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## The Investigation Process

There are 4 steps to the investigation process



## Step 1: Gather data

An open mind is necessary in an investigation: Preconceived ideas may result in wrong paths being followed while leaving significant facts uncovered. All possible causes should be considered. Making notes of ideas as they occur is a good practice but avoid making conclusions until all the data is gathered.

### Physical Evidence

Examine the crash site for a quick overview, take steps to preserve evidence, and identify all witnesses. Physical evidence is the most non-controversial information available, but is also subject to rapid change or obliteration, so it should be recorded first.

You might check items such as:

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- |                                     |                        |
|-------------------------------------|------------------------|
| ▶ positions of injured workers      | ▶ damage to equipment  |
| ▶ equipment being used              | ▶ housekeeping of area |
| ▶ products being used               | ▶ weather conditions   |
| ▶ safety devices in use             | ▶ lighting levels      |
| ▶ position of appropriate guards    | ▶ noise levels         |
| ▶ position of controls of machinery | ▶ time of day          |
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Take photographs, of the general area and specific items, before anything is moved. The pictures may later reveal conditions or observations that were missed initially. Sketches of the scene based on measurements taken may also help in later analysis.

**Interview witnesses** Witnesses may be your primary source of information because you may be called upon to investigate an incident without being able to examine the scene immediately after the event. Interviewing witnesses is the hardest task facing an investigator as they may be under severe emotional stress or afraid to be open for fear of recrimination.

Witnesses should be interviewed as soon as possible after the incident. They should be kept apart to prevent individual perceptions being lost, and should be interviewed alone, rather than in a group, either at the scene or in a quiet office with fewer distractions.

**Tips for Interviewing** The purpose of the interview is to establish an understanding with the witness and to obtain his or her own words describing the event.

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## Do

- ▶ Put the witness at ease
- ▶ Emphasise the reason for the investigation is to determine what happened and why
- ▶ Let the witness talk
- ▶ Confirm that you have the statement correct
- ▶ Try to sense any underlying feelings of the witness
- ▶ Make short notes or ask someone else on the team to take them during the interview
- ▶ Ask if it is okay to record the interview, if you are doing so
- ▶ Close on a positive note

## Do not

- ▶ Intimidate the witness
- ▶ Interrupt
- ▶ Prompt
- ▶ Ask leading questions
- ▶ Show your own emotions
- ▶ Jump to conclusions

### Ask these general questions:

- ▶ Where were you at the time of the incident?
- ▶ What were you doing at the time?
- ▶ What did you see and hear?
- ▶ What were the work environment conditions (weather, light, noise, etc.) at the time?
- ▶ What was (were) the injured worker(s) doing at the time?
- ▶ In your opinion, what caused the incident?
- ▶ How might similar incidents be prevented in the future?

Care must be taken to assess the accuracy of any statements made in the interviews. Another technique used to determine the sequence of events is to re-enact them in slow motion as they happened.

**Other Information** Data can be found in documents, such as technical data sheets, health and safety committee minutes, inspection reports, organisation policies, maintenance reports, past incident reports, safe-work procedures, and training reports. Any relevant information should be studied.

## Step 2: Analyse your findings

At this stage most of the facts about what happened and how it happened should be known. Now comes the key question: Why did it happen?

Keep an open mind and look for all pertinent facts. There may still be gaps in your understanding of the sequence of events that resulted in the incident. You may need to re-interview some witnesses or look for other data to fill these gaps.

## Step 3: Describe the crash step-by-step

When your analysis is complete, write down a step-by-step account of what happened, listing all possible causes at each step. Each conclusion should be checked to see if:

- ▶ It is supported by evidence
- ▶ The evidence is direct (physical or documentary) or based on eyewitness accounts, or
- ▶ The evidence is based on assumption.

This list serves as a final check on discrepancies that should be explained.

## Step 4: Make recommendations

The final step is to come up with a set of well-considered recommendations designed to prevent recurrences of similar incidents. Recommendations should:

- ▶ Be specific
- ▶ Be constructive
- ▶ Identify root causes
- ▶ Identify contributing factors

Resist the temptation to make only general recommendations, such as “eliminate blind corners”. It would be better to suggest:

- ▶ Install mirrors at the northwest corner of building X (specific to this incident)
- ▶ Install mirrors at blind corners where required throughout the worksite (general)

If you are not able to determine the causes of an incident with certainty, you may still have uncovered weaknesses within the process or management system. Recommendations should be made to correct these deficiencies.

**Write the crash report** Use the sequence of events to describe what happened. Identify where evidence is based on facts, witness accounts, or on assumptions. If doubt exists about any part of the event, say so. The reasons for your conclusions should be stated and followed by your recommendations.

### Communicate

Communicate your findings and recommendations with workers, supervisors and management. Present your information ‘in context’ so everyone understands how the incident occurred and the actions needed to prevent it from happening again.

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**What if the investigation reveals human error?** When a thorough worksite investigation reveals that someone was at fault, then this fact should be pointed out. The intention is to remedy the situation, not to discipline an individual. Failing to point out human failings that contributed to an incident will allow future incidents to happen from similar causes because they have not been addressed.

**Do not address disciplinary steps** Never make recommendations about disciplining a person or persons who may have been at fault. This would be counter to the purpose of the investigation, and would jeopardise the chances for a free flow of information in future investigations. Any disciplinary steps should be done within the normal personnel procedures.

**Acting on the recommendations** Management is responsible for acting on the recommendations in the investigation report. The health and safety committee or representative can monitor the progress of these actions. Follow-up actions include:

- ▶ Respond to the recommendations in the report by explaining what can and cannot be done (and why or why not).
- ▶ Develop a timetable for corrective actions.
- ▶ Monitor that the scheduled actions have been completed.
- ▶ Check the condition of injured worker(s).
- ▶ Educate and train other workers at risk.
- ▶ Re-orient worker(s) on their return to work.