

Incident Investigation Quick Guide

A two-page summary of how to investigate a workplace incident: the first hour, the investigation stages, interviewing witnesses, finding the causes and closing the loop. Full guide:

calgarysafetyconsultants.ca/safety-guides/incidents/incident-investigation/

THE FIRST HOUR

- **Make it safe.** Give first aid and call emergency services. Stop the work, isolate and lock out equipment, barricade or evacuate the area. Never delay rescue to preserve evidence.
- **Report what the law requires.** Serious injuries, deaths and listed dangerous occurrences must be reported to your OHS regulator quickly, often immediately or within 24 hours. Workers' compensation reporting is separate.
- **Protect the scene.** After a serious incident, don't disturb the scene until the regulator allows it, except to help the injured, prevent further harm or protect endangered property. Tape it off and log who enters.
- **Start the investigation the same day.** Name the team: the supervisor, a worker representative, someone who knows the task or equipment, and a trained investigator. Involve senior management for serious events.

THE INVESTIGATION, STAGE BY STAGE

1 Gather the facts

Photographs (wide, medium, close-up), a sketch and measurements; equipment condition; damaged parts kept; documents such as the JHA, FLHA, procedures, training, inspection and maintenance records; camera footage and data logs before they're overwritten.

3 Build the timeline

Put events, decisions and conditions in order, starting well before the incident. Gaps and contradictions show where you need more facts.

5 Choose corrective actions

One action per cause, high in the hierarchy of controls, each with one owner, a priority and a due date.

2 Interview witnesses

Early and one at a time, somewhere quiet, with the worker representative if possible. Explain it's about prevention, not blame. Ask them to tell everything, then follow up with open questions.

4 Find the causes

Work from immediate causes to underlying and root causes. Ask "why?" until you reach something the organization controls and can change.

6 Report, share and verify

Write the report, give it to the people the law requires, share the lessons without names, and verify every fix before closing it.

INTERVIEW TIPS

- Open with: "Tell me everything you remember, from the start of the shift, even things that seem unimportant." Don't interrupt.
- Follow up with open questions: What were you doing just before? What did you notice? How is this job normally done? Was anything different today?
- Avoid leading questions that suggest an answer, such as "You didn't have your lock on, did you?"
- Record the account in the witness's own words, read it back to them and invite them to come back if they remember more.

THREE LEVELS OF CAUSES

Immediate causes

The unsafe acts and conditions present at the moment of the incident.

Example: a pipe rolled off a rack with no end stops while a worker's hand was in the line of fire.

Underlying causes

Why those acts and conditions existed: procedures, training, equipment, supervision and hazard assessment.

Example: end stops removed for a repair were never refitted, and the crew unloaded by hand without a plan.

Root causes

Why the underlying causes weren't caught and corrected: how work is planned, resourced and checked.

Example: no check that safety devices are refitted after repairs, and near misses never logged.

Treat "human error" as the start of the analysis, not the conclusion. Ask why the action made sense at the time: time pressure, an impractical procedure, missing equipment or a shortcut that had become normal. Test each cause: is it supported by evidence, would the incident have happened without it, and can the organization change it?

STRONG AND WEAK CORRECTIVE ACTIONS

Stronger: change the conditions

- Eliminate the hazard or the task
- Substitute a safer method, tool or material
- Engineering controls: guards, end stops, interlocks, barriers
- Redesign the work, schedule or layout

Weaker: rely on people remembering

- Retraining and reminders on their own
- New signs and warnings
- A procedure nobody changed the work to support
- PPE as the only control

WHAT THE REPORT SHOULD INCLUDE

- Who was involved and injured, the date, time and exact location
- A factual description and the timeline
- Photographs, sketches, measurements and other evidence
- Immediate, underlying and root causes, with the evidence for each
- Immediate actions and corrective actions, each with an owner, priority and due date
- Who investigated, including the worker representative, and the report date

CLOSE THE LOOP

- Give the report to the people your law requires, often the joint committee or representative, and to the regulator where required. Keep it for the required period: for example, at least two years in Alberta, five in Manitoba and ten for federally regulated employers.
- Track every corrective action in one log and verify each fix works before closing it. Share a short, no-names summary in toolbox talks and committee meetings.
- Investigate near misses with serious potential the same way. They have the same causes, without the injury.

General information, not legal advice. Reporting, investigation and scene-preservation requirements differ between provinces, territories and federally regulated workplaces, so confirm the requirements that apply to your workplace. Full guide and sources: calgarysafetyconsultants.ca/safety-guides/incidents/incident-investigation/