

**Panhandle Area Educational Consortium
Safety Management**

ACCIDENT/INCIDENT INVESTIGATION CHECKLIST

NOTIFICATION

School
Time and date of accident
Time and date of notification
Time and date of arrival on site

SCENE

Diagram
Photos
Measurements

WORKER

Name
Age
Home address and phone number
Assignment
Experience
Training this job
Familiarity with equipment
How supervised
Personal protective gear
Mental/physical disabilities
Nature of injuries

SUPERVISION

Name
Age
Experience as supervisor
Experience in job worker was doing
Personal knowledge of worker
Method of supervision
Knowledge of O.H. & S. Regulation
Supervisor's opinion of how accident happened
Supervisor's opinion of how accident could be prevented
Supervisor's instruction from management

OTHER PARTY

Instructions
Experience in industry
Experience in job at time of accident
Supervision
Training
Knowledge of O. H. & S. Regulation
Familiarity with equipment used at time of accident

EQUIPMENT AND SITE

General condition
Make and serial and model number
Manufacturer's information
Maintenance information and records
Suitability and adequacy of equipment
Layout of operation

ENVIRONMENT AND SITE

General condition
Lighting
Ventilation
Wind
Temperature
Weather conditions
Noise

PERSONS WITH INFORMATION

Name (could likely be student)
Age (if student)
Work and residence address

FIRST AID

Were services available
Was treatment given
Name of First Aid Attendant

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WORKING CONDITIONS

Number of students
Total student load
Number of students with special needs
Additional support staff
Size of classroom

EMPLOYER

Name and address of school board
Address of office where worker records
are held
Condition of school board's safety
program

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Investigation of Accidents and Incidents

The investigation of accidents/incidents is a critical component of an occupational health and safety program. Without a proper and thorough investigation, no one knows the cause of an accident or incident and therefore no preventative measures can be introduced to make the workplace safer and healthier. This section provides a basic understanding of the concepts and methods of accident/incident investigations and regulatory requirements.

Definitions:

"Accident:" an unplanned, unwanted event that disrupts the orderly flow of the work process. It involves the motion of people, objects, or substances.

"Incident:" relates to any undesired or unwanted event that could (or does) degrade the efficiency of the business operation. These incidents could be accidents, quality or production problems, or security breaches such as theft.

Remember: all incidents of violence must be investigated.

5.1 Accident Causation

All accidents/incidents with the potential for loss should be investigated. Remember these three basic facts:

- Accidents are caused.
- Accidents can be prevented if the causes are eliminated.
- Unless the causes are eliminated, the same accidents will happen again.

Usually there are four or five root causes or factors that contribute to an accident. Often there are even more. The investigation team's task is to identify as many as possible.

Causes—personal factor

- mental attitude
- physically unfit
- inability of employee
- lack of precaution
- improper attitude

Examples of causes or factors that contribute to an accident are:

Mechanical and material causes—management control

- unsafe or defective equipment

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- improper working conditions
- poor housekeeping
- physical hazards
- improper planning

Causes—supervisor control

- faulty instruction
- poor discipline
- unsafe work practices

When considering the contributing factors, ask these questions:

- What can management do to prevent the incident from recurring?
- What can the supervisor do to prevent recurrence?
- What can the worker do?

A common tendency in accident investigations is to oversimplify. That often results in only the most obvious single cause being identified.

5.2 WCB Regulation

The regulatory requirements for conducting accident investigations are contained in the Core Requirements book.

Following are the regulations as well as notes on their intent and interpretation. Remember that these are the minimum standards. The procedure may go beyond these requirements.

Informing the board of accidents

3.7 Every employer must inform the board immediately of the occurrence of any accident which:

- a. resulted in death or critical condition with a serious risk of death,*
- b. involved a major structural failure or collapse of a building, bridge, tower, crane, hoist, temporary construction support system, or excavation,*
- c. involved the major release of a toxic or hazardous substance,**
- d. was a blasting accident required to be reported by part 21 (blasting operations) or a diving accident required to be reported by part 24 (diving, fishing, and other marine operations).*

"Board" refers to the WCB, not the school board.

*A major release of a toxic or hazardous substance does not only mean a considerable quantity, or the peculiar nature of the release, such as a gas or volatile liquid, but more

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importantly, the seriousness of the risk to the health of workers. Factors which determine the seriousness of the risk include the degree of preparedness of the employer to respond to the release, the necessity of working in close proximity to the release, the atmospheric conditions at the time of the release and the nature of the substance.

As a general guideline, a report would be expected when:

1. The incident resulted in an injury which required immediate medical attention beyond the level of service provided by a first aid attendant, or injuries to several workers which require first aid.
2. The incident resulted in a situation of continuing danger to workers, as when the release of a chemical cannot be readily or quickly cleaned up.

