

Root Cause Analysis Worksheet

Trace an incident or near miss from the loss to its causes and system corrections. Complete it as a team, including a worker representative, on screen or on paper. Guide:

calgarysafetyconsultants.ca/safety-guides/incidents/root-cause-analysis/

A. EVENT RECORD

EVENT ID	DATE	TIME	LOCATION

EVENT DESCRIPTION (ONE LINE, FOR EXAMPLE: SUSPENDED LOAD STRUCK A BARRIER; NO INJURY OR DAMAGE)

PEOPLE, EQUIPMENT, MATERIALS OR OPERATIONS INVOLVED

WORK BEING PERFORMED

B. LOSS

ACTUAL LOSS (CHECK ALL THAT APPLY)

- ☐ None ☐ Injury or illness ☐ Property or equipment damage ☐ Environmental impact
☐ Interruption to work

DESCRIBE THE ACTUAL LOSS (OR RECORD THAT NONE OCCURRED)

CREDIBLE POTENTIAL LOSS: WHAT COULD REASONABLY HAVE HAPPENED IN THE CIRCUMSTANCES

SOURCE OF ENERGY OR EXPOSURE

SAFEGUARDS PRESENT AND WHAT EACH DID

C. NEAR MISS AND HARM THRESHOLD

CLASSIFY THE EVENT

- ☐ Hazard observation (no event or near-contact) ☐ Near miss (no loss; harm threshold could have been crossed)
☐ Event with actual loss

WHAT WAS EXPOSED OR NEARLY EXPOSED

WHAT PREVENTED ACTUAL LOSS

HARM THRESHOLD: HOW CLOSE THE EVENT CAME TO CROSSING IT, AND THE EVIDENCE FOR YOUR ASSESSMENT

D. WHAT HAPPENED AND THE EVIDENCE

WHAT HAPPENED, IN SEQUENCE (FACTS, NOT CONCLUSIONS)

EVIDENCE COLLECTED

- ☐ Photographs
 ☐ Equipment condition
 ☐ Records
 ☐ Measurements
 ☐ Witness accounts
☐ Other

CONFIRMED FACTS

ASSUMPTIONS, OPEN QUESTIONS, CONFLICTING INFORMATION

E. IMMEDIATE CAUSES

CONDITIONS

- ☐ Equipment, tools or materials
 ☐ Guards or protective devices
 ☐ Work area or environment
☐ Hazardous energy or exposure
☐ Warnings or protective arrangements

ACTIONS

- ☐ Operating or using equipment
 ☐ Work method or sequence
 ☐ Position, lifting, loading or placement
☐ Use of safeguards
☐ Use of defective equipment
☐ Communication or coordination
☐ Response to a hazard

DESCRIBE EACH IMMEDIATE CAUSE SPECIFICALLY, WITH THE EVIDENCE

F. ROOT CAUSES
HUMAN FACTORS

- ☐ Capability ☐ Knowledge ☐ Skill or experience ☐ Stress, fatigue or attention
☐ Motivation and expectations ☐ Communication and understanding

JOB FACTORS

- ☐ Leadership and supervision ☐ Engineering and task design ☐ Purchasing and selection
☐ Maintenance ☐ Tools and equipment ☐ Work standards ☐ Wear and deterioration
☐ Use or misuse ☐ Planning and resources ☐ Monitoring and learning

WHY DID EACH IMMEDIATE CAUSE EXIST? WHAT WAS MISSING OR INEFFECTIVE, AND WHAT SHOWS IT?**G. SYSTEM CORRECTIONS**

ROOT CAUSE ADDRESSED	SPECIFIC CHANGE	RESPONSIBLE	DUE	INTERIM CONTROLS	VERIFIED (DATE)

Change the task design, equipment, isolation, barriers or work arrangement before relying on reminders or retraining. Close an action only after the effectiveness check is recorded.

H. BEFORE YOU CLOSE

- ☐ Event and sequence described with evidence ☐ Actual and potential loss identified
☐ Harm threshold assessed (near miss) ☐ Immediate causes recorded
☐ Traced to human or job factors ☐ Findings separated from assumptions
☐ Correction for each root cause ☐ Actions assigned and dated ☐ Completion and effectiveness checks recorded

LEAD INVESTIGATOR**WORKER REPRESENTATIVE****MANAGER**

Name, signature and date in each box.

General information, not legal advice. Investigation requirements differ between provinces, territories and federally regulated workplaces. Confirm the requirements that apply to your workplace and adapt this worksheet to them.