is no need to review. However, in our view it is only by reviewing the assessment regularly that you will know whether there have been any significant changes.

Another misconception is the belief that only employers with more than 5 employees have to carry out the process. Only employers with more than five employees have to write it down by law – but again, if you are ever held to account on your assessment, how can you prove that you have done it if it is not documented. This does not need to be 'War and Peace' - a simple document with your name and date of your review will suffice.

Usually we find the larger the organisation the more documentation. In our view it is more important that the amount of thought and documentation are appropriate to the level of risk. The Health & Safety risk associated with 200 bankers would usually be less than a 5 strong builders firm!

As with a good quality system continual improvement is essential to part of any Health & Safety culture. Assessment and review are fundamental to achieving this.

Summary

In this chapter we have considered the Management of Risk ...

1. Identification
2. Evaluation
3. Quantification
4. Elimination
5. Reduction
6. Control
7. Monitoring
8. Assessment

This chapter sets out a methodology for managing the risk from hazards within your workplace.

Action Points

- Evaluate the hazards you have identified in your workplace. Taking into account the likelihood and severity of risk, identify which are the priority hazards to address.
- Consider the quantifiable hazards, such as temperature, noise levels and light levels. Do the levels in your workplace comply with the relevant guidance and legislation?
- Consider whether any of the hazards you have identified in your workplace can be eliminated – e.g. by replacing potentially harmful substances with less harmful alternatives.
- If the hazards cannot be eliminated, how can they be reduced? How might working methods be altered to achieve this? What additional controls should be introduced?
- Identify how you can monitor levels of risk in future. Once you have identified the relevant methods, draw up a systematic plan to ensure that they are regularly carried out.

Chapter 6 - The Current Culture

In Chapters 3, 4 and 5 we have explored how risk management **should** be happening – raising awareness of risk, assessing risk and managing it. In this chapter we will explore what is **actually** happening, and the reasons for the huge gap between the ideal and the current reality.

It seems to us that the present situation is characterised by two extreme positions. At one end of the spectrum we have organisations which are wholly risk averse, with extensive policies and procedures designed to ensure that nothing can possibly go wrong. This position is exemplified by the case of the humble conker. When I was young the streets on my route to school were lined with horse chestnut trees. We would pick up the conkers that fell from these trees, drill holes through them, and play conkers in the school playground.

Now local authorities cut down horse chestnut trees and do not allow children to play conkers on school premises. This approach is driven by a fear of litigation, which has increased with the rise of the compensation culture and solicitors offering their services on a 'no win, no fee' basis. If a conker falls on someone's head or their car, or a fragment of a splintered conker flies into a child's eye, the local authority may find itself being taken to court. Given the potentially poisonous combination of personal injury, legal proceedings and a financial payout, the temptation to eliminate the risk is obvious – but not necessarily healthy. Local authorities focus on minimising their risk of liability, when they should be giving their attention to managing the hazard. We would argue that risk management is a life skill, and one that we need to start learning in childhood. If children are not allowed the opportunity to experience a degree of risk, then they will not learn how to manage it.

While local authorities often operate at the highly risk averse end of the spectrum, the opposite end is often occupied by small businesses. The owner of the woodworking shop in Chapter 1 took a cavalier approach to health and safety. This position is tacitly accepted by the Government under the guise of 'freeing small businesses from red tape', and the Lofstedt report endorses the desirability of exempting one person businesses from health and safety legislation. The HSE requirement that risk assessments only need to be written down if a business has more than five employees also reinforces this position. The perception of many small business owners that we meet is that because they have less than five employees they don't have to conduct a risk assessment at all.

This position is equally concerning. The number of employees is no way of measuring the level of risk – one man behaving irresponsibly with a chainsaw can do an awful lot of damage! Even if he only damages himself, someone has to deal with that and get him to hospital, where he becomes another preventable drain on the already stretched resources of the NHS. If he is working on customers' premises he may also be putting them and other members of the public at risk. As we saw with the example of the woodworking shop, risk levels increase significantly when other employees are taken on, particularly if they are young and inexperienced. For these reasons it is good practice for a written risk assessment to be completed if the nature of the work demands it, regardless of the number of employees.

Most organisations fall somewhere between the two ends of the spectrum, and many know that they should provide employees with some kind of training in health and safety and risk assessment. However, often this training is inadequate, and while it ticks a box on a record sheet it fails to equip people with the knowledge and skills to assess risk effectively. The type of training provided depends on where the organisation sits on the risk averse – don't really care spectrum. We know of a government department that provides its staff with four days' training in 'keeping safe' – assessing risk from members of the public and responding accordingly. The training takes the form of a two day e-learning package, followed by two days of face to face training. On the surface this sounds impressively thorough, but ...

- Line managers often do not allow people the recommended twelve hours to complete the distance learning, meaning that they either rush through it or have to complete it in their own time.
- The training is perceived by participants as being excessive in relation to the level of risk – many of them consider themselves sufficiently mature and experienced to respond effectively already, and there are security staff on hand to step in if situations become difficult.
- The face to face training, a traditional mix of elderly video clips, case studies and classroom-based role play, is not perceived as sufficiently realistic and focused to address the need.

The result is a lack of engagement with the training. The organisation has ticked the box for providing training – and lots of it! – but it's hard to see how it provides an effective investment of money and time.

At the other end of the spectrum, we have the businesses which send people on the cheapest available external training course, or sit them down to watch a mass produced ten minute video. No follow up is provided – no discussion of

what has been learnt and how it might apply in that particular workplace – but the box can be ticked to say that those employees have received their health and safety training.

Many responsible employers endeavour to follow the HSE's five step approach to risk assessment, as set out in Chapter 4. As stated at the end of that chapter we endorse this approach, but question whether it is sufficient in itself to equip managers and business owners to conduct robust risk assessments. To put it to the test, James and I arranged a visit to a small print shop.

