

Human Factors – How to Take the First Steps

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The Human Factors Workgroup associated with Step Change in Safety, a United Kingdom (UK)-based partnership that includes the UK Health and Safety Executive and Trade Unions, recently published *Human Factors – How to Take the First Steps*, accessible on the Department of Energy’s Operating Experience Wiki at <http://operatingexperience.doe-hss.wikispaces.net/file/view/Human+factors+-+How+to+Take+the+First+Steps.pdf>. The eye-catching cover of the publication is shown in Figure 3-1.

The publication’s aim is to raise awareness and understanding of human factors in accident causation and to help managers and workers recognize human and organizational factors in the workplace. It provides useful tools that managers and workers at all organizational levels can use in a variety of ways, for example as a basis for toolbox talks and team or safety meetings; for work planning; or to identify first steps toward effecting changes in safety thinking.

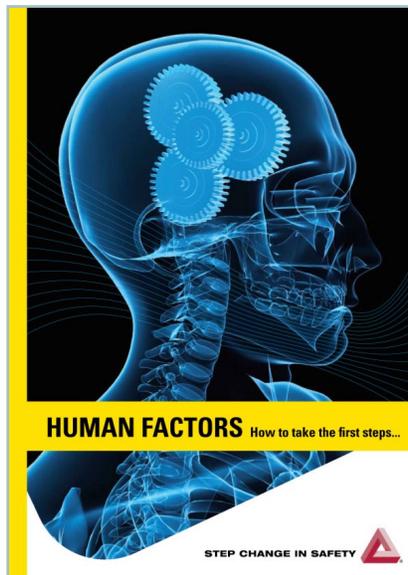


Figure 3-1. Cover of publication

Human Factors – How to Take the First Steps begins by briefly assessing well known historical events, such as the Bourbon Dolphin Capsize (Norway), the Space Shuttle

Challenger Loss, and the Texas City Refinery Explosion. It then probes 12 more recent case studies (see the textbox below), assessing the complexities of human involvement in accident causation. Each of the case studies describes the deep-seated human and organizational factors that contributed to the accident—there are some surprises. All 12 studies include a brief discussion of the human factors and barriers involved in the events, as well as the applicable lessons learned. The format also offers a series of questions (e.g., What did people do intentionally? What did people do without meaning to?) safety professionals can use to help prevent human-factors-related incidents in their own organizations.

The publication goes on to discuss organizational safety culture and its influence on human performance and human behavior at work, in particular whether a behavior is judged as “good” or “bad.”

Finally, the publication identifies some simple first steps (see the textbox on the following page) that everyone—workers, supervisors, managers, and safety representatives—can take to help manage human factors issues.

THE CASE STUDIES

- People will put up with what they’re given.
- The best people DO make big mistakes.
- Managers are human too.
- Right job, wrong equipment.
- Assumptions aren’t always right.
- Knowing that a hazard is there DOESN’T always protect you...Fact.
- Controls don’t always do what you expect them to do.
- Close-enough procedures aren’t close enough.
- Time to stop.
- When sleep comes nothing can stop it.
- Find a way to do it – by hook or by crook.
- Helpful guys get hurt.



THE FIRST STEPS...

for Everyone

I will...

- **Challenge procedures that are difficult to follow**
- **Report any human factors concerns** – *talk to your supervisor about problems you recognise in the case studies.*
- **Take the time to consider how my actions and decisions can affect others now and in the future**
- **Report plant and equipment that is difficult to operate, maintain, inspect and test safely**
- **Encourage others to think about human factors**

for Managing Directors and Management

I will...

- **Appoint a Human Factors Champion** – *someone whose job it is to understand what human factors is about, how it applies to your business and who can help you.*
- **Make a simple plan to tackle human factors issues** – *use this document to help identify where you want to start. Choose one topic and deal with it.*
- **Take the time to listen to the workforce** – *they know best where the problems are. Get their views on the case studies and how they apply to your business.*
- **Give feedback to the workforce** – *tell them what issues you're working on and how you intend to deal with them.*

for Supervisors

I will...

- **Use the case studies to identify human factors topics under my control and deal with them** – *involve your team in the process.*
- **Ensure human factors topics are discussed during work planning, preparation and execution**
- **Incorporate human factors into my incident investigations** – *don't be content with "human error" or "procedural violation" as a conclusion. Look for the reasons behind the actions.*
- **Take the time to listen and give feedback to my team on human factors topics** – *your team knows best where the problems are. Ask their views on the case studies and how they apply to your workplace. Tell them how you are going to deal with any issues.*

for Safety Representatives

I will...

- **Take human factors concerns to the relevant safety forums**
- **Talk to my constituents about human factors issues and concerns in their areas.**

– from *Human Factors – How to Take the First Steps*, May 2010, Step Change in Safety

Once again, *Human Factors – How to Take the First Steps* is accessible on the Operating Experience Wiki by clicking [here](#).

Take a look — YOU can make a difference.



The Office of Health, Safety and Security (HSS), Office of Analysis publishes the *Operating Experience Summary* to promote safety throughout the Department of Energy (DOE) complex by encouraging the exchange of lessons-learned information among DOE facilities.

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