

## EVENT INVESTIGATION TRAINING COURSE for Root Cause Analysts/ Rooticians

### Brief Course Description:

In this comprehensive five-day, Phoenix-based course, participants will learn and use proven techniques used by high reliability organizations (HROs) for conducting focused and effective causal analysis reports for events, conditions or trends that have high consequences and/ or high significance outcomes.

The participant will learn about and engage the essential investigation skills necessary to enable that the direct and underlying event and organizational factors have been sufficiently and effectively investigated; and that specific, measurable, attainable, relevant, and timely corrective actions have been developed, with the intent of significantly reducing the probability of recurrence of the same or similar event.

### Key Topics:

- Planning an Evaluation
- Systematic Methods/ Approaches
- Consequences and Significance
- Comparative Time Line
- Factor Trees/ Chains of Factors
- Barrier Analysis
- Missed Opportunity Matrix
- Influencers/ Biases/ Rule Outs
- Interviewing Basics
- Programmatic Problems
- Problem Finding
- Mitigating Factors/ Exacerbating Factors
- Questions for Insight
- Causal Factors
- Cause Testing for Depth
- What's Missing?
- Precursors
- Causation Assessment
- Cause Relationships
- Root Cause Analysis Issues
- Corrective Action Characteristics
- Corrective Action Hierarchy
- Risk Significance
- Extraneous Conditions Adverse to Quality
- Extent of Condition/ Extent of Cause
- Risk Increase Profiles
- Safety Culture - Lines of Inquiry
- Prior Occurrences and Trendable Factors
- Operating Experience
- Levels of Defense
- Depth of Analysis
- CAs: Measures of Success
- CAs: Measures of Completeness
- CAs: Measures of Effectiveness
- Report Writing
- Report Presentation

### The Incident in the Course:

The instructors have developed a detailed scenario for the participants to investigate. Information is provided to the participants in a framework that simulates a typical RCA environment. The instructors provide several root cause analysis tools/ methods. The participants will use referenced root cause reports to identify the strengths and weaknesses in the analysis and those documents. The participants are provided with the outline for a root cause analysis report, but given the time restraints of 5-days, the teams prepare and present to the workshop an executive-level briefing report on their investigation, including the causal factors, and SMART Corrective actions.

### Who Should Attend:

Anyone responsible for conducting, leading, mentoring, sponsoring, reviewing, or approving event investigations/causal analyses in any industry will benefit from this course.

In particular, this course is designed for individuals responsible for causal analysis in high-hazard industries/ HROs and industrial sectors such as commissioning, decommissioning, mining, construction, chemical and petro-chemical industries, utilities, transportation, medical, waste collecting, electric power production, nuclear power, radiation protection, radioactive material handling (all classes), manufacturing and production facilities, laboratories, and national defense.