



# The Effective Investigator

**From Theory to Practice**

Revised January, 2022

Presented by:

# Information:

Please be advised this is an awareness information session, and is not representative as training under the requirements of the Canada Labour Code, Part II and Canadian Occupational Health and Safety Regulations.



# Learning objectives

## Part 1: Theory

- Accident Causal Model
- Investigative Process (5 Steps)
  - Step 1: Secure the Scene
  - Step 2: Notify People
  - Step 3: Collect Information
  - Step 4: Analyze Information
  - Step 5: Recommend and Report

## Part 2: Practice



# Part 1: Theory



# Accident Causal Model

- What is Accident Causation:

The factors that are the primary reasons behind an accident. For occupational health and safety professionals, determining causation factors in any workplace injury or accident is key. Understanding what caused an unsafe situation to occur is important in implementing measures to help prevent a reoccurrence.

**“Accident causation factors can be described as the factors once identified and removed can eliminate hazards or accidents.”**



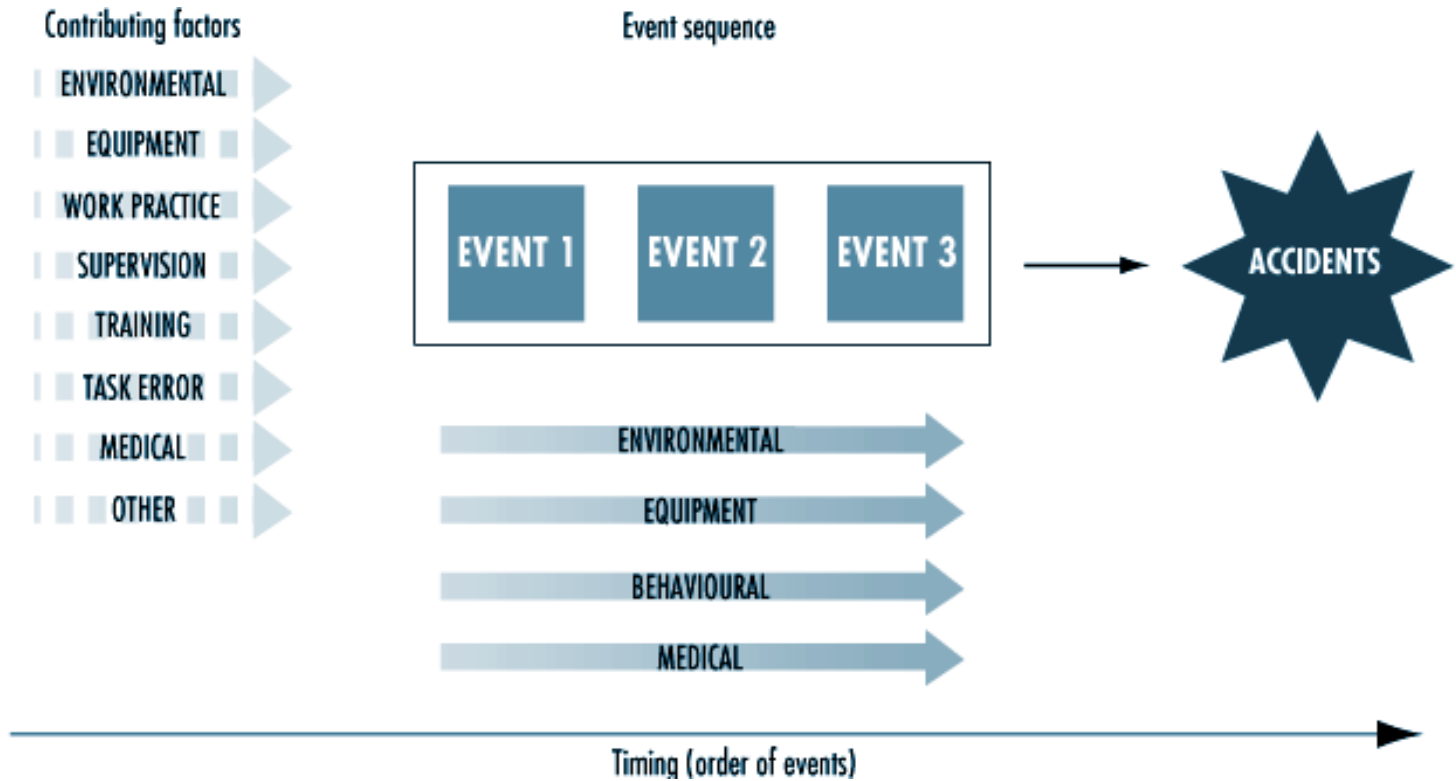
# Accident Causal Model

**Multiple factors can cause an accident,** including **mechanical** factors, **human** factors, and **environmental** factors.

