

**ACCIDENT  
INVESTIGATION  
AND  
REPORTING**

# ACCIDENT INVESTIGATION AND REPORTING

## INTRODUCTION

The material in this short booklet has been produced to support an accident investigation and reporting course which can be run.

Although it does not cover in detail all of the subjects that can be discussed on the course, it does aim to provide supporting material in relation to the key aspects. This should prove useful both during the course and for future reference.

It should be remembered that, along with statutory obligations, contractual agreements can be entered into which contain requirements relating to accident investigation and reporting. This is often the case between clients and contractors and between clients and suppliers.

From a health and safety perspective the *primary* purpose of an accident investigation is to identify the causes of an accident in order to suggest remedial action which will prevent a recurrence. This will often involve looking beyond the immediate, or direct, cause to the underlying, or root, causes. Only when all of these have been identified and tackled, can we claim to have taken effective action.

Hopefully you will find both the course and this material beneficial in the important work that you perform.

## **1 BASIC DEFINITIONS**

The term "accident" is defined in the HSE publication *Successful health and safety management (HS(G)65)* as: "any undesired circumstances which give rise to ill health or injury; damage to property, plant, products or the environment; production losses, or increased liabilities".

The same publication suggests that the related term "incident" includes undesired circumstances and near misses with the potential to cause accidents. The key term here being "potential", it is particularly important to investigate incidents which had the potential to cause severe harm even if the actual harm caused was trivial.

In addition, the terms "injury-accident" and "non-injury accident" need to be clearly understood. An injury-accident involves personal injury and may also involve property damage. A non-injury accident involves property damage but no personal injury.

The term "reportable accident" includes those which lead to death, specified injuries, specified illnesses or incapacity for normal work for more than three days. Reportable accidents must be reported to enforcement authorities under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995. Where a fatality occurs, the police must also be informed.

Where applicable, the employer must inform a trade union safety representative after a reportable accident in order to allow that representative to conduct an investigation under the Safety Representatives and Safety Committees Regulations 1977.

Employers occupying a factory, mine, quarry or works or premises where the Factories Act 1961 applies must keep an accident book which meets with the requirements of the Social Security Administration Act 1992. Employers occupying any other premise must keep an accident book where ten or more people are employed at the same time. However, all employers have a legal duty to record accidents and the accident book can be used for this purpose. Additionally, employees have a legal duty to inform their employer if they are injured at work, this can be achieved through completing an entry in the accident book. The approved form of accident book, Form BI 510, is designed to enable compliance with the above requirements and also to assist employers in identifying injuries reportable under RIDDOR 95.

## **2 PROACTIVE AND REACTIVE STRATEGIES**

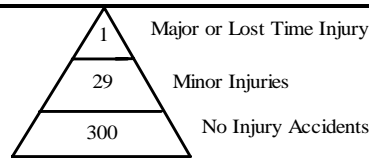
Proactive (sometimes termed Active) monitoring provides feedback on safety performance within an organisation *before* an accident, case of ill-health or an incident. It involves measuring compliance with the performance standards that have

been set and achievement of the specific objectives laid down. The primary purpose of Proactive monitoring is to measure success and to reinforce positive achievements in order to nurture a positive safety culture. It is not intended as a means of identifying and punishing failure. Proactive strategies are built upon Proactive monitoring techniques.

Reactive monitoring measures accidents, cases of ill-health and incidents. The idea being to identify the causes of these failures and to take remedial action which will prevent them occurring again. Whereas information is easier to obtain from serious accidents, it is less easy to obtain from incidents (near misses or "near hits" which could have led to an accident but, fortunately, did not in this particular case). Why do you think this is?

Employees are often under pressure of work and do not realise the importance of filling in yet another form. After all, "it's not as if anyone was actually hurt, is it?" If the safety culture is negative, staff become defensive and adopt the attitude of not reporting anything which may reflect badly upon them. Particularly if safety performance is part of the objectives upon which they are appraised. Only in a positive safety culture, which does not seek out people to blame for organisational failures, where staff members appreciate the importance of incident reports, will adequate information be gained.

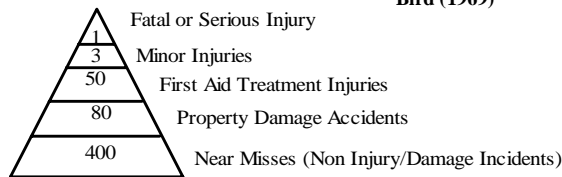
What then is the importance of incident reports? the following diagrams may help you understand the crucial role that they can play in improving safety performance.