While James is an experienced risk assessor I am a writer, and knew little about risk assessment before we started writing this Useful Guide. Our plan was for me to follow the HSE guidance and conduct a risk assessment for the print shop, for James to conduct his own independent risk assessment, and for us then to compare our findings. Would the HSE guidance be sufficient to equip me to identify the significant risks, or would James's knowledge and experience expose significant gaps?

I contacted the owner of the print shop, explained what we were doing and asked if he would be agreeable to us conducting a risk assessment of his premises. He agreed, stating that he had never done a risk assessment as he was exempt, having less than five employees. In addition to himself he employs two part-time assistants, one of whom brings her four year-old daughter in with her. He has also employed students on a work experience scheme with the local college. The shop is open to the public.

Hazard Identified	Details
Visitor control	Visitors may be harmed by the lack of appropriate control (i.e. no clear demarcation of public and private areas)
Slip, trips and falls	Boxes on floor in public area Loose paper on floor throughout premises Unmarked changes in floor levels
Manual handling	Packs of paper A4 and A3. Rolls of printing paper and media (up to 100 kilos).
Electrical	Trailing cables/ extension leads from heater & printers.
Falling objects	Heavy boards propped up against walls.

Hazard Identified	Details
	Unstable stacking of shelves, including those above head height.
Cutting hazards	Guillotine partly dismantled and safety catch removed. Various cutting hazards including loose blades on shelf, open Stanley knife on top of printer, large scissors on table.
Hazardous substances	Adhesive gun on shelf below printer; finishing liquid in front of microwave.
Fire	No signposted fire exits. Rear exit blocked by refuse sacks and boxes (highly flammable). Presence of highly flammable material – spray cans, small off-cuts of paper on floor. Small powder extinguisher precariously placed on high shelf.
Hygiene	Milk cooler in toilet. No hand wash basin in toilet.

I thought I had done a thorough job, and had filled in all the sheets I had brought with me. James, however, identified a number of hazards that I had missed ...

Hazard Identified	Details
Electrical	Some wearing of heater cable. Missing PAT testing for portable appliances. Missing 5 year fixed electrical systems test certificate.
Cutting hazards	Guillotine blade not safely stored.

Hazard Identified	Details
Hazardous substances	Toxic & highly flammable ink cartridges stored around premises, including next to electric cables. Toxic and highly flammable materials may cause harm to staff and visitors. Cleaning materials, white spirit, open and closed tins of Hamerite paint stored in cupboard under sink.
Fire	Two fire extinguishers: 1 x 2Kg CO2 extinguisher hidden from view. 3 smoke alarms; alarm in middle room on shelf. No fire action/ procedure notices.
Mechanical hazards	Encapsulator left switched on – potential entrapment hazard. Location of emergency stop button unclear. Sander left on shelf.

Following the HSE process had enabled me to identify the more obvious hazards, and that in itself would have helped significantly reduce the level of risk. I had missed those which were less immediately apparent. I had looked at what was in front of me but not above, so I missed identifying the smoke alarm which was on the shelf instead of being fixed to the ceiling. I also hadn't thought to open cabinets and cupboards, so I missed the hazardous substances which had been carelessly left in the cupboard under the sink. I also lacked the knowledge and expertise to identify ink cartridges as toxic and flammable – to me they were just things I'd expect to find in a printer's shop, so I gave them little attention.

Our completed risk assessment for the print shop can be found at Appendix 3.

The exercise brought into focus a number of the issues which we have explored in this Useful Guide. The first of these is the gap between perception and reality. In Chapter 1 we identified how we can respond excessively on the grounds of perceived risk, exemplified by the heavy-handed security response to the dad taking pictures of his daughter in the Glasgow shopping centre. But equally, sometimes we fail to perceive genuine risks, such as my failure to identify the risks associated with the hazardous substances carelessly stored around the print shop.

Logic suggests that the best people to identify these risks are the people doing the job – but in the case of the print shop, and many other case studies in this Useful Guide – often this clearly isn't happening. There are many reasons for this – people miss things that they take as the norm, they become complacent about substances and machinery they work with on a daily basis, they focus more on serving their customers and running a profitable business than they do on day to day maintenance. More worryingly though, is the perception that assessing risk is a tedious, bureaucratic exercise that the 'jobsworths' at the HSE say you should do, but is best avoided if at all possible.

As with many things that require an investment of time and effort, the question that people will often ask before conducting a risk assessment is 'What's in it for me?' Unfortunately with risk assessment, the answer to this question is often time and expense spent dealing with things you would prefer to ignore. Nowhere is the phrase 'paralysis by analysis' truer than with risk assessment; a thorough risk assessment may identify so many issues that the business owner just doesn't know where to start, so the risk assessment gets filed away and things carry on as before.

These obstacles to effective risk assessment fall into two groups. Firstly there are the practical difficulties of equipping ourselves to assess risk effectively. Chapter 7 will help you develop a practical toolkit for identifying hazards and assessing risk. The second set of obstacles are wider 'cultural' issues, which can only be overcome with effective leadership. We will consider this area in Chapter 8.

Summary

The current risk assessment culture is characterised by two conflicting positions ...

1. Extremely risk averse – organisations which are driven by fear of litigation and will therefore do everything possible to eliminate risk – e.g. local authorities
2. Couldn't care less – organisations which ignore obvious risks and fail to meet their basic responsibilities to assess risk – e.g. some small businesses with less than five employees

A healthy approach to risk is a **thinking approach**, enabling risks to be identified, prioritised and addressed.

The HSE guidance is helpful in setting out the **process** to be followed, but in order to identify the full range of hazards risk assessors also need the relevant **knowledge, skills and experience**.

Action Points

Consider the current risk assessment culture in your organisation. Where does it rank on the continuum from 'Extremely risk averse' to 'Couldn't care less'? How does it need to change?