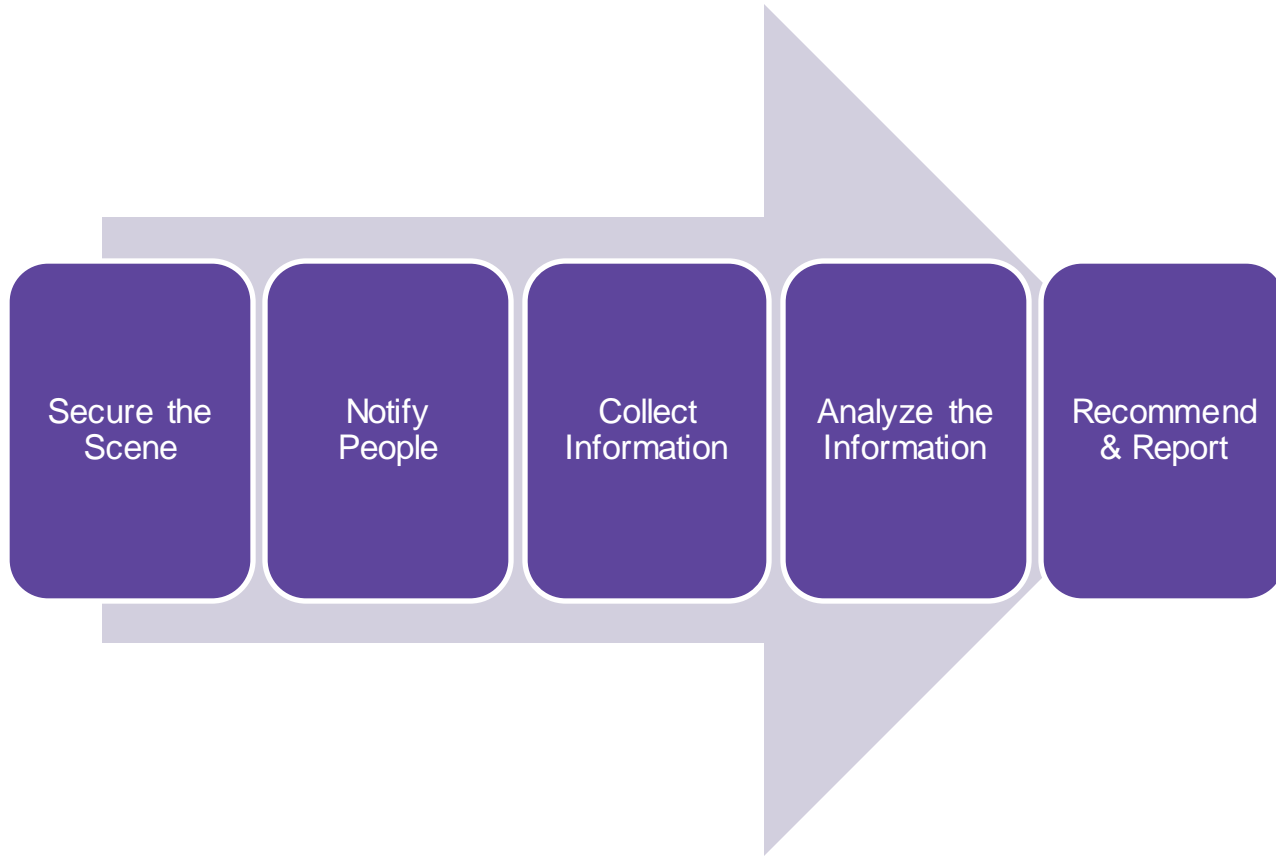
- Mechanical factors can include faulty equipment, or using equipment other than the way in which it is intended
- Human factors can include loss of sleep, inattention or a lack of knowledge about safety measures, lack of training, or complacency
- Environmental factors can include excessive heat/cold, low-light conditions and slippery floors



