

INVESTIGATION OF ACCIDENTS & DISEASES

REFERENCE GUIDE & WORKBOOK



WORKING TO MAKE A DIFFERENCE

Introduction

1.1 Definitions

Before we can proceed into today's session, we should establish some basic definitions.

- *In the space provided, give what you consider to be a definition of the following terms.*

What is an 'Accident'?

What is an 'Incident'?

What is an 'Accident/Incident Investigation'?

Note: For Answer Key to Workbook Questions – See Appendix 1.

Investigation of Accidents and Diseases

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Guidelines

This workbook discusses concepts and methods that can help you to implement and perform effective investigations at your workplace. The information and sample forms in the workbook are guidelines. This is only one approach.

1.2 Investigation Concepts

Why do we investigate accidents/incidents?



Incident Causation

Remember these three basic facts:

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

Usually there are four or five root causes or factors that contribute to an incident. Often there are even more. Your task is to identify as many as possible.

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?

1.3 Regulation

The regulatory requirements for conducting accident investigations are contained in the Workers Compensation Act Part 3, Division 10 and WorkSafeBC Occupational Health and Safety Regulation Section 3.4.

These regulatory requirements are given below. Some notes on intent and interpretation are included. Remember that these are the minimum standards. Your procedure may go beyond these requirements.

Division 10 - Accident Reporting and Investigation

Immediate Notice of Certain Accidents

172(1) An employer must immediately notify the board of any accident that

- (a) resulted in serious injury to or the death of a worker,*
- (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 hazardous substance*, or*
- (d) was an incident required to be reported.*

*A major release of a 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 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.

Preservation of evidence

172 (2) Except as otherwise directed by an officer of the board or a peace officer, a person must not disturb the scene of an accident that is reportable under subsection (1) except so far as is necessary to

- (a) attend to persons injured or killed,*
- (b) prevent further injuries or death, or*
- (c) protect property that is endangered as a result of the accident.*

Incidents That Must Be Investigated

173(1) An employer must immediately undertake an investigation into the cause of any accident or other incident that

- (a) is required to be reported by section 172,*
- (b) resulted in injury requiring medical treatment**
- (c) did not involve injury to a worker, or involved only minor injury not requiring medical treatment, but had a potential for causing serious injury to a worker, or*
- (d) was an incident required by regulation to be investigated.***

(2) Subsection (1) does not apply in the case of a vehicle accident occurring on a public street or highway.

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

***Incidents required by regulation to be investigated include incidents of violence in the workplace.*

Investigation Process

Investigator's qualifications

174 (1) An investigation required under this Division must be carried out by persons knowledgeable about the type of work involved and, if they are reasonably available, with the participation of the employer or a representative of the employer and a worker representative.

Intent of the investigation

174 (2) As far as possible, the investigation must

- (a) determine the cause or causes of the incident,*
- (b) identify any unsafe conditions, acts or procedures that contributed in any manner to the incident, and*
- (c) if unsafe conditions, acts or procedures are identified, recommend corrective action to prevent similar incidents.*

Availability of witnesses

174 (3) The employer must make every reasonable effort to have available for interview by a person conducting the investigation, or by an officer, all witnesses to the incident and any other persons whose presence might be necessary for a proper investigation of the incident.

(4) The employer must record the names, addresses and telephone numbers of persons referred to in subsection (3).

Incident Investigation Report

175 (1) As part of the investigation required by this Division, an employer must ensure that an incident investigation report is prepared in accordance with the regulations.

OH&S Regulation – Section 3.4

Incident investigation reports

An employer must ensure that an incident investigation report required by Division 10 of Part 3 of the Workers Compensation Act contains

- (a) the place, date and time of the incident*
- (b) the names and job titles of persons injured in the incident,*
- (c) the names of witnesses,*
- (d) a brief description of the incident,*
- (e) a statement of the sequence of events which preceded the incident,*
- (f) identification of any unsafe conditions, acts or procedures which contributed in any manner to the incident,*
- (g) recommended corrective actions to prevent similar incidents, and*
- (h) the names of the persons who investigated the incident.*

Distribution of reports

175(2) The employer must provide a copy of the incident investigation report to

- (a) the joint committee or worker representative, as applicable,*
and
- (b) the board.*

Follow-up Action and Report

176(1) Following an investigation under this Division, the employer must without undue delay undertake any corrective action required to prevent recurrence of similar incidents.

(2) As soon as is reasonably practicable, the employer must prepare a report of the action taken under subsection (1) and

- (a) provide the report to the joint committee or worker representative, as applicable, or*
- (b) if there is no joint committee or worker representative, post the report at the workplace.*

Investigation Concepts

In this module, we are going to discuss some of the basic concepts and theories of incident investigations.

- *Before we proceed, consider the fact that an accident/incident cannot be investigated unless it is known that one has occurred.*

What are some of reasons why accidents/incidents are not reported and how would you ensure that they are reported?



2.1 What to Investigate

Earlier in the session, we discussed the regulatory requirements as to what accidents/incidents should be investigated. In simple words, the following could be utilized as a guide.

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.

All accidents/incidents with the potential for loss should be investigated.

2.2 What the result must be

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

- WHO was involved or injured? Were there witnesses?

- WHERE did the accident/incident happen? (Name of department, machine, location etc.).

- WHEN did the accident/incident occur? (Date, exact time of day, shift).

