

## Investigation Process

### Approach to Accident Investigation

Effective accident investigation requires a methodical, structured approach to information gathering, collation and analysis.

Well thought out risk control measures, combined with adequate supervision, monitoring and effective management will ensure that your work activities are safe.

The findings of the investigation will form the basis of an action plan to prevent accidents / incidents from happening again and also improve your overall management of risk.

Health and safety investigations are an important tool in developing and refining your risk management system.

When the need for an investigation arises you should ask yourself the following:

1. Which events should be investigated?
2. Who should carry out the investigations?
3. When should the investigation commence?
4. What should / does the investigation involve?
5. What makes a good investigation?

### Immediate Response

Immediate response to an adverse event should cover:

- ❖ **Emergency response:**
  - Take prompt emergency action (e.g. First aid)
  - Make the area safe
- ❖ **Initial report:**
  - Preserve the scene
  - Record details of people, equipment involved and witnesses
  - Report the adverse event to the person responsible for health and safety on site
- ❖ Report the adverse event to the regulatory authority and local authority, if appropriate!

### RIDDOR

For those accidents and dangerous occurrences that are reportable under the provisions of 'Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013'; this information must be notified to the enforcing authority.

You must keep a record of the reports you make that are required under RIDDOR. This can be achieved by:

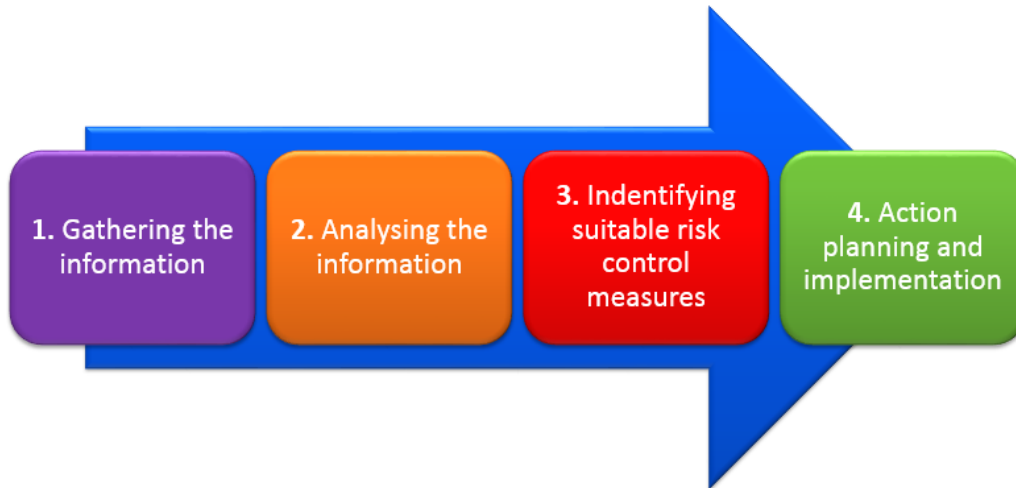
- ❖ Keeping a copy of the form
- ❖ Recording the incident in the accident book
- ❖ Recording the incident electronically

**Prompt notification of RIDDOR reportable events is a legal requirement!**

Subsequently, you need to decide on the scale of the investigation, who will conduct it, resources required and then brief the team.

### Conducting Investigations

There are four major steps to take following an adverse event:



#### Step One - Gathering Information

Find out what happened and what conditions and actions influenced the adverse event. Begin straight away, or as soon as practicable.

It is important to capture information as soon as possible. This stops it being corrupted, e.g. items moved, guards replaced etc. If necessary, work must stop and unauthorised access be prevented!

Talk to everyone who was close by when the adverse event happened, especially those who saw what happened or know anything about the conditions that led to it.

The amount of time and effort spent on information gathering should be proportionate to the level of investigation. Collect all available and relevant information. That includes opinions, experiences, observations, sketches, measurements, photographs, check sheets, permits-to-work and details of the environmental conditions at the time etc. This information can be recorded initially in note form, with a formal report being completed later. These notes should be kept at least until the investigation is complete.

