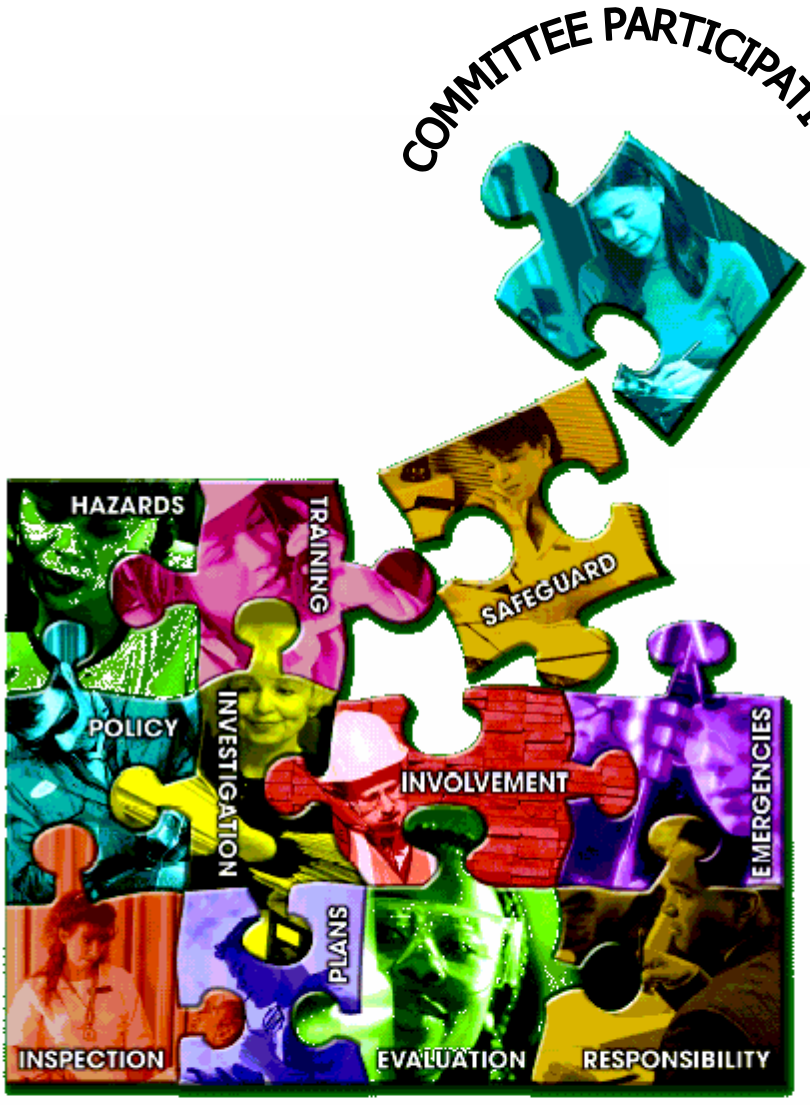
WORKPLACE SAFETY AND HEALTH COMMITTEE

A Guide to
INVESTIGATING WORKPLACE INCIDENTS



SAFE WORK

S SPOT THE HAZARD
A ASSESS THE RISK
F FIND A SAFER WAY
E EVERYDAY

MAY 2003

Section 1 - DEFINITIONS

WHAT IS AN INCIDENT?

An incident is any unplanned event that causes injury. A dangerous occurrence is any event that could have caused injury, but did not. The term “incident” will be used to describe both incidents and dangerous occurrences.

WHAT IS AN INCIDENT INVESTIGATION?

An incident investigation is the account and analysis of an incident based on information gathered by a thorough examination of all contributing factors and causes involved.

REPORTING SERIOUS INCIDENTS

When a serious incident occurs at a workplace, the employer is required to notify Manitoba Labour and Immigration – Workplace Safety and Health Division. Under Manitoba Regulation 108/88R, Section 8, such notification must take place immediately after a serious incident, using the “fastest” means of communication available. A Safety and Health Officer is on duty 24 hours each day of the week to respond to emergency calls.

The question often asked of the Workplace Safety and Health Division is:

How do you define a serious incident?

Workplace Safety and Health Division considers an incident to be serious if it results in:

- death, or serious injury (as defined below),
- collapse or structural failure of a building, tower, crane, hoist, temporary construction support system or excavation,
- an uncontrolled spill or escape of a toxic, corrosive or explosive substance
- explosion, fire or flooding.