**Heinrich (1950)**



**Bird (1969)**



**Tye/ Pearson (1974/75)**

### Conclusions

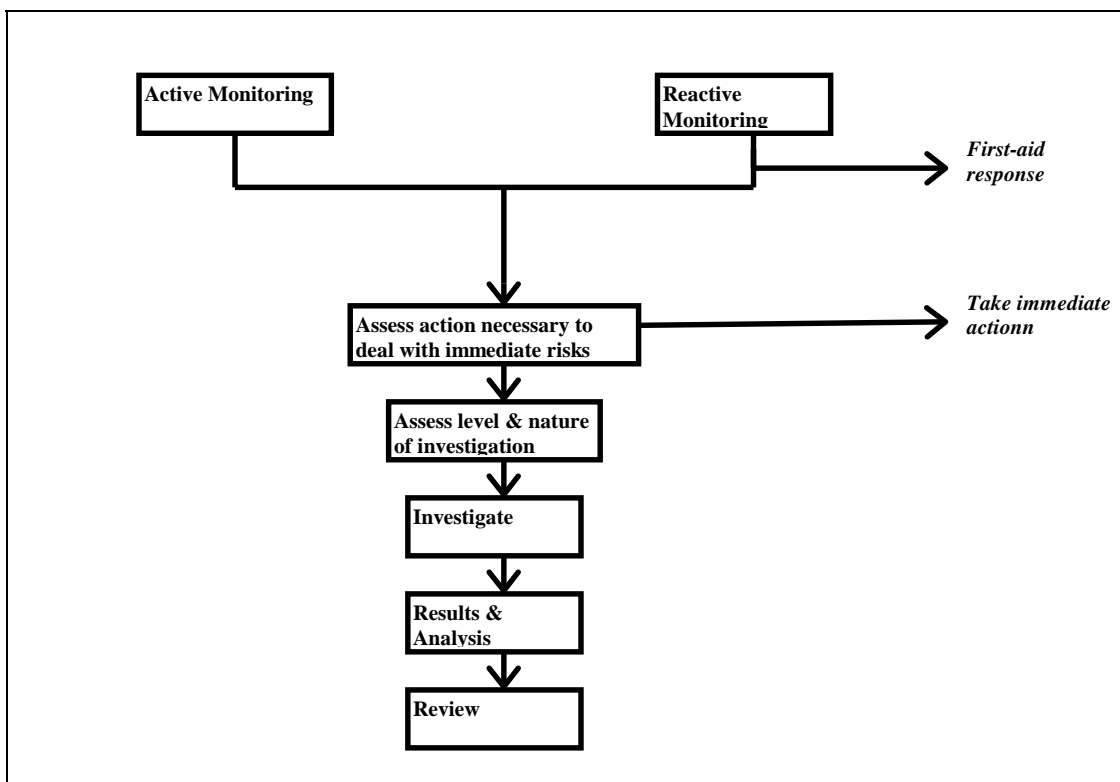
Although the figures vary from study to study, the basic principle remains the same. It was often a matter of chance whether dangerous events caused ill health, injury or damage. The "no-injury" incidents, or "near misses", in each case had the *potential* to become events with more serious consequences. However, not all near misses involve risks which might have caused fatal or serious injury. What all the events do indicate is a **failure of control**. The "near misses" at the base of the accident triangles offer *preventative opportunities*. If action can be taken at this level, the chances of more serious injuries occurring will be greatly reduced.

### *Variations on the Accident Ratio Approach*

It is worth remembering that utilising "near miss" information, in order to take action to prevent a serious accident occurring, is still part of a Reactive strategy. Even though an accident has not occurred, an incident has and you are reacting towards it. By taking action to reduce the base of the accident triangle, you are aiming to prevent serious accidents at the peak of the triangle occurring. Hence the incidents at the base of the accident triangle are often referred to as "preventative opportunities". This ratio between near misses and accidents often becomes obvious during accident investigations. While interviewing witnesses to an accident, it becomes apparent that similar events have frequently happened before. Only, in the past, fortune has smiled upon the participant and prevented a serious injury from occurring.

Reactive strategies incorporate various monitoring techniques for accidents, cases of ill-health and near misses.

Organisations need to combine Proactive and Reactive techniques into an integrated system for investigating, monitoring and responding to changing situations. HSE suggest the following approach in their publication *Successful Health and Safety Management*.



Monitoring health and safety arrangements provides information for putting things right and, in the longer term, for reviewing policy and for organising and planning risk control. The monitoring arrangements check that the management system is working and that the risk control measures are both effective and being maintained. The monitoring arrangements also ensure that you learn from any incidents, accidents or cases of occupational ill health.

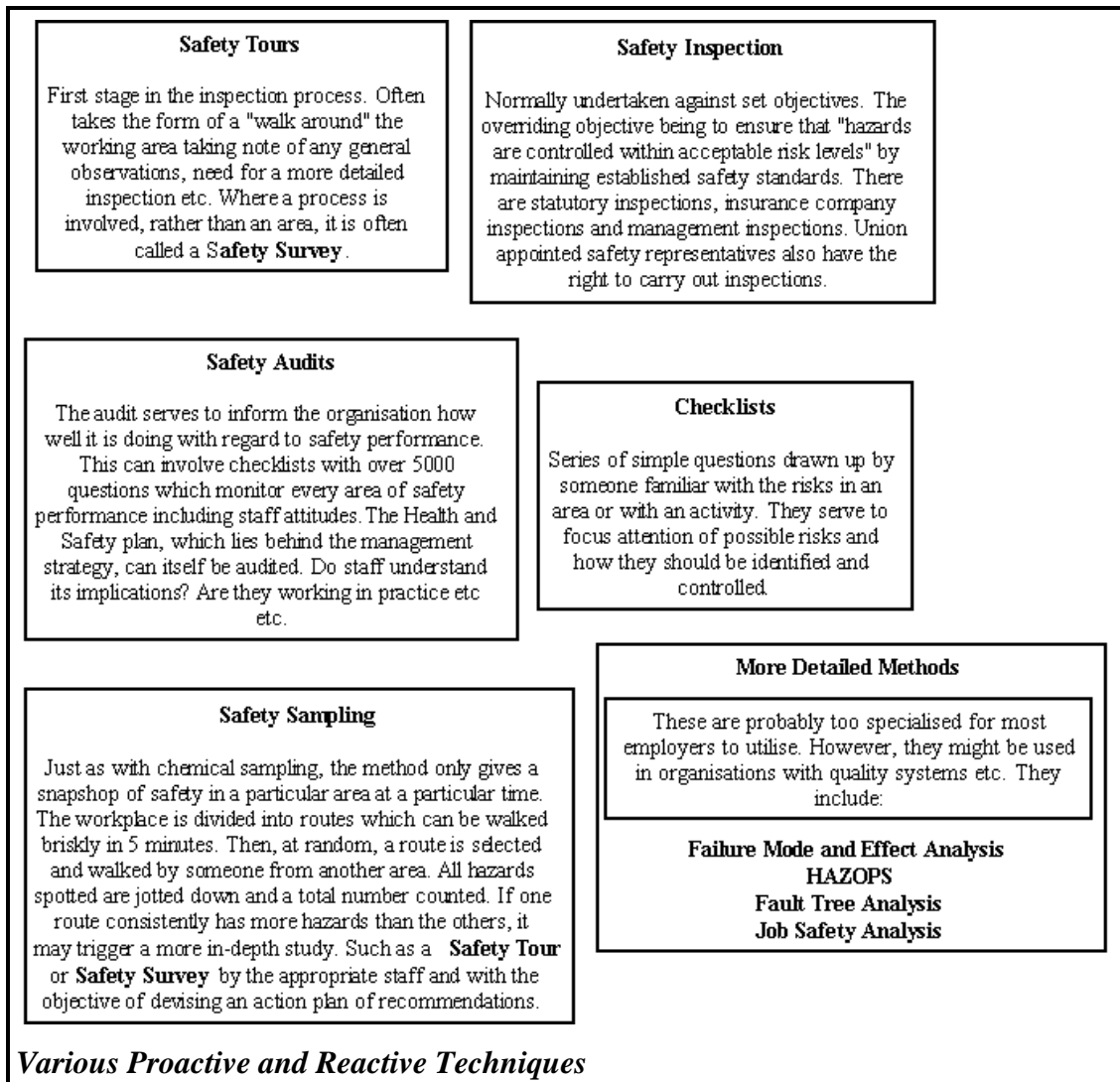
Proactive monitoring aims to ensure that:

