

# **Investigating Accidents and Incidents**

## **Health and Safety Guidance for Managers**

**Issued by Occupational Safety Team**

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### Manager Responsibilities

#### What are my responsibilities as a manager?

You have a legal responsibility to investigate accidents and incidents that occur within your area of line management control and take reasonable steps to prevent a recurrence. This is in addition to your duty to make sure incidents are recorded on the Incident Reporting on Line system.

The amount of time and effort you put into your investigation will depend on the severity of the incident. You will be required to write a report for the more serious incidents where a detailed investigation is undertaken.

You need to decide on the appropriate level of investigation needed for the incident, then: -

1. **Gather information on the incident** - this should be done in a systematic way and explore all reasonable lines of enquiry.
2. **Analyse the information:** -
  - this should be an unbiased process, rely on the facts of what actually happened, not on hearsay, and identify the sequence of events leading up to the incident
  - also identify the immediate causes, underlying causes and root causes of the incident
3. **Assess the risk of a similar incident happening:** -
  - identify any control measures that are lacking or being ignored
  - is there a risk assessment that covers this risk? If not, you should make sure one is done
4. **Identify any additional risk control measures needed to prevent a recurrence:** -
  - compare existing control measures with any guidance provided on that risk area or work activity
  - identify additional reasonable measures you need to take to address the immediate, underlying and root causes of the incident, to stop it happening again
5. **Take action:** -
  - take action to address all the causes of the incident
  - this should include communicating any lessons learned to other areas of the Service/Department where similar incidents could occur. Feedback to Occupational Safety if these might also be relevant to other Departments of the Council.
  - Inform everyone involved of the results of the investigation and what action you have taken (or are intending to take)
  - monitor the progress of any action taken.

#### What support will you receive from Occupational Safety Advisers?

Occupational Safety Advisers : -

- will assist you with investigations of serious incidents and fatalities
- can be contacted for further advice and support if necessary.

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### Introduction

The investigation and analysis of work-related accidents and incidents forms an essential part of managing health and safety.

Incidents happen for a reason and can be avoided with good management. With proper controls and procedures in place, it is possible to reduce the number of incidents and protect staff, and others, from injury.

One of the best ways to reduce incidents is to find out what went wrong and take action to make sure that similar incidents do not happen again. The most effective way to do this is to investigate each incident and find out what caused it.

Simply attributing the incident to human error or blaming the injured person is not helpful and will not lead to any improvement in safety. In most cases there is an underlying reason why the incident happened, e.g. lack of training, inadequate supervision, no risk assessment, no safe system of work etc.

The depth to which an incident needs to be investigated will depend upon the severity (or potential for it to have been more severe) and the likelihood that it will happen again. All incidents represent a degree of failure in control and are potential 'learning experiences'. Therefore, it follows that all incidents should be investigated to some extent. Investigation of "near misses", i.e. incidents where there was no actual injury, can also provide valuable information that could prevent future incidents.

The aim of this guidance is to provide a framework for incident investigation at an appropriate level that ensures that the immediate, underlying and root causes can be identified and remedial action can be implemented.

### Why Investigate Accidents and Incidents?

- to comply with the law
- to gain an understanding of how and why things went wrong
- to identify deficiencies in risk control and to learn lessons which can be applied to other activities
- to discover how work is really done in practice and check that existing procedures are adequate
- to help prevent similar incidents happening (managers could be criticised if previous warnings regarding similar incidents have been disregarded)
- to reduce the costs from the disruption of work and possible legal claims
- to improve the morale of staff who may co-operate more readily with new safety measures if they feel valued and involved
- to provide information in the event of a legal claim

### Near Misses

Investigation of "near misses", i.e. incidents where there was no actual injury, can also provide valuable information that could prevent future incidents.

It is often only by chance that a "near miss" incident does not actually result in an injury.

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These incidents can provide an ideal opportunity to investigate situations or actions that could potentially cause harm, without having to deal with the consequences of an actual injury or legal claim. Valuable lessons can be learned and remedial action can be taken before anyone is harmed.

Managers should encourage staff to report these incidents so appropriate action can be taken.

### **The Level of Investigation Needed**

It is the potential consequences and the likelihood of the incident recurring that should determine the level of investigation, not simply the injury or ill health suffered. For example: Is the harm likely to be serious? Is this likely to happen often? Similarly, the causes of a near miss can have great potential for causing injury and ill health.

When deciding, also consider the potential for learning lessons. For example, if there have been a number of similar incidents it may be worth investigating, even if each single event is not worth investigating in isolation.

Managers have a responsibility to investigate incidents that happen to their staff, or others, within their area of control. Managers need to take adequate steps to ensure they are kept informed about the incidents that occur to their staff.