- 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/incident be prevented? (Must be specific).

2.3 Incident Causation

Usually there are four or five root causes or factors that contribute to an incident. Often there are even more, but your task is to identify as many as possible.

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?

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

Mechanical and material causes – Management Control

- unsafe or defective equipment
- improper working conditions
- poor housekeeping
- physical hazards
- improper planning

Causes - Supervisor Control

- faulty instruction
- poor discipline
- unsafe work practices

Causes - Personal Factor

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

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

Most incidents are the result of several causes happening in sequence and in combination.

- *While reading the following story, IDENTIFY and UNDERLINE the various causes which contributed to the incident.*

It all started in the afternoon. Bill had a violent argument with a co-worker shortly before quitting time, which almost came to blows. Bill left the plant still angry and emotionally upset. He stopped off at a bar for a drink and stayed longer than he had intended. Leaving the bar in an intoxicated state, Bill arrived home late for supper, which precipitated an argument with his wife. Stomping out of the house without supper, Bill returned to the bar and spent the rest of the evening there. Finally leaving the bar, he realized he had better sober up before returning home and decided to drive out to a highway restaurant to get something to eat.

Outside, snow and freezing rain had been falling. The highway which had not yet been sanded, was slick with ice and snow. Oblivious to hazards, Bill drove too fast for the road conditions. Rounding a sharp curve, he was blinded by the high beam lights of an oncoming car. Bill slammed on his brakes. That did it. His car went into a skid and crashed into a guardrail. The car sustained extensive damage. Bill, fortunately, received only minor cuts and bruises.

Note Case Study Answer Key – See Appendix 1.

Investigation Procedure

This portion of the session 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 you 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

3.1 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 the injured workers are properly cared for before starting the investigation.

- Keep the accident scene as undisturbed as possible.

This refers to *Workers Compensation Act* Part 3, Division 10, Section 172(2) for WorkSafeBC purposes as well as your own procedure.

- Make an accurate record of the accident scene.

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.

Interviewing skills will be reviewed in the next section.

- Record all information accurately.
- Start the incident investigation report.

The basic information such as dates and times can be filled in on the incident investigation report at this point.

See Appendix 2 – Sample Accident Scene Sketches.

See Appendix 3 - Accident/Incident Investigation Check List.

3.2 Interviews

One of the main methods of gathering information in an incident investigation is interviews with 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.

- 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.

The investigation is to find the causes so they can be eliminated to prevent recurrence, not to pin 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 his or her account of the incident.
- Listen closely and carefully, and do not interrupt at this time.

This gives the witness a chance to formulate the story in his/her own mind and gives you a preview of what s/he knows.

- Do not take notes during this initial dissertation as it distracts the witness.
- Do not use a tape recorder.
- Have the witness relate his/her story again and this time take notes. Ask questions to fill in the gaps.

Do not take your notes in a secretive manner. Allow the witness to see your notes.

- Ask further specific questions if required.

- Avoid questions that lead the witness or imply answers.
- Go over your notes to ensure the witness agrees with your interpretation of his/her story.
- Ask the witness for his/her suggestions as to how the accident could have been avoided.
- Encourage the witness to contact you a later date should s/he think of something else.
- Be sure to thank individuals for his/her assistance.

3.3 Evaluation

We are now at the stage of evaluating the evidence you have gathered and are prepared to draw conclusions based on that evidence.

- 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 incident investigation process:

- Believing carelessness is a cause of accidents/incidents.
- 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.

Referring to the scenario on page 12, what are some of the multiple causes of the accident?



Note: For Answer Key to Workbook Questions – See Appendix 1.

3.4 Report Writing

Now we are at the point where 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.

- Attach diagrams, photos, manufacturer's specifications etc.

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

If a worker not wearing a hardhat is struck on the head, the problem is not that s/he wasn't wearing a hardhat as much as WHY s/he wasn't wearing one. WHAT was s/he struck by? WHY did it fall?

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 4 - Sample Accident/Incident Investigation Report.

See Appendix 5 - Blank Accident/Incident Investigation Report Form.

3.5 Follow-up

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

Keep these points in mind for the follow-up of an incident 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

We have discussed the concepts and procedures for incident investigations. As a summary, here is an overview of the procedure.

- Go to the scene of the accident promptly and ensure safety; see that the needs of the injured are attended to.
- Ensure the integrity of the accident scene and 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.

Appendix 1 Answer Key

Now compare your answers to the following suggested definitions.

(From page 1)

What is an ‘Accident’?

An accident is an unplanned, unwanted event that disrupts the orderly flow of the work process. It involves the motion of people, objects or substances.

What is an ‘Incident’?

An incident includes an accident or other occurrences which resulted in or had the potential for causing an injury or occupational disease.

An 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 even security breaches such as theft.

What is an ‘Accident/Incident Investigation’?

An Accident/Incident Investigation is the analysis and account of an incident based on information gathered by a thorough examination of ALL FACTORS involved.

(From page 7)

Incident Reporting

Before accidents/incidents can be investigated, you must be aware that one has in fact occurred.