One of the key questions that might be asked about conducting a risk assessment is 'What's in it for me?' Write down your answers to that question – what's in it for ...

- Your organisation
- Your managers
- Your employees
- Your customers
- Yourself.

Chapter 7 - A New Approach to Risk Assessment

'Turn off your mind, relax and float downstream'

('Tomorrow Never Knows' – John Lennon & Paul McCartney)

Why are we starting this chapter with the words of a song by John Lennon? After all, he never seemed to pay much attention to risk assessment. Read on, and all will become clear!

One of the problems with conducting a risk assessment in our own workplace is our familiarity with it. We're used to seeing that pile of papers on top of the filing cabinet – we don't see it as a potential hazard, which may one day fall and injure someone. We know we've left some boxes on the floor, but we know where they are and we're used to walking around them. We know that the cable on the electric heater is worn, but it's nearly spring and we'll get a new one before next winter.

In order to identify hazards in a familiar environment we need to take a fresh look at it. To see the clutter, we need first to clear the clutter in our minds. Because we are often busy trying to multi-task, we rarely give our full attention to any one activity. Our minds race ahead with plans for the rest of the day, we superficially listen to other people and answer their questions, and we find ourselves carrying out the task in hand on auto-pilot. And if that task is conducting a risk assessment, that means you're going to miss things that may turn out to be significant hazards.

That's where John Lennon comes in!

Before you begin to carry out a risk assessment you need to clear your mind and focus on the task in hand. This is sometimes described as 'cultivating mindfulness' – a way of becoming fully immersed in an activity, rather than being distracted by your thoughts about other things. Giving your full attention to a task such as risk assessment not only means you'll do it more thoroughly, but you'll also find it a more effective use of your time. It will also enable you to come back to other tasks with a fresh perspective when you have finished.

This state of mindfulness can be achieved through using a technique called 'alpha walking'. Alpha walking is an exercise in clearing your mind and then looking at your surroundings clear of all the usual distractions. This will allow you to concentrate on the familiar as if it is fresh to you.

Stand in your work environment, e.g. office, garage, workshop, and close your eyes. Ensure that it is safe to do so before you start the exercise! Slowly raise your arms to your sides. Stretch your fingers and wiggle them slowly, like leaves

on a tree rustling gently in a breeze. This may invite conversation and comment – perhaps even derision! Bear with it - all of this can add to the communication of a safe working culture.

Stand still for a moment, ensuring you do not fall over. The objective is to clear your mind of the everyday and allow yourself to view your workplace with fresh eyes. Open your eyes and sweep the room. A figure of eight will suffice. Look left, forward, right, up and then down. Then mentally log the items that may be a hazard. For example ...

- **Left** – electrical items, fire extinguishers, chemicals, heavy items, storage areas.
- **Forward** – is the path ahead clear, defined/marked, can you see the escape route?
- **Right** – can you see the fire action/procedures, first aid kit?
- **Up** – solid ceiling, clean ceiling, fire sensors, fire alarms.
- **Down** – are there trip hazards, is the floor slippery, steps?

The concept is to look at the familiar with a 'new set of eyes' and to use this fresh perspective to identify the hazards.

In case this is all getting a bit too 'New Agey' for you, rest assured that it is part of a structured approach. Our new approach to risk assessment is based on the following five principles ...

1. Knowledge

To conduct an effective risk assessment we need sufficient knowledge of what we are looking for. When James and I conducted our risk assessments of the print shop (see Chapter 6) his assessment was more thorough than mine because he had greater knowledge of what to look for. I simply accepted that I would find ink cartridges around the place, but he knew that they were a potential hazard which should be controlled.

The people with the greatest knowledge about a work environment are the people who work there! The problem is that we become over familiar and blasé about the things we see every day – hence the importance of mindfulness and alpha walking as ways of tapping into that knowledge.

2. Skills

Conducting an effective risk assessment involves utilising a set of skills. These include ...

- **Observational skills** – to identify potential hazards throughout the work environment.
- **Analytical skills** – to observe in a structured way, i.e. according to categories of risk, such as slips, trips and falls, manual handling, electrical, hazardous substances etc.
- **Questioning skills** – asking employees questions to establish information which is not immediately apparent, e.g. when electrical testing was last carried out, how often the alarms are tested.
- **Rapport building skills** – people may be hesitant about answering these questions if you have not built rapport with them first. They may fear that you are 'trying to catch them out', or that they will get into trouble if they say the wrong thing. Taking the time to explain the purpose of the risk assessment and provide reassurance will reduce these concerns.

These skills can all be enhanced with practice. Using a technique such as alpha walking will help develop your observational skills, while using a practical aid such as a hazards checklist will help develop your analytical skills.

3. Capability

Knowledge and skills are only of value when they are applied in practice, which is where capability comes in. The Oxford English Dictionary defines capability as ...

The power or ability to do something

Capability is therefore about translating theory into practice, in this case applying your knowledge and skills in order to conduct a thorough and rigorous risk assessment.

If we broaden our thinking to consider the benefits of developing a culture where assessing risk is part of our daily working life, then capability becomes all the more important. The development of such a culture requires leaders who promote the importance of assessing risk, and demonstrate their own ability to do so in their day to day working lives. It requires the fostering of a culture where employees take responsibility for assessing and managing risk, rather than seeing it as something that their employer should do for them.

At all levels, developing capability is an essential aspect of integrating risk assessment into daily working life. We will consider more about how to make this change in Chapter 8.

4. Attitude

Throughout this Useful Guide we have seen the damaging effects of employers displaying negative or careless attitudes to risk assessment. Examples range from small employers, such as the woodworking shop which carelessly put at risk the health and safety of a young apprentice; to larger companies such as Cotswold Geotechnical, whose ignoring of 'well-recognised industry guidance' and 'unnecessarily dangerous' practices resulted in the death of an employee.

