

SEGMENT ONE – Health & Safety at Work

This segment introduces health & safety in the workplace, why it is important and what we can do to improve it.

AIMS OF THE SEGMENT

The main aim of this segment is to help you to appreciate the nature of health & safety and be able to:

- State the costs of poor health & safety standards and the benefits of good standards;
- Give common types and causes of work related accidents and ill health;
- Give examples of occupational, environmental and human factors which can affect health & safety.

INTRODUCTION

Health & safety in the workplace is an important and often misunderstood aspect of running and working in any business. How many times have you heard people complain or joke about health & safety regulations?

Over the years I've made a few jokes and voiced the occasional complaint myself. In all the years I've been working I've never been involved in a serious accident at work, not that I work in a particularly dangerous occupation.

I suppose you could use the paragraph above to argue that health & safety is not very important. But that would be missing the point.



Over the years I have been exposed to countless hazards, several times a day, and yet I have never had an accident of any importance at work. This is because all the equipment I have used at work and all the processes and activities I have participated in have been designed and tested to avoid harm to me and to others.

Without health & safety legislation and the impact it has had in the workplace we would all be exposed to far greater risk of harm and the work-related accident rate would be much higher than it is.

That's not to say that we can relax and say that the workplace is as safe as it needs to be, or that the goods we make at work and the ways in which we make them cannot be made even safer. It would be true to say that even one serious injury or death in the workplace is one too many. Sadly, we are not likely to ever see a time

when there are no deaths and serious injuries at work. Partly this is because it's impossible to identify every risk and do something about it.

Accidents are sometimes just that, an accident, unpredictable and unforeseeable.

What we should all aim for is to avoid all of the predictable and foreseeable risks and that is the main thrust of all health & safety legislation. Health & safety legislation expects employers to do everything that is practicable, reasonable and possible to avoid accidents.

HOW GOOD OR BAD IS HEALTH & SAFETY IN THE UK?

2015/16 Key Figures from the HSE (Health and Safety Executive for the UK)

- **1.3 million** working people suffering from a work-related illness
- **2,515** deaths due to past asbestos exposures (2014)
- **144** workers killed at work
- **72,702** other injuries to employees reported
- **621,000** injuries occurred at work according to the Labour Force Survey
- **30.4 million** working days lost due to work-related illness and workplace injury
- **£14.1 billion** estimated cost of injuries and ill health from current working conditions (2014/15)

The work-related accident rate in the UK is on average five fatalities per 1 million employees. This rate was closer to eight per 1 million in the early 2000s.

This would seem to be a terrible state of affairs and yet this is the best performance in the European Union. We, in the UK have the lowest rate of accident, injury and death of any EU country!

Even though the UK has the best health & safety performance in the EU, the cost of accidents and injury is still enormous. The costs are more than just financial; there is the moral cost of people being injured, suffering long-term work-related illness and death. The moral case for health & safety is that if we didn't do as much as we do to maintain safety there would be more accidents at work. And, if we do more, and do it more effectively there should be fewer deaths, injuries and ill-health.

In addition to a strong moral case for health & safety there is also a strong financial one. The financial costs of getting health & safety wrong in a company can be enough to put that company out of business.

Suppose there is an accident or a case of work-related illness at work. What are the possible costs of this?

Well there are some costs that are a direct result of the health & safety failure and these we call the Direct Costs. There are other costs may be caused by the health & safety failure, but they are only loosely associated with the failure and these are called the Indirect Costs.

Direct Costs

- Repairs to damaged equipment
- Damaged goods*
- Lost raw materials*
- Increased insurance premiums*
- Sick pay to injured employees*
- Compensation to injured persons
- Court costs and fines*

Indirect Costs

- Delays in production / downtime as equipment is repaired
- Delays as investigations are carried out*
- Staff costs for replacement staff*
- Staff costs for retraining in H&S etc.*
- Loss of confidence of workforce*
- Loss of confidence by customers*
- Bad publicity*
- Problems with recruitment*

Employers must by Law have employee liability insurance and may have public liability insurance as well. However, none of the costs marked with an * above are covered by either of these types of insurance and the costs must be borne by the employer.

