

# CCPS' Incident Investigation & Root Cause Analysis Workshop Agenda

Time	Item	Scope and Content	Duration
<b>DAY 1</b>			
8:00 AM	Welcome	Personal introductions / expectations Workshop logistics	20 min
8:20	Basic Concepts	Definitions Accident model Incident causal factors Incident reporting Trend analysis and pattern recognition	40 min
9:00	Investigation Mechanics and Strategy	Investigation hierarchy How to gauge the scope and rigor of an investigation – tiered approach Planning an investigation	40 min
9:40	Break		10 min
9:50	Investigation Mechanics (cont'd)	People resources Teamwork Physical resources Communication protocols	40 min
10:30	Breakout exercise Strategize an investigation	Determine what resources and team members might be required for various types of incidents Set up team membership and structure. Allocate resources. (Vinyl acetate batch reactor incident)	20 min
10:50	Break		10 min
11:00	Field Activities	Kicking off the investigation Secure the scene / freeze evidence Collecting first on scene evidence protocols – barriers, sign in etc. Categories of evidence Sequence of events Custody of evidence protocols Establishing position and relative movement Personal security search protocols	45 min
11:45	Lunch		45 min
12:30	Field Activities (cont'd)	Questions from morning material Positional evidence Measurements and photographs	20 min

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12:50	Interviews	How to conduct personal interviews Determine who to interview Sequence of interviews Coordination of interviews Dos and don'ts – Things to avoid Interview questionnaire and template Witness statements How to take notes Expanding the scope and depth of interviews	40 min
1:30	Break		10 min
1:40	Interviews (cont'd)	Conflicting interviews How to evaluate and analyze interviews	20 min
2:00	Parts Collection and Analysis	Handling of parts Collecting specimens Sorting of parts Failure analysis Forensic analysis	45 min
2:45	Break		15 min
3:00	Mock up investigation	Process upset (high drum level) with fire and injuries	90 min
<b>Day 2</b>			
8:00 AM	General questions	Recap / general questions from Day 1	15 min
8:15	Event Assessment (What Happened?)	Simple causal analysis Physical simulation Reconstruction Consequence analysis	30 min
8:45	Team breakout exercise	Team investigation Pig trap incident with fatality	45 min
9:30	Break		10 min
9:40	Documentation	Requesting and assembling files and documents Types of documents How to review and analyze documents	50 min
10:30	Break		10 min
10:40	Logic Trees and Causal Analysis	Tabulating and sorting evidence Logic checks Credible loss scenarios	50 min
11:30	Root Cause Analysis	Root cause analysis (introduction)	15 min
11:45	Lunch		45 min
12:30	Root Cause Analysis	Management systems Analysis Tools	60 min

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		Methodologies	
1:30	Break		10 min
1:40	Team exercise	Detailed incident report with causal factors provided Teams to develop root cause analysis	80 min
3:00	Break		10 min
3:10	Team Discipline	Team consensus Managing conflict	10 min
3:20	Findings and Conclusions	Reaching consensus within the team Update the incident description and sequence of events Develop narration explaining RCA Highlight key findings and conclusions	20 min
3:40	Recommendations	Highlight areas which require follow-up from RCA Develop tangible recommendations Extracting Lessons Learned	20 min
4:00	Final Report and presentation	How to write up the final report Report format, structure, writing style Executive summary Appendices Pressure to change conclusions Investigation archives Presentation to management Post investigation review	30 min
4:30	Quiz	Multiple choice quiz covering material from both days	15 min