- # Inspections and reports are of adequate quality;
- # Common problems / weaknesses are identified;
- # Training needs are met;
- # Deficiencies previously reported are rectified;
- # Resource implications are recognised;
- # Risk assessments remain valid

Whereas, Reactive monitoring deals with:

- # Details of any injured people, including their names, age, sex, job title etc;
- # Descriptions of the circumstances, including date, place, time and conditions;
- # Details of events, including the direct causes of any injury, ill health or other loss and any underlying causes, for example failures in management control;
- # Details of the outcomes, ie nature of injury, damage to property and other losses;
- # Details of remedial actions, both immediate and longer term.

What makes a technique Proactive or Reactive is the purpose to which it is put. That is: either to investigate dangerous situations, with a view to putting them right before an accident occurs; or to investigate accidents that have already occurred with a view to determining their causes and preventing a recurrence. However, some of the following techniques tend to be naturally Proactive or Reactive.



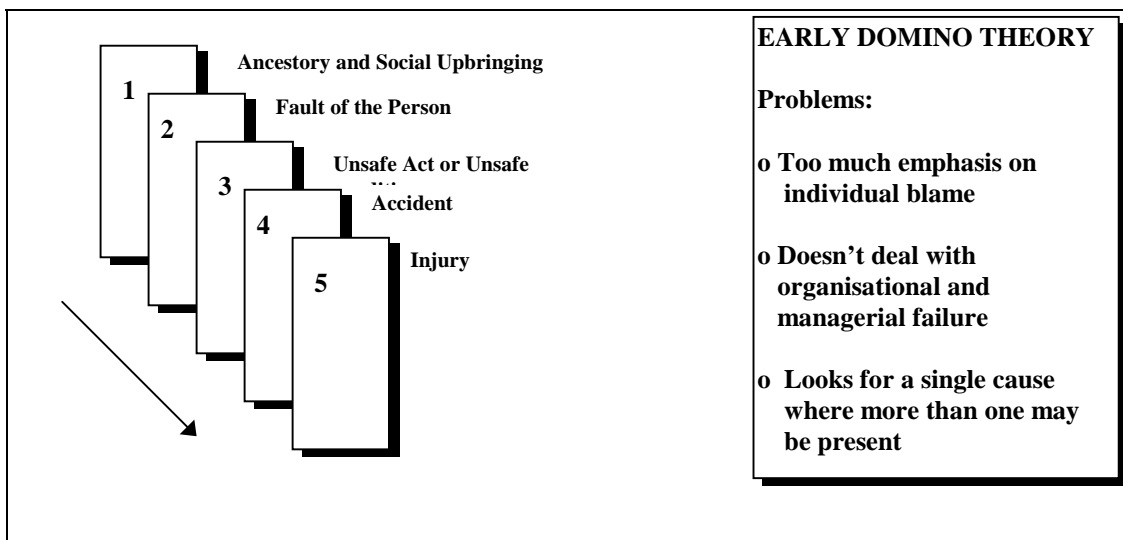
You should now have an appreciation of the difference between Proactive and Reactive techniques. You should also be asking yourself how well the organisations you deal with rate with regard to both. Reactive approaches help you learn from accidents, first aid treatments, cases of ill health and near misses. But, to be purely reactive is always to be "firefighting". Along with Reactive approaches need to go Proactive approaches which aim to predict and control problems before they result in accidents or even "near misses".

### 3 ACCIDENT CAUSATION

When we defined both an “accident” and an “incident” we used terms such as “undesired” and “unplanned”, we did not use the term “uncaused”. If accidents were, in fact, uncaused, then the whole purpose of accident prevention would be defeated. We would merely have to wait around for accidents to occur on a random basis, powerless to take any preventative action. Accidents, however, are caused and often have far more than one cause. The following is a brief outline of some of the accident causation models that can be applied.

