



Panel Session 2: Global Leadership game changers for the next decade

Jane Cutler, CEO *Introduction*

Thank you for the opportunity to join this discussion, which certainly covers an ambitious topic.

I'd like to suggest a starting point for tackling such a broad theme by proposing that the focus on "leadership" should be seen as an important enabler – but it is not the only one and it should not be used as a means to push the requirement for action onto someone else further up the pyramid – leadership is required by everyone in the industry.

Keeping your eye on the prize *Slide 2*

NOPSEMA regulates offshore petroleum activities with a clear goal in mind:

Facilities that are:

- safe and without risk to the health of any person at or near them;
- without risk to the environment in which they operate

My proposition today is that a potential game changer may be **effective risk management by embracing inherent safety.**

Given our experiences as an industry over many years with major incidents around the world as well as more recent incidents claiming the lives of offshore workers in Australian waters, the reputation of oil and gas as a high-hazard industry is well entrenched.

Taking an inherently safe approach *Slide 3*

An inherently safe approach places an emphasis on avoiding or limiting the hazard **at the source**, rather than relying on 'add-on' safety features or management systems and procedures to control hazards. Key focus areas include:

Avoiding the hazard

(e.g. unmanned facilities, design of facilities / activities so that divers are not required, design to minimise equipment with high maintenance requirement / simplify maintenance)

Reducing hazardous inventories (e.g. smaller production trains)

Using safer materials (e.g. using nitrogen rather than hydrocarbon based refrigerant in FLNG plants)

Operating in comparably safer conditions (e.g. room temperature and pressure and liquid phase)

Minimising escalation potential

(e.g. unit segregation, ample layout spacing, fail-safe shut down, - does shut down(or shut in of a well) require human intervention or is it automatic once critical operating limits are exceeded, open construction to minimise explosion overpressures, maximise ventilation and dispersion)

Minimising potential for **human error** (e.g. unique valve or piping systems to reduce human error)

Avoiding complicated equipment and information overloading

Tried and tested *Slide 4*

Applying inherent safety principles effectively is inextricably tied to timing. It requires:

Recognition that, for inherent safety principles to be effective, they must be applied from the earliest stages of the life of a facility;

Commitment and leadership from the outset;

Ensuring all decisions - starting with concept evaluation and continuing through into operations and ultimately decommissioning – include consideration of inherent safety

Ongoing education and championing of inherent safety principles internally and with key suppliers

The seven deadly sins? *Slide 5*

The discussion starter for this session identified 7 underlying risks inhibiting a safe and environmentally-sustainable offshore industry:

- board skill and non-executive director control
- board risk blindness
- inadequate leadership on ethos and culture
- defective internal communication
- risks from organisational complexity and change
- risks from incentives
- risk 'glass ceiling'
- (and the measures identified at the 2nd SPE Safety Forum in September 2011)

My first reaction was that they were written by engineers trying to push “blame” and “responsibility” elsewhere..... my second reaction was how does putting some any risks inhibiting a safe and environmentally sustainable industry at the feet of the board did not explain how 2 similar facilities with the same Board can and do have quite different safety outcomes

The fact is, potential obstacles to achieving high levels of safety exist at all stages of planning, execution and operation – driven from the very top down is great, so much as fostered from the ground up – suggest that the behaviour of the immediate boss has a critical impact on the culture of a work group.

That means embracing inherent safety and managing risk through:

- **All levels of management** (from the boardroom, through business units, to projects, down to the facility) through teams that possess the leadership, technical capability and vision to understand and relentlessly challenge that decisions have been made with due regard to inherent safety;
- **An organisational ethos** where inherent safety is a core element that drives a culture in which it would simply be inconceivable to make decisions regarding a facility that have not considered inherent safety principles;
- **An organisational structure** which supports and encourages effective two-way communication - vertically and horizontally - within the organisation and with external parties. Effective communication should facilitate organisational learning in the implementation of inherent safety and the management of risk.

Both a goal and a game changer *Slide 6*

In dissecting inherent safety and its application to risk management, I've endeavoured to illustrate that inherent safety can be both a goal **and** a game changer.

Not only can it deliver safer facilities – ones that are simpler to operate and maintain with a lower total cost of ownership –

But also, inherent safety can be a goal through which leaders motivate their teams.

Combined with, capability and vision - from the boardroom to the bootroom - leaders can use inherent safety to 'change the game' and transform organisational culture.

Consider what would be different in your organisation if you were to embed inherent safety as a key risk management approach:

At the very beginning of any new project, task or change people at all levels would challenge:

- How can we eliminate hazards at their source?
- What could be made simpler?
- How can we avoid the need for additional complexity?
- How can we ensure the system fails safe?

Could this result in cultural change so that your organisation is pre-disposed to designing simpler and safer facilities that are easier for people to maintain and operate?

Again, I'm proposing an approach that:

- Is focused on **prevention and minimisation of escalation**, rather than mitigation and consequence minimisation; and
- **questions** complexity and **values** simplicity

Embracing and valuing inherent safety entails organisational realignment to ensure:

- Early application i.e. starting with concept evaluation;
- A focus on minimising hazards at their source rather than mitigating consequences.

I'll conclude by returning to NOPSEMA's vision: a safe and environmentally responsible Australian offshore petroleum industry.

Leaders in all parts of the industry can use inherent safety to drive towards this game changing outcome.

Thank you.