Reasons why accidents/incidents may not be reported could include:

- *not wanting to spoil safety record*
- *not wanting to go to first aid*
- *afraid workers will 'kid' them*
- *afraid of medical treatment*
- *doesn't like 'red tape' involved with filling out forms*
- *afraid foreman will "get mad"*
- *not wanting to be central person in an incident investigation*
- *not wanting to lose time.*

(From page 12)

Your responses to the preceding case study could include the following:

- *argument with co-worker*
- *emotionally upset*
- *goes to bar*
- *drinks alcohol*
- *stays longer/intoxicated*
- *late for supper*
- *argument with wife*
- *goes back to bar*
- *no supper*
- *more alcohol*
- *more upset*
- *drives intoxicated*
- *deteriorated weather*
- *slick roads*
- *unsanded roads*
- *speeds*
- *curve in road*
- *high beam*
- *over-reaction*
- *braked hard*

By identifying and listing all possible contributing factors, no matter how trivial, the investigating team can isolate the factors most useful to them.

(From page 22)

The breakdown of the multiple causes of this case study could be as follows:

Unsafe Act

- *braking too abruptly*
- *driving too fast for road conditions*

Personal Factor

- *his alcoholic state*
- *his emotional state of mind (arguments with co-worker and with wife)*

Unsafe Environment or Conditions

- *the icy road conditions*
- *the glare of oncoming headlights*
- *the sharp curve in the road*

Unsafe Act by Another Person

- *failure of oncoming driver to dim his lights*

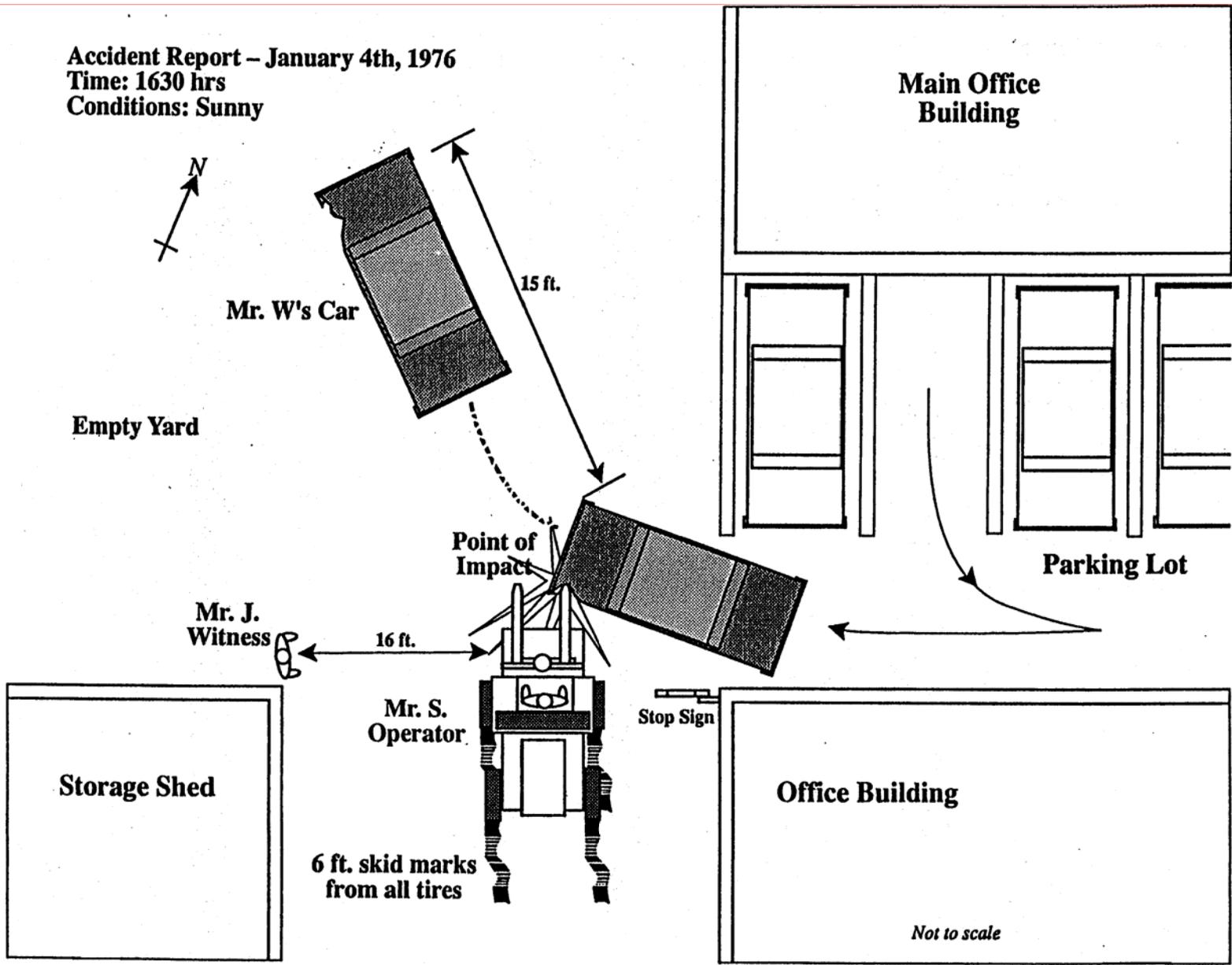
Deficiency for which Others are Responsible