Accidents to be investigated

3.8. Except in the case of a vehicle accident occurring on a public street or highway, every employer must immediately initiate an investigation into the cause of every accident which:

- a. is required to be reported by section 3.7,*
- b. resulted in injury requiring medical treatment,**
- c. did not involve injury but had a potential for causing serious injury.*

**Medical treatment means treatment by a registered medical practitioner.*

Investigators' qualifications

3.9. Accident investigations must be carried out by persons knowledgeable of the type of work involved, and if feasible, include the participation of one worker representative and one employer representative.

The BCTF recommends that a BCTF/local health and safety representative be a participant in all investigations of accidents/incidents which involve a BCTF/local member.

Intent of an investigation

3.10. An accident investigation must, as far as possible:

- a. determine the cause or causes of the accident,*
- b. identify any unsafe conditions, acts or procedures which contributed in any manner to the accident, and*
- c. develop recommended corrective action to prevent similar accidents.*

Accident/Incident investigation reports

3.11.1. An employer must ensure that an accident investigation report is prepared containing:

- a. the place, date and time of the accident,*
- b. the names and job titles of persons injured in the accident,*
- c. the names of witnesses,*
- d. a brief description of the accident,*

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- e. a statement of the sequence of events which preceded the accident,*
- f. identification of any unsafe conditions, acts or procedures which contributed in any manner to the accident,*
- g. recommended corrective actions to prevent similar accidents, and*
- h. the names of the persons who investigated the accident.*

3.11.2 Copies of accident investigation reports must be forwarded without undue delay to the occupational health and safety committee and to the nearest board office.

See [Appendix 5.1](#) for sample Accident/Incident Investigation Report.

Follow-up action

3.12 Every employer must initiate corrective action without undue delay to prevent recurrence of similar accidents, and must make a report of the action taken to the occupational health and safety committee, or if there is no such committee, must post the report for reference by workers.

Preservation of evidence

3.13 If practicable, the scene of any accident reportable under section 3.7, must be left untouched, except for activity necessary for rescue work, or to prevent further failures or injuries, until the accident has been investigated by an officer, or until permission to clear the scene has been granted by an.

"Officer" refers to a WCB officer.

Availability of witnesses

3.14 An employer must make every reasonable effort to have available for interview by an officer, all witnesses to an accident reportable under section 3.7 or other persons whose presence might be required for a proper investigation of the accident, but if this is not possible the names, addresses and telephone numbers of such persons should be recorded.

5.3 Investigation Concepts

Studies indicate that many accident/incidents are not reported. Reasons for this vary:

- Lack of education and training about the WCB Regulation.
- Fear of consequences from the employer.
- Failure to appreciate the seriousness of the incident at the time.(e.g., paper cut can turn into a major infection or a toe hit by a soccer ball can become infected or so painful that immobilization is required—both may result in lost time or benefits.)
- Tendency to use sick leave if necessary rather than take the time to fill out a report and "go through the hoops."

5.3.1 Reasons for Investigating an Accident/Incident

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The reasons for investigating accidents/incidents are:

- finding the cause(s) of an accident/incident helps to prevent the occurrence of similar events;
- encourages all workers to report accidents/incidents and a clearer picture of health and safety concerns is created;
- management is seen to be taking all reports and health and safety seriously;
- an investigation report may become pivotal in establishing a WCB claim;
- meets legal requirements; and
- reviews conditions, equipment, systems, work organization and procedures which enhances overall occupational health and safety.

5.3.2 What To Investigate

Types of accidents/incidents to investigate:

Serious and major

- usually investigated automatically

Minor and near-miss

- indicators that point to a condition or practice that, if allowed to continue, could cause injury or equipment damage

Investigations of serious accidents often reveal earlier incidents of a similar nature that have been dismissed as insignificant.

5.3.3 What The Result Must Be

An accident investigation must determine certain facts and the report must show them.

- WHO was involved or injured? Were there witnesses?
- WHERE did the accident happen? (classroom/department, machine, location, off-site, etc.)
- WHEN did the accident occur? (Date, exact time of day.)
- WHAT were the immediate and basic causes? (Conditions, acts, procedures, equipment.)
- WHY was the unsafe act or condition permitted? (Lack of training, supervision, rule enforcement, maintenance.)
- HOW can a similar accident be prevented? (Must be specific.)

5.4 Investigation Procedure

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This part of the section will deal with the procedures of investigation, which will include the following items.

Procedure overview

1. Visit the scene, gather and record evidence.
2. Conduct interviews.
3. Evaluate evidence and draw conclusions.
4. Write report with recommendations.
5. Follow up.