# Accident Causal Model = Sequence of Events



# Five Basic Steps in an Accident Investigation





# Step 1:

## Secure the Scene

- Assess the Scene for Safety
- Take immediate action to eliminate all risks to others
- Take immediate action to care for the injured worker(s)
- Secure the Scene (Caution Tape, Barriers)
- Manage the Scene
- Initiate the care of witnesses and survivors



# Step 2:

Notify People

- Determine WHO needs to be notified
- Notify key players in the company
- Notify **next of kin (NOK) / family**
- Assign/notify investigation team
- ESDC Labour Program – Follow **Section 15.5 and 15.8 of the COHSR** with Reporting Requirements and notification to the **Head of Compliance and Enforcement**
- Workplace Committee Members, Union Representative
- Police (Violent situation or criminal)



# Step 3:

Collect Information

## Scene:

- Photographs with notes / log
- Notes on environmental conditions (lighting, noise, housekeeping, weather)
- Map or diagram of the scene
- Equipment defects or lock-out / tag-out hardware and/or permits
- Contact information of persons at scene / witnesses



# Step 3:

Collect Information

## Reports / Documents:

- Training Records
- Job Descriptions
- Hazard Prevention Program / Job Hazard Analysis
- Maintenance records
- Equipment Manuals
- Contracts
- SDS
- Previous accidents / Near Miss reports
- Police Reports (if obtainable)
- Coroner's Reports / Toxicology (if applicable)



# Step 3:

Collect Information

## Interviews:

- Select a quiet and neutral place
- Ensure person is at ease and not in distress
- For direct witness, ask them to write in their words what they observed
- Use open ended questions (tell me, explain to me, **etc.**)
- Demonstrate attention to the person
- Probe for missing information by asking questions
- Summarize information once received
- Thank the person for their interview



# Information Gathering

**Who**

- Who is injured? (Names/ Employees/ Contractors / Persons)

**What**

- What does the accident involve?(Equipment / Materials / Machines)

**When**

- When did the accident occur? (Daylight, Night time, Beginning or end of shift)

**Where**

- Where did the accident occur? (Workplace, Off site, Building, Yard, Public Road)

**Why**

- Why did the accident occur? (Defective Tool, Inadequate Training, PPE, Mechanical Error, Human Error)

**How**

- How did this accident occur?(Accident Causal Model)



# Step 4:

## Analyze the Information

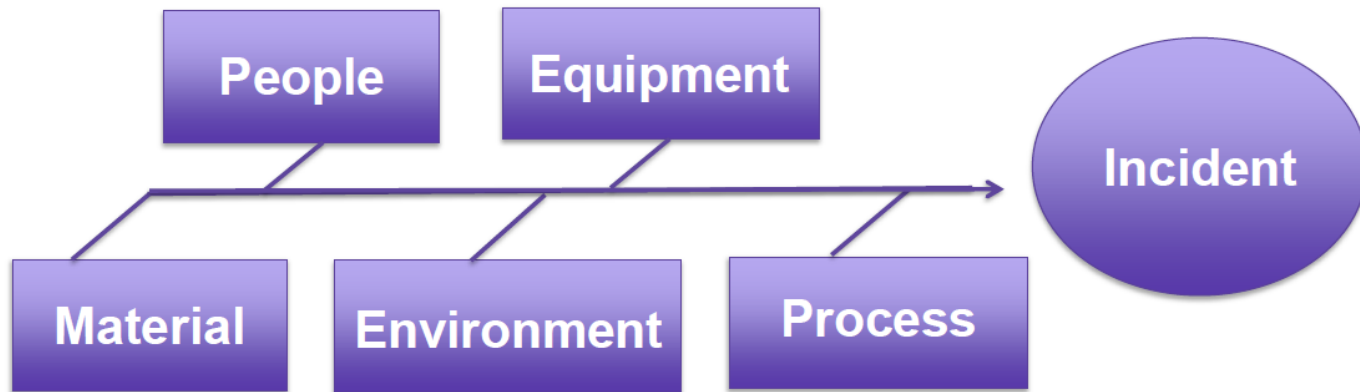
- Review all information gathered
  - Notes
  - Photographs
  - Interviews
  - Documents
- Immediate Causes:** Apparent / obvious causes of the injury (e.g. Operating defective machinery or at improper speed, or without guarding)
- Underlying or Root Causes:** (e.g. Lack of training, knowledge, skills, inadequate supervision, inadequate PPE)