- *failure to sand the road*

Appendix 2

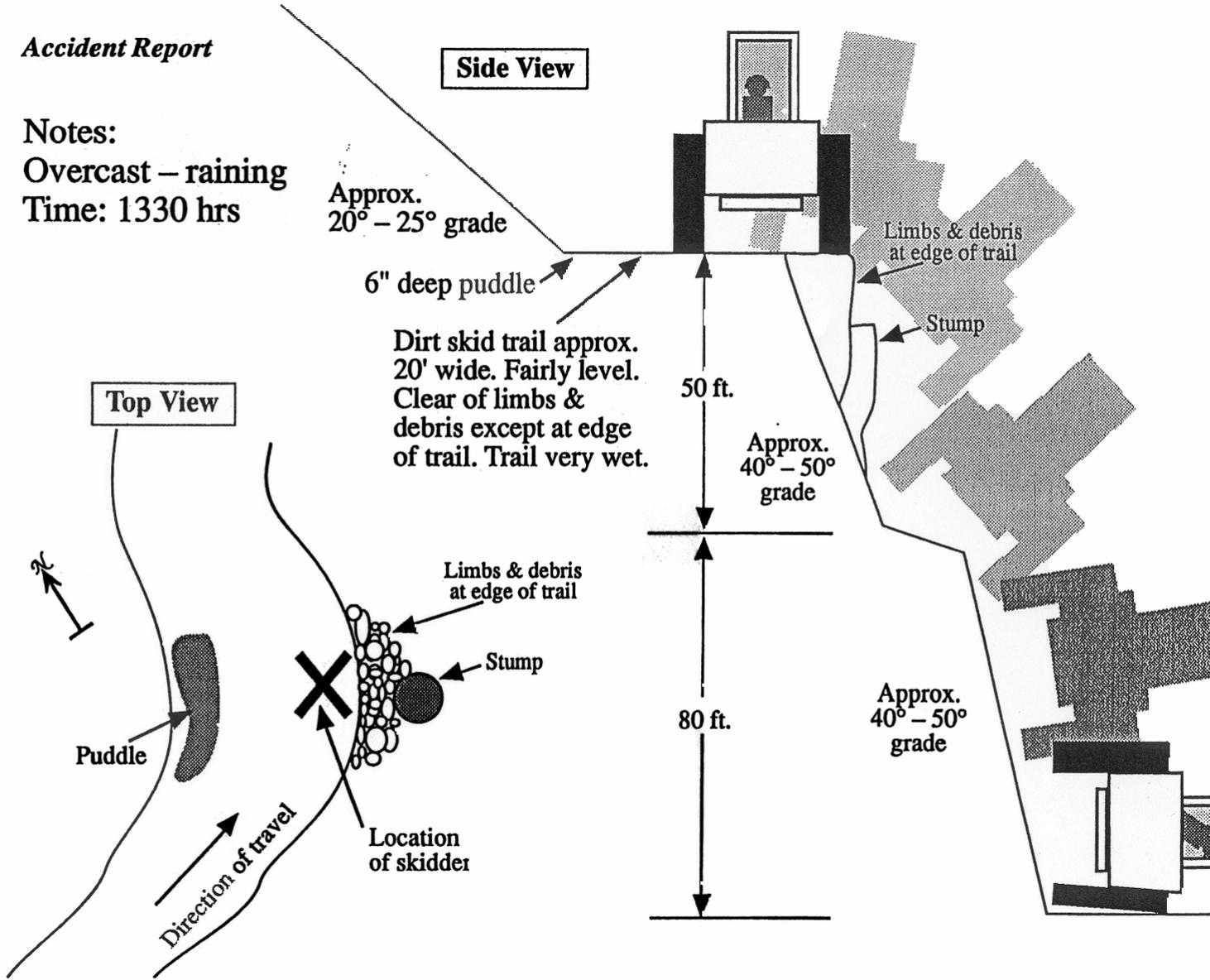
Accident Scene Sketches

Accident Report – January 4th, 1976
Time: 1630 hrs
Conditions: Sunny



Accident Report

Notes:
Overcast – raining
Time: 1330 hrs



FATAL Lumber Storage Area, XYZ Sawmill Ltd.

Accident – Details

Time: 6:45 p.m.

