Occupational health and safety

Accident Analysis: Root-Cause Tree

One day to analyse an accident or near miss with the root-cause tree method: gather the facts without looking for someone to blame, reconstruct the sequence of events, trace back to organisational causes and choose measures that prevent recurrence. The cases studied come from your site, and each sub-group leaves with a completed tree and an action plan.

Duration : 1 day

Objectives

1. Gather objective facts quickly after the event, on site and from the people involved
2. Distinguish a fact from an interpretation or a judgement
3. Build a root-cause tree from the chronology, identifying chains and combinations of facts
4. Choose prevention measures that act on underlying causes, beyond reminding people of the rule
5. Follow up the implementation of the measures and check their effectiveness

Programme

Day 1 — morning

• Why also analyse near misses: the events pyramid and its limits

• Make-up of the analysis group: victim, witnesses, supervisor, safety committee member

• Gathering facts: site visit, interviews, photos, reconstructing the chronology

• Exercise: sorting a list of statements into facts, opinions and judgements

Day 1 — afternoon (workshop)

• Building the tree from the harm: “what had to happen for this fact to occur?”, “is that enough?”

• Workshop: root-cause tree of an accident or near miss from your site, in sub-groups

• Choosing measures: prevention hierarchy, reach beyond the workstation concerned, organisational factors

• Action plan, follow-up, feedback to the teams; knowledge test

Teaching methods

• Real cases from your site, prepared with the HSE manager before the session and anonymised if necessary

• A first tree built with the whole group, then work in sub-groups

• Role plays of an interview with a witness or a victim

• Comparison with other analysis tools: 5 whys, Ishikawa diagram

• Knowledge test at the end of the day

Assessment and documents

Knowledge test and day+1 learner feedback survey. Numbered certificate, verifiable online, for each participant; training report and the root-cause trees produced in the workshop given to the company.

Bilingual materials for every participant; each classroom course comes with its digital twin on OmniLearn.

Good to know

Module of the HSE Coordinator Cycle. The measures selected feed the update of the risk assessment: see the course “Occupational Risk Assessment”.

Practical information

Duration	1 day
Prerequisites	No prerequisites
Group size	Groups of 6 to 12 participants, in-company
Format	In-company, face to face on your site
Language	French, Darija or English; bilingual materials
Funding	OFPPT special training contracts (TFP), GIAC, Maroc PME: we prepare the applications with you, at no extra cost.
Programme customisation	Programme adapted to your procedures, your equipment and your audience

Frequently asked questions

Why the root-cause tree rather than the 5 whys?

The 5 whys follow a single line of causes. An accident almost always results from several facts combining; the root-cause tree shows them together and shows where to act. Both tools have their place, and the course explains when to use one or the other.

Can we work on our real accidents?

Yes, it is the heart of the workshop. We prepare the cases with your HSE manager before the session; names can be removed so that the analysis stays focused on facts, not people.

Who should be trained?

The people who will lead the analyses: HSE managers and coordinators, team leaders, health and safety committee members. Having several trained people per team allows an analysis to start quickly, while the facts are still fresh.

Does the method meet the requirements of ISO 45001:2018?

The standard requires incidents to be investigated, their causes determined and corrective actions initiated. It does not impose a method; the root-cause tree is one, and the trees you keep are useful evidence in an audit.