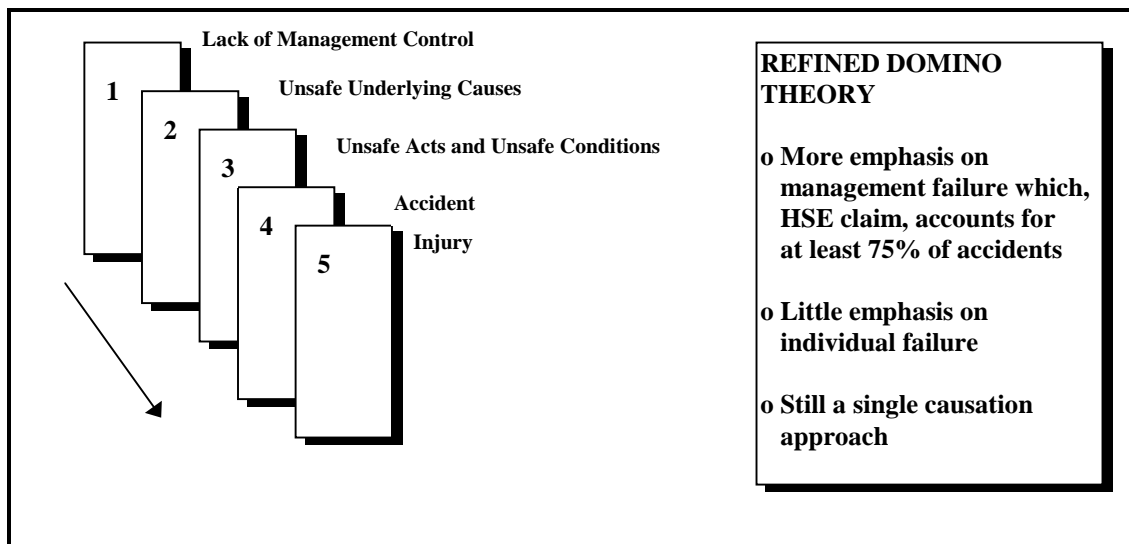
#### *The Domino Theory*

According to the domino theory, the events leading up to an accident are like a row of dominoes. Once one domino has been knocked over, the next event quickly follows. Notice that the accident and the injury have been separated. Why do you think that this is?



Although the accident often occurs at the same time as the injury, losing the top of a finger in a circular saw for example, this is not necessarily always the case. Long latency periods can occur, for example, between the accident of being exposed to a harmful chemical, and the ill-health which results 10-20 years later. Therefore, accident causation models distinguish between the causes of the accident, the accident and the resulting injury.

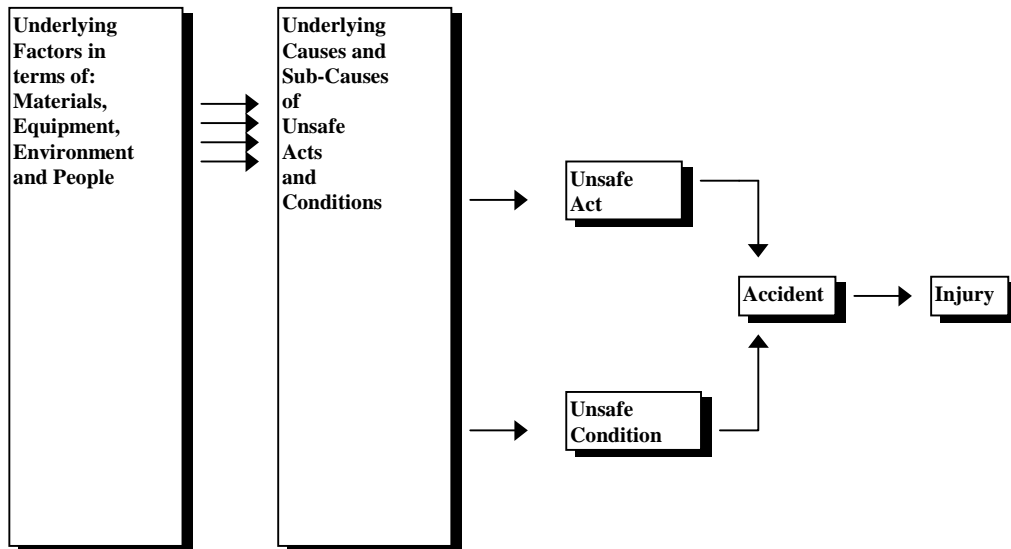
The above Domino model is of very little value in accident prevention terms as it always focuses on the fault of the person. A person may be at fault, but usually there are other causes involved as well. The more refined model, shown below, is of more value.



### *The Tree Diagram*

A more useful technique in analysing the causes of accidents in order that suggestions can be made to deal with both the direct causes and the underlying, or root, causes, is the multi-causal analysis, or tree-diagram. Careful use of this technique can lead to identification of direct causes, indirect causes and underlying factors which contribute to the accident. A good approach to identifying these underlying factors is to use the technique known as **MEEP**. This involves identifying underlying factors relating to:

- o The **M**aterials involved;
- o The **E**quipment being used;
- o The **E**nvironment being worked in; and
- o The **P**eople involved.



Basic Tree Diagram used in Multi-Causal Analysis

It should always be remembered that the above techniques are not “tablets of stone”, they merely offer a method of organising the information which you have obtained through accident investigation in order for you to clearly identify accident causes in order to make recommendations in order to prevent that accident happening again. The multi-causal approach has the advantages of being open-ended so that a wide-range of action can be recommended. Remember, if you only make recommendations to deal with the immediate, or direct, causes, it is unlikely that you will prevent a similar accident happening again. All you have done is to take “firefighting” action in order to gain the time to carry out a thorough investigation.