# Step 4:

Analyze the Information

- Review PEMEP Factors:





# Step 5:

Recommend and Report

## •Recommendations

- Investigation team makes recommendations based on key contributing factors and underlying root causes
- Should be specific and include timelines

## •Corrective Actions

- Department Manager must follow up on corrective actions to ensure implementation
- Health and Safety Committee follows up



# Accident Investigation Tool Kit

Camera (Photo / Video)

Voice Recorder  
Flashlight

Contact Numbers

Investigative  
Notebook

Pen, Pencils

Tape Measure



Caution Tape / Signs

Emergency Numbers

Investigation  
Procedures

Seals for Tools

Lock Out / Tag Out  
Hardware and Tags

Personal Protective  
Equipment (PPE) -  
gloves, hard hat,  
mask, etc.

Evidence Tags / Bags



# Part 2: Practical



# Recap Steps: Investigation Process

- Step 1: Secure the Scene
- Step 2: Notify People
- Step 3: Collect Information
- Step 4: Analyze Information
- Step 5: Recommend & Report

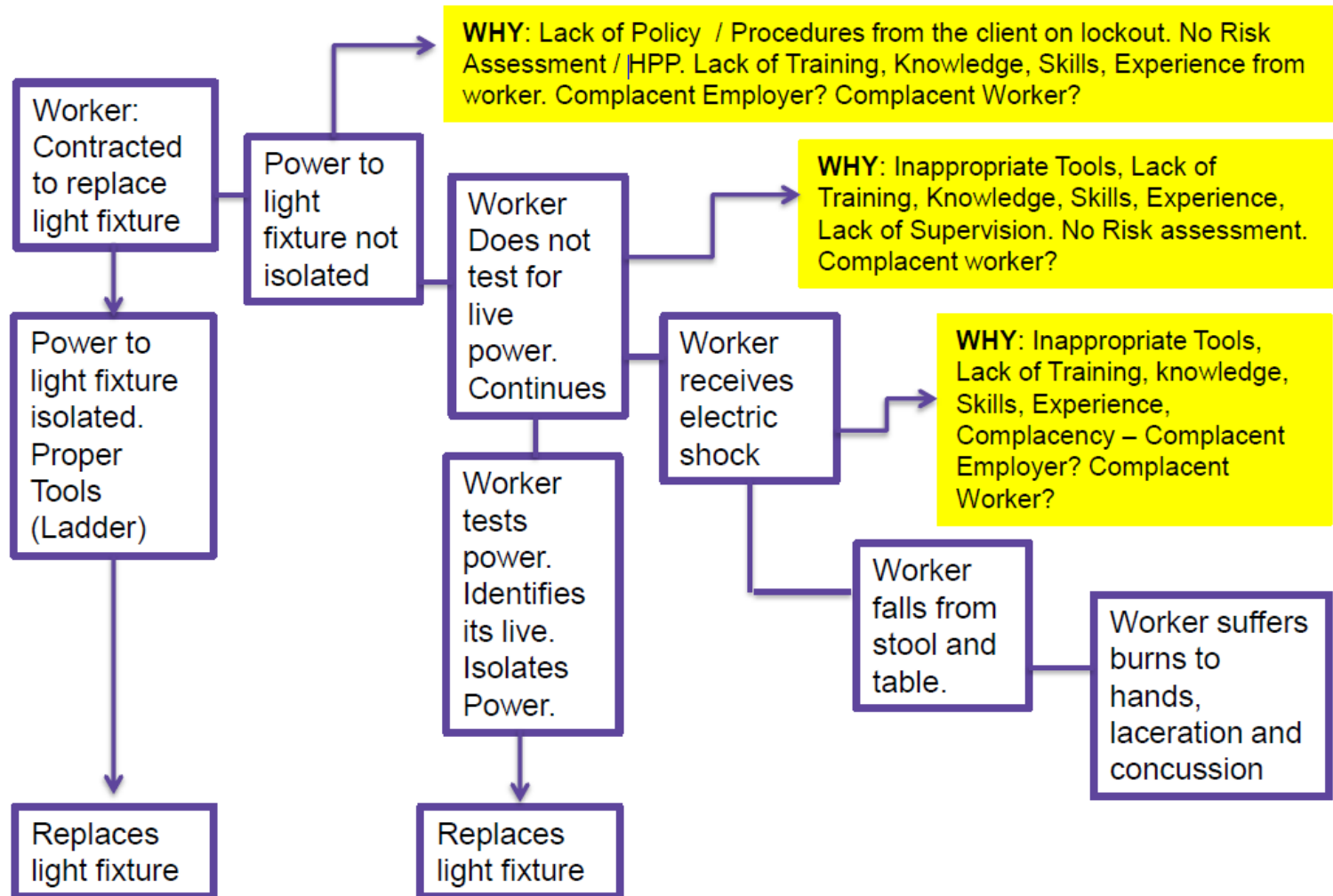


# Step 3: Collect Information

- **Who:** Worker was hired as an employee to replace light fixture. (Brother of an employee of ABC company. (not a licenced electrician)
- **What:** Worker received an electric shock while attempting to replace light fixture
- **When:** 8am. Indoors
- **Where:** **Inside** ABC company building