Serious injuries are defined as:

- ⇨ fracture of a major bone
- ⇨ amputation
- ⇨ loss of sight
- ⇨ internal hemorrhage
- ⇨ third degree burns
- ⇨ unconsciousness resulting from concussion, electrical contact, asphyxiation
- ⇨ poisoning
- ⇨ cuts requiring hospitalization or time off work
- ⇨ any injury resulting in paralysis
- ⇨ any other injury likely to endanger life or cause permanent disability.

The Regulation also stipulates that equipment or materials involved in a serious incident shall not be moved, unless it is necessary to release an injured person or to avoid creating additional hazards.

Section 2 – INVESTIGATION CONCEPTS

WHY DO WE INVESTIGATE INCIDENTS?

Prevention is the purpose of an investigation. An incident investigation should:

- determine what actually happened,
- determine the cause or causes of the incident,
- identify any unsafe conditions, acts or procedures,
- help management to identify practical corrective actions,
- determines whether **due diligence** was observed,
- show the commitment of management that an adequate investigation system is in place.

The purpose of these activities is not to find fault or lay blame, but rather to identify the basic causes of incidents so that controls can be put in place to prevent further occurrences. Information from the investigation should be put on the record, but not used to discipline anyone. This policy encourages witnesses to tell investigators everything they know.

What is Due Diligence?

As a result of the 1978 court case of **R. vs. Sault Ste. Mari**e, due diligence can be defined as: "…whether the accused exercised all reasonable care by establishing a proper system to prevent commission of the offence and by taking reasonable steps to ensure the effective operation of the system." Simply put, due diligence means taking all reasonable care in the circumstances to protect the safety and health of all workers. It must be expressed in behaviour and attitudes in the workplace, it can not be made up "after the fact." The employer must be able to demonstrate their due diligence in an objective manner. A defense cannot succeed if the employer states that they intended to provide a safe and healthy workplace. The employer must give actual proof of real attempts to do so. The measures that will be necessary to prove due diligence in court will depend on the particular circumstances of each case.

UNDERLYING PRINCIPLES

- Incidents don't just happened. They are caused.
- Incidents can be prevented if causes are eliminated
- Causes can be eliminated if all incidents are investigated properly.
- Unless the causes are eliminated, the same situation will reoccur.

Develop a procedure to investigate incidents

Section 7.4(5)(l) of the Workplace Safety and Health Act requires…a procedure for the investigation of incidents, dangerous occurrences and refusals to work pursuant to Section 43 of the Act. Investigation of incidents provide valuable information needed to prevent similar incidents in the future.

There are many good reasons why supervisors and managers should investigate incidents and near misses. One of the most important reasons is that supervisors and managers are responsible for making sure any problems are corrected. In addition, Section 40(10)(l) of the Act requires the workplace safety and health committee to participate in investigations of incidents.

What should be included in incident investigation procedures?

Investigation procedures for incidents must fit your needs. Ideally, they should state:

- the objective of your investigations (find and correct root causes)
- who investigates what incidents
- what training investigators and incident responders will receive
- who receives the written investigation reports
- who must fix defects found during an investigation
- who follows-up on corrective action
- what investigation reports and follow-up records will be kept
- who keeps what documents and records
- what summary and statistics reports are to be developed and how often these reports will be prepared.

THE SUPERVISOR'S ROLE

The supervisor of the area where the incident takes place should be extensively involved in conducting the investigation. Since supervisors are responsible for worker training and activities on-the-job, they know the work assignments and have issued the work instructions. The supervisor will be responsible for ensuring that appropriate preventative measures are taken and that those actions are effective in reducing or eliminating the possibility of recurrence.

SAFETY AND HEALTH COMMITTEE/REPRESENTATIVE

Manitoba's Workplace Safety and Health Act describes the duties of the safety and health committee under Section 40(10). One of the primary duties of a committee is noted under 40(10)(i) to participate in investigation of incidents and dangerous occurrences.

An effective committee/representative should have a good working knowledge of the work site, the equipment, hazards present and the people involved. Members will know the questions to ask and the information to consider as well as who to contact for technical advice.

Both committee co-chairpersons, or other members of the committee, or the worker representative should be on the investigation team. Involving the committee/representative improves the credibility of the investigation in the eyes of many workers. It also keeps lines of communication open. The recommendations contained in the report are likely to be accepted by workers if their representatives on the safety and health committee participate.

EXPERTS

Depending on the circumstances, persons with expertise may be called upon to be involved or actually conduct the investigation. The determining factor for involving an expert relates to the severity and complexity of the incident. For example, in the case of a fire, outside experts in fire investigation will be utilized. If the investigator is not familiar with machinery involved in an incident, he or she should consult someone who has experience and skill in a particular situation.