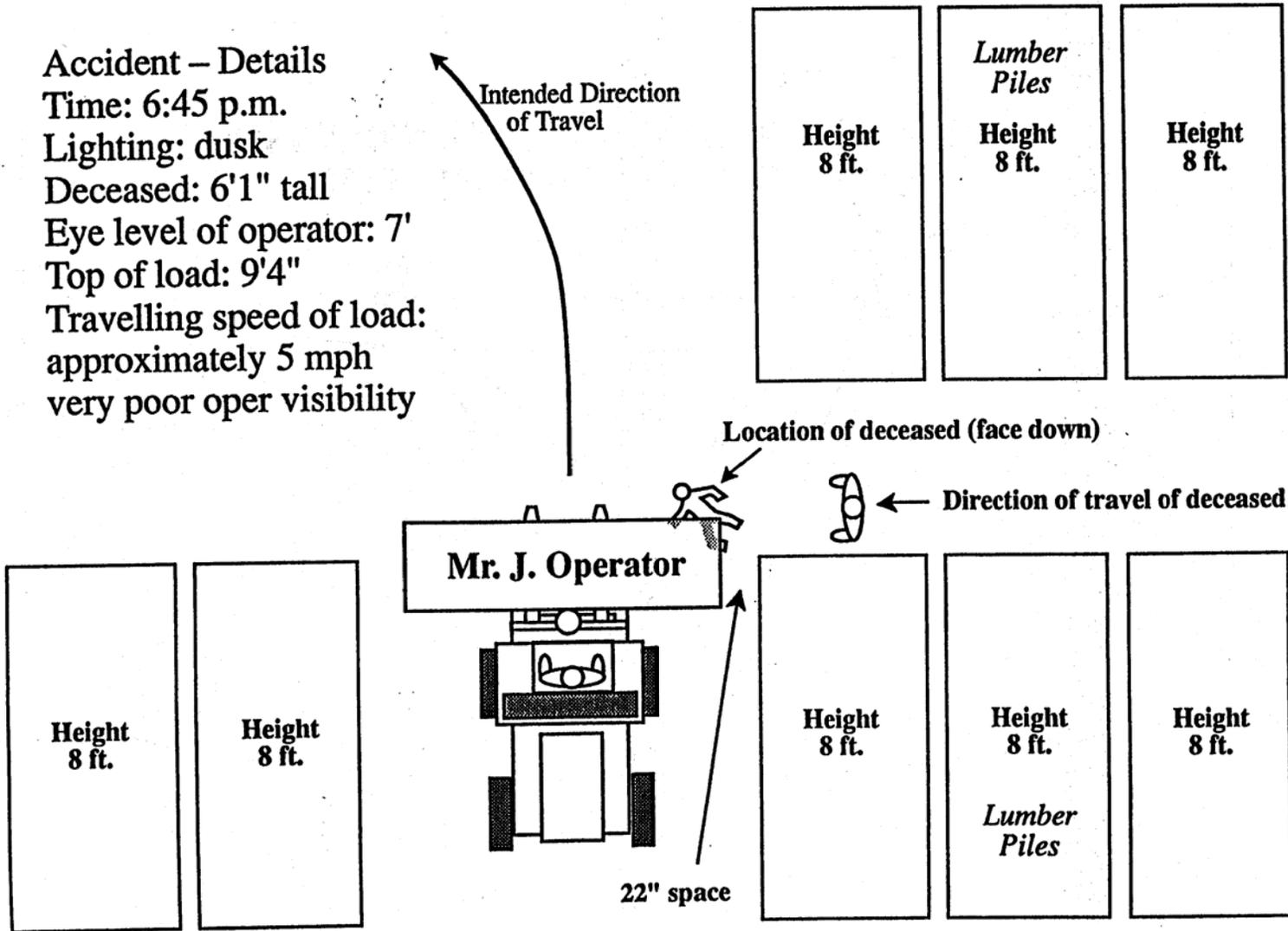
Lighting: dusk

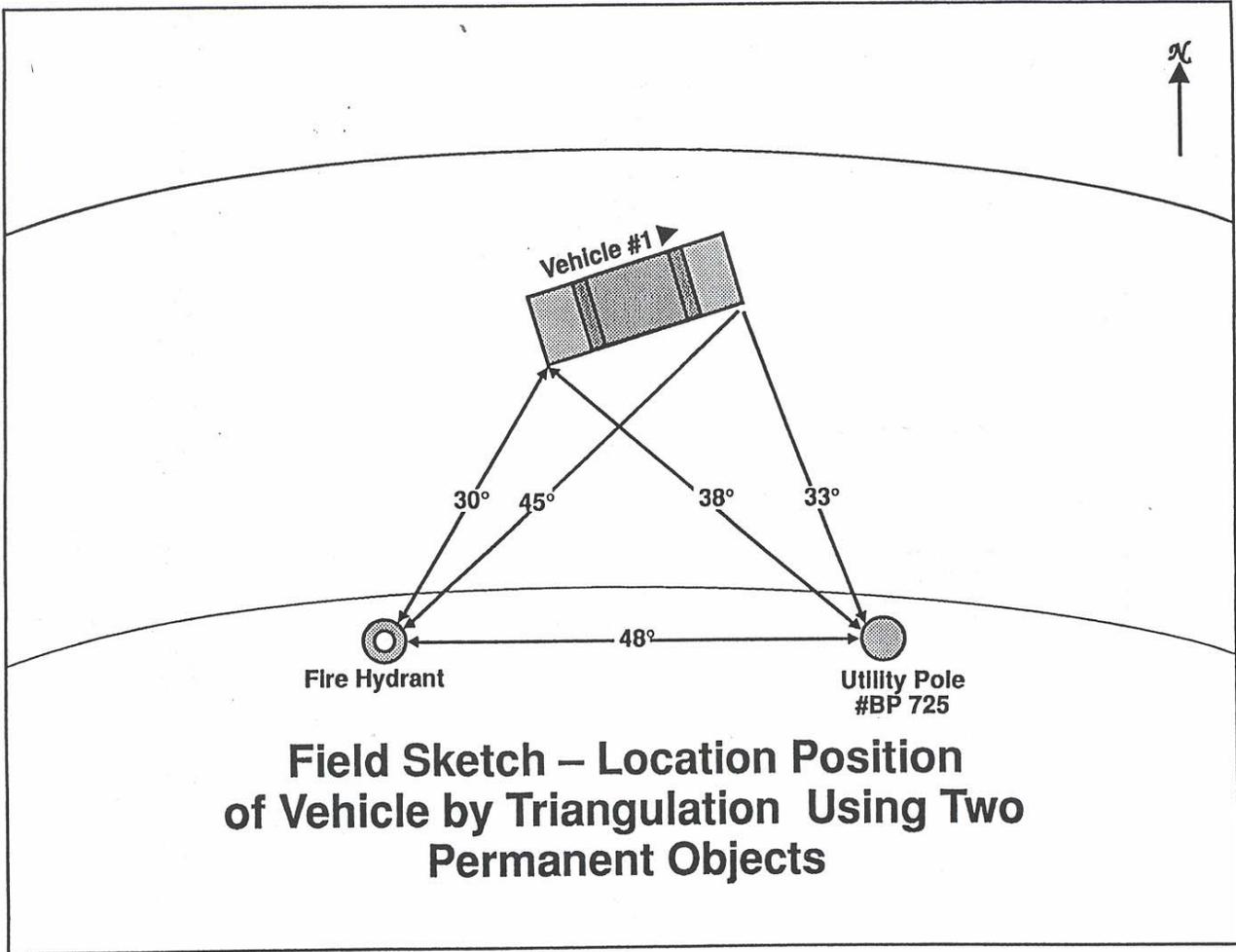
Deceased: 6'1" tall

Eye level of operator: 7'

Top of load: 9'4"

Travelling speed of load:
approximately 5 mph
very poor oper visibility





**Field Sketch – Location Position
of Vehicle by Triangulation Using Two
Permanent Objects**

Appendix 3

Accident/Incident Investigation Check List

NOTIFICATION

- Agency
- 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 no.
- Occupation
- Experience
- Training this job
- Familiarity with equipment
- How supervised
- Personal Protective Gear
- Personal Problems On/Off job
- 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 OH&S Regulations
- Opinion of how accident happened
- Opinion of how accident could be prevented
- Supervisors' instruction from management

FIRST AID

- Were services available
- Was treatment given
- Name of First Aid Attendant

OTHER PARTY

- Instructions
- Experience in Industry
- Experience in job at time of accident
- Supervision
- Training
- Knowledge of OH&S Regulation
- Familiarity w/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
- Terrain
- Noise

PERSONS WITH INFORMATION

- Name
- Work and residence address
- Recollection of accident
- Hearsay (scuttle)

EMPLOYER

- Name and address of Head Office
- Address of office where worker records are held
- Condition of firm Safety Program

NOTE: Wherever possible, the names and addresses of dependents/next of kin should be obtained in all fatal investigations

Appendix 4

Sample Accident/Incident Investigation Report

INCIDENT INVESTIGATION REPORT*Worker and Employer Services Division*

This form is provided to employers for the purpose of documenting the employer's investigation into a workplace incident. Please attach a separate sheet if necessary.

Employer name Royal Oak Furniture Manufacturing Co. Ltd.	Employer number AQ112506
Employer head office address #5525 - 1445 Granville Street, Vancouver	

Incident occurred *ref: s. 3.4(a) Occupational Health and Safety Regulation (OHS Regulation)*

Address where incident occurred (including nearest city) #208 - 1448 - Tilbury Industrial Way		
Date 2000-01-14 <small>yyyy-mm-dd</small>	Time 2:55	a.m. <input type="checkbox"/> p.m. <input checked="" type="checkbox"/>

Injured person(s) *ref: s. 3.4(b) OHS Regulation*

Last name	First name	Job title	Age	Length of experience with this employer	Length of experience at this task/job
1) Brent	Baker	Table Saw Operator	43	18	16
2)					

Nature of injury/injuries

1) Piece of steel in right eye
2)

