

# **Accidents**



- 1988 Piper Alpha 167 persons killed
- 2009 Montara well blowout, Australia West Atlas 74 days
- 2010 Macondo well blowout, USA Deepwater Horizon 86 days





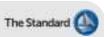
# New regulations emerge after accidents





- Piper Alpha: Cullen Inquiry 1992 UK HSE OSCR (Offshore Safety Case regulation), updated in 2005
- Deepwater Horizon
  - 15 November 2011 SEMS (safety and environment management system) in USA mandates 13 formerly voluntary practices under API RP 75 (2004)
  - · Changes in government oversight with separate departments
  - UK: OSPRAG (oil spill prevention and response advisory group) report
  - EU: new directive on offshore oil and gas safety

# New directive



- In effect date: 18 July 2013 two years for member states to implement
- Puts in place minimum safety standards for offshore exploration and exploitation of oil and gas
- It clarifies how nations and companies must respond to major accidents
- Appointment of competent authority for each member state independent and objective
- EU registered companies required to report any major accidents outside EU if associated with their operations

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# New directive



### Key provisions:

- · general principals
- · licensing and financial responsibility
- extension of the environmental liability directive
- managing major hazards
- regulatory oversight



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## Australia



### Montara report extract:

"What happened ... was an accident waiting to happen. The company's systems and processes were so deficient and its key personnel so lacking in basic competence that the blowout can properly be said to have been an expert weiting to account."

event waiting to occur."



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# Australia



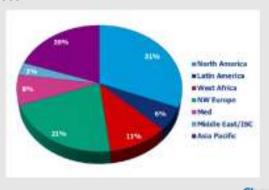
- Australia implemented safety case regime under MOSOF in 1996
- NOPSA established 2005 as regulator, but insufficient resources
- updated to include pipelines under OPGGS 2009 from 1 January 2010
- regulatory oversight alone will not be sufficient, self-policing mechanisms need to be put in place by the operators
- vetting is required to ensure compliance with regulations and procedures

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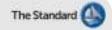
# Oil and gas exploration in Asia Pacific



- Asia Pacific region is home to 20% of world's active oil/gas fields
- 31% of global active FPSO fleet
- Offshore fields
  - 65% South East Asia
  - 19% China



# Oil and gas exploration in Asia Pacific





Asia-Pe	reifie Ol	PR Sammary	
Offshore Oil Produ	2012:	3,39	mhed
Offshore Fields	Total	Ultra-Deep	Deep
Producing	615		- 11
Under Devt.	82		
Potential	806	13	95
Sched Start-Ups	Total	MOPU	Fixed
2013	37	- 3	-31-
2014	19	1	21
2015+	23	5	1.3
Total Dev Fields	82	1	
Deployment of MC	DCs and	MOPU	

Deployment of M	curent of MODUs and MOPUs				
Drilling Rigs	Drilbhips	Semi-Subs	Jack-Lips		
Asia-Pacific	. 4	39	93		
Production Units	Fixed	FP50s	Other		
Asia-Pacific	1,691	53	17		

North Wes	t Europe	OPR Same	nary
Offsbore OR Produ 2012:		3.04 mbpd	
Offichore Fields	Total	Ultra-Deep	Deep
Producing	668		2
Under Devt.	56	1 1	3
Potential	566	1	21
School Start-Upv	Total	MOPU	Fixed
2013	26	2	- 1
2014	1.5	8 1	2
2015+	14	2	. 7
Total Dev Fields	56		
Deployment of Ma	ADC s and	MOPUs	
Deiffing Rigs 1	Dettiships	Semi-Suha	luck-tips
NW Europe	3	43	45
Production Units	Fixed	FPSO <sub>k</sub>	Other
NW Europe	534		30

# **Asia Pacific**



### Difficulties:

- · multiple jurisdictions
- · sovereignty claims
- · no common regulation
- ratification of international agreements varies between States



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# Conclusions



- gap in operational standards dependent on individual operator
- lack of compliance and enforcement
- incumbent on club to understand risk and operation
  - risk matrix
  - member risk review
  - condition surveys
  - underwriting procedures

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# Summary — regulations follow major accidents — lack of compliance and enforcement — industry needs to do more to ensure compliance

