

Aims of course

- The course meets the Stichting Tripod Foundation's (STF) core knowledge requirements for a Tripod Beta associate practitioner.
- On completing this course participants should be able to:
 - Pass the associate tripod beta exam (taken at the end of this course),
 - Act as the Tripod Beta facilitator on an incident investigation,
 - Produce an incident report that meets the STF requirements for a Tripod Beta practitioner

1. Introduction

- Recall the true cost of incidents.
- Recognise the value of investigating unwanted events.
- Recall the relationship between good safety performance and good business performance.
- List the organisational changes required to bring about long lasting improvements following an incident.

2. The nature of accidents

- List the precursors that are common to most major accidents.
- Explain why most incidents have more than one root cause.
- Distinguish between the causes of frequent, low consequence events and rare, catastrophic disasters.
- Distinguish between personal safety and process safety.

3. The Swiss cheese model (SCM)

- Explain the Swiss cheese model i.e. what each slice of cheese represents.
- Explain how barriers are implemented and maintained.
- Explain what the holes in the cheese represent.
- Recall the common theories and processes that are incorporated within the Tripod Beta process.
- Compile a diagram, in accordance with the STEP rules, to show the sequence of events leading up to an accident.
- Organise information in a way that:
 - keeps track of the information collected,
 - aids collaboration amongst team members,
 - suggests further lines of enquiry, and
 - clearly shows the sequence of events that led directly to the incident.

5. Tripod Beta core diagram (trios)

- Transfer the key events from a timeline and organise information in a way that clearly shows:
 - the main sequence of events and,
 - the cause and effect relationship between the agent causing the harm and the person or thing that is being harmed.
- Explain and use the 'language' test to verify validity of trios.
- Compile a Tripod Beta tree in accordance with the rules defined in the Tripod Beta User Guide (TBUG)
- Compile a Tripod Beta tree with multiple end events.

6. Barriers

- Explain how barriers are identified.
- Identify and describe:
 - controls and defences in place but failed or were inadequate,
 - controls and defences that should have been in place but were missing and,
 - effective controls and defences
- Use 'narrative' statements within the diagram to explain favourable random chance.
- Position barriers and narrative statements correctly within the incident diagram.

7. Immediate cause

- Identify the unsafe acts that defeated the failed barriers.
- Explain the nature of these unsafe acts and categorise them i.e. skill based error, mistake, or violation.
- Recall the human behaviour theory regarding the psychological precursors that lead to the unsafe acts.
- Describe the immediate causes.

8. Preconditions

- Identify the workplace preconditions that promoted each unsafe act.

- Recall the likely preconditions for each category of unsafe act.
- Recall some common ways of categorising preconditions.
- Explain how some preconditions are beyond the control of the organisation e.g. relationship with family and friends.

9. Underlying cause

- Identify the systemic and organisational aspects that have:
 - caused the error promoting workplace conditions and,
 - failed to make proper provision for all the required barriers.
- Identify the management oversights that led to the less than adequate systems and organisational arrangements.
- Categorise management oversights into basic risk factors (BRFs)
- Explain the advantages of categorising underlying causes.

10. Remedial actions

- Propose fixes or provide an explanation as to why no action is being taken for all:
 - failed, inadequate, and missing barriers,
 - preconditions (error promoting workplace conditions) and,
 - underlying causes (the most deeply rooted causes that the organisation is able to fix).
- Explain the likely negative effect in recommending actions for immediate causes.
- Advise on what needs to be done prior to work restarting.

11. Tree logic and preparation for exam

- Recall the rules for compiling a Tripod Beta diagram.
- Comply with the Tripod Beta user guide in describing and using all the elements in a Tripod Beta diagram.

12. Tripod Beta Practitioners exam

- Sit the Tripod Beta practitioners' examination.
- The closed-book exam is set by the Stichting Tripod Foundation and is administered by the Energy Institute; there is no time limit but it usually takes about 45 minutes.
- Passing this exam is a prerequisite for becoming an accredited Tripod Beta practitioner.
- Note: there is very little writing to be done in this exam - it is primarily: multi choice, true or false, and distinguishing between correct and incorrect arrangements of Tripod Beta elements.

Notes on the “red thread” case study used throughout the course

- The “red thread” exercise develops from one session to the next in the way that a good investigation does.
- The case study and other practical exercises are done in small groups.
- Most adults prefer to learn this way.

Typical programme

Day	Day 1 - Tuesday	Day 2 - Wednesday	Day 3 - Thursday
09:00	1. Introduction	Review previous day 5. Tripod Beta core diagram	Review previous day 9. Underlying cause
10:00	Tea / Coffee break		
	2. Nature of incidents	6. Barriers	10. Remedial actions
Lunch			
13:00	3. The Swiss cheese model	7. Immediate cause	11. Tree logic
14:45	Tea / Coffee break		
	4. Sequentially timed event plot	8. Preconditions	12. Exam Discussion, feedback, & close out
17:00	End	End	End

Venue / booking form / contact us

- The course venue is: Euston House, London, NW1 1AD (adjacent to Euston, mainline railway station).
- For a booking form, venue, and public transport details go to: <http://www.learnfromaccidents.com/conventional-training-courses>
- To contact us go to: <http://www.learnfromaccidents.com/contact-us>