WHAT INCIDENTS SHOULD BE INVESTIGATED?

Incidents where injuries have occurred or have the potential for injury or loss should be investigated. The degree to which an incident is investigated is dependent on its severity and the potential for it to reoccur.

Incidents to investigate:

All time-loss injuries should be reviewed by the employer and all information provided to the Safety and Health Committee. In addition, the employer must ensure that the committee is involved in investigations of incidents involving:

a) Death or serious injury (serious incidents include: fracture of a major bone; amputation; loss of sight; internal hemorrhage; third degree burns; unconsciousness resulting from concussion, electrical contact, asphyxiation; poisoning; cuts requiring hospitalization or time off work; any injury resulting in paralysis; any other injury likely to endanger life or cause permanent diability).

b) Collapse or structural failure of building, tower, crane, hoist, temporary construction support system or excavation.

c) An uncontrolled spill or escape of a toxic, corrosive or explosive substance

d) Explosion, fire or flooding.

INTERNAL RESPONSIBILITY

The employer and the workers share an equal concern in preventing incidents and ill-health arising out of conditions in the workplace. The intent of the safety and health committee/representative is to enhance the ability of workers and employers to resolve safety and health concerns reasonably and co-operatively. They should do so on their own, with a minimum of government involvement. The Safety and Health Officer may conduct an incident investigation to determine if due diligence was practiced. The Safety and Health Officer may require the employer to conduct their own investigation, depending if there is a safety and health committee or representative with the firm.

INCIDENT CAUSATION

Incidents usually result from unsafe acts and conditions. These unsafe acts and conditions often arise because of defects in the safety and health program. A safety and health program by way of policies and procedures for organizing and performing work defines the safe standards. Without a safety and health program or with a non-functional program, workers and supervisors must devise their own safety and health standards. Much is then dependent on an individual's experience, training, knowledge and will to apply safety and health standards on the job.
Incident causes are usually broken down into:

The direct cause

What was the direct cause of the incident? (What caused the injury?)

The indirect cause

What were the root or hidden causes that led to the incident? (What caused the incident?)

FIVE FACTORS TO DETERMINE INDIRECT CAUSES

To identify the indirect causes of an incident, the investigator will need to examine the obvious and underlying factors in the chain of events which took place prior to and during the incident. The model suggested here, outlines a process where the investigator examines the indirect causes within each of the following five categories:

TASK,
MATERIAL/EQUIPMENT,
WORKER(S),
MANAGEMENT and
ENVIRONMENT.

The Task

The actual work procedure being used at the time of the incident. Review the steps of the job; method of performing the task; any change to the normal method of performing the task; limitations; and how and why it is performed that way.

The Material/Equipment

Review the design of machinery, tools and equipment and how they are used by the workers in terms of machine guarding, emergency stop devices, lock-out, pinch points, design of equipment for use by workers, body positions to work and demands such as repetitive work. Also consider the condition of materials used in the work process.

The Worker(s)

Consider the factors that affect the worker(s) when performing the task such as: job requirements, experience and training, physical capabilities, emotional status at the time of the incident (tired, stressed, pressures to produce, rushing, interactions with other workers, labour management issues, hours of work).

The Management

Management is legally responsible for the safety and health of workers and therefore the role of management must always be considered in an incident investigation. Review such factors as: the safety and health rules (standards) in effect, how were they enforced, type of supervision provided, maintenance procedures for equipment/tools, safety and health inspections carried out, work processes and procedures in place, hazard recognition and control methods, incident reporting policies and first aid policies.

The Environment

The physical workplace environment as well as sudden change to that environment are factors that need to be identified. Keep in mind to assess the environmental factors **at the time of the incident**. Factors to consider include: weather conditions, housekeeping, the layout of machinery and storage areas, lighting, visibility, ventilation, temperature, noise, vibration, gases, dusts and fumes.

Section 3 – INVESTIGATION STEPS

The process of investigating an incident involves gathering evidence, analyzing it then making recommendations in a written report.

Steps include:

Preparation
Visiting the Scene
Conducting Interviews
Examination of Physical Evidence
Analyzing the Evidence
Preparing the Report

We will examine each of the above steps in detail.

♦ PREPARATION

As little time as possible should be lost between the incident event and the beginning of the investigation. The ideal situation would be to have all the necessary resources available before the incident so that the investigator(s) can attend immediately to their tasks. Some interim factors to consider include:

DETERMINE THE SCOPE OF THE INVESTIGATION

As discussed previously, under who should conduct an incident investigation, it is recommended that a plan be developed which identifies who will conduct investigations and under which circumstances investigations are performed. A plan of this nature will aid greatly in determining the scope.