Consider the following example:

*A cleaner has a hole in his bucket. As a result he spills water onto the floor. An employee is rushing and fails to spot the water. As a result she slips and bangs her head on the floor.*

The direct cause of the accident is the water on the floor and the immediate action involves mopping it up. However, this is not enough to prevent a similar accident occurring again. The following main underlying causes also have to be dealt with:

- o The bucket. It needs to be repaired or replaced. Additionally, other buckets may be in similar condition. Inspection and maintenance systems need to be improved and systems for reporting and dealing with defects introduced.
- o The means of mopping up. Why wasn't this done? Were mops available? Did staff consider it was someone else's job? etc.
- o The employee rushing. Why? Was she carrying out an urgent job? What are the procedures to prevent rushing?
- o Why didn't she see the water? Poor lighting levels? Shadows? etc.

### ***Exercise***

In order to put the above points into practice, consider the following example:

*Two trainees, both under 18 years of age, are working unsupervised with a small firm, they have been asked to clean a large piece of machinery containing heavy steel rollers. They have been given paraffin and rags to carry out the job and have been supplied with cotton overalls.*

*The work involves reaching to a height to clean the rollers. During the course of this activity their overalls become soaked with paraffin. It is a cold day and, at break time, they go and stand by a free standing paraffin stove.*

*The paraffin on the overalls of one of the trainees vaporises and his clothing bursts into flame. He tries to beat the flames out with his hands, but suddenly becomes engulfed in flames. The other trainee runs off to try and find a fire extinguisher.*

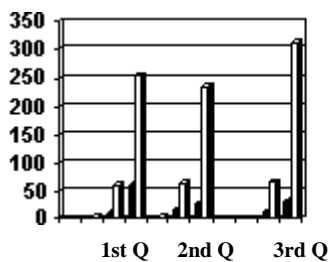
Having considered the above, carry out the following:

- o Analyse the above accident using both versions of the Domino Theory. Making recommendations to prevent the accident occurring again.
- o Analyse the above accident using the Tree Diagram. Making recommendations to prevent the accident occurring again.
- o Discuss which, if any, of the above techniques was most useful in analysing the above accident and which led to the more positive recommendations with regard to accident prevention.

## 4 ACCIDENT STATISTICS

Accident statistics are an important way of determining trends within an organisation and of benchmarking the safety performance of an organisation in relation to the national average for a comparative industrial sector. Trends are more important indicators of health and safety performance than individual accidents.

Take, as an example, the following figures relating to trainees on schemes funded by the former Training and Enterprise Councils.



	April-June 96		July-Sept 96		Oct-Dec 96	
	F	Maj	Min	F	Maj	Min
Min						
Adult	0	9	59	1	15	26
Adult	32					
Youth	3	59	256	2	63	236
Youth	312					

What underlying trends, if any, can be distinguished from the above figures?

In order to standardise accident statistics and to be able to compare the safety performance of one organisation with another, the following types of accident statistic are often kept.

### *Accident Frequency Rate*

$$\frac{\text{total number of accidents}}{\text{total number of person hours worked}} \times 100,000$$

### *Accident Incident Rate*

$$\frac{\text{total number of accidents}}{\text{average number employed during the period}} \times 100,000$$

### ***Annual Injury Incident Rate***

This is the method used by the Health and Safety Executive

$$\frac{\text{number of reportable injuries}}{\text{average number of employees}} \times 100,000$$

### ***Exercise***

Applying the Annual Injury Incident Rate, which of the following organisations would you be most concerned about sending a trainee to?

<b>Company Name</b>	<b>Number of Reported Injuries</b>	<b>Average Number of Employees</b>
Serve U Right Hotel	19	509
Paper Supplies	5	149
Top Gear Manufacturing	17	2507
Waste Water plc	1025	175,345

## 5 ACCIDENT REPORTING

Employers are placed under certain specific duties with regard to the reporting of accidents. In order to fulfil these obligations, managers and supervisors may be allocated certain roles and functions.

Accident records should contain the following information:

- o The date and time of the incident.
- o The full name and address of the person(s) affected.
- o The person completing the entry if different from above.
- o The occupation of the person(s) affected.
- o The nature of the injury or condition.
- o The place where the accident or incident occurred.
- o A brief but clear description of the circumstances.

The date and method of reporting events to the enforcing authority, eg by telephone, must also be kept. The accident book must be retained for at least three years from the last date of entry.

Under RIDDOR 95, when a person not at work is involved in a reportable accident, then the name, status and nature of injury must be recorded as part of the record.

The following steps should take place following an accident or incident:

- o Obtain treatment for any injury.
- o Make the area safe following the incident, except where the accident results in a major injury, in which case the scene should be left undisturbed until advised otherwise by the enforcing authority.
- o Enter details in the accident book.
- o Inform the injured person's manager, or other responsible person.
- o Keep informed of any after-effects of the incident, including periods of total or partial incapacity for work.
- o Carry out an accident investigation with the primary purpose of identifying the causes in order to suggest remedial action in order to prevent a recurrence.

- o Review existing workplace risk assessments and safe systems of work bearing in mind the accident investigation results.

Reporting and recording of accidents alone is unlikely to lead to an improvement in safety performance. Rather, it provides a starting place for the risk management system. Along with meeting legal requirements, the information gained can be used as the focus for accident investigation, as a benchmark to measure improvements against and as a monitor of the effectiveness of existing control measures.

Employers need also to consider the adequacy of existing emergency procedures when investigating accidents and incidents. Specific requirements for emergencies are included in the Management of Health and Safety at Work Regulations 1992. These include:

- o establishing appropriate procedures to be followed in the event of serious and imminent danger.
- o Evacuation where necessary and the appointment of competent persons to supervise evacuation.
- o Restriction of access to danger areas.
- o Warnings and instructions to employees exposed to the danger.
- o Halting of work.
- o Refraining from work until danger areas are made safe.

