



Safety Critical Task Analysis

The HSE recognise that many major accidents (Texas City, Piper Alpha, Chernobyl) are caused by human error. As well as having technical safeguards in place, protection is often dependent on human response. The HSE require both technical and human based safeguards are demonstrated to be fit for purpose. It may be your safety report focuses on the technical measures'. How then do you justify the human based measures? After all to err is to be human.

Safety Critical Task Analysis (SCTA) identifies and evaluates your safety barriers that depend upon the correct decision or action by a human. The eight step process shown opposite is a recognised process set out in the Energy Institute guidance and offers a systematic approach.

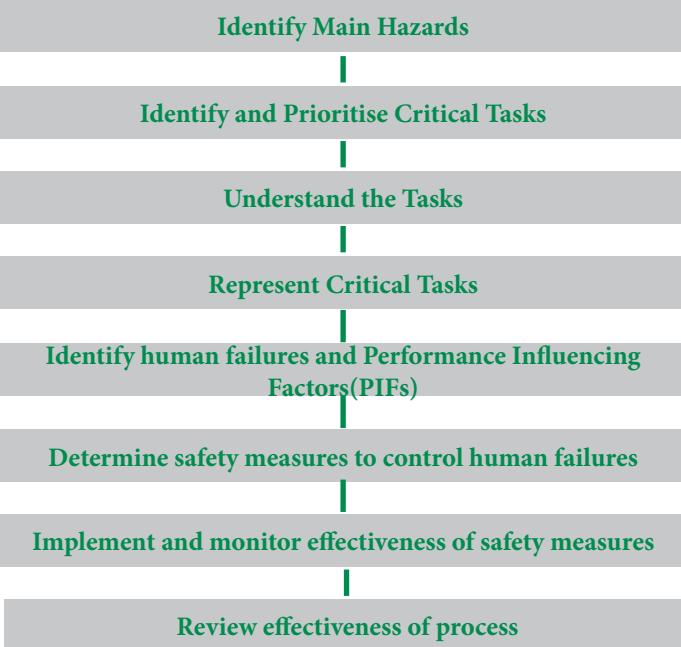
The Approach

Identifying Major Accident Hazards, critical tasks and developing a prioritise lists is achieved using a selection of traditional process safety techniques (e.g HAZIDs, HAZOPs, Bow tie analysis). What is important is identifying a clear linkage between the hazard and the safety measure.

Understanding the task requires a multi-pronged approach:

- Interactive observation is key if PIFs are not to be missed
- Interviewing – most important and best done where task is performed
- Examination of documentation – often the first step & can be done remotely – helps prepare for task analysis

The critical tasks are then evaluated. Hierarchy Task Analysis and Human Hazop are seen as core techniques. These allow potential human failures and Performance Influencing Factors(PIFs) to be identified.



There is a duty to demonstrate residual risk is 'As Low As is Reasonable Practicable' ALARP;

- Identified and major Accident Hazards and prioritised associated safety critical tasks
- Completed a Task Analysis
- Identified potential human failures and their contributory factors

We are now in a position if the ALARP criteria is met and if not identify further risk reduction measures.

DEKRA Organisational & Process Safety

DEKRA are a behavioural change and process safety consultancy company. Working in collaboration with our clients, our approach is to assess the process safety and influence the safety culture with the aim of 'making a difference'.

In terms of behavioural change, we deliver the skills, methods, and motivation to change leadership attitudes, behaviours and decision-making among employees; supporting our clients in creating a culture of care and measurable sustainable improvement of safety outcomes is our goal.

The breadth and depth of expertise in process safety makes us globally recognised specialists and trusted advisors. We help our clients to understand and evaluate their risks, and work together to develop pragmatic solutions. Our value-adding and practical approach integrates specialist process safety management, engineering and testing. We seek to educate and grow client competence to drive sustainable performance improvement; partnering with our clients we combine technical expertise with a passion for life preservation, harm reduction and asset protection.

We are a service unit of DEKRA SE, a global leader in safety since 1925 with over 45,000 employees in 60 countries and 5 continents. As a part of the world's leading expert organisation DEKRA, we are the global partner for a safe world.

We have offices throughout North America, Europe, and Asia.

For more information, visit www.dekra-uk.co.uk/en/process-safety-overview/

To contact us: process-safety-uk@dekra.com