As with other safety issues, the task of incident investigation can be delegated to a member of staff, however the manager retains responsibility for ensuring that everything reasonable has been done. Ensure the person is competent to do the investigation and they complete the task to an adequate standard. The outcome of any investigation may be asked for by HSE inspectors, safety advisers, insurance etc. and could potentially be used in legal proceedings.

### **Minor Incidents**

Where the incident is of a minor nature and the likelihood of it happening again is small, a brief investigation will be all that is needed.

If there have been a number of similar incidents, there may be underlying problems, so a more thorough investigation may be needed to identify what the causes are. For example, a manager found that in one month staff had had 7 minor falls on a particular corridor, near the main door where the floor had a linoleum covering. The investigation found that the cleaners had changed the cleaning product recently and it was incompatible with the flooring, so when people walked on it with wet shoes (because it was raining outside) they were likely to slip and fall. The manager asked the cleaning supervisor to change to a different product and the incidents stopped.

### **Moderate and Serious Incidents**

If the incident is of a more severe nature (or could potentially have been) and/or the likelihood of it happening again is high, the manager should carry out a detailed investigation. Obtain the relevant information e.g. by talking to the injured person and any witnesses to the incident; assess the incident site and record what happened. Identify any lessons to be learned and take action to prevent it happening again. Review relevant risk assessments, working procedures etc.

For serious incidents, safety advisers may assist in the investigation and in the case of fatal accidents the HSE and Police will also be involved.

### Before Investigation

For all incidents, the manager should make sure that: -

- any emergency action required is taken, e.g. give first aid where needed
- the area is made safe and the scene of the incident preserved
- the names of people involved are recorded, including any witnesses
- details of any equipment used is recorded, together with identification numbers
- the incident is recorded using the Incident Reporting on Line system.

Decide on the level of investigation needed and who will do it. Consider what could potentially have been the worst case scenario when making these decisions.

### What Does a Good Investigation Involve?

An effective investigation requires a methodical, structured approach to information gathering, collation and analysis. The findings of the investigation will form the basis of an action plan to prevent the accident or incident from happening again and for improving the overall management of risk. The findings will also point to areas of the risk assessment that need to be reviewed. This link with risk assessment is a legal duty.

The objective is to find out how the incident happened, and what allowed it to occur in the first place. It is important to -

- start the investigation as soon as possible after the event, while the incident is fresh in peoples' minds and the scene of the incident has not been disturbed. (In some cases certain steps, such as administering first aid and making the scene safe, have to be taken immediately)
- adopt a systematic approach – avoid jumping to conclusions
- conduct the investigation with prevention in mind, not finding someone to blame for it
- analyse all the information available, including (where appropriate) physical evidence about the scene of the incident, witness statements and written documents such as risk assessments, procedures, permits to work etc. to find out what went wrong
- identify the immediate causes of the incident (e.g. trailing cable tripping hazard), the underlying causes (i.e. previous actions which have allowed unsafe practices or conditions to exist, e.g. people ignoring the tripping hazard) and the root causes (poor supervision, poor planning etc.)
- find out what needs to be done to prevent it happening again.

The root cause of adverse events can almost always be traced to failings in management systems, organisation or planning. It is therefore important that staff understand the health and safety policy and procedures relating to their work.

### Conducting the Investigation

#### Step 1 Information Gathering

Begin as soon as possible after the incident and gather the facts - the Incident Report, recorded on the Incident Reporting on Line system, would be a good place to start, if one has been completed.

Speak to everyone involved and witnesses to the event. Ask them what they heard and saw.

Inspect the site as soon as possible - note position of people, equipment; condition of site; substances in use at the time; PPE worn.

Make appropriate sketches, take photos and measurements and inspect documentation.

Keep detailed notes, as this will be helpful when analysing information later. Keep an open mind and be objective.

The type of questions to ask is: -

- where and when did the incident happen?
- who was injured / suffered ill health or was otherwise involved?
- how did the event happen? Describe the chain of events leading up to, and immediately after, the incident. Often a number of chance occurrences and coincidences combine to create the circumstances in which an incident can happen.
- note any equipment involved. Plant and equipment that had a direct bearing on the incident must be identified clearly. Note any modifications made to the equipment; its position and the position of the machinery controls immediately after the incident.
- what activities were being carried out at the time? Were they authorised?
- was there anything different or unusual about the working conditions?
- was there adequate safe working procedures? Were they followed?
- what injuries or ill effects, if any, were caused; was first aid given?
- was there an injury, how did it occur and what caused it? (e.g. John slipped and fell. Oil spilt on the floor caused him to slip)
- was the risk known? If so, why wasn't it controlled? If not, why not? Were the hazards and risks communicated to those who needed to know?
- was the maintenance and cleaning sufficient? Lack of maintenance and poor housekeeping are common causes of incidents. Was the state of repair and condition of the workplace, plant and equipment such that they contributed to, or caused the incident?
- did the organisation of the work affect the incident? Check standards of supervision; (were the supervisors themselves sufficiently trained and experienced?); inappropriate working practices; lack of skills or knowledge; lack of planning.
- were the people involved suitably trained and competent? Did they appreciate the potential risks? e.g. young workers and new staff require additional supervision.
- was the workplace layout a problem e.g. was there enough room to move around?
- were the materials involved hazardous, heavy, hot etc.?

