

## Cause Mapping I - Effective Root Cause Analysis Workshop

**Audience:** This two-day workshop is intended for people who will be leading and participating in investigations and problem solving sessions.

**Objective:** Improve the way people analyze, document, communicate and solve problems for better investigations and better results in their operations.

### 1. Introduction to the ThinkReliability approach

Understand how the basics of process and cause-and-effect apply to every type of problem: safety, operations, compliance, schedule, equipment and work process.

Understand how procedures, training and supervision are part of every investigation.

Understand the basic concepts of:

- Prevention Reduce the risk
- Overall Goals Frame every problem and investigation accurately
- People Move problem solving closer to the work (real time)
- Principles Establish a consistent principle-centered approach

### 2. Apply Sound Principles for Better Investigations and Problem Solving

Systems Thinking All problems (failures, errors, defects) and processes can be broken down into parts.

Visual Communication Capture and share a significant amount of information in a simple and more effective format.

Cause-and-Effect Take any problem and break it down into basic cause-and-effect relationships. The essence of Cause Mapping is to apply the cause-and-effect principle accurately to any issue. This section of the workshop explains the relationship between problems, causes, effects, symptoms and facts. The most common errors within investigations and root cause analysis are also covered.

### 3. Cause Mapping – 3 Steps for Analyzing and Solving Problems – In Detail

1. Outline - Define a problem within the context of the organization's goals
2. Analysis - Build a Cause Map for a specific problem
  - Collecting sufficient evidence
  - Completing a thorough analysis
3. Solutions - Identify effective solutions to prevent the problem from occurring

### 4. Cause Mapping - Applications

Facilitation The effective facilitation of an investigation consists of collecting and organizing information from the "field," leading a structured and coherent analysis and providing clear documentation.

Documentation Document any incident in a simple, coherent format.

Cumulative Cause Maps To create a Learning Organization, experience from particular failures and errors can be captured over a period of time using a Cumulative Cause Map.

Industry Specific Examples of complete investigations using the Cause Mapping method will be provided.