Every incident is unique and requires an investigation tailored to the particular situation. Take the time up front to determine the techniques that will be employed, sequence of events, data to be analyzed, individuals involved and expected outcomes. Factors to consider include:

- What resources are needed to perform the investigation? (staff, equipment, budget and time)
- Investigation Kit:
  investigation checklist, investigation form,
  high visibility tape, pencils, pens,
  measuring tape, clipboard,
  camera/video camera with film/tape, graph paper,
  plastic bags & envelopes, notepaper,
  flashlight, ruler
- Safety Equipment:
  hard hat, eye protection,
  hearing protection, protective clothing,
  safety footwear

- ♦ What will be the deliverable (output)?
  internal report to WSH/WCB,
  communication to the media, workers, union, associations, legal obligations
- ♦ What is your attitude regarding the investigation?
  The investigator(s) must be seen as sincere, impartial and knowledgeable (in terms of the techniques of conducting an incident investigation). It is important that the investigator exhibit a behaviour of non-judgement and diplomacy. Much of the success of the investigation depends on the investigator's attitude, approach and communication style.

Some tips to consider:

- Biases (Individual, Team, Others?)
- Your experience and skills (how it affects your perception)
- Avoid jumping to conclusions
- Use appropriate voice tone
- Minimize stress wherever possible
- Be aware of your non-verbal communication (e.g. facial expressions, gestures)
- Behave professionally (representative of your company's safety and health culture, courteous, open, honest, candid, non-threatening)

♦ VISITING THE SCENE

Speed and thoroughness are both necessary in incident investigations. Memories fade and evidence disappears. Balancing the numerous activities to be undertaken when visiting the scene is a great challenge for the investigator.

TAKE CONTROL of the situation and make the area safe for yourself and any others entering the scene. Consider any imminent risk situations (e.g. moving equipment in order to secure the scene). It is imperative that management be notified immediately of the incident, injured parties, damaged material and equipment and any requests to shut down operations to secure the area. Chaos may result from an incident and people may be in a panic. The situation must be brought under control at once in order for rescue work to proceed. Secondary incidents (such as fires, equipment or structural failures) may result from the initial incident. These hazards should be controlled as soon as possible.

CARE FOR THE INJURED. First aid or medical attendants **should be called to care for the injured immediatel**y. If chemicals are involved, ensure that copies of the material safety data sheets (MSDS's) are provided to the hospital with the injured.

SECURE THE AREA. To protect evidence and to avoid further injuries or damage, people should be kept out of the incident scene until the investigators arrive (except to relieve suffering). One method is to rope off the area and notify management that the incident scene is non-accessible.

CONTACT APPROPRIATE PEOPLE. The employer should establish a procedure for notifying individuals concerned (e.g. investigation team, management staff, family) If the incident is serious (see Reporting Serious Incidents under the Definitions section), WSH must be notified immediately. Also, the family of the injured worker should be contacted with care.

GATHER NAMES AND ADDRESSES OF EYE WITNESSES. Inquire with those at the incident scene and management staff as to who witnessed the incident. Obtain the witnesses name, address, and phone numbers and make a point of contacting them for an interview as soon as possible.

SKETCH THE SCENE AND TAKE MEASUREMENTS. To improve the usefulness of field notes, sketch the scene and measure the area. Note and map the positions and condition of the injured workers, tools, equipment and materials involved, safety devices and personal protective equipment, machinery and equipment controls and anything else of value.

Tips on Sketching

Place the important information in the center of the drawing and draw the rest around it. Include all measurements, angles, and direction indicators taken at the site. Include the final positions of casualties and debris. Do not worry about making drawings to scale or creating artistically perfect drawings. Attempt to draw each item correctly related to the other items present. Label items correctly. Cross reference your sketches and photographs to applicable files and occupational safety and health committee minute forms.

PHOTOGRAPHING. Photographs and video recording aid in preparing and delivering your report as well as in analyzing conditions at the site of the incident. Photos/Video are also useful when briefing the stakeholders such as the management team and Safety and Health Committee. Photographs and video recordings should always be taken as soon as possible. Below are some techniques useful in taking photographs at incident scenes:

- Start by photographing the general area then move to the specific scene of the incident.
- Take photos from all sides and several angles, as well as close up and isolation shots.
- Ask witnesses to direct where shots should be taken and note their comments.
- Create a photo log which includes when the shot was taken (date and time of day), by whom, location, under what lighting conditions, what the shot contains, identifying number on a sketch of the area, brief description of what the photograph is trying to identify.
- Store the pictures in plastic photographic file pages in a binder beside relevant notes and sketches. Cross reference photos with the location of physical evidence and relevant notes.
- When video recording, narrate the pertinent points identified above.