It has been estimated that an accident at work that only damages equipment will have on average around £150 of uninsured costs per incident.

An accident requiring first aid at work will on average result in nearly £40 of uninsured costs to the business. However, an accident that results in an employee requiring absence from work will, on average, cost their employer more than £2,000 of uninsured losses.



Apart from the financial costs of poor health & safety there are the legal costs. Failure to comply with health & safety legislation can result in either a civil or criminal case with both fines and imprisonment a possibility if the case is a criminal one.

BENEFITS OF GOOD HEALTH & SAFETY

Health & safety is not all about sanctions, prosecutions and financial loss. There is a positive side to it as well.

Businesses, companies and processes that comply with health & safety legislation and good practice are often better places to work in.

A great deal of health & safety good practice involves common sense, good housekeeping and working effectively and consistently. All of which, can often result in an efficient as well as an effective workplace.

TYPICAL CAUSES OF ACCIDENT AND INJURY AT WORK

In the UK generally

Accidents at work are usually the result of either unsafe acts or unsafe conditions. By this I mean accidents are usually caused by something someone has done or failed to do – an unsafe act; or the accident is caused by the conditions we work in or the condition of something in our workplace – an unsafe condition.

Against each of the following unsafe acts and conditions please try and write a specific example of something that could apply in your own workplace. This is just for your own understanding, so be honest!

SAQ Unsafe Acts – something you do or don't do

Leaving equipment in an unsafe condition	<i>For example, noticing a cracked waterproof power socket cover and being too busy to report it, thinking I'll do it at the end of the shift.</i>
Removing safety devices such as guards	
Using equipment for something it wasn't designed to do	
Failing to wear personal protective equipment	
Lifting loads incorrectly	
Unauthorised servicing or modification of equipment	
Working under the influence of alcohol or drugs	
Using defective or malfunctioning equipment	

And, for the following unsafe conditions please give an example of something that could possibly happen in your workplace.

S.A.Q. Unsafe Conditions – often the result of an unsafe act

Poorly fitted or missing guards	
Excessively noisy workplaces	
Untidy or cluttered workplaces	
Inadequate fire warning system	
Fire hazards	
Poor lighting	
Workplaces that are too cold or too hot	
Exposure to live electrical contacts	

If you find yourself confused about the difference between an act and a condition think about it like this. “John Smith is injured by tripping over an obstruction on the floor. Peter Jones is disciplined for leaving the box in the walk way.” The unsafe act was committed by Peter. This led to an unsafe condition – the box on the floor. John was injured through no fault of his own. He just tripped over the box.

EXAMPLES FROM THE SEAFOOD INDUSTRY

Unsafe Acts

- A packing line with a faulty guard interlock – the maintenance engineer left the machine operating with an interlock that did not stop the machine when a guard was opened. An operator had a near miss when freeing jammed cardboard packaging and the machine started up.
- Failing to wear PPE when mixing cleaning chemicals – by not wearing goggles a cleaner suffered damage to their sight when splashed chemicals got into their eyes.
- A fish frier suffered a prolapsed disc (slipped disc) after years of lifting bags of potatoes incorrectly. The 26 weeks he was off work did immense damage to his business.



Unsafe Conditions



- The greasy, slippery floor under a coating line in a seafood factory was the main cause of three serious falls in a four month period. Changes to the cleaning arrangements and use of catch trays under the line reduced this risk to an acceptable level.
- Storing batter scraps inside fish and chip shops has been recognised as a fire risk. Batter scraps should always be stored outside the shop in a metal bin.
- A ramp into a fishmonger's chill store provided a slip hazard until a non slip coating was applied. Although the ramp hadn't caused an accident there had been several near misses.