We have also seen evidence of the attitude of paying lip service to the importance of risk assessment – organisations where the priority is compliance with legislation, rather than any genuine commitment to reducing levels of risk for their employees. Such organisations will put in place training programmes, but with a view to 'ticking the box' rather than making any real difference. Employees are told with a sigh that it is their turn to attend the health and safety training today, will sit through the programme only dimly aware of its importance, and will receive no follow-up to enable them to apply what has been covered in practice. If the attitude from the top is one of minimal compliance, then that is what will trickle down through the organisation.

Happily we have also seen examples of more positive attitudes, such as the hairdressing salon which changed its practices to protect the wellbeing of pregnant employees. There had been no intention on the part of the owner to put anyone at risk, but when the issue was raised with her she was quick to act on it. The willingness to learn and change is an attitude which is essential to good leadership – something we will explore further in Chapter 8.

5. Proportionality

The final key aspect of effective risk assessment is proportionality. One of the problems with conducting a risk assessment for a business which has not had one before is that so many hazards may be identified that it seems overwhelming to the proprietor. The temptation when this happens is to file the report away and pretend it isn't there.

Proportionality firstly involves prioritising the risks. Some of the hazards identified in a risk assessment can be dealt with quickly and easily – such as getting into the habit of sweeping up the print shop each day. Other hazards do not have to be dealt with immediately – again with the case of the print shop, ideally the print cartridges would all be put away in a fireproof cabinet – but just tidying them up and storing them away from the public area would be a start. This proportional approach makes controlling risk seem more manageable and

means that attention can be focused on priority issues. In the case of the print shop we identified these as ...

- Making the guillotine safe.
- Arranging emergency access through the rear exit.

Everything else can come later – both of these items are high risk, and on the risk assessment grid the danger of cutting off a finger while using a guillotine with the safety catch missing is also high likelihood.

We have already identified mindfulness and alpha walking as two practical approaches which will help you to conduct effective risk assessments. To end this chapter, here are three more ...

Take photographs

When conducting a risk assessment James takes photographs on a small digital camera. Photos of your workplace will give you a different perspective, remind you of hazards you identified while you were there and enable you to identify hazards you may initially have missed. This also has the advantage that you are not standing in the middle of the workplace going "tut, tut" or taking the proverbial intake of breath every time you spot a hazard.

Simply go into each area and take a photo of left, right, forward, back, up and down. James stores the pictures on his PC in the folder with the Risk Assessment – you will not normally need to print out the photos. View each photo in turn with the checklist of hazards in mind. Jot down the hazards identified as you go along. You may also note simple actions and remedies but don't get too involved with the answers at this stage, stay focused on the hazard recognition. You can then return to your list to think through the remedial actions, e.g. the minimisation of the risk from that hazard.

Involve a third party

If possible it is often well worth involving somebody who is not used to your workplace. This may be a partner, a friend or a colleague from another part of your organisation. When conducting a risk assessment for a hotel James involved the head gardener in identifying potential hazards in the kitchen, then reversed the roles and got the head chef to identify potential hazards outside. The strength of this approach is getting a fresh perspective, so that people from other disciplines can ask the naive questions which may otherwise be overlooked.

This approach may also help you to assess hazards affecting people covered by the Equality Act, e.g. pregnant employees or people with disabilities. Involving

them in conducting your risk assessment may identify hazards that you might otherwise have overlooked.

Consider other perspectives

Most of us find it difficult to think in terms of how others would see the environment we are working in. One way of overcoming this is to look at it from the perspective of someone who is very different from yourself, e.g. a child or an elderly person.

As with Alpha walking, go into your workplace and look left, right, forward, back, up and down. Now imagine you are accompanied by a child. How might a child get hurt? What could there be to get their finger caught, what would hurt them if the drank it, how would they escape in a fire? Then do the same for a frail elderly person. What might they trip over, what would be difficult for them to lift, how would they escape if there was a fire?

It may be that your workplace actually has children or the elderly on the premises and you therefore have to take account of them for real. However, this exercise is to help you view your workplace from an alternative perspective which will allow you to 'see' what is actually there and independently assess the risk to those individuals that are there.

You might, quite rightly, discount hazards that are a risk to a child from your assessment as they are not a high risk to those that are actually going to be there. This is a judgement call which is part of the risk assessment process.

Summary

In this chapter we have set out a new approach to risk assessment. The foundations of this approach are ...

- Knowledge
- Skills
- Capability
- Attitude
- Proportionality

The five techniques to use are ...

1. Cultivating mindfulness
2. Alpha walking
3. Taking photographs
4. Involving a third party
5. Consider other perspectives

Action Points

Consider the five principles of risk assessment ...

1. Knowledge
2. Skills
3. Capability
4. Attitude
5. Proportionality

Plan the steps you will need to take in order to develop the five principles in (a) yourself and (b) other employees involved in risk assessment

Consider the five techniques of ...

1. Cultivating mindfulness
2. Alpha walking
3. Taking photographs
4. Involving a third party
5. Considering other perspectives

Which of these techniques are most relevant and helpful to you? Practice using at least two of them. What additional hazards have they helped you to identify?

Chapter 8 - Changing the Culture of Risk Assessment

The change volcano – if below the surface issues, thoughts and emotions are not addressed then they will only erupt further down the line.

('The Change Volcano' – Vanessa Williams)

Given that this Useful Guide is about managing risk 'The Change Volcano' seems an appropriate metaphor to use here. One of the reasons that things remain the same is the fear of disturbing the status quo. By trying to change things we unleash potentially destructive forces that had previously just simmered beneath the surface – not ideal, but manageable. A change of approach might lead to these forces erupting, leading to a situation which is worse than the one we had before.

Some of the destructive responses which might be unleashed by implementing the new approach to risk management set out in Chapter 7 include ...