- **Why:** Live Electricity. Electrical source not isolated. Improper tools (ladder) Unqualified worker not skilled, no training, unlicensed. Possible impairment. ER: no policies on contractors, no lock out policy, procedure, complacency.



# Step 4: Analyze Information : Causal Tree



# Step 4: Analyze Information

## Factors in this Accident

- **Primary Root-Cause:** Live Electricity (Power to light fixture was not isolated)
- **Secondary Cause:** Inappropriate Tools, Ladder, Lack of Training, Skills, Knowledge, Experience, Lack of Policy and Procedures from the Client. Lack of Supervision and Complacency. Possible impairment?



# Complacency... The Silent Killer

- Strong IRS targets and may reduce Complacency
- Key Players to combat complacency are Workplace Committee / Health and Safety Representatives

## How to Reduce Complacency:

- Focusing on Safety Related Habits
- Regular Safety meetings / Re-Training / Audits / Reinforcing Policies & Procedures
- Strengthening the Internal Responsibility System





# Step 5: Recommend & Report

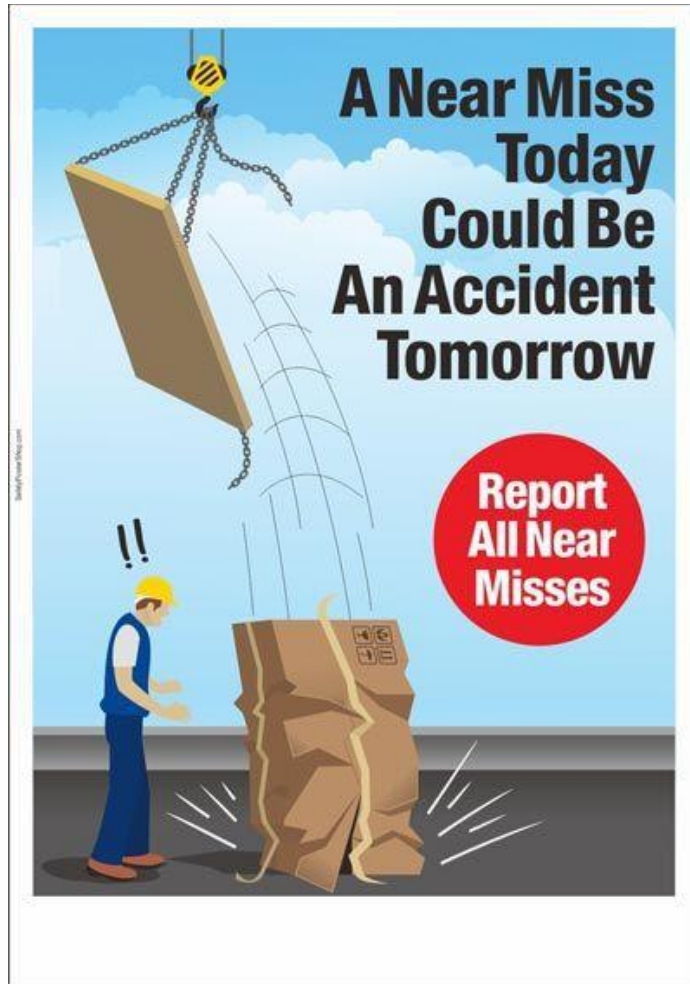
- ✓ **Reporting the Accident:** Canada Occupational Health and Safety Regulation Part 15
- ✓ **Written Report (15.8):** Hazard Occurrence Investigation Report (Form LAB 1070 HOIR)
- ✓ **Telephone Reports (15.5)**
- ✓ Ensure a Report with Recommendations including timelines is submitted to Management, and the local Workplace Health and Safety Committee