### **RIDDOR 95**

The Reporting of Injuries, Disease and Dangerous Occurrences Regulations 1995 place duties upon employers, the self-employed and those in control of work premises. Amongst these duties is the requirement to appoint a responsible person to report such injuries, diseases and dangerous occurrences to the Health and Safety Executive. In the majority of cases the duty to report falls upon the person who, for the time being, has control of the premises. This can cause confusion in multiple-occupancy situations and where an employee of a sub-contractor is injured. The key test in each scenario is the “control test”, who had *effective* control at the time of the accident.

RIDDOR 95 requires the following events to be reported if they arise in connection with work:

- o Death of any person within 1 year as a result of an accident.

- o A major injury to someone at work.
- o Any injury, resulting from an accident, that requires immediate hospital treatment.
- o Any specified dangerous occurrence resulting in injury or not.
- o Any accident at work which results in the person being unable to carry out normal duties for more than three consecutive days.
- o A specified disease, diagnosed by a doctor, suffered by a person who's work involves specified activities that are known to be linked to the disease.

In the case of death, major injury or dangerous occurrence, the responsible person must notify the Enforcing Authority by the quickest practicable means (often the telephone) and send a written report, on Form 2508, to the Enforcing Authority within 10 days.

In the case of injuries which are not major injuries but which result in more than 3 days absence from normal duties, only the written report needs to be sent, by the responsible person to the Enforcing Authority, within 10 days.

Once a written statement, such as a medical certificate, has been received from a registered medical practitioner diagnosing a reportable disease, then the responsible person must submit a written report, Form 2508A, to the Enforcing Authority within 10 days.

Strictly speaking a major injury, reportable disease and dangerous occurrence are injuries. diseases and occurrences listed in the schedules of the Regulations. The following are a couple of examples:

o	<b>Major Injuries</b>	Any fracture, other than to fingers, thumbs or toes;  Any amputation.
o	<b>Reportable Disease</b>	Cramp of the hand or forearm due to repetitive movements;  Tetanus.
o	<b>Dangerous Occurrence</b>	Failure of lifting machinery;  Failure of pressure system.

The Regulations require the responsible person to keep records of any reportable injury or dangerous occurrence and any reportable disease. Copies of the appropriate report forms, F2508 and F2508A, being adequate for this purpose. The records need to be kept either at the place where the work to which they relate is carried on, or at the usual place of business of the responsible person. The records must be kept for at least 3 years.

## **6 INVESTIGATION PROCEDURES**

The first step in any accident investigation involves the gathering of factual information. This may involve plans of the workplace, drawings of equipment and witness testimony. An investigation often adopts the following structure:

- o Establishing the essential facts: what happened, how and where, in the correct time sequence.
- o Uncovering the underlying causes in order to complete a multi-causation analysis, bearing in mind factors related to Materials, Equipment, Environment and People (MEEP).

Finding out the facts is not always easy. For example, a key witness may be unavailable or some interviewees may not provide accurate information. Often the person involved in the incident has a memory blank caused by the trauma preventing their short-term memory being recorded in their long-term memory. This can cause them to remember vividly up to the incident and after the incident, but the incident itself is completely forgotten. In other cases there may be obvious reasons why the incident is claimed to be forgotten!

Each statement obtained needs to be charted in a clear, chronological sequence to allow comparison between statements of locations, names, times, actions, consequences and other events. Through comparison, it is often possible to identify any statements which are distorted.

The questions of "how?" and "why?" in relation to causation of an accident or incident are far more subjective issues than the essential facts. Obtaining accurate answers to why certain things happened can be much more difficult than establishing the fact that they did happen. But these answers are essential to identifying the root causes. .

The level of detail required from an investigation should be sufficient to provide a report which can be used to make significant improvements in health and safety management to prevent recurrence of similar or related accidents or incidents. Obviously the more severe the actual or potential consequences of the accident or incident, the more resources need to be devoted to its investigation and analysis. Often accident and incident reports, at supervisory level, cover the following topics:

- o The Incident
  - Did the incident involve:
    - machinery for lifting?
    - pressure vessels?
    - electrical short circuit?
    - overhead electric lines?
    - explosives?
    - explosion?
    - fire?
    - escape of flammable liquid?
    - escape of gas?
    - escape of other substance?
    - escape of pathogen?
    - collapse of building, structure or scaffolding?
    - freight container?
    - pipeline?
    - transport of dangerous substance?
    - failure of Personal Protective Equipment (PPE)?
    - failure of plant or equipment?
    - evacuation procedures?
    - contractors on site?
    - injury?
  
- o The Injury
  - Did the incident result in:
    - fatality?
    - amputation?
    - bone fracture?
    - eye injury?
    - loss of consciousness?
    - electric shock?
    - electrical burns?
    - decompression sickness?
    - first aid treatment only?
    - immediate medical treatment?
    - hospitalisation for 24 hours or more?
    - 3 or more days' absence from work?
  
- o The Immediate Cause of Injury
  - Was the person injured by:
    - contact with moving parts or materials on a machine?
    - being struck by a moving/falling object?
    - being struck by a moving vehicle?
    - striking against something not moving?
    - handling, lifting or carrying a load?
    - slipping, tripping or falling on the same level?
    - falling from a height?
    - being trapped by something collapsing or overturning?
    - drowning or asphyxiation?

- contact with a harmful substance?
- exposure to a harmful substance?
- exposure to fire?
- exposure to explosion?
- contact with electricity or electrical discharge?
- exposure to an animal?

The report may then prompt senior management to prepare a further report which takes the facts contained in the supervisor's report as its starting point. This further report may consider:

- o The circumstances leading to the accident or incident.
- o A description of any vehicles, plant, equipment, parts of premises and substances involved.
- o Any safety policy references, together with proposals for any improvements.
- o Any relevant engineering controls.
- o Any relevant control procedures.
- o Any other relevant procedures.
- o The competencies of relevant managers, supervisors and other staff.
- o The competencies of relevant contractors.
- o Any relevant technical details.
- o The results of any examinations or tests.
- o Where appropriate, the levels of exposure to airborne substances.