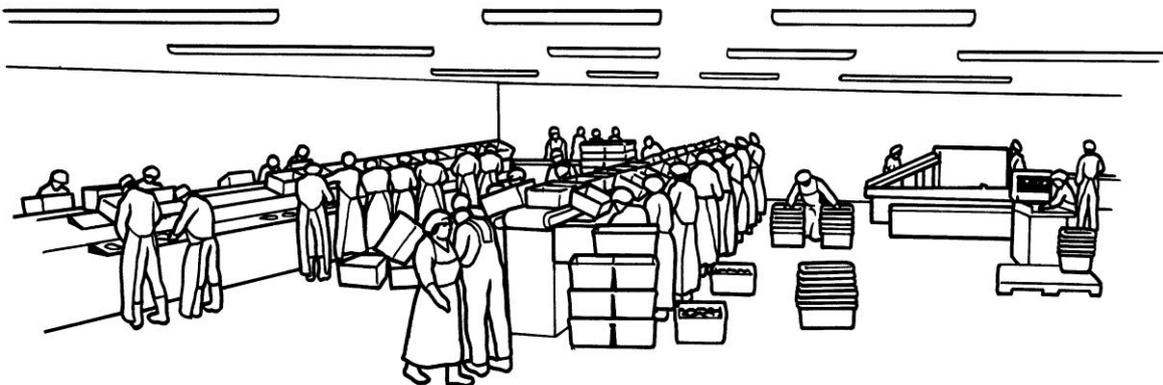
Unsafe conditions are almost always the result of someone committing an unsafe act.

WHY DO WE HAVE ACCIDENTS?

There are many factors that contribute to accidents, injury and occupational illness. These factors may be part of our working environment, the kind of processes and materials used at work or are down to people and human nature.

People factors

Human error is a common cause of health & safety failure, accidents and worse. The Chernobyl nuclear power station disaster (April 1986) was largely due to human error, as were many other major disasters (rail crashes, space shuttle crashes, ships sinking etc.). However, human error or to give it its technical term **people factors**, depends on far more than a person making a mistake.



If you think about how you do your job and all the things that can affect how well you

do it, you will realise that it's not just down to you as an individual. Of course you will have a major effect on your performance, but you will be affected by your working environment and the demands of your job. Let's look at these other factors in more detail before coming back to the people factors.

Environmental factors

Whatever job you do, you will be affected by your working environment.

- How well are you managed at work?
- What level of commitment is shown by management to efficient, effective and safe working?
- Are working shifts too long, too intense, at odd hours of the day (shift working for example)?
- How well is work planned and organised?
- Do you have all the resources you need to carry out your job well?
- Do you have enough time?
- When there is an accident or near miss at work is it properly investigated?
- Is health & safety properly managed at work?
- Is production more important than safety?

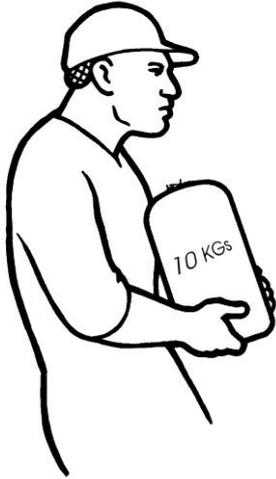
The answers to these questions will show how well your employer manages the business and your work; how committed they are to health & safety; the stresses and strains that production places on the workforce. All of these factors go to make up the safety culture of your organisation.

Occupational or job factors

These are the seemingly minor faults and omissions that can turn a relatively simple and straightforward job into a nightmare.

- Equipment and instruments that do not seem to be designed logically;
- Equipment that is poorly maintained and prone to breaking down;
- Instructions that are missing, or simply do not seem to make sense;
- Poor working conditions;
 - Too hot or cold
 - Too noisy
 - Not enough room
- Distractions, disturbances and interruptions that spoil your concentration;
- Just too much to do;
- Equipment and workstations that seem designed for a giant or a child.

Many of the jobs we are asked to do could be done so much better if a little more thought was put into the layout of the work and the way in which it is done.



Ergonomics is the science of how people and work and equipment all fit together. It's far more than a comfortable driver's seat in a car; it's all about making sure that the workplace, the task, the tools, instructions and person all suit each other. For example, a fish processing company in Scotland used 25Kg bags of dried materials (spices, flour etc.) in preparing sauces. The sauce preparation dept. only employed men as none of the women in the company wanted to work there.

