

Process safety in the oil and gas industry

Mike Bisanz

21.09.2012

BP Deep Water Horizon incident



Why do we need Process Safety Management?

- ▶ The main objectives of Process Safety Management in the oil and gas industry are:
 - ▶ To prevent major accidents
 - ▶ To limit their consequences

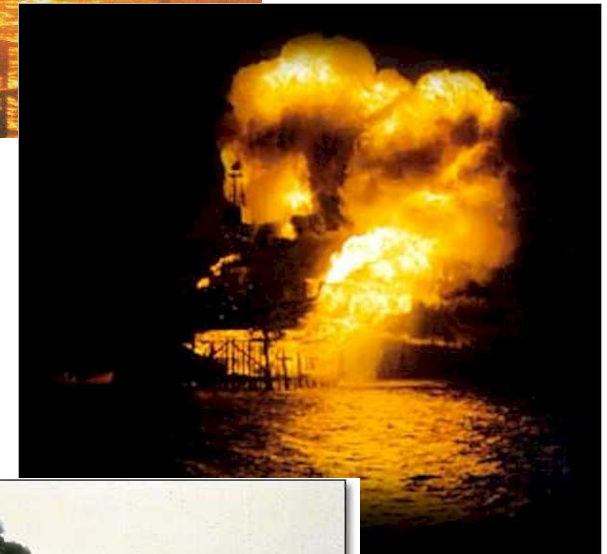
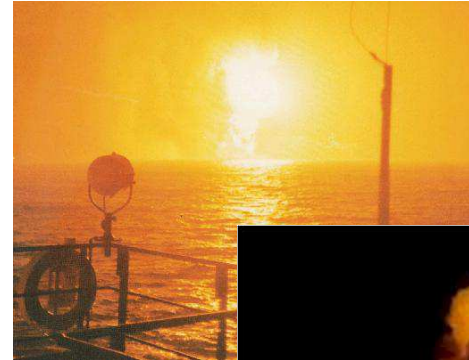


What is Process Safety?

- ▶ Process safety is the prevention of:
 - ▶ leaks, spills, excess temperature, over-pressure, corrosion, metal fatigue and other safety critical equipment malfunction
- ▶ It is achieved by:
 - ▶ Designing and engineering facilities with ‘barriers’ that prevent and mitigate risk to an acceptable level
 - ▶ Maintaining the ‘barriers’ so that they perform as designed
 - ▶ Operating within the design envelope
 - ▶ Detection of abnormal conditions, control and shutdown
 - ▶ Effective alarms and emergency response

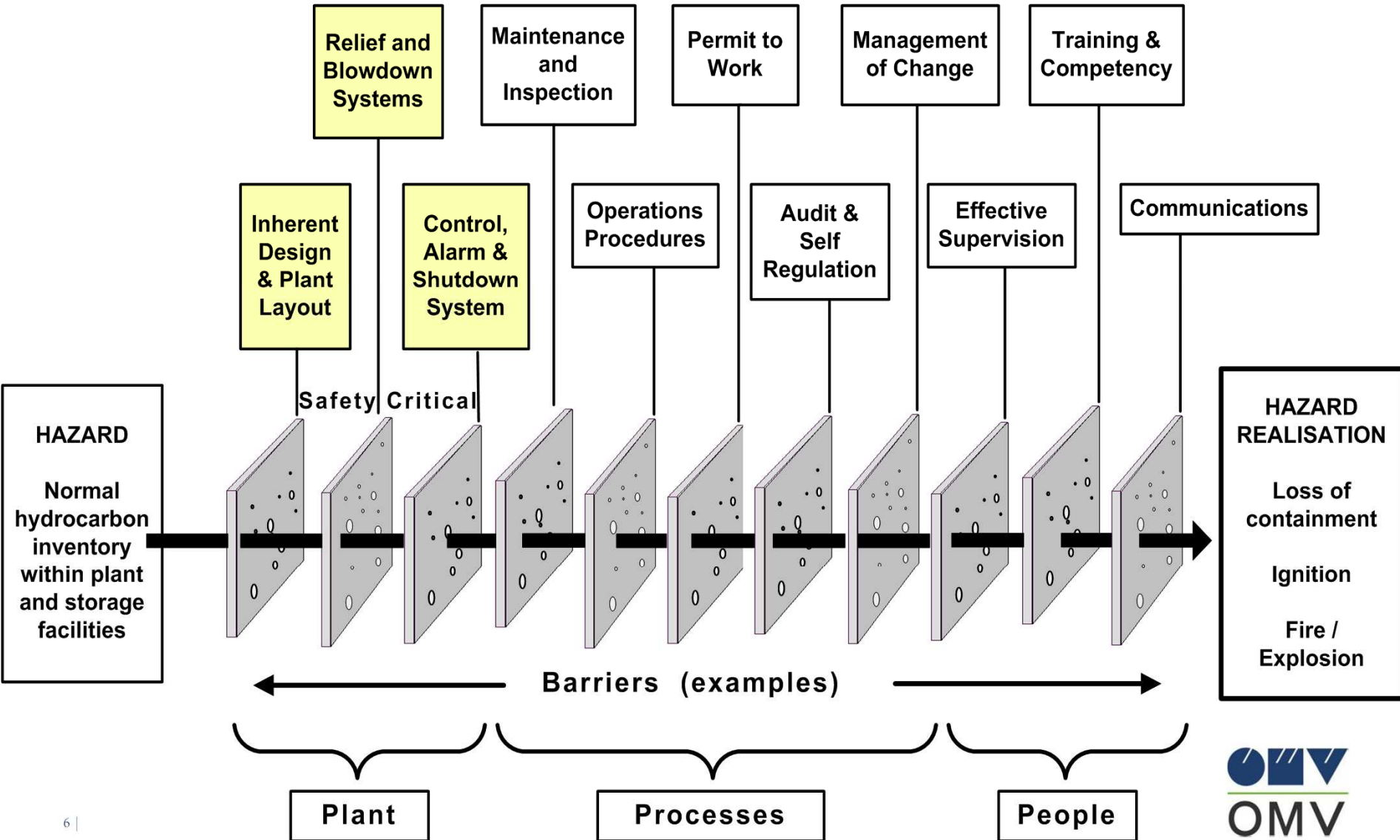
Why is the oil & gas industry so serious about Process Safety?