- **Derision** – particularly if you suddenly start using techniques such as Alpha Walking
- **A resulting loss of credibility** for you as a leader
- **Reinforcement of existing approaches to risk assessment** – i.e. lack of compliance with legislation, minimal compliance or excessive compliance

It is this last point which convinces us of the need for change. All of these are habitual, unthinking approaches to the management of risk in the workplace. The question should not be whether we should change our approach to risk at work, but **how** we change our approach to risk at work. We believe that the existing risk management culture is unsatisfactory – the challenge for business leaders is to move towards a more effective approach in a way that engages people and gains their commitment.

Kurt Lewin's theory of force field analysis identifies that for any change there are two sets of forces – **driving forces**, which push the change forwards, and **restraining forces**, which hold it back. When it comes to changing our approach to risk, the forces on each side might include the following...

Driving Forces
Better quality risk assessments and risk management
Improved safeguarding of employee and customer wellbeing
Enhanced business reputation
Reduced risk of accidents and resulting litigation
Integration of risk assessment/management into normal work practices

Restraining Forces
Familiarity with current ways of doing things – comfort zone
Fear of the unknown
Worry about implications of more rigorous risk assessment – e.g. time and cost of putting things right
Don't see the benefits to the business

When leaders are making changes in their organisations they tend to focus on the driving forces. This is no surprise – they've decided to make the changes because they think they will be beneficial, and they want everyone else to agree that they are right. So the approach that's adopted is often one of **selling** the planned changes – often to a sceptical workforce.

If this is the only approach then the effect is often that the scepticism becomes entrenched. Just think about your response when you were last on the receiving end of a hard sell – if you're anything like me you probably became resistant, even if at the outset you were open minded.

To implement change effectively leaders need to pay equal attention to both the driving forces and the restraining forces. From the leader's point of view the driving forces will normally seem self evident, but the only way to find out about the restraining forces is by listening to people. In 'The Change Volcano' Vanessa Williams quotes Margaret Wheatley ...

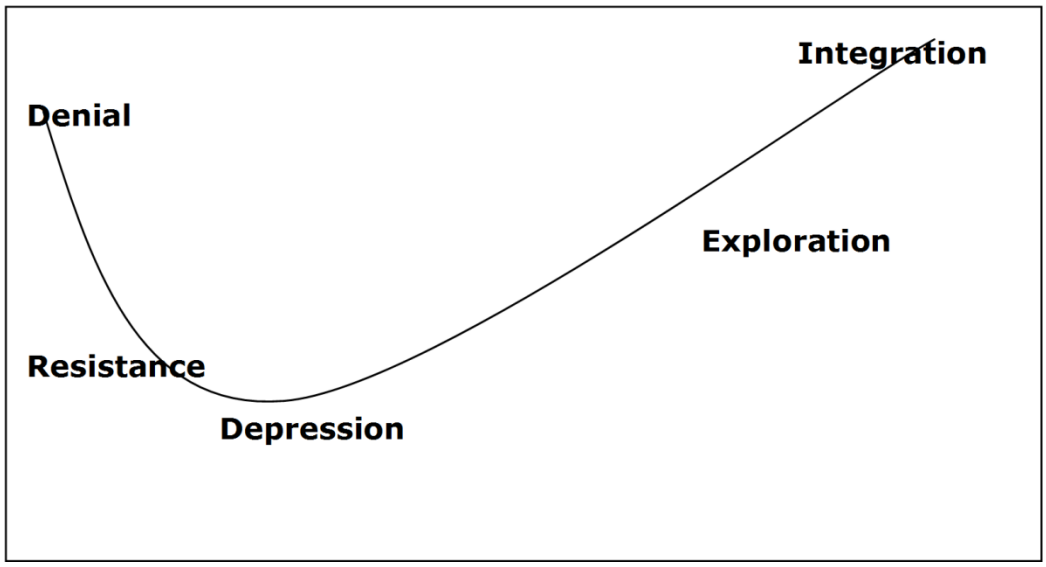
'Conversation is the only change process'

Engaging in conversation gives leaders an opportunity to gain a wider perspective on proposed changes. They will hear about restraining forces they may not even have thought of and, if they listen well, will come to understand their employees' concerns. They may also find that the employees themselves develop ways of addressing those concerns.

This process of engagement also means that employees are more likely to take a constructive approach to change. Instead of muttering to each other at the tea point they have an opportunity to make their voices heard in a forum where they can make a difference. A word of warning though – the engagement in conversation has to be genuine, with a real openness to responding and changing plans as a result. Too many organisations go through the motions of consulting on plans which are pretty much finalised already, and employees have become cynical and disengaged as a result.

One of the best known models of organisational change is the Change curve. This was originally developed by Elizabeth Kubler Ross to represent the stages that people go through when they suffer bereavement, but has since been adapted to reflect the similar process that people go through when experiencing change at work.

The Change Curve (simplified model)



When people first hear about a proposed change, their initial reaction is often one of denial, e.g.

'A new approach to risk assessment? Never! This company has never bothered with doing things properly and it's not likely to start now!'

When it becomes clear that the change is going to take place, people often become resistant ...

'If they think I'm going to mess about putting the safety guard on my machine they've another thought coming!'

The next stage is depression, which is where people get stuck if they haven't been consulted properly ...

'If they'd bothered to talk to us in the first place I'd've told them why it's not going to work...'

If the restraining forces are addressed effectively, people will start exploring new ways of working ...

'You know, the safety guard's a bit of a nuisance, but I'm starting to get used to working with it – and I've not caught my fingers in the machine since putting it back on!'

The final stage is integration ...

'Amazing to think we used to use these machines without the safety guard! Old Charlie cut off his finger, y'know...'

The table below sets out common reactions at each stage of the change curve, and leadership behaviours which are likely to be helpful in enabling people to move on.