# Should a Near Miss be Investigated?



# Report and Investigate all Near Misses



- A near miss is a condition or unplanned event that didn't result in an injury, illness, or damage to equipment or property, but had the **potential or likelihood** to do so.

- Focusing on near misses helps **reduce the likelihood** of having major incidents or minimize the damage they might cause if they do occur.

It's all about **Prevention**



# Are Employees Required to Report Near Misses?

•Yes...

CLC Part II, section 126.(1)(g):

Report to the employer any thing or circumstance in a work place that is **likely** to be hazardous to the health or safety of the employee, or that of the other employees or other persons granted access to the work place by the employer;

COHSR 15.3: (Reports by Employees)

Where an employee becomes aware of an accident or other occurrence arising in the course of or in connection with the employee's work that has caused or is **likely** to cause injury to that employee or to any other person, **the employee shall, without delay, report the accident or other occurrence to his employer, orally or in writing.**

**Employers must ensure Employees are informed in their duty to report, and have clear and simple instructions on how to report to the Employer.**



# Employer Obligation to Investigate Canada

## Canada Occupational Health and Safety Regulation 15.4

**15.4** (1) Where an employer becomes aware of an accident, occupational disease or other hazardous occurrence affecting any of his employees in the course of employment, the employer shall, without delay,

- (a) appoint a qualified person to carry out an investigation of the hazardous occurrence;
- (b) notify the work place committee or the health and safety representative of the hazardous occurrence and of the name of the person appointed to investigate it; and
- (c) take necessary measures to prevent a recurrence of the hazardous occurrence.

(2) Where the hazardous occurrence referred to in subsection (1) is an accident involving a motor vehicle on a public road that is investigated by a police authority, the investigation referred to in paragraph (1)(a) shall be carried out by obtaining from the appropriate police authority a copy of its report respecting the accident.

(3) As soon as feasible after receipt of the report referred to in subsection (2), the employer shall provide a copy of the report to the work place committee or the health and safety representative.



# Investigation Reporting Requirements

**Accident investigations and reporting play an important role in preventing similar incidents from reoccurring**

**COHSR 15.5:** Report via phone to the Labour Program within **24 hours**.

**1-800-641-4049 (emergency services 24 hours)**

- (a) the death of an employee;
- (b) a disabling injury to two or more employees;
- (c) the loss by an employee of a body member or a part thereof or the complete loss of the usefulness of a body member or a part thereof;
- (d) the permanent impairment of a body function of an employee;
- (e) an explosion;
- (f) damage to a boiler or pressure vessel that results in fire or the rupture of the boiler or pressure vessel; or
- (g) any damage to an elevating device that renders it unserviceable, or a free fall of an elevating device



# Investigation Reporting Requirements

**COHSR 15.8 (1):** Submit a Report (LAB1070) to the Labour Program within **14 calendar days**.

- (a) a disabling injury to an employee;
- (b) an electric shock, toxic atmosphere or oxygen deficient atmosphere that caused an employee to lose consciousness;
- (c) the implementation of rescue, revival or other similar emergency procedures; or
- (d) a fire or an explosion.