- ▶ Concern for business survival
- ▶ Company values
- ▶ Laws & Regulations
- ▶ Industry codes & standards
- ▶ Community/public expectations
- ▶ Stakeholders' expectations
- ▶ Insurance and credit rating
- ▶ Increasing risk and complexity in E&P



Key Concept:

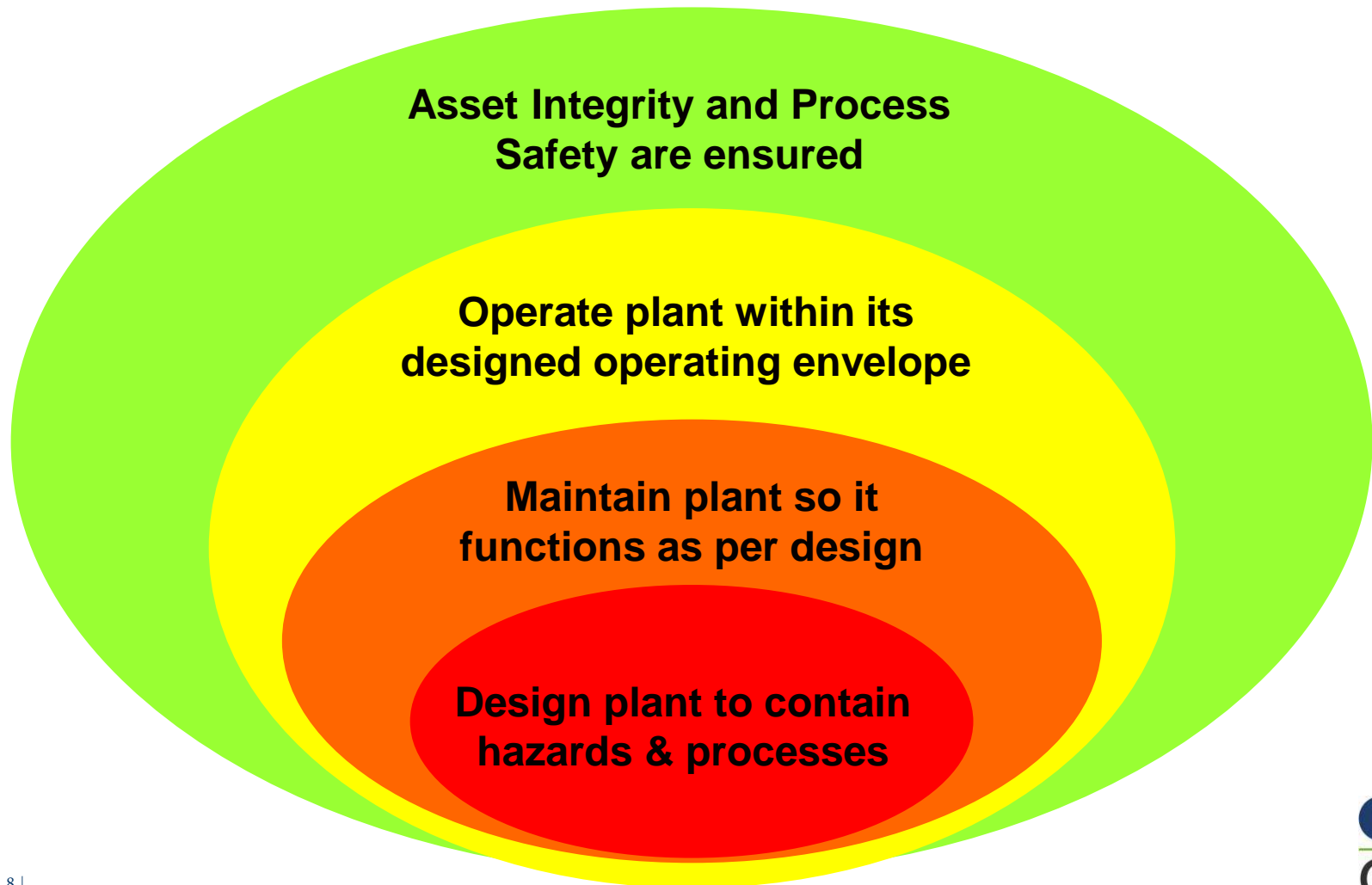
Process Safety 'Barriers'



What are the critical management processes?



What do we have to do?



Process safety in the oil- and gasindustry

Thank you for your attention!