In order to be effective, and to allow standardisation and comparison with previous reports, the following classification of the data included in the report should be adopted:

- o Immediate causes.
- o Contributory causes.
- o Hazards.
- o Risk factors.
- o Nature of injury or damage.

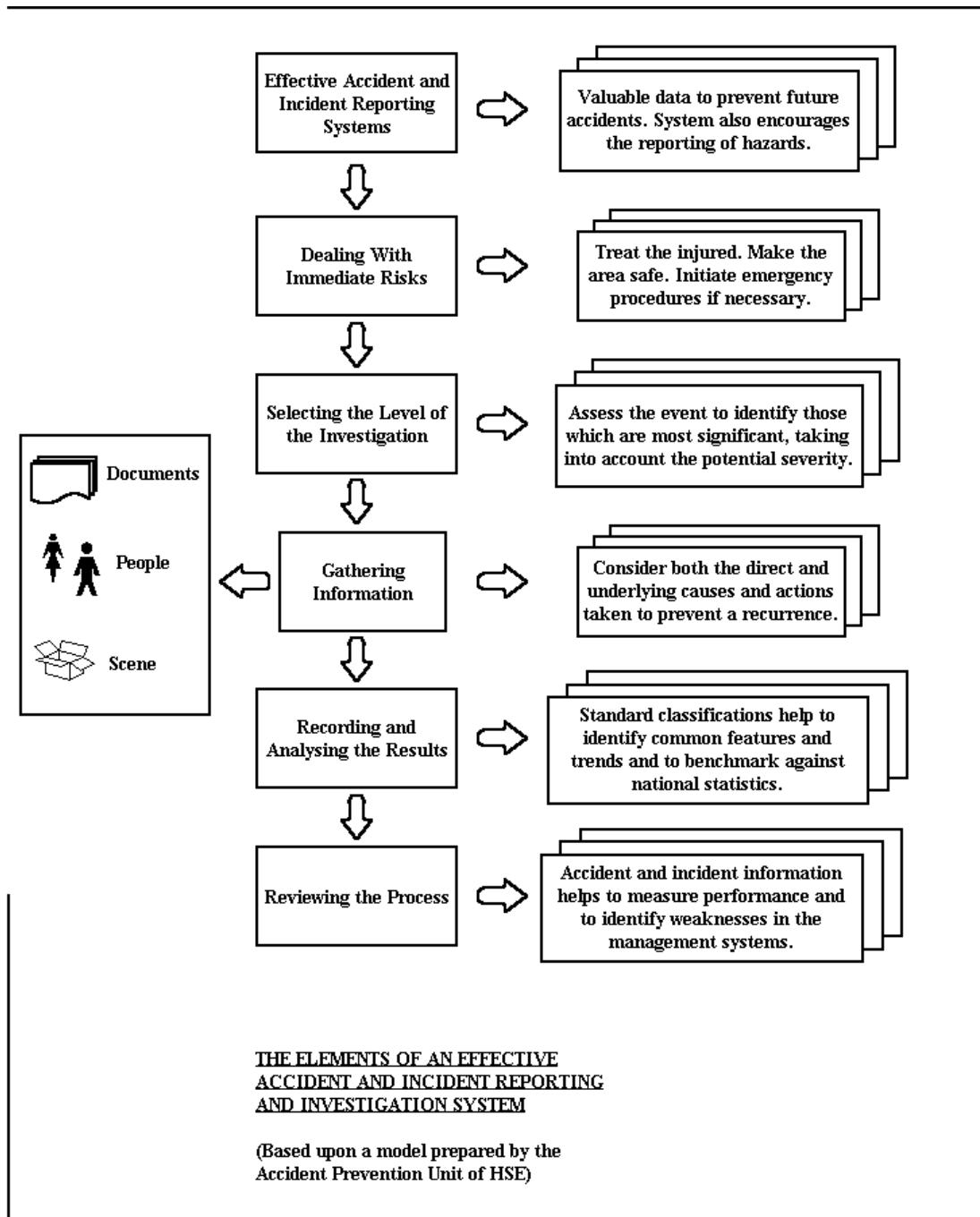
- o Part of body injured.
- o Type of property damaged.
- o Age group and sex of victim.
- o Occupation of victim.
- o Work location.
- o Substances involved.
- o Type of equipment involved.
- o Other matters for classification.

Lessons for risk management may be learned through examining the data relating to a number of accidents and incidents. But, this can only be carried out systematically where the data in each report is classified in a similar way. Additionally, lessons from trends may be learned by comparing accident data between two or more equivalent time periods. This can assist in the measurement of safety performance and ensure that resources are directed effectively to priority areas. In order for employers to compare their own accident experience with national figures, then the categories included in the prescribed form F2508 for reporting under RIDDOR 95 will need to be adopted.

Employers have five main duties to consider in connection with accidents. These are in relation to the following:

- o Emergency procedures.
- o Statutory recording and reporting.
- o Safety representative entitlements.
- o Safety monitoring and identifying the occurrence of accidents and incidents.
- o Safety review and learning from accidents and incidents.