COLLECTING EVIDENCE/SAMPLES. Depending on the incident, you may want to take one or more samples of evidence found at the incident scene, which may require examination by qualified personnel. (The decision to utilize experts to collect evidence should be exercised – e.g. handling controlled products or analysis of engineered systems). An investigator must ensure that s/he exercises caution when handling evidence for two distinct reasons:

- to protect themselves against harm from handling evidence such as damaged equipment or chemical substances, one should assess the need to wear personal protective equipment.
- to preserve the evidence, care should be taken to maintain the original state of the evidence.

  Since liquids can evaporate quickly and other materials may be cleaned up before you can get a sample, it is very important to take your samples as soon as possible. Examples of things you might want to sample include:

  - Any tools, materials, machinery part or subassembly which is suspected of failure, malfunction, misfit or faulty design.
  - Air samples or other samples if the presence of impurities or toxic substances may have contributed to the incident.
  - Liquids or solids which are not normally present at the site of the incident.
  - Carefully wrap and label everything in clean, dry and leak proof containers. Note where each specimen came from and what the initial appearance was like. Avoid destroying or altering exhibits during examination. Note the environment (e.g. noise, heat, cold, ventilation and chemical contaminants). Find out what the weather conditions were at the time of the incident, if applicable.

  Note: If a serious incident occurs at the workplace, a Safety and Health Officer may conduct an incident investigation. The Officer will require that items involved in the incident (e.g. equipment, materials) not be moved unless it is necessary to release an injured person or to avoid creating additional hazards.

RETURN THE INCIDENT SCENE TO NORMAL USE. Once you have gathered all the evidence and information needed, ensure that the incident scene is returned to normal use. This may involve disinfecting the area if blood was spilled, checking equipment and materials to assess functionality, and ensuring that the incident will not be repeated. If a process or piece of equipment needs to be stopped until further examination proves its effectiveness, notify the management immediately to cease operation. If in doubt about the functionality of equipment, materials or process, have it checked by those who are technically qualified – preferably those external to the organization.

♦ CONDUCTING INTERVIEWS

One of the main methods of gathering information in an incident investigation is by interviewing people who were at the incident scene. Interviews should also be conducted with anyone who can give relevant information, even if they were not present. Examples include: a supervisor who gave instructions at the start of the shift, a trainer who instructed the worker, (even months earlier) or a worker who performs the same job as the injured worker. Information presented here will aid the interviewer in establishing a framework for the overall process. The amount of openness that develops during an interview depends a great deal on the rapport and atmosphere established during the initial contact.

CATEGORIZE WITNESSES There are several categories of witnesses who could have information helpful to determining the causes of an incident.

- Eyewitnesses – those who actually saw the incident happen or were involved in the incident.
- Those who came on the scene immediately after the incident.
- Those who saw events leading to the incident.
- Those who have information about the work tasks, processes, safety devices in use, materials, equipment and other conditions involved in the incident.

Consider the expertise, background and credibility of each witness.
Consider where they were when the incident occurred.

INTERVIEW WITNESSES AS SOON AS POSSIBLE To obtain as untainted version of the story as possible, witnesses should be interviewed as soon as practicable after the incident. If interviews are not done quickly, memories of witnesses may fade and information become distorted. If witnesses have an opportunity to discuss the event among themselves, individual perceptions may be lost in the normal process of accepting a consensus view where doubt exists about the facts. For this reason, witnesses should be separated as soon as possible. Witnesses should be interviewed individually rather than in a group, preferably at the scene of the incident where it is easier to establish the positions of each person involved and description of the events. If necessary, conduct more detail interviews later as evidence, such as photographs, become available.

AN OPTION – WITNESSES OWN ACCOUNT OF WHAT HAPPENED. If witnesses are under stress or you cannot speak to each one immediately, ask each to go into a separate room and write out what they saw happen during the incident in their own words. Interview each witness afterwards. Read each person's statement back and clear up uncertainties. When you are satisfied that you have all the necessary information, ask each witness to review and sign their statement. Compare your interviews against those of other investigators (such as the police or reporters from the media) if this information is available. This method can serve as an effective means for information gathering since individuals will jot down their own ideas in their own words, without influence of an interviewer or other witnesses. It does depend on how thorough one is when writing out their story, which will vary from person to person.

