



Reflective learning – facilitator guidance

Video *I own my barrier*

Introduction

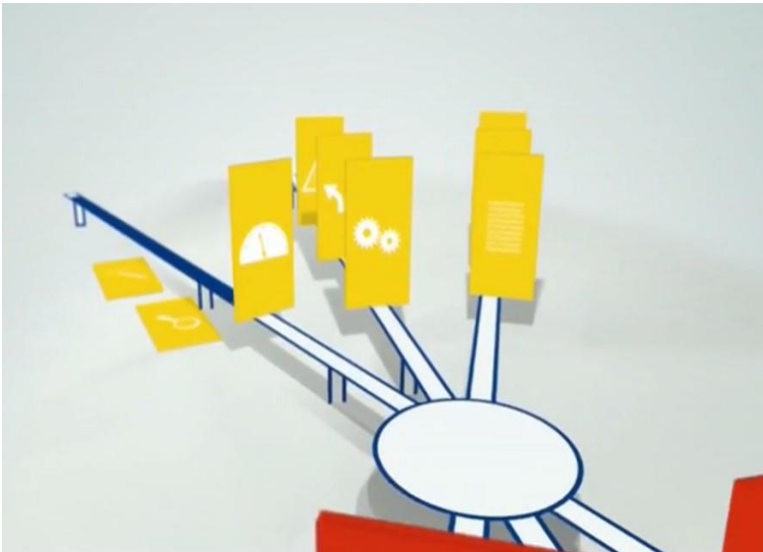
This leaflet describes the specifics of the reflective learning engagement session called *I own my barrier*.

For general guidance and tips on running a reflective learning session, please read and use the generic available from the Hearts and Minds website (<https://heartsandminds.energyinst.org/toolkit/reflective-lfi>).

i Asset integrity

Keeping our product in the pipe or in facilities from the moment we start drilling until the moment we deliver our products to our customers is crucial.

In this video we will focus on barrier ownership and put it in context of asset integrity. It is about knowing our assets, and knowing they are safe!



Key lessons

- Participants understand their role in managing process safety barriers.
- Participants understand that we cannot rely on just one barrier.
- Individuals go out and verify that the barriers they are responsible for are in place and working.

Barriers and critical processes

Hardware barriers (e.g.)

- Process containment
- Ignition control
- Detection systems
- Protection and shutdown systems
- Emergency response equipment

Human barriers (e.g.)

- Operating in accordance with procedures
- Surveillance, operator rounds and routine inspection
- Response to process alarm and upset conditions

Critical processes (e.g.)

- Management of change
- Permit to work
- Competency management

i Content video

The first part of the video makes people aware that incidents can happen if barriers are not in place. The Piper Alpha incident is used as an example.

In the second part, the bowtie is described. There are hardware and human barriers, which are supported by critical processes.

In the last part of the video we see a petal model appear, a visual representation of asset integrity.

'We know our assets and we know they are safe!'

An asset integrity model





Asset integrity

In the video the different elements of asset integrity are explained.

- **Design integrity:** Assessing the process safety risks of proposed facilities, designing and building assets to established standards.
- **Technical integrity:** Maintaining hardware through proactive testing, inspection, maintenance and repair.
- **Operating integrity:** Operating all of our facilities within the prescribed operating limits from start up through to shut down.
- **Leadership:** Ensuring “our assets are safe and we know it” in all phases of the asset life cycle.



Questions in video

Questions after part 1 of the video

- Which process safety incidents have you heard of?
- What were the consequences?
- How could it have been worse?

Questions after part 2 of the video

Please discuss in small groups:

- What role do you play in preventing process safety incidents?
- Which barriers are you responsible for?

Questions after part 3 of the video

Please discuss in small groups:

- How do you know your barrier is strong and healthy? How do you verify this?

Piper Alpha

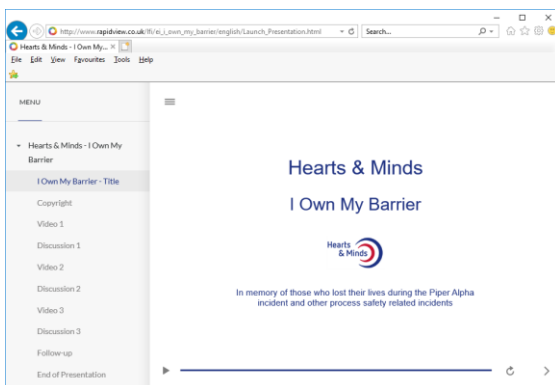


In the first part of this video we see the memorial of Piper Alpha. Piper Alpha was a large North Sea oil platform that started production in 1976. It produced oil from 24 wells and in its early life it had also produced gas from two wells. It was connected by an oil and gas pipeline to other installations. On 6 July 1988, there was a massive leakage of gas condensate on Piper Alpha, which was ignited causing an explosion which led to large oil fires. 167 people died.



Video tool

Use the menu in the video tool at the start of the meeting to explain the structure of the session. No slides are needed.



I own my barrier



When you know your role and your barriers, you should be able to demonstrate/show your barriers are strong and healthy

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