Witnesses *ref: s. 174(4) WCA and s. 3.4(c) OHS Regulation*

Last name	First name	Address	Telephone
1)			()
2)			()
3)			()

Incident description *ref: s. 3.4(d)-(e) OHS Regulation*

Briefly describe what happened, including the sequence of events preceding the incident.

Shipping ran out of pallets and needed two for a shipment this afternoon. Foreman instructed Baker to rip 6" x 6" posts that were part of old warehouse torn down last year. Baker proceeded to rip the posts into 3" x 6" and as he was in a hurry, he didn't check for nails. He also did not use the saw guard and he did not wear any eye protection. Also, First Aid Attendant was sick today and there was no one to treat the injured worker.

Statement of causes ref: s. 174(2)(a)-(b) WCA and s. 3.4(f) OHS Regulation

List any unsafe conditions, acts, or procedures that in any manner contributed to the incident.

Out of pallets - Poor planning. Worker rushed due to production deadline. Using material that had nails in it. Saw guard not used. Worker not wearing eye protection. Post accident problem - No F.A. A. on duty which delayed treatment.

Recommendations ref: s. 174(2)(c) WCA and s. 3.4(g) OHS Regulation

Identify any corrective actions that have been taken and any recommended actions to prevent similar incidents.

Recommended corrective action	Action by whom	Action by date
1) Develop inventory system for pallets, other supplies	G. Green	2006-11-23
2) Saw operators must use eye & full face PPE	G. Green	2006-11-23
3) Saw guard must be in place	Operator	2006-11-23
4) Train or hire additional first aid attendants	T. McMillan	2006-12-31

Persons conducting investigation ref: s. 3.4(h) OHS Regulation

Name	Signature	Type of representative			Date
Carlos Ruiz		Employer <input checked="" type="checkbox"/>	Worker <input type="checkbox"/>	Other <input type="checkbox"/>	2006-11-16
Jack Carswell		Employer <input type="checkbox"/>	Worker <input checked="" type="checkbox"/>	Other <input type="checkbox"/>	2006-11-16
		Employer <input type="checkbox"/>	Worker <input type="checkbox"/>	Other <input type="checkbox"/>	

For additional information on WorkSafeBC (Workers' Compensation Board of B.C.) and on the requirements for incident investigations, please refer to WorkSafeBC's web site: WorkSafeBC.com

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A GUIDE TO INCIDENT INVESTIGATION

Use this guide in conjunction with the requirements of the *Workers Compensation Act (WCA)*, Part 3 Division 10, and the Occupational Health and Safety Regulation (OHS Regulation), section 3.4.