CONSIDER THE EMOTIONAL STATE OF WITNESSES Witnesses may be feeling any number of emotions (e.g. anger, sadness, stress, fear) which can hinder the investigation and may adversely affect other persons involved. Be aware of each person's physical and emotional state and proceed with empathy and understanding to put each witness at ease. Common causes for discomfort include:

- Fear (e.g. of being blamed, punished, evaluated)
- Past wrong doings – or perceptions thereof
- Concern about releasing information
- Interviewer not at ease
- Incomplete knowledge of the topic
- The interview location (e.g. privacy or lack thereof)

INTERVIEW QUESTIONING - THE W 5 METHOD The W5 method uses the questions what, who, where, when, and why/how to find out what happened and determine the causes of the incident. Examples include: Can you tell me

WHAT happened?
WHO was involved in the incident? (Victim, Witnesses, Supervisor)
WHERE did the incident occur?
WHEN did the incident happen?
What + Who + Where + When = WHY/HOW
WHY and **HOW** did the incident happened?

Use the W5 method to plan interviews as well as to collect and analyze evidence.

THE OPENING OF THE INTERVIEW It is said that people make judgements within the first few seconds of meeting someone. Take the time at the beginning of the interview to put the witness at ease, to begin slowly and to listen closely and carefully. This gives the individual a chance to formulate the story in their own mind and gives you a preview of what they know.

USE OPEN ENDED QUESTIONS While you may want to use "yes" and "no" questions to break the ice at the start of the interview, proceed with open-ended questions to obtain each person's version of the incident. A series of structured questions may also work, such as:

- Tell me about…
- What did you see, hear?
- Where were you at the time?
- Explain how this task is done?

Ask questions to get more information as required. Use visual aids (photographs, sketches and illustrations) to help witnesses recall information and clarify important points. Consider asking witnesses to draw a sketch.

SOME PITFALLS TO AVOID:
Don't:

- Ask leading questions (e.g. "Didn't you think that..")
- Intimidate the witness (e.g. Alarming or discouraging remarks such as "Well that was a stupid thing to do..")
- Interrupt the witness
- Convey your judgements

TAKING NOTES It is important that you document pertinent information from the witnesses for your own reference. You can go over your notes with the witness to ensure they agree with your interpretation. While it is important to take notes, it is equally as important that the note taking process not interfere with the interview process. Bear in mind that some people feel nervous whenever investigators take notes and they may be reluctant to share information. If note taking distracts the witness, attend to it after the interview. Use judgement if you are considering the use of a **tape recorder** as it tends to impede rather than contribute to information gathering. People are inclined to withhold information for fear of saying the wrong thing, particularly if they know it's being captured word for word on a recording device. If you must use a tape recorder, clarify why you need to use it and how the information will be used.

DEALING WITH CONFLICTING STATEMENTS It is normal for statements to conflict. People see things differently and may remember events differently. Each witness likely saw the incident from a slightly different angle. Opinions and perceptions differ. Avoid accepting opinions as fact until you have all the evidence.

ENDING THE INTERVIEW End the interview on a positive note by expressing appreciation to witnesses and others who aided you in gathering information. Encourage the witness to contact you at a later date should they think of something else. Give credit if an individual's ideas are used later. Reiterate the goal of the investigation (prevention) and what will be done with the information you gather.

♦ EXAMINATION OF PHYSICAL EVIDENCE

As noted under the section "Visiting the Scene" collecting evidence/samples will be one of the first steps in an incident investigation. Once you have collected evidence, you will need to examine it closely in order to draw conclusions about what happened. This may involve sending the evidence to an expert for analysis (e.g. engineer, health professional, manufacturer) Physical evidence found at the scene is usually more reliable than evidence obtained from your witnesses. Ensure to:

- Examine all physical evidence thoroughly (e.g. condition of the equipment)
- Have equipment tested for malfunction by qualified personnel
- Obtain the relevant specs for the equipment
- Review written documentation (e.g. MSDS, Manufacturer's specs). Broken equipment, debris, and samples of materials involved may be removed for further analysis by appropriate experts. Make notes which will identify exactly where these items came from.

WRITTEN DOCUMENTATION

An often overlooked source of information can be found in documents such as past incident reports, W.C.B. claim records, maintenance reports, safety and health committee minutes, formalized safe work procedures and training records. Any pertinent information should be studied to consider how the information relates to the incident and ultimately, to prevent recurrence.

♦ ANALYZING THE EVIDENCE

Once the evidence (witness accounts, documentary or physical) has been gathered, you are ready to begin analysis. By this stage, you should know how the incident happened and what the immediate causes were. Use this information to determine why the incident occurred. Usually the fundamental causes can be found by simply asking "why." To prevent recurrences of similar incidents you must find all possible answers to this question.