Stage	Reactions	Leadership behaviours
Denial	Numbness Apathy Holding on to the past Avoidance of reality	Gentle but firm communication. Clear information. Listening to concerns. Answering questions. Patience. Being clear about the consequences or not making the change.
Resistance	Fear Anger & frustration Subversion Low productivity	Allow people to vent their feelings. Empathic listening (but not collusion). Restate purpose of change. Focus on facts. Set clear expectations.
Depression	Hopelessness Withdrawal Inability to move on	Establish clear and achievable goals. Listen and provide support. Highlight progress. Celebrate successes – however small. Be realistic.
Exploration	Uncertainty Creative energy Focus on the future Gathering momentum	Restate the vision. Encourage experimentation. Allow people to work things out for themselves. Catch people doing things right. Give praise. Maintain enthusiasm.

Stage	Reactions	Leadership behaviours
Integration	Acceptance Adjustment Positive attitudes New ways established	Highlight what has been achieved. Review and evaluate progress. Provide coaching/training to address gaps. Provide recognition. Celebrate!

A leader who is fully engaged with the workforce will see the full range of responses and be able to respond accordingly. A leader who remains distant and withdrawn will only see part of the picture – what is contained in formal reports, and what his/her deputies choose to let him/her know about.

Eric Berne, the founder of Transactional Analysis (T.A.), wrote that the culture of an organisation is made up of three component parts ...

1. Group Etiquette

Group etiquette is often summarised as '**how** we do things around here'. It includes aspects such as the rules and standards of behaviour which are formally endorsed by the organisation and may be written down. Etiquette is traditional and usually slow to change.

2. Technical Culture

'What we do' – the work-focused aspects of organisational culture, including processes, procedures and equipment – all the aspects that require the use of a logical mind to manage.

3. Group Character

'What we might like to do'. This might include departures from etiquette which are accepted by the group – e.g. bending the formal rules to get things done more quickly and easily. These behaviours are often spontaneous and instinctive, and as they are not formally endorsed may be hard to identify.

Once again, we see the importance of the leader being fully engaged with the workforce. Only by getting out on the shop floor and spending time with people will the leader get to know the true character of the group. A remote leader may be under the illusion that formal etiquette is being followed, whereas an engaged leader will know when people are deviating from the rules.

Many change programmes fail because they do not pay sufficient attention to group character. Leaders introduce top-down change programmes on the assumption that existing rules, standards of behaviour, processes and procedures are actually being followed. In reality this may be far from the case. A risk management programme introduced on the assumption that existing procedures just need a bit of tightening up may fail completely, because the reality is that those procedures were rejected as being unworkable in the first place. The only person who doesn't know it is the boss – and who wants to tell him or her the bad news? Best just to keep your head down and hope that the volcano doesn't erupt.

Alas, as we have seen throughout this Useful Guide if risk is not effectively managed then at some point the volcano will erupt. An employee will be injured or even killed, a customer will suffer an accident on your premises, or the HSE will be made aware of your neglectful practices and take action which could close you down. It may be a challenge to put your house in order and manage risk properly, but the consequences are a whole lot worse if you don't.

Throughout this chapter we have considered the process of changing the way your organisation does things, in this instance adopting a new approach to managing risk. Given the place of risk management in the nerdy health and safety ghetto, perhaps it is surprising that the leadership behaviours which emerge as being essential to making this change are those requiring emotional intelligence, which enable engagement and open communication between leaders and the workforce. Daniel Goleman identifies four emotionally intelligent leadership styles ...

1. **Visionary** - moves people towards shared dreams, creates a sense of direction, encourages change.
2. **Coaching** - helps individuals improve their performance and align employee goals with those of the organisation.
3. **Affiliative** - builds relationships and teams, and helps to deal with problem situations between teams.
4. **Democratic** - helps to create buy-in or consensus by involving people and valuing their input.

It is by adopting these styles that a leader can be successful in changing the culture of risk assessment.

Summary

In this chapter we have ...

- Identified the need to change the current approach to risk management.
- Used Force Field Analysis to identify driving forces for making this change, and the restraining forces which may hold it back.
- Identified the importance of leaders fully engaging with employees - 'Conversation is the only change process'.
- Considered the Change curve; behaviours at each stage and effective leader responses.
- Identified the three component parts of organisational culture and the importance of paying attention to the informal aspects – the Group character.
- Highlighted the importance of adopting emotionally intelligent leadership styles.

Action Points

- Conduct a force field analysis for risk assessment in your organisation. Note down the driving forces and restraining forces you identify. What steps do you need to take to (a) harness the driving forces and (b) address the restraining forces?
- What steps will you take to engage more effectively with employees in order to make risk assessment more effective in your organisation?
- If you are introducing a new risk assessment process, identify the steps you need to take at each stage of the change curve. Remember to pay attention to the informal, as well as the formal, aspects of the organisational culture.

Daniel Goleman identifies the following emotionally intelligent leadership styles ...

- Visionary
- Coaching
- Affiliative
- Democratic

Consider how you can apply these leadership styles in order to improve your organisation's approach to risk assessment.

Conclusion

In this Useful Guide we have set out to achieve two connected aims. Firstly we have set out how to assess and manage risk in your own workplace. This can be achieved by ...

- Ensuring that you comply with the legislation set out in Chapter 2.
- Applying the Consequences of Risk Exposure and Loss Causation models described in Chapter 3.
- Following the HSE's five steps for conducting a risk assessment set out in Chapter 4.
- Implementing the risk management process set out in Chapter 5.

While risk management is often seen as primarily a health and safety issue the principles we have covered apply equally to ...