When is an investigation required?

Employers are required to immediately undertake an investigation into any accident or other incident that:

- Is required to be reported under section 172 of the *Workers Compensation Act*, or
- Resulted in injury requiring medical treatment, or
- Did not involve injury to a worker or involve a minor injury that did not require medical treatment but had the potential for causing serious injury, or
- Was an incident required by regulation to be investigated.

Who should conduct the investigation?

- Incidents must be investigated by people knowledgeable about the type of work involved at the time of the incident.
- If reasonably available, investigations must be carried out with the participation of one employer representative and one worker representative.

What is the purpose of an investigation?

The purpose of an investigation is to determine the cause or causes of the incident, to identify any unsafe conditions, acts, or procedures that contributed to the incident, and to recommend corrective action to prevent similar incidents.

Who receives copies of the report?

Incident investigation reports required by the *WCA* must be provided to the joint health and safety committee or worker representative as applicable, and to WorkSafeBC.

What follow-up action is required after an incident investigation?

After an investigation, the employer must without undue delay undertake any corrective action required to prevent recurrence of similar incidents and must prepare a report of the action taken. The report must be provided to the joint health and safety committee or worker representative as applicable. The follow-up report does not have to be provided to WorkSafeBC unless requested by a WorkSafeBC officer.

What information should be included in the investigation report?

An incident investigation report should answer the **WHO, WHERE, WHEN, WHAT, WHY, and HOW** questions with regard to the incident.

WHO Employer, injured person(s), other person(s) involved in the incident, witnesses, and persons carrying out the investigation

WHERE Place, location where incident occurred

WHEN Date and time of the incident

WHAT A brief description of the incident, including the sequence of events that preceded the incident

Before the incident occurred:

- What were the events that led up to the incident?
- What process(es) was/were occurring immediately prior to the incident?
- What was/were the worker(s) doing immediately prior to the incident?
- What was the last event before the incident occurred?

At the time of the incident:

- What happened at the time of the incident?
- What process(es) was/were occurring at the time of the incident?
- What was/were the worker(s) doing at the time of the incident?

- What hazard(s) was/were the worker(s) exposed to?
- What hazards may have contributed to the incident occurring?
- What hazards did the worker(s) encounter?
- What personal factors may have contributed to the incident occurring?

Other information:

- Other observations
- Other related information

WHY From the answers to “what,” identify any unsafe conditions, acts, or procedures that in any manner contributed to the incident. Why did the unsafe conditions, acts, or procedures occur? Why were the personal factors not identified and/or addressed before the incident occurred?

HOW An investigation report should recommend corrective actions to prevent similar incidents from occurring. Once it is known why an incident occurred, determine how to prevent recurrence. For example:

- Improve workplace inspection and maintenance programs
- Repair or replace equipment/building
- Install safeguards
- Establish or revise safe work procedures
- Train/retrain person(s)
- Improve supervision

Additional information for determining why an incident happened

To determine the most probable cause(s) of an incident, consider all details of the investigation, including witness statements and, where possible, the injured worker’s statement.

Determine if the incident was due to an unsafe act, an unsafe condition, unsafe or inadequate procedures, or a combination of these. Consider whether the accepted/current procedures adequately address safety concerns associated with the activity that was taking place when the incident happened. Consider training, supervision, equipment controls, safeguards, and lock-out.

Unsafe acts – An unsafe act is a specific action or lack of action by an individual that is under the individual’s control. Examples of unsafe acts include: knowingly not following established rules, knowingly not following established procedures, knowingly disregarding a hazard, willful misconduct, abusing equipment, knowingly using equipment incorrectly, choosing not to use personal protective equipment, and not locking out when required. Generally, violating a safety rule, not following a safe work procedure, or disregarding a hazard are considered unsafe acts.

Unsafe conditions – Examples include poor housekeeping, congested areas, deficient equipment, equipment lacking safeguarding or having ineffective safeguarding, lack of personal protective equipment, poor visibility, poor weather conditions, and lack of or inadequate training. Inadequate training should be considered an unsafe condition as opposed to a deficiency in skill or ability (personal factors).

Inadequate procedures – Indications that procedures are inadequate include:

- Procedures are not available in written form
- Procedures do not identify inherent hazards
- Procedures do not identify hazard control methods
- Procedures do not identify safeguards that must be in place
- Procedures do not address pre-operation inspection requirements
- Procedures do not address lock-out requirements
- Procedures direct improper use of equipment or tools

Personal factors – A personal factor is a deficiency in skill or ability, a physical condition, or a mental attitude. It is a factor inherent in an individual at the time of the incident. Examples include work fatigue due to manual exertion, distress due to emotional problems, the influence of alcohol or drugs, or illness. A condition causing an allergic reaction in some but not most workers should be considered a personal factor, not an unsafe condition.