All causes of an incident must be considered for analysis. Be sure to keep an open mind to all possibilities and seek out all pertinent facts. If there are gaps in your tracing or sequence of events, you will need to fill these gaps by the necessary means (e.g. re-interviewing witnesses). If this is not possible, you may need to develop a "best guess" scenario that can be supported by the majority of facts you gathered during your investigation.

TO FIND THE ROOT CAUSE

Write out the events of the incident, step by step. Recall the five factors identified under "Incident Causation:" Consider the sample questions within each of the following factors:

These are questions intended for the investigator to assess root causes. They should not necessarily be used for witness interviews since they could intimidate the witness.

Task – The work procedure used at the time of the incident.

1. Was a safe work procedure used?
2. Had conditions changed to make the normal procedure unsafe?
3. Were the appropriate tools, materials available?
4. Were they used?
5. Was all of the required personal protective equipment available?
6. Were inherent safety devices, alarms or other systems in place?
7. Were all backup safety devices or systems in place?
8. Was the task structured to encourage/discourage safe work practices or procedures?

Material/Equipment – Causes brought about by the equipment or materials used.

1. Was there an equipment malfunction or failure?
2. What caused it to fail?
3. Was the material or equipment substandard in some way?
4. Was personal protective equipment used? Should it have been?
5. Were hazardous substances involved?
6. Were tools, machinery and equipment being used correctly? (Check manufacturers specifications for operating tools, machinery and equipment as well as any other applicable standards)
7. Were tools or machinery modified in any way?

Worker(s) – The factors related to workers include individual experience, skills and abilities as well as one's physical capabilities, and emotional state at the time of the incident. Your inquiry of a worker is not to place blame, but to uncover the factors they experienced at the time of the incident. Consider the following questions:

1. Were workers aware of the standards, practices, procedures or legislation governing the activity?
2. Were workers adequately trained to do the task in question according to standards, practices and procedures prescribed?
3. What training had the worker received?
4. What experience did the worker have to do the task?
5. Was the worker physically capable?
6. Was judgement, health and/or ability impaired for any reason? (e.g. Were they Tired? Rushed? Stressed? Using Medication?)

Management – The employer is responsible for ensuring the safety and health of workers at the workplace and is therefore responsible for the policies, procedures and rules on the job. This also includes enforcing the policies, procedures and rules. Management staff (managers, supervisors, lead hands, etc.) must always be considered in an incident investigation since they are responsible for providing direction and supervision.

1. Were the hazards which led to this incident known to supervisors?
2. Were standards, practices and procedures developed and implemented to overcome these hazards?
3. Were supervisors aware of the standards, practices, procedures or legislation governing the activity?
4. Were safety and health rules in effect?
5. Were they being enforced?
6. Was adequate supervision given?
7. Was regular maintenance of equipment carried out?
8. Were unsafe conditions corrected?

Environment – The physical environment, and particularly sudden changes to that environment, are factors which need to be identified. It is important to note the situation at the time of the incident.

1. What were the weather conditions?
2. Was it too hot or too cold?
3. Was noise a problem?
4. Was there adequate light?
5. Were toxic gases, dusts, fumes, present?

List all possible causes within each category. It is important to remember that no one element in an incident: Task, Materials/Equipment, Workers, Management or Environment stand alone. Each of these elements must be analyzed in its relationship to the others.

Use the W5 method as described under “Conducting Interviews” to analyze the influence of everything involved in the incident. Usually the fundamental causes can be found by simply asking “why?” Use photographs and drawings to illustrate important points.

♦ PREPARING THE REPORT

The intent of the report is to effect change. If after an investigation, there are no recommendations or actions taken to improve the safety and health at the workplace, it is likely incidents will continue to happen and workers will feel a sense of irresponsibility on the part of the employer and safety and health committee. A succinct report detailing specific recommendations is critical to the effectiveness of prevention at the workplace. The report should be written with consideration as to who is the target group that will be reading the report. If your company has developed a form for reporting incidents, you will want to complete such a form for each incident. Attached is a report format recommended by WSH. It covers the following aspects:

REPORT FORMAT

Part I – Particulars

- Injured party Information
- Where and when the incident occurred
- Damaged property/material information
- First Aid response

Part II – Description of the Incident

- Description of what happened in detail

Part III – Evidence

- Sketch of the incident scene
- Photographs, diagrams and physical evidence
- Persons with information and statements