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**Gathering the information** – Begin straight away, or as soon as practicable. *Questions you can ask* (Note these are expanded further within HSG245):

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|---|--|--|
| 1. Where and when                                 | 7. What injuries or ill health                     | 13. Did workplace layout influence event             |
| 2. Who / what was involved                        | 8. How did injury occur / what caused it           | 14. Did nature or shape of materials influence event |
| 3. How did it happen (chain of events)            | 9. Was the risk known?                             | 15. Did difficulties using plant influence events    |
| 4. What activities were being undertaken          | 10. Did organisation & arrangement influence event | 16. Was safety equipment sufficient                  |
| 5. What was unusual or different                  | 11. Was maintenance & cleaning sufficient          | 16. Did other conditions influence events            |
| 6. Were standard ops proc. available and followed | 12. Competent & suitable personnel                 |  |

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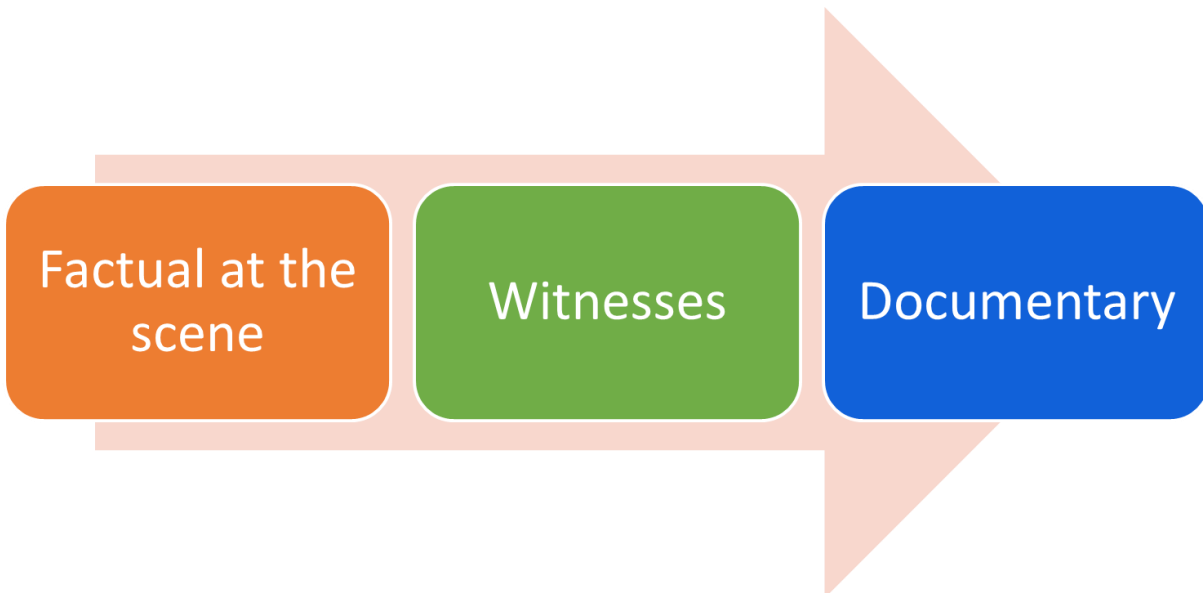
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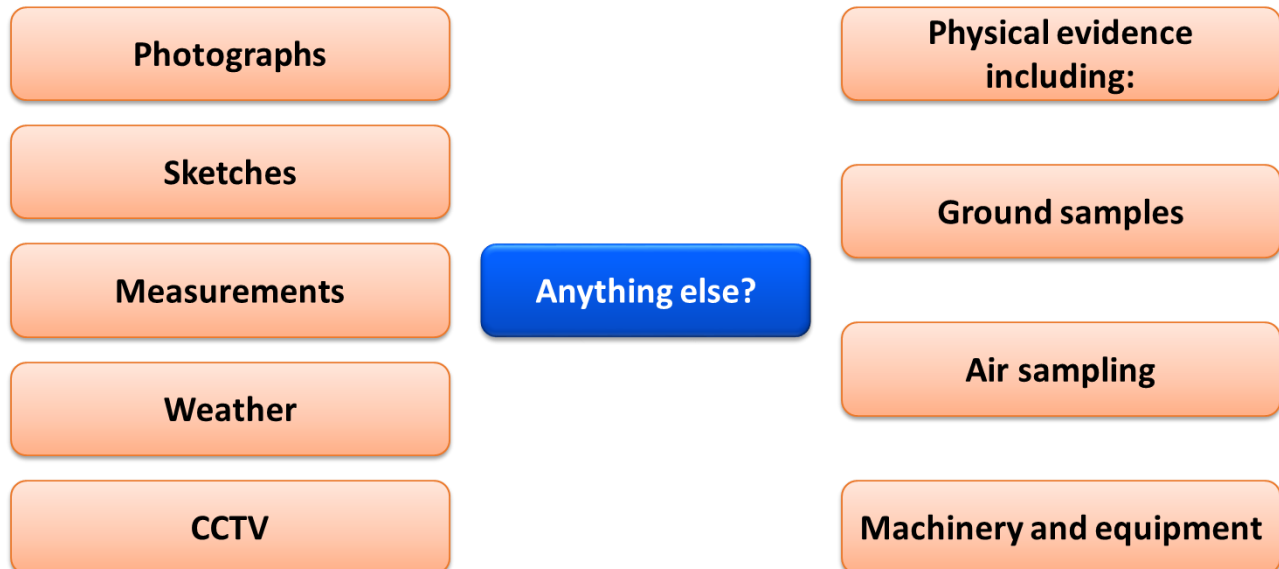
### Sources of Information

