

## Course Description

<b>Course name</b>	<b>#401 - Industrial Failure and Root Cause Investigation - for Management</b>
<b>Duration</b>	<b>2 days</b>
<b>Format</b>	<b>Public classroom, Inhouse events and Online</b>

### Overview

Mrs. Elisabet Blom, MSc, Vibration Specialist and Owner, Tremula Teknologi AB, Sweden.

A failure investigation is always a trauma for the organization.

A trauma in which everybody is involved, from the CEO, the board and co-workers at all levels. The critical first couple of minutes, hours or days should include them all. It is not unusual that the entire investigation takes months or even years. This 2-day course will include investigation phases, what to do, how to do it and how to handle the immediate issues with your personnel and equipment.

There are both technical and managerial issues on how to handle the chock of the situation. A worst-case scenario includes personal injuries that will include police investigation as well.

The management during a failure investigation have to be understood and have a no-blame strategy. This is not an easy task with an organization in chock and a lot of people that have their own interpretation of what really happened.

This course will give a checklist and creative thinking in the failure situation. One way to manage failures is to use the same checklist independent of the size of the damage. The purpose of this course is to give a blueprint of this checklist. Every organization has its own life, and the checklist has to be discussed and modified to the local situation.

All types of acute situations lead to stress and the best way to prevent missteps is training. Therefore, part of this course is set as a role play to illustrate the difficulties.

For best learning experience, combine this course with **course #402 Industrial Failure and Root Cause Investigation - Technology Focus**. This combination will benefit of a discounted rate when booking simultaneously.

### Technical Focus

The technical focus must be how to organize a failure from a timescale point of view. To handle the situation is to create a routine out of a single situation. This course will focus on how to find a method for both small incidents and a major break down. There will also be discussions on whether authorities should become involved and why.

The course will discuss what to do in a particular situation. There will be technical tools for a systematic approach.

### Course Content

The course will contain tools to handle a failure in an organization. It will include a strategy to build a local system and check lists. It will also suggest an organization able to handle a complicated issue. The course will discuss the importance of involvement, no matter if you are the CEO or the cleaning lady.

### Who Should Attend

The participants thought of for this course is the management in industries where damages can occur. Both engineers and management can attend. It is a matter of the roles and understanding of what each party will have in a crisis situation.

## Course Daily Schedule

### *Day 1 first half*

- Introduction to failures
- Acute work due to type of breakdown overview
  - Mechanical
  - Economical
  - Management

### *Day 1 second half*

- Role play about an acute situation with a machine failure.
- Discussion about the result of the role play
- Strategic authority due to internal or/and external resource.

### *Day 2*

- Root cause analysis
  - Principle
  - Organisation
    - Fish bone diagram
  - Work schedule
  - Goal
- Role play about root cause analysis
- Discussion about the role play result
- Conclusions

## Instructor Biography

**Mrs. Elisabet Blom, MSc, Vibration Specialist and Owner, Tremula Teknologi AB, Sweden**, received her Master of Science in Mechanical Engineering in 1990 from Linköping University in Sweden. Her main thesis subject was fluid mechanics and thermodynamics. She also holds a bachelor's degree in chemistry from 1984. For the last 25 years Mrs. Blom has worked with vibration measurements. The combination of mechanical engineering and chemistry has been a powerful tool in concluding Root Cause Analysis on complex problems.

Mrs. Blom has been a part of the Vibration Department of ABB STAL (now Siemens Power Systems) as well as ÅF-Process Measurements and trouble shooting in energy. The last 10 years she has worked as an independent consultant with focus on measuring. Vibrations have been the main focus but solving a complex problem needs complex measurements combining skills in vibrations, acoustics, temperature, flow, pressure etc. Most projects have been for industry and in industry on site, as measurements done in controlled environment are hard to come by.

During the years Mrs. Blom has taught measuring courses at Linköping University and lectured in seminars and at various conferences.

Mrs. Blom joined the Continuing Education Institute-Europe faculty in 2017.