Eventually the company realised the problem, they bought their dried goods in 10Kg bags and now the dept. employs as many women as men, and the men are much happier lifting 10Kg bags as well. A simple change to the job specification also reduced the potential for back injuries.

People vary in their abilities to do a particular job. Variations in physical strength, endurance, mental abilities such as memory, attitudes (positive or negative mental outlooks), motivation and common sense will all add up to someone who is ideal for a particular job, or not.

Some jobs require an individual who can remain focussed for hours on a particular task; others need individuals who are creative. Some jobs involve working with members of the public and others are solitary.

Just as all of these factors affect your ability to do your job consistently well, they also affect your ability to do your job safely.

At the end of the day, although environmental and occupational factors will influence how well and how safely you do your job, it is usually the action of an individual that leads to the accident or near miss.

This final step towards the accident is generally called the human failure and there are two types of human failure: - errors or violations.

1. **Errors** occur when you make a decision or take an action which doesn't have the result you wanted and you accidentally make an error.
2. **Violations** occur as a result of a deliberate action such as cutting corners to save time or because there are not enough staff on duty.

Looked at simply, errors are often due to a lack of training and poor skills within the workforce, while violations are more often due to poor, or lax, management.

From your own experiences, try and identify an example of the various factors that can contribute to human failure, and give an example of an error and a violation.

SAQ An example of a possible Environmental Factor at work could be?

SAQ An example of a possible Occupational Factor at work could be?

SAQ An example of a possible Error could be?

SAQ A possible Violation could be?

WORK RELATED ILL HEALTH

Work related ill health is at least as important as accidents, if not more so.

- There are estimated to have been more 600,000 injuries at work during 2015/16
- There are estimated to have been more than 1,300,000 working people suffering from a work related illness in the same period.
- Working days lost in 2016/16 were 30.4 million, down from 33 million for 2004/05.

While work related accidents may lead to absences of three or more days from work, illnesses can lead to months off work if not permanent incapacity.

These illnesses are occasionally the result of accidents at work – exposure to harmful substances, chemicals, dusts or gases. More often though, they are the result of long term exposure to a harmful condition. Examples from the seafood industry include:

- chronic ill health due to manual handling;
- occupational asthma resulting from exposure to fish protein from processing salmon, trout and shellfish (e.g. scampi processing).
- noise induced hearing loss;
- ill health from long term working in a cold and wet environment.

SUMMARY

In this first segment I have tried to establish why health & safety is important.

The costs for health & safety in terms of financial costs to a business as well as the overall scale of cost in lost working days has been outlined.

Examples of common types and causes of work related accidents and ill health have been given as well as examples of occupational, environmental and people factors which can affect health & safety.

Examples have been provided by you, based on your understanding and experience of your job.

HEALTH & SAFETY TECHNICAL NOTES

Statistics for the food manufacturing industry show the following incidence of accidents and the factors that contributed to them. (Source HSE – note these statistics relate to the early 2000s)

Cause	%age (of all reported accidents)	Most significant factors
Manual Handling	31%	58% of these due to loads too heavy to carry.
Slips and trips	20%♦	62% of these accidents linked to slippery surfaces.
Machinery	11%♣	Conveyors, bandsaws and packaging equipment are the main contributors.
Struck by moving objects	9%	11% of these caused by hand tools such as knives.
Strike against objects	9%	74% of these involve colliding with fixed objects. This suggests that workplace layout is critical.
Exposure	7%	41% of accidents connected to splashes of hot or harmful substances – most commonly cleaning chemicals and ammonia refrigerants.
Falls	6%	47% of these involve stairs.
Transport	3%	Fork lift truck operations caused 86% of the transport-linked accidents.

Overall the food manufacturing industry is almost twice as risky as UK manufacturing generally. Statistics for the fish frying and seafood retail sectors are not available as they are consolidated within the food service and general retail industries.

Over the last 15 years there has been a gradual improvement in the H&S statistics.

The fact to remember: Manual handling, slips, trips and falls account for half of all the accidents.

♦ These actually account for 34% of major injuries.

♣ These account for 22% of all major injuries.