With regard to accident and incident investigation, the following diagram may prove helpful:

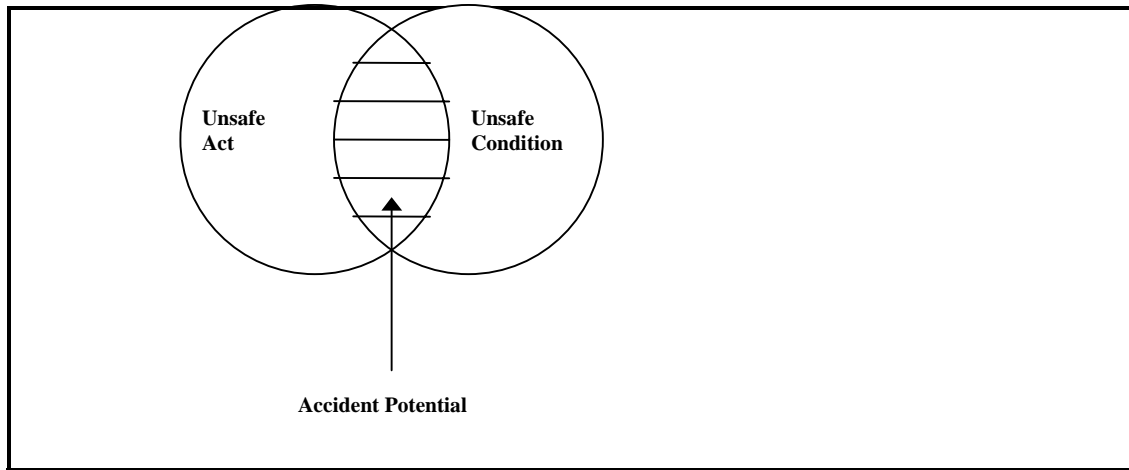


A large number of accidents are caused by unsafe acts or unsafe conditions, or by a combination of both.

Unsafe acts often relate to human factors such as competence, motivation, attitude and perception. They need to be addressed by controls such as culture, training, awareness raising, involvement, empowerment and ownership of safety problems.

Unsafe conditions often relate to physical problems such as lack of machine guarding or high levels of airborne contamination. They need to be addressed through engineering and physical controls.

Only when a safe person works in safe conditions will the potential for accidents be greatly reduced. Therefore, accident investigation needs to concentrate on both unsafe acts and unsafe conditions.



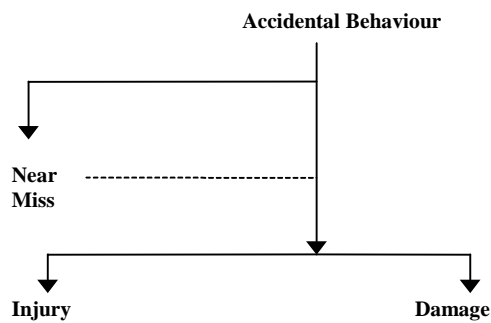
## 7 ACCIDENT PREVENTION

Accident prevention can be defined as “an integrated programme, a series of co-ordinated activities, directed to the control of unsafe mechanical conditions, and based on certain knowledge, attitudes and abilities”. It aims at the removal of mechanical hazards from the environment, and unsafe acts from people, before an accident occurs. The aim being the minimisation of risk, where its elimination is not possible, and the control of any residual risk. This takes the form of an immediate approach, through direct control of employees, machines and the environment. Although a longer term approach, aimed at changing attitude and behaviour through education and training, needs also to be considered.

Accident prevention programmes need to counter the following basic dangers:

- o Physical hazards.
- o Chemical hazards.
- o Biological hazards.
- o Psychological hazards.
- o Ergonomic hazards.

Accident prevention tries to curb accidental behaviour which could result in either a near miss, an injury or a damage accident.



In many ways, accident prevention is the other side of the coin of accident investigation. Prevention aims to prevent accidents occurring, while investigation aims to find the causes of an accident to prevent it happening again. Both approaches require a logical and systematic analysis. Primary safety measures are introduced as remedial measures designed to prevent accidental behaviour occurring, whereas secondary safety measures are remedial actions designed to prevent, or reduce, the seriousness of outcomes from an accident that does occur.

## 8 ACCIDENT COSTS

According to the HSE publication *The costs to the British economy of work accidents and work-related ill-health*, the net cost to individuals of work accidents and work-related ill-health is almost £5 billion per year. The cost to employers is estimated to be between £4 and £9 billion a year and the total cost to society is estimated to be between £11 and £16 billion a year. This last figure is between 2% - 3% of Gross Domestic Product, equivalent to a typical year's economic growth.

The Piper Alpha disaster alone, which involved the loss of 167 lives, is estimated to have cost over £2 billion, including £746 million in direct insurance payouts. As accident and ill-health costs often come out of a variety of budgets (recruitment, training, materials, etc.), many organisations lack a mechanism to identify the costs and to examine them systematically. Valuable resources can be drained from an organisation in this way through the operation of what is known as the “secret siphon”.

In the HSE publication *The costs of accidents at work (HS(G)96)*, a detailed study was made of the losses suffered by 5 organisations through accidents and ill-health. The key findings were:

Organisation	Annualised Loss	Representing
Construction Site	£700,000	8.5% of tender price
Creamery	£975,336	1.4% of operating costs
Transport Company	£195,712	37% of profits
Oil Platform	£3,763,684	14.2% of potential output
Hospital	£397,140	5% of running costs

The study also revealed that only between £1 in every £8 and £1 in every £36 lost was recoverable through insurance, and then at the cost of an increase in premium paid.

Successful managers now treat safety management as an investment rather than as an overhead. For an investment in resources over a short time period, safety standards can be raised. The cost of maintaining this standard then reduces. However; the new standard helps reduce accidents, and their associated costs, over the long term. In this way investing in health and safety management can more than pay for itself. Grasping this essential fact requires a change in perception and attitude at senior management level.

Before placing a trainee with an employer it is essential to check that they have effective accident and incident reporting and investigation systems in place. Also that they appreciate the costs of accidents to their organisation and have a positive health and safety management system in place.