- **Business continuity planning** – ensuring that your business will continue to function in the event of a crisis.
- **Succession planning** – managing the risks of key personnel moving on by planning who will succeed them.
- **IT Security** – minimising the risk of confidential date falling into the wrong hands.
- **Quality management** – ensuring that your business processes are efficient, effective and compliant with standards such as ISO 9001.
- **Environmental responsibility** – managing your business's environmental impact so that it complies with legislation and the environmental standard ISO 14001.
- **Legislative requirements** – not just in the field of Health and Safety but other areas covered by law; e.g. financial legislation such as the Bribery Act 2010, employment legislation such as the Equality Act 2010.
- **Financial risk** – ensuring effective financial planning.
- **Fire** – ensuring compliance with the Regulatory Reform (Fire Safety) Order 2005.

This list brings us to the second of our aims for this Useful Guide. Business owners and managers neglect assessing risk in these areas at their peril, but while risk assessment remains consigned to the dreaded Health and Safety ghetto they are more likely to do so. In order to address this problem we need to develop a new culture of risk assessment, moving the emphasis away from mere legislative compliance to engagement in a continuous process of intelligent

risk assessment. For individuals involved in conducting risk assessment this requires the development of the five key attributes set out in Chapter 7 ...

1. Knowledge
2. Skill
3. Capability
4. Attitude
5. Proportionality

For business leaders it means the application of an emotionally intelligent leadership style – the ability to engage with people being applied alongside the analytical and process development skills more traditionally associated with risk assessment. Finally it requires leaders to understand how to implement change effectively, by applying the models discussed in Chapter 8.

Feedback

As we are always trying to improve our Useful Guides we would appreciate any feedback you can give us on A Useful Guide to Risk Assessment. Please click on the link below to access our online feedback form ...

www.pansophix.com/useful-guide-feedback.html

If we use your feedback to improve A Useful Guide to Risk Assessment we will email you a copy of the updated version.

You can access lots of free tips and tools at 247freetips.com.

About the Authors

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Steve Amos is a freelance writer and training consultant. He is the author of A Useful Guide to Interviewing, Interviewing Essentials and co-author of A Useful Guide to Dealing with Difficult Behaviour and A Useful Guide to Managing Manual Handling.

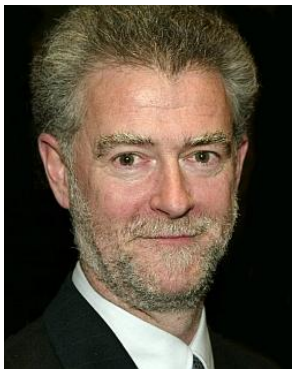
He has worked with a wide range of clients, and is particularly experienced in working with government departments and local authorities. His specialist subjects include interviewing skills, performance management and communication skills.

Steve is committed to delivering high quality learning and development solutions which respond to customer needs and achieve agreed objectives. He is a clear, succinct communicator with excellent listening and questioning skills.

In January 2006 Steve was awarded an MSc in Training and Performance Management by the University of Leicester. His dissertation was on the application of competency frameworks in the government sector.

When not working with clients or writing Steve spends his time playing with his children, listening to live music and walking by the sea.

James Hammerton-Fraser



James is a Director of Jamberry Ltd specialising in providing performance development and consultancy for businesses and co-author of A Useful Guide to Managing Manual Handling.

He brings a strong business background to JamBerry, having worked in both corporate and industrial environments. His specialist areas are Business Consultancy and Health & Safety, and understanding how companies can implement processes in a pragmatic and practical way.

By helping clients to fully meet their obligations to their staff in this wide reaching area, James ensures that clients adopt good working practices which

enhance the work environment, as well as avoiding the excesses of any potential litigation.

His recent projects have included working with major international commercial banks, a food manufacturer, a university college, and a large facilities management company.

His previous background includes working with 3 of the major manufacturers of Health & Safety equipment and Ministry of Defence.

When not working with clients or writing James spends his time renovating barns or digging the garden!

Appendix 1

Health & Safety Review

Policy Statement	❑
HSE poster displayed	❑
Employers liability insurance displayed	❑
First aiders or co-ordinator	❑
Fire wardens	❑
Fire procedures	❑
H&S management procedures	❑
H&S responsibilities – directors	❑
H&S responsibilities – staff	❑
Fire extinguishers	❑
First aid box	❑
Fire extinguishers tested	❑
PAT testing	❑
Accident book	❑
House keeping	❑
Slips, trips and falls	❑
H&S Risk Assessment	❑
Fire risk assessment	❑
Manual handling	❑
COSHH Assessments (MSDS)	❑
Workstation assessments	❑
Other significant risks	❑
	❑

Date: ……..

Assessor: ……..

Appendix 2

General Risk Assessment

For Read Out Loud Readers: The table has 6 rows. The first row has 4 columns. The second row has 3 columns. The third row has 6 columns. The fourth, fifth and sixth rows have 9 columns and all the cells in these rows are blank.

Site /Location:	**Ref No:** **Amendment No** -	**Date this Assessment:**	**Sheet** of
Activity/Situation:		**Date last Assessment** -	**Review:** annually

Hazard Identified	**Details**	**Nos. at Risk**	**R**	**Controls in Place**	**Risk O.K. (Y/N)**	**Further Actions**	
						P	**Details**

Appendix 3

General Risk Assessment

Site /Location: Print shop example		**Ref No:** **Amendment No:** N/A			**Date this:** **Assessment:**		**Sheet** 1 of 3
Activity/Situation:					**Date last Assessment** N/A		**Review:** Annually
Hazard Identified	**Details**	**Nos. at Risk**	**R**	**Controls in Place**	**Risk O.K. (Y/N)**	**Further Actions** **P**	**Details**
Housekeeping	Staff and visitors may be harmed by the lack of appropriate housekeeping.	3 staff + visitors	M	None	N	P	• Formalised regular 'tidy-up'. (Suggested once a month.) • Provision of rubbish bins. • Review of waste removal.
Visitor control	Visitors may be harmed by the lack of appropriate control.	Visitors	M	None	N	P	• Put in place clear demarcation between visitor & customer areas, e.g. the shop and the working areas. • All visitors must be escorted in the work area. • All young persons must be closely supervised in the work area, following specific risk assessment, if working, e.g. work experience.
Slip, trips and falls	Boxes on floor in public area Loose paper on floor throughout premises	3 staff + visitors	M M		N N	P	• Stack boxes in safe area on delivery away from walkways • Improve housekeeping – sweep up daily