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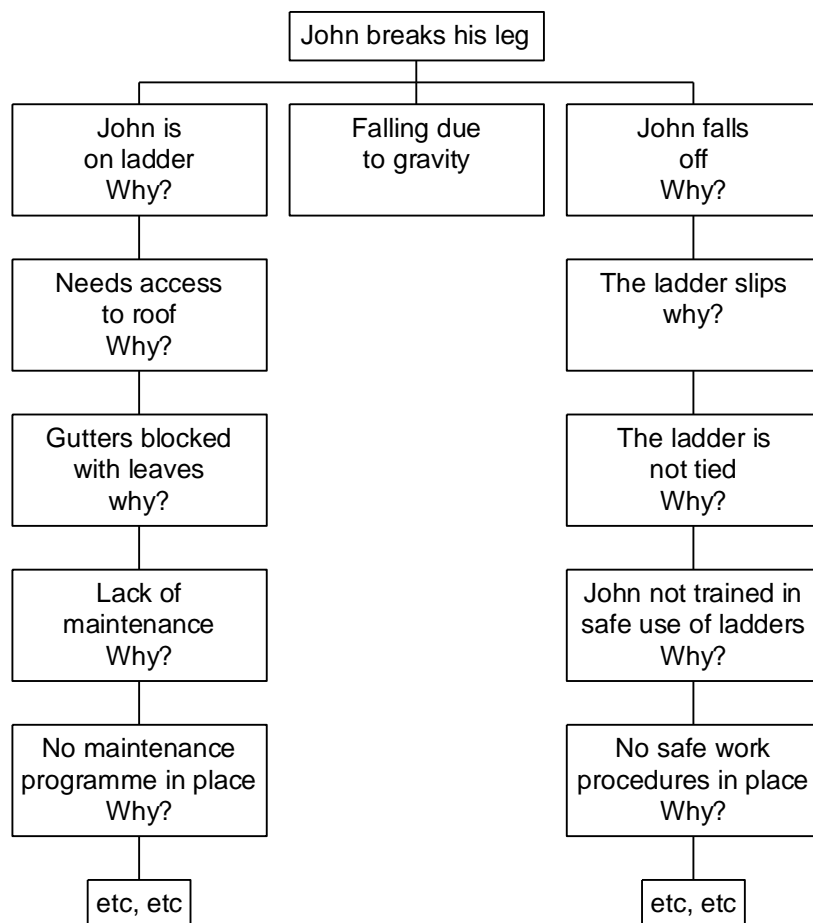
- was any equipment involved difficult to use?
- was safety equipment available and was it being used?
- were there any other factors that influenced the event, e.g. weather, sabotage, disability, misunderstandings etc.?
- is there a written risk assessment for the process or task that led to the incident? Is it 'suitable and sufficient'? Were the risk control measures identified as being necessary ever adequately put in place?

**Interviewing the person/people involved, and witnesses**, is important, and ideally this should be in familiar surroundings so not to make them uncomfortable. Interview style is important with the emphasis on 'prevention' rather than 'blame'. The person should give an account of what happened in their own terms rather than the investigators. Interviews should be separate to stop people influencing each other. The questions should not be intimidating and the interviewer should not be seen as aggressive, or reflecting a blame culture.

### Step 2 Analysis of Information

Examine all the facts collected. Organise the information. Decide what is relevant and what is not, and what information is still missing. Look at what happened and why, to determine the immediate, underlying and root causes of the incident.

The key to a detailed analysis is to keep asking **"WHY?"** until the question is no longer meaningful. For example: -





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- **The immediate cause** of John breaking his leg was falling from the ladder because the ladder was not properly tied.
- **The underlying causes** were that John wasn't trained in ladder safety and possibly shouldn't have been doing the job anyway.
- **The root causes** were lack of proper work procedures, training and management.

Both the immediate and the underlying causes of an incident are key to preventing similar incidents through the design of effective control measures. Typical examples of immediate causes and underlying causes are:-

### Job factors

- illogical design of equipment and instruments
- constant disturbances and interruptions
- missing or unclear instructions
- poorly maintained equipment
- high workload
- noisy and unpleasant working conditions

### Individual factors

- low skill and competence levels
- tired staff
- bored or disheartened staff
- individual medical problems

### Organisation and management factors

- poor work planning, leading to high work pressure
- lack of safety systems
- inadequate responses to previous incidents
- management based on one-way communications
- deficient co-ordination and responsibilities
- poor management of health and safety
- poor health and safety culture.