As a measure of preparedness, it is suggested that investigators have a ready-to-use *Investigation kit* prepared and available in advance. The kit should contain the following items.

Investigation kit

- camera, film, flash
- tape measure
- clipboard, pad of paper
- straight edge
- pens, pencils
- accident investigation forms
- investigation checklist
- flashlight
- "DO NOT ENTER" tape

5.4.1 Visit the Scene

Recommended procedure

- Secure the scene to minimize the risk of any further injury.
- While approaching the accident scene, analyze the situation and take suitable action to prevent further deterioration.
- Ensure the injured are cared for.
- Make sure that injured workers are properly cared for before starting the investigation.
- Keep the accident scene as undisturbed as possible.
- Make an accurate record of the accident scene. The fire plan may be used as a map.

Photographs of the accident scene should be taken, drawings made, and measurements checked for reference in future discussions.

- Identify and interview all witnesses separately and individually as soon as possible.
- Record all information accurately.
- Start the accident investigation report. The basic information such as dates and times can be filled in on the accident investigation report at this point.

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See [Appendix 5.3](#) *Accident/Incident Investigation Check List*

5.4.2 Interviews

One of the main methods of gathering information in an accident investigation is to interview people who were at the accident scene. Interviews should also be conducted with anyone who can give relevant information, even if they were not present. An

example would be the supervisor who gave instructions at the start of the shift or a trainer who instructed the worker, even months earlier. The following are suggested techniques for conducting interviews:

- Conduct the interview at the scene if possible but in private
- Encourage re-enactment without repeating the actual practice that caused the accident.
- Put the witness at ease.
A hostile or defensive witness can hinder the investigation and may adversely affect other persons involved.
- Reassure each witness of the investigation's main purpose which is to find the causes so they can be eliminated to prevent a recurrence, not to assign blame. Responsibilities may be pointed out, but this is only to assist in preventing the same contributing factors that led to the incident in the first place.
- Ask the witness to relate an account of the incident.
- Listen closely and carefully, and do not interrupt at this time. This gives individuals a chance to formulate the story in their own mind and gives you a preview of what they know.
- Do not take notes during this initial dissertation as it distracts the witness.
- Do not use a tape recorder.
- Have the witness relate the story again, and this time take notes. Ask questions to fill in the gaps. Ask open-ended questions such as "can you tell us what happened?"
Do not take your notes in a secretive manner. Allow the individual to see your notes.
- NEVER make judgmental statements.
- Ask further specific questions if required.
- Avoid questions that lead the witness or imply answers.
- Read aloud your notes to ensure the witness agrees with your interpretation of the story.
- Ask the witness for suggestions as to how the accident could have been avoided.
- Encourage the witness to contact you at a later date should other things come to mind.
- Be sure to end on a positive note and thank individuals for their assistance.
Acknowledge any contribution and ideas their statements may have made to prevent/minimize recurrence of similar incidents.

5.4.3 Evaluation

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Once the evidence has been gathered, the stage of evaluating and drawing conclusions based on that evidence is the next phase of an accident/incident investigation.

- Be objective—don't start with a fixed opinion.
- Set out the events in chronological order.
- Be sure to consider all of the contributing factors.
- Use a checklist to ensure that you have covered all of the areas.
- Consider what evidence is direct, circumstantial, or hearsay.
- Do not draw conclusions on the first basic cause found.

The following are common errors and pitfalls that arise in the accident investigation process:

- Believing carelessness is a cause of accidents.
- Assuming contradictory evidence indicates falsehood.
- Conducting interviews as if in a courtroom.
- Asking for a signed statement from witnesses.
- Looking for only one basic cause.
- Forgetting about the personal feelings of others.
- Failing to keep information confidential.

5.4.4 Report Writing

After an evaluation of the evidence the report can be written. There are a few points that should be kept in mind for writing this report:

- Include a brief outline of the events leading up to and including the accident/incident.
- Describe the events in chronological order.
- Be specific—include dates, times, places, people involved, conditions, acts, etc.

Recommendations should treat the basic causes of the accident, not the symptoms.

If a teacher is struck on the head by a box falling from a top shelf, the problem is not that the teacher placed the box up there as much as **WHY**. The answers could range from lack of education, lack of storage space, someone else stored it up there, to failure of employer to inspect the workplace regularly.

Recommendations should also address all of the contributing factors.

A point to remember is that the report should contain enough details to provide readers with as much—if not more—information than they would have obtained if they had witnessed the accident/incident themselves.

See [*Appendix 5.4 Blank form for Accident/Incident Investigation Report*](#)

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5.4.5 Follow-up

This is the final and most important step of the accident investigation procedure. If there is no implementation of the recommendations, the contributing factors could surface in another accident.