Appendix 5

Blank Accident/Incident Investigation Report

INCIDENT INVESTIGATION REPORT*Worker and Employer Services Division*

This form is provided to employers for the purpose of documenting the employer's investigation into a workplace incident. Please attach a separate sheet if necessary.

Employer name	Employer number
Employer head office address	

Incident occurred *ref: s. 3.4(a) Occupational Health and Safety Regulation (OHS Regulation)*

Address where incident occurred <i>(including nearest city)</i>	
Date <small>yyyy-mm-dd</small>	Time a.m. <input type="checkbox"/> p.m. <input type="checkbox"/>

Injured person(s) *ref: s. 3.4(b) OHS Regulation*

Last name	First name	Job title	Age	Length of experience with this employer	Length of experience at this task/job
1)					
2)					

Nature of injury/injuries

1)
2)

Witnesses *ref: s. 174(4) WCA and s. 3.4(c) OHS Regulation*

Last name	First name	Address	Telephone
1)			()
2)			()
3)			()

Incident description *ref: s. 3.4(d)-(e) OHS Regulation*

Briefly describe what happened, including the sequence of events preceding the incident.
--

Statement of causes *ref: s. 174(2)(a)-(b) WCA and s. 3.4(f) OHS Regulation*

List any unsafe conditions, acts, or procedures that in any manner contributed to the incident.

Recommendations *ref: s. 174(2)(c) WCA and s. 3.4(g) OHS Regulation*

Identify any corrective actions that have been taken and any recommended actions to prevent similar incidents.

Recommended corrective action	Action by whom	Action by date
1)		
2)		
3)		
4)		

Persons conducting investigation *ref: s. 3.4(h) OHS Regulation*

Name	Signature	Type of representative			Date
		Employer <input type="checkbox"/>	Worker <input type="checkbox"/>	Other <input type="checkbox"/>	
		Employer <input type="checkbox"/>	Worker <input type="checkbox"/>	Other <input type="checkbox"/>	
		Employer <input type="checkbox"/>	Worker <input type="checkbox"/>	Other <input type="checkbox"/>	

For additional information on WorkSafeBC (Workers' Compensation Board of B.C.) and on the requirements for incident investigations, please refer to WorkSafeBC's web site: WorkSafeBC.com

Mailing address WorkSafeBC
PO Box 5350 Stn Terminal
Vancouver BC V6B 5L5

Fax number: 604 276-3247

Telephone information

Call centre: 604 276-3100 or toll free within B.C. 1 888 621-SAFE (7233)

After hours health and safety emergency: 604 273-7711 or toll free 1 866 922-4357 (WCB-HELP)

A GUIDE TO INCIDENT INVESTIGATION

Use this guide in conjunction with the requirements of the *Workers Compensation Act (WCA)*, Part 3 Division 10, and the Occupational Health and Safety Regulation (OHS Regulation), section 3.4.

When is an investigation required?

Employers are required to immediately undertake an investigation into any accident or other incident that:

- Is required to be reported under section 172 of the *Workers Compensation Act*, or
- Resulted in injury requiring medical treatment, or
- Did not involve injury to a worker or involve a minor injury that did not require medical treatment but had the potential for causing serious injury, or
- Was an incident required by regulation to be investigated.

Who should conduct the investigation?

- Incidents must be investigated by people knowledgeable about the type of work involved at the time of the incident.
- If reasonably available, investigations must be carried out with the participation of one employer representative and one worker representative.

What is the purpose of an investigation?

The purpose of an investigation is to determine the cause or causes of the incident, to identify any unsafe conditions, acts, or procedures that contributed to the incident, and to recommend corrective action to prevent similar incidents.

Who receives copies of the report?

Incident investigation reports required by the *WCA* must be provided to the joint health and safety committee or worker representative as applicable, and to WorkSafeBC.

What follow-up action is required after an incident investigation?

After an investigation, the employer must without undue delay undertake any corrective action required to prevent recurrence of similar incidents and must prepare a report of the action taken. The report must be provided to the joint health and safety committee or worker representative as applicable. The follow-up report does not have to be provided to WorkSafeBC unless requested by a WorkSafeBC officer.

What information should be included in the investigation report?

An incident investigation report should answer the **WHO, WHERE, WHEN, WHAT, WHY, and HOW** questions with regard to the incident.

WHO Employer, injured person(s), other person(s) involved in the incident, witnesses, and persons carrying out the investigation

WHERE Place, location where incident occurred

WHEN Date and time of the incident

WHAT A brief description of the incident, including the sequence of events that preceded the incident

Before the incident occurred:

- What were the events that led up to the incident?
- What process(es) was/were occurring immediately prior to the incident?
- What was/were the worker(s) doing immediately prior to the incident?
- What was the last event before the incident occurred?

At the time of the incident:

- What happened at the time of the incident?
- What process(es) was/were occurring at the time of the incident?
- What was/were the worker(s) doing at the time of the incident?



- What hazard(s) was/were the worker(s) exposed to?
- What hazards may have contributed to the incident occurring?
- What hazards did the worker(s) encounter?
- What personal factors may have contributed to the incident occurring?

Other information:

- Other observations
- Other related information

WHY From the answers to “what,” identify any unsafe conditions, acts, or procedures that in any manner contributed to the incident. Why did the unsafe conditions, acts, or procedures occur? Why were the personal factors not identified and/or addressed before the incident occurred?

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