There are a range of sources that should be examined when gathering information these cover three main areas:



## Factual at the Scene

The scene provides a rich source of information, this needs recording to preserve for further review. Investigators should also be prepared to take samples and readings and must have appropriate equipment with them. *Types include:*



## Witnesses

A Witness is someone who can give a first-hand account of something seen, heard, or experienced this can include people at the scene or near the area. *Some key factors to remember when interviewing witnesses are:*

- ❖ **Timing** – How soon after the event can the interview be conducted
- ❖ **Location** – This is important to avoid distractions and interruptions as well as allowing the witness privacy
- ❖ **Details** – Gather brief outline details at the scene if possible
- ❖ **Notes** – Record the interview, via notes or voice, get the witness to sign
- ❖ **Open Minded** – Do not judge the person or their statement until you have ALL facts
- ❖ **Location** – This is important to avoid distractions and interruptions as well as allowing the witness privacy
- ❖ **Positioning** – location when the event happened, does this tie in with what they could see and hear
- ❖ **Relationship** – Establish a trust and a rapport with the witness
- ❖ **Use open question techniques** – What, Where, When, Who and How. Remember closed questions may still be useful (Those that require Yes / No.)



## Step Two – Analysing Information

This should be unbiased and involves examining **all the facts**, determining what happened and why.

All the detailed information gathered should be assembled and examined to identify what information is relevant and what information is missing, analysis and information gathering usually happens jointly. *Analysis should drill through:*

**Immediate causes**

**Underlying causes**

**Root causes**

Key within this analysis is looking at the human factors that influenced this – what are human factors though?

### Human Factors

Human factors refer to environmental, organisational, work activities, and human / individual characteristics, which influence behaviour at work in a way which can affect health and safety, Or ...

### Why people get it wrong?

Human Factors are concerned with:

- ❖ **What** people are being asked to do (the job and its characteristics)
- ❖ **Who** is doing it (the individual and their competence)
- ❖ **Where** they are working (the organisation and its attributes), all of which are influenced by the wider societal concern, both local and national

Job Factors:

- ❖ How much attention is needed for the task (both too little and too much can lead to higher error rates)?
- ❖ Divided attention or distractions are present
- ❖ Inadequate procedures
- ❖ Time available

Organisational Factors:

- ❖ Work pressure, long hours
- ❖ Availability of sufficient resources
- ❖ Quality of supervision
- ❖ Management beliefs in health and safety (the safety culture)