Keep these points in mind for the follow-up of an accident investigation:

- Delegate the recommendations for corrective action.
- Establish a system of follow-up to ensure corrective action took place.
- Publicize the results of the investigation.
- Ensure that copies of the report are sent through the usual routings.
- Post the action taken as well as any non-action and the reasons.
- Confirm that the action taken has cured the problem.

Without a firm commitment to taking on the recommendations, the whole exercise of conducting an investigation is a waste of time and effort.

Remember that results are based on action.

Summary

This section has discussed the concepts and procedures for accident investigations. As a summary, here is an overview of the procedure.

- Go to the scene of the accident promptly; see that the needs of the injured are attended to.
- Get the facts. Talk to witnesses and, if possible and necessary, the injured worker.
- Listen for clues in unsolicited comments and conversations of others.
- Study the possible causes; look for both unsafe conditions and unsafe acts.
- Develop the corrective action; confer with others about possible solutions.
- Write the report. A narrative description is a good technique to describe events.
- Delegate responsibility for corrective action.
- Follow up to ensure conditions are corrected.
- Publicize the corrective action taken.

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Accident Cause Categories—Sample Questions

The following questions under each basic accident cause category provide a sample of the types of factors that will identify what happened, why it happened and what needs to be corrected to minimize potential for recurrence.

1. Environmental factors

What are the factors in the physical environment, especially those that may have been different from ordinary situations or previous exposure, that could have caused/contributed to the accident. You may ask:

- What was/were the weather/indoor conditions like?
- Was it hot/cold?
- Was poor housekeeping/materials management a problem?
- Was it slippery?
- Was poor environmental design (ergonomics, violence) a problem?
- Was the work area/equipment of adequate/appropriate dimensions and appropriately designed?
- Was the level of lighting inadequate?
- Was glare a problem?
- Was it noisy?
- Were gases, dusts, fumes or mists present?
- Was it stuffy? Poorly ventilated?

2. Administrative/management factors

Management is legally responsible for ensuring a safe and healthy workplace through an effective OH&S program. To find out if management is doing what is required, you may ask:

- Had same/similar hazard(s) been identified that may have contributed to the accident/incident?
If “yes,” had procedures been developed to overcome them?
- Were written safe work procedures developed?
- Was training offered in safe work procedures?
- Was training offered in hazard identification/assessment/control?
- Were regular inspections conducted?
- Were unsafe conditions corrected without delay?
- Was regular maintenance done?
- Was lack of maintenance staff a problem?
- Was adequate supervision given?
- Was adequate staffing available?
- Were safety specifications lacking for purchasing equipment/supplies?
- Were the end users of equipment/supplies consulted for input prior to making decision for purchasing particular equipment/supplies?

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- Was workload excessive? (number of students per class, number of students with special needs, number of ESL students, total student load, number of preparations, etc.)
- Was there a well-being check procedure for the worker if working alone?
- Had the worker been informed of the nature and the extent of the risk of violence?

3. Equipment/material factors

To find out if equipment/materials or lack thereof caused the accident/incident, you may ask:

- Was necessary equipment/material available?
- Did equipment fail/malfunction? If “yes,” what caused it?
- Was design poor?
- Was a hazardous substance involved? If “yes,” was it clearly identified? Was it stored and handled properly?
- Could a safer work method have been used with other equipment?
- Could a less hazardous material been used? If “yes,” was it available?
- Did handling of the equipment/material require the use of personal protective equipment (PPE)? If “yes,” was it used? Was it comfortable?

4. Task/process factors

To find out what was being done at the time of the accident/incident, you may ask:

- Was the process/task new?
- Were safe work procedures followed?
- Were appropriate materials/equipment available? If “yes,” were they used?
- Had anything changed from a normal procedure, to make conditions unsafe?
- Was safety equipment/device used? If “yes,” was it working properly?
- Did the task/process require the employee to work beyond the employee’s physical capabilities?

5. Personal/human factors

The physical and mental condition of the people directly involved with the accident/incident need to be assessed. It must be remembered that the investigation is not a fault-finding exercise, but needs to be done to prevent/minimize recurrence of the same or similar incidents. You may ask:

- Was employee experienced in the task being done?
- Had adequate training been given?
- Did the employee follow accepted safe work procedures?
- Was the employee physically/mentally capable of doing the work?
- Was the employee tired?
- How many shifts/hours had the employee worked?
- Is the employee a shift worker? If “yes,” what was the employee’s rotation at the time of the incident?
- Was the employee in good health?
- Has the employee had a recent/previous injury?
- Was the employee under stress (work or personal)?

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- Were the tasks beyond the employee's physical/mental capabilities?
- Did the employee/third party make a driving error?
- Did the employee use the provided safety equipment/devices?