**Root causes** - the failure from which all other failings grow, often remote in time and space from the adverse event (e.g. failure to identify training needs and assess competence, low priority given to risk assessment).

Root cause failures provide as great, if not greater, potential danger to health and safety as the immediate and the underlying causes.

Typical examples of **root causes** are: -

- failures in health and safety management systems (design, implementation or monitoring).
- poor design of plant and equipment
- ineffective training
- inadequate supervision
- ineffective communications
- inadequate resources (e.g. people and equipment)
- uncertainties in roles and responsibilities.

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### Human error

If the investigation concludes that errors or violations contributed to the incident, consider carefully how to handle this information. Not addressing the 'human' factors greatly reduces the value of the investigation.

The objective of an investigation is to learn the lessons and to act to prevent recurrences, through suitable risk control measures and this is not possible unless the workforce co-operates. Laying all the blame on one or more individuals is counter-productive and runs the risk of alienating the workforce and undermining the safety culture, crucial to creating and maintaining a safer working environment.

Speak to those involved and explain how their action(s) contributed to the incident. Invite them to explain why they did what they did. This may help to understand the reasons behind the immediate causes and point to the underlying causes e.g. perhaps the production deadline was short, and removing the guards saved valuable time; maybe the workload is too great for one person.

When considering how to avoid human failings, bear in mind the fact they do not happen in isolation. Consider the following factors that can influence human behaviour -

- skill-based errors such as a slip or lapse of memory e.g. when doing repetitive tasks. (These can generally be foreseen and controlled)
- mistakes or errors of judgement, e.g. when the wrong rule is applied in a certain situation. (Training, safe working procedures and equipment design can remedy these problems)
- deliberate rule breaking or cutting corners to save time or effort, often based on the belief that the rules are too restrictive and are not enforced e.g. operating a circular saw bench with the guard removed. (This type of behaviour can be foreseen. The provision of training, simple practical rules, and routine supervision and monitoring of performance will reduce this type of behaviour.)
- job factors, e.g. time available too short, high level of attention required, divided attention or distractions present.
- human factors, e.g. physical ability, skills of individual, fatigue, stress, morale, alcohol or drugs.
- organisational factors, e.g. work pressure, supervision, long hours; availability of sufficient resources; the safety culture.
- plant & equipment factors, e.g. easy to read/operate controls? user-friendly workplace layout?

### Step 3 Identify Suitable Incident Prevention Control Measures

When the immediate, underlying and root causes of the incident have been identified, it will have highlighted areas where current control measures have failed or do not exist. The investigation should also have prompted ideas for further control measures to prevent or reduce the risk of a similar incident.

Consider measures that: -

1. eliminate the risk (e.g. remove a hazardous substance and substitute with a non hazardous substance)

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2. reduce the risk (e.g. by providing manual handling equipment rather than lifting manually)
3. introduce safe working procedures (e.g. provide training)

Also consider whether the control measures could be applied to other, similar activities that have not yet caused an incident.

**For further information about selection of control measures, see guidance on the Occupational Safety Website.**

### Step 4 Preventing a Recurrence

The manager is responsible for taking reasonable action to prevent a recurrence of the incident by implementing any control measures identified and monitoring their effectiveness.

It may be necessary to prioritise the control measures in order of importance. In deciding the priorities, be guided by the magnitude of the risk ('risk' is the likelihood and severity of harm). Ask 'What is essential to securing the health and safety of the staff etc. today?' What cannot be left until another day? How high is the risk if this control measure is not implemented immediately? If the risk is high, act immediately. Managers will, no doubt, be subject to financial constraints, but failing to put in place measures to control serious and imminent risks is totally unacceptable. Either reduce the risks to an acceptable level, or stop the work.

All relevant staff must be advised of the control measures that have been/will be introduced.

Where there are any lessons to be learned which would prevent a similar incident happening in another area, pass details of these on to other managers in the Department/Service (and to Occupational Safety if it could apply in other areas of the Council).

### **Risk Assessments**

As a result of the incident and investigation, all relevant risk assessments and safe working procedures must be reviewed and amended where necessary, or new ones completed where none previously existed. (Failing to review relevant risk assessments after an incident would be contravening the Management of Health and Safety at Work Regulations 1999 regulation 3.) Record the action taken and give appropriate timescales for the implementation of outstanding action.

It is important that managers take a step back and ask what the findings of the investigation reveal about the risk assessments in general. Are they really suitable and sufficient?

**For further information and guidance on risk assessment, see the Occupational Safety Website.**

**Reference** Investigating Accidents and Incidents HSG 245 [www.hse.gov.uk](http://www.hse.gov.uk)