**Disabling Injury:** means an employment injury or an occupational disease that

- (a) prevents an employee from reporting for work or from effectively performing all the duties connected with the employee's regular work on any day subsequent to the day on which the injury or disease occurred, whether or not that subsequent day is a working day for that employee,
- (b) results in the loss by an employee of a body member or part thereof or in the complete loss of the usefulness of a body member or part thereof, or
- (c) results in the permanent impairment of a body function of an employee

**Minor injury:** means an employment injury or an occupational disease for which medical treatment is provided and excludes a disabling injury.



# Hazard Occurrence Investigation Report: FORM (LAB1070)

|  |  |  |  |
|--|--|--|--|
| <b>Employment and Social Development Canada</b>  |  | <b>Emploi et Développement social Canada</b>   |  |
| SCHEDULE 1<br>(section 15.8)<br><br><b>HAZARDOUS OCCURRENCE INVESTIGATION REPORT</b>   |  | <b>1. TYPE OF OCCURRENCE:</b><br><input type="checkbox"/> Explosion <input type="checkbox"/> Loss of Consciousness<br><input type="checkbox"/> Choking Injury <input type="checkbox"/> Emergency Procedure<br><input type="checkbox"/> Other _____<br><small>Specify</small> |  |
|  |  | <b>2. Department file no.:</b><br>Regional or District Office _____<br>Employee ID No. _____   |  |
| <b>3. Employee's name and mailing address:</b><br>_____<br>_____<br>_____  |  | Postal Code _____<br>Telephone Number _____  |  |
| <b>Date of hazardous occurrence:</b> _____   |  | <b>Date and time of hazardous occurrence:</b> _____<br><b>Weather (if applicable):</b> _____   |  |
| <b>Witnesses:</b> _____  |  | <b>Supervisor's name:</b> _____  |  |
| <b>4. Description of what happened:</b><br>_____<br>_____<br>_____<br><b>Brief description and estimated cost of property damage:</b><br>_____   |  |  |  |
| <b>5. Injured employee's name (if applicable):</b> _____   |  | <b>Age:</b> _____  |  |
|  |  | <b>Occupation:</b> _____   |  |
|  |  | <b>Years of experience in occupation:</b> _____  |  |
| <b>Description of injury:</b> _____  |  | <b>Sex:</b> _____  |  |
|  |  | <b>Chief cause of injury:</b> _____  |  |
| <b>Was training in accident prevention given to injured employee in relation to duties performed at the time of the hazardous occurrence?</b><br><input type="checkbox"/> Yes <input type="checkbox"/> No <small>Specify</small> _____ |  |  |  |
| <b>6. Direct causes of hazardous occurrence:</b><br>_____  |  |  |  |
| <b>7. Corrective measures and date employer will implement:</b><br>_____<br><b>Reasons for not taking corrective measures:</b><br>_____<br><b>Supplementary preventive measures:</b><br>_____  |  |  |  |
| <b>8. Contact information of person investigating:</b>   |  |  |  |
| <b>Surname:</b> _____  |  | <b>Given Name:</b> _____   |  |
|  |  | <b>Telephone Number:</b> _____   |  |
| <b>Title:</b> _____  |  | <b>E-Mail:</b> _____   |  |
|  |  | <b>Date of the investigation:</b> _____  |  |
| <b>Signature:</b> _____  |  |  |  |
| <b>9. Work place committee or health and safety representative's comments:</b><br>_____  |  |  |  |
| <b>Work place committee member's or health and safety representative's information:</b>  |  |  |  |
| <b>Surname:</b> _____  |  | <b>Given Name:</b> _____   |  |
|  |  | <b>Telephone Number:</b> _____   |  |
| <b>Title:</b> _____  |  | <b>E-Mail:</b> _____   |  |
|  |  | <b>Date:</b> _____   |  |
| <b>Signature:</b> _____  |  |  |  |

10. COPY 1 to the Minister of Labour, COPY 2 to the Work place Committee or Health and Safety Representative COPY 3 to the Employer





# Connect with us...

The Labour Program is working to determine the most effective ways to connect with stakeholders and partners.

- Social media, Twitter, LinkedIn, Facebook
- Publish prosecutions online
- Linking information on the Canada.ca website (Health and Safety)

**1-800-641-4049 – Labour Toll Free Line**



**Follow us on Twitter @ESDC\_GC**

**[www.Labour.gc.ca](http://www.Labour.gc.ca)**



# Questions?