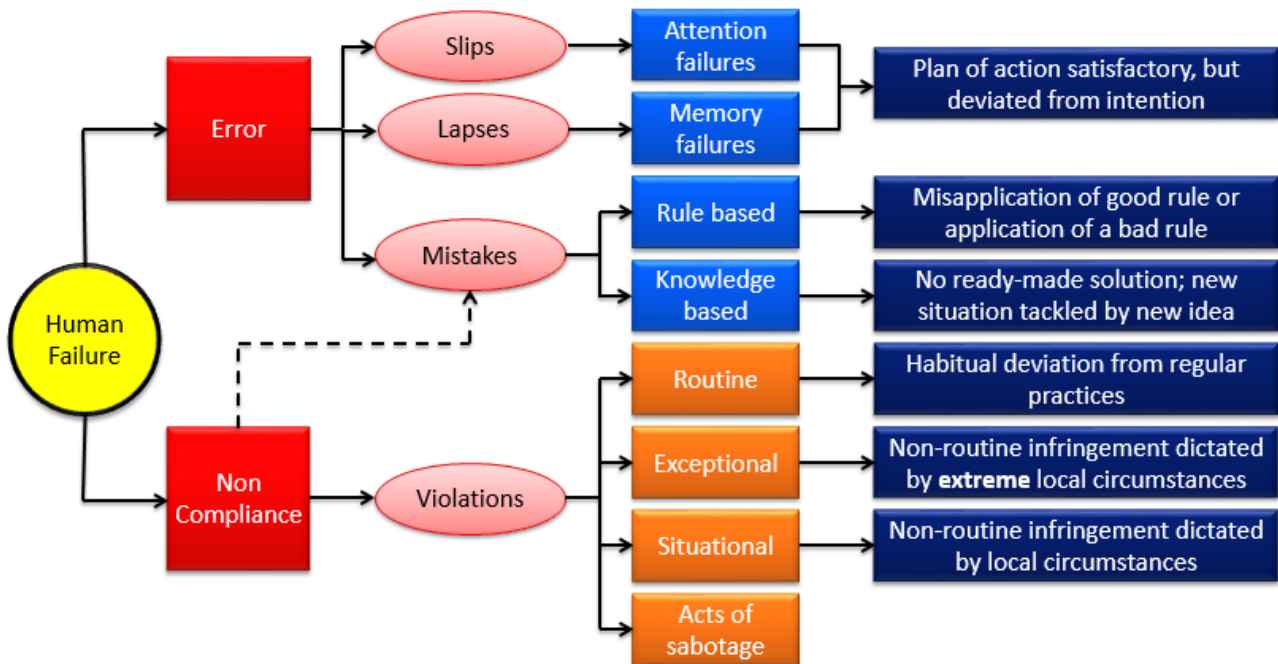
Individual /Human Factors:

- ❖ Physical ability (size and strength)
- ❖ Competence (knowledge, skill and experience)
- ❖ Fatigue, stress, morale, alcohol or drugs

Plant and Equipment Factors:

- How clear and simple to read and understand are the controls?
- Is the equipment designed to detect or prevent errors?
- Is the workplace layout user-friendly?

## Types of Human Failing



## Step Three – Identifying Control Measures

The methodical approach adopted in the analysis stage will enable failings and possible solutions to be identified. These solutions need to be systematically evaluated and only the optimum solution(s) should be considered for implementation.

If several risk control measures are identified, they should be carefully prioritised as a risk control action plan, setting out what needs to be done, when and by whom. *The report should identify:*

What risk control measures are needed/recommended?

Do similar risks exist elsewhere? If so, what and where?

Have similar adverse events happened before?

When considering suitable risk control measures:

- ❖ Identify the risk control measures that were missing, inadequate or unused
- ❖ Compare conditions / practices with those required by current legal requirements, codes of practice and guidance
- ❖ Identify additional measures needed to address the immediate, underlying and root causes
- ❖ Provide meaningful recommendations which can be implemented