Part IV – Incident Causation

- Direct and indirect causes of the incident
- Five factor analysis

Part V – Corrective Action

- Immediate and long term corrective actions
- Target completion dates

Part VI – Report Review

- Who prepared the report and when it was prepared
- Report distribution list
- Signatures of the Safety and Health Committee Co-Chairs

DISCUSS THE REPORT

Once the report is complete, it should be discussed at the safety and health committee meeting. The causes of the incident should be reviewed and each recommendation debated. Each conclusion and recommendation must be supported with evidence. Where the investigator has used the “best guess” scenario to fill in the gaps, be prepared to offer reasons why those conclusions were drawn. Consider things the committee can do. The incident may point to weaknesses in the activities of the committee (such as it’s inspection program). These activities should be reviewed in light of the evidence.

FINALIZE THE REPORT

If necessary, the report should be reworked to deal with the concerns of committee members. When the committee is satisfied with the final version of the report, both co-chairpersons should sign it. It should then be sent to the employer for corrective action. The committee should assign members to follow up.

WHAT ACTION SHOULD THE EMPLOYER TAKE?

The employer has a duty to promptly respond to the report and advise the committee in writing of the remedial actions taken. The committee should list these corrective measures and follow up on them. A summary of the incident report should be posted in the workplace for the information of workers. A copy of the report should also be kept in the committee’s files and available if requested by the Workplace Safety and Health Division. Note: Names of individuals involved in the incident should be omitted from this version.

WORKPLACE SAFETY AND HEALTH COMMITTEE

INCIDENT INVESTIGATION SUMMARY REPORT

INDUSTRIAL ☐ **CONSTRUCTION** ☐ **SERVICE SECTOR** ☐

FIRE ☐ **EXPLOSION** ☐ **SPILL** ☐ **OTHER** ☐

EMPLOYER NAME: _____

DEPARTMENT: _____

ADDRESS: _____

INJURY: YES ☐ **NO** ☐

DATE and TIME of INCIDENT: _____

INVESTIGATING COMMITTEE MEMBERS: _____

_____

_____

_____

PART I – PARTICULARS

Did the incident involve injury? Yes _____ No _____

If yes,
Name of injured: _____
First Name Middle Last Name

Injured Worker's Home Address: _____ Tel#: _____

Injured Worker's Occupation / Job Title: _____

_____

Location of Incident: _____

Nature of Injury:

_____

Supervisor's Name: _____
First Name Middle Last Name

Did the incident involve property damage? Yes _____ No _____
If yes, describe:

_____

_____

_____

_____

Was first aid rendered? Yes _____ No _____
If yes, by whom? (if outside emergency assistance was required, provide details)

_____

_____

_____

_____

_____

PART II – DESCRIPTION OF INCIDENT

Describe the incident in detail:

PART III – EVIDENCE

Sketch of incident scene:

Describe physical evidence collected:_____

_____

_____

_____

Photo/Video Evidence: (List and describe the photos and videos)

_____

_____

_____

_____

PART III – EVIDENCE (CONT'D)

Persons with Information - Statement Summary:

Name: _____
First Name **Middle** **Last Name**

Date Interviewed: _____ **Occupation:** _____
dd/mm/yy

Did you witness the incident? **Yes** _____ **No** _____

Name of Interviewer: _____

Summary of Statement: _____

_____

_____

_____

_____

Persons with Information - Statement Summary:

Name: _____
First Name **Middle** **Last Name**

Date Interviewed: _____ **Occupation:** _____
dd/mm/yy

Did you witness the incident? **Yes** _____ **No** _____

Name of Interviewer: _____

Summary of Statement: _____

_____

_____

_____

_____

PART IV – INCIDENT CAUSATION

What was the DIRECT CAUSE of the incident? (What caused injury or damage?)

What were the INDIRECT CAUSES? (What caused the incident?)

TASK:

WORKER(S):

MATERIAL/EQUIPMENT:

MANAGEMENT:

ENVIRONMENT:

PART V – CORRECTIVE ACTION

Immediate **corrective actions to prevent recurrence:**

_____

_____

_____

_____

_____

Target Date for corrective action: _____
dd/mm/yy

Long term solutions:

_____

_____

_____

_____

_____

Target Date for corrective action: _____
dd/mm/yy

PART VI – REPORT REVIEW

Signature of Investigator(s): _____

Date report completed: _____
dd/mm/yy

Distribute Report to: _____

_____

_____

_____

Signatures of Co-Chairpersons – Safety and Health Committee:

_____ _____

Employer Co-Chair / Date **Worker Co-Chair / Date**