	Unmarked changes in floor levels		L		N		• Mark with yellow strips
Manual handling	Packs of paper A4 and A3. Rolls of printing paper and media (up to 100 kilos)	3 staff	M		N	P	• Need procedures and specified personnel for moving from front door on delivery.
Electrical	Trailing cables/ extension leads from heater & printers Some wearing of heater cable PAT testing for portable appliances 5 year fixed electrical systems test certificate.	3 staff + visitors	M L M M	Trailing leads reduced by moving machines to same side of premises as electrical sockets Some testing has taken place but unclear whether up to date	N Y N N	P	• Need for further improvement in cable management so they do not trail into walkways. • Removal of all unused cable. • Low risk at present but needs monitoring • Updated tests required. • Records of PAT scheme to be maintained. • Need to clarify whether tenant or landlord's responsibility and ensure testing is up to date.
Falling objects	Heavy boards propped up against walls Unstable stacking of shelves, including those above head height	3 staff + visitors	M M		N N	P	• Move to safe storage area in back room • Need to reorganise/tidy up shelving

Cutting hazards	Guillotine partly dismantled and safety catch removed	3 staff + visitors	**H**		N	P	• Guillotine MUST not be used until remedial action taken. • Call out engineer for service and maintenance and safe reassembly. • Ensure clear area around the Guillotine. • Ensure availability of instructions for use. • Only trained, authorised personnel to use.
	Guillotine blade not safely stored		**H**		N	P	• Ensure blade is properly stored and secured in box when not in use, e.g. the blade should be retained in the box. • **Note: all of the actions in this section associated with the Guillotine are high priority, especially given the presence of young persons on the premises.**
	Various cutting hazards including loose blades on shelf, open Stanley knife on top of printer, large scissors on table		L		N	P	• Improve housekeeping; purchase a sharps bin and ensure used blades are properly disposed of.
Hazardous substances	Toxic & highly flammable ink cartridges stored around premises, including next to electric cables	3 staff + visitors	M		N	P	• Inks / Cartridges both new and used should be stored in a safe area of the back room (non public area). Written record should be kept of what is on the premises.

	Toxic and highly flammable materials may cause harm to staff and visitors.	3 staff + visitors	M		N		• Safety data sheets should be kept on site for all materials/substances (chemicals).
	Cleaning materials, white spirit, open and closed tins of Hammerite paint stored in cupboard under sink	3 staff	L	Items stored away from public area	N		• Improve housekeeping and store separately.
	Adhesive gun on shelf below printer; finishing liquid in front of microwave	3 staff	L		N		• Ensure that potentially hazardous substances are safely stored when not in use
Fire	No signposted fire exits	3 staff + visitors	M		N	P	• Fire exit signage to be added.
	Rear exit blocked by refuse sacks and boxes (highly flammable)	3 staff + visitors	**H**		N	P	• **Rear exit only leads into a locked workshop owned by the landlord – need to speak to him urgently to arrange access through workshop in event of an emergency.** • **Remove all waste materials from doorway.**
	Presence of highly flammable material – spray cans, small off-cuts of paper on floor	3 staff + visitors	H		N	P	• Improve housekeeping; • Ensure safe storage of flammable materials; Sweep up daily. • Review waste receptacles, rubbish bin may help.

	Two fire extinguishers: 1 x 2Kg CO2 extinguisher hidden from view: Small powder extinguisher precariously placed on high shelf.	3 staff + visitors	M	Recent investment in 1x 2Kg CO2 extinguisher	N	P	• Need two 2Kg CO2 extinguishers, one at front and one at rear of premises. • Wall mounted all extinguishers with sign above each. • Dispose of powder extinguisher.
	3 smoke alarms; alarm in middle room on shelf	3 staff + visitors	M	Battery smoke alarms fitted.	N	P	• Ensure smoke alarms are in working order. • Ensure smoke alarms are properly fixed to ceiling. • Test smoke alarms on a weekly basis.
	No fire action/ procedure notices.	3 staff + cust-omers	L		N	P	• Add fire action signs to each room.
Hygiene	Milk cooler in toilet	3 staff	M		N		• Milk should be stored in a proper fridge located in the kitchen area.
	No hand wash basin in toilet.	3 staff	L		N		• Building regulations require provision of a basin separate from washing up facilities in kitchen area – follow up with landlord.
Mechanical hazards	Encapsulator left switched on – potential entrapment hazard. Location of emergency stop button unclear.	3 staff	L		N		• Machine should be switched off when not in use.
	Sander left on shelf	3 staff	L		N	P	• Not required for business – should be removed from premises.

Appendix 4

Further Reading

- **Five Steps to Risk Assessment** – Health & Safety Executive Guide
- **Health and Safety Regulation** – a short guide (Health & Safety Executive)
- **Health and Safety**: A no nonsense summary of Government rules and regulations (Business Link)
- **Reclaiming Health and Safety for All**: An independent review of health and safety legislation – Professor Ragnat E Lofstedt (Crown Copyright 2011)
- **An introduction to health and safety** – Health and safety in small businesses (HSE 2004)
- **Falls on Stairways** – Literature Review (Health and Safety Laboratory Report Number HSL/2005/10) – Anita Scott (Crown Copyright 2005)
- **The Change Volcano** – Vanessa Williams (CIPD Newsletter August 2011)
- **Working with Emotional Intelligence** – Daniel Goleman (Bloomsbury)