



SHELL'S EXPERIENCE IN DRIVING CULTURE AND COMPETENCY

International
Regulators' Forum
(IRF) Offshore Safety
Conference , Perth
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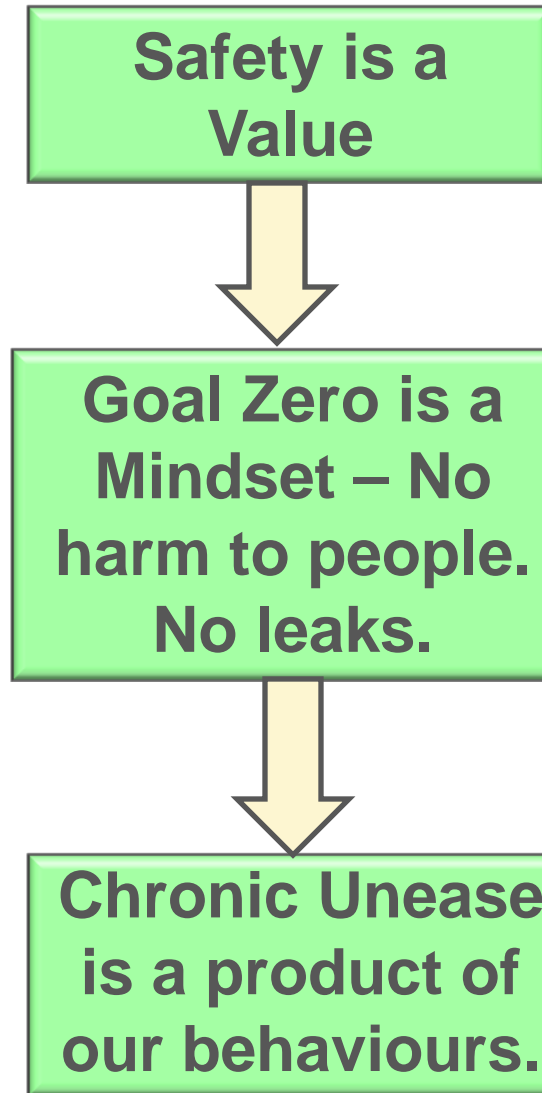
Mars-B,
Olympus tension leg
platform

DISCUSSION TOPICS

- Shell's Safety Culture Framework and Practices
- Shell Auger-Cardamom Project Example
- Challenges and Keys to Success
- Role of the regulator

SHELL'S SAFETY CULTURE IN UA DEEPWATER

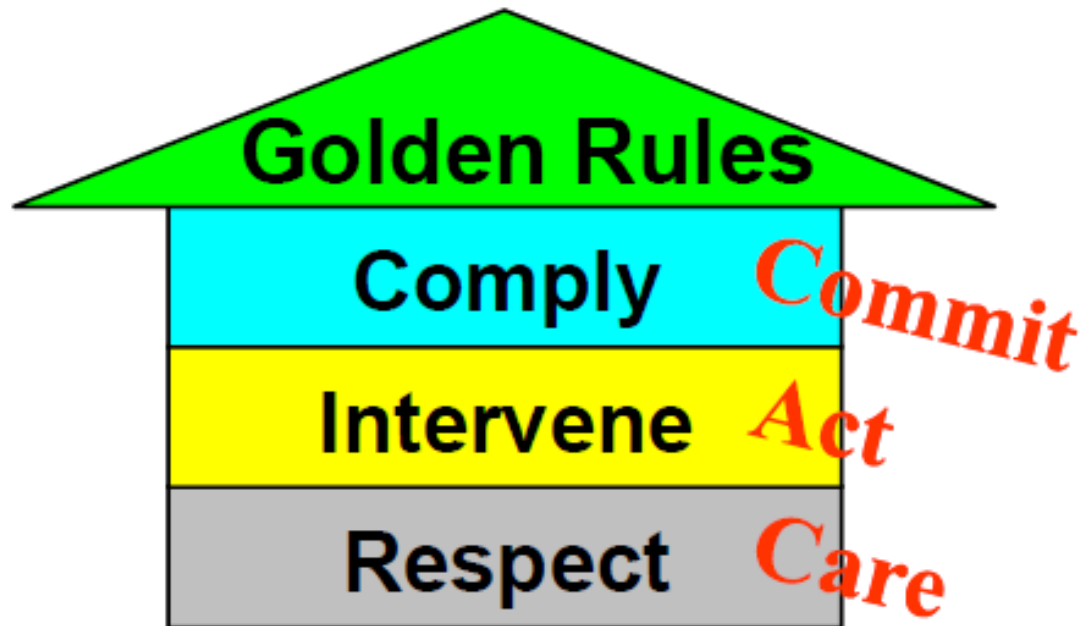
We build on our Safety Culture with a Goal Zero mindset ...



SHELL'S GOLDEN RULES

Our Safety Culture is based on our three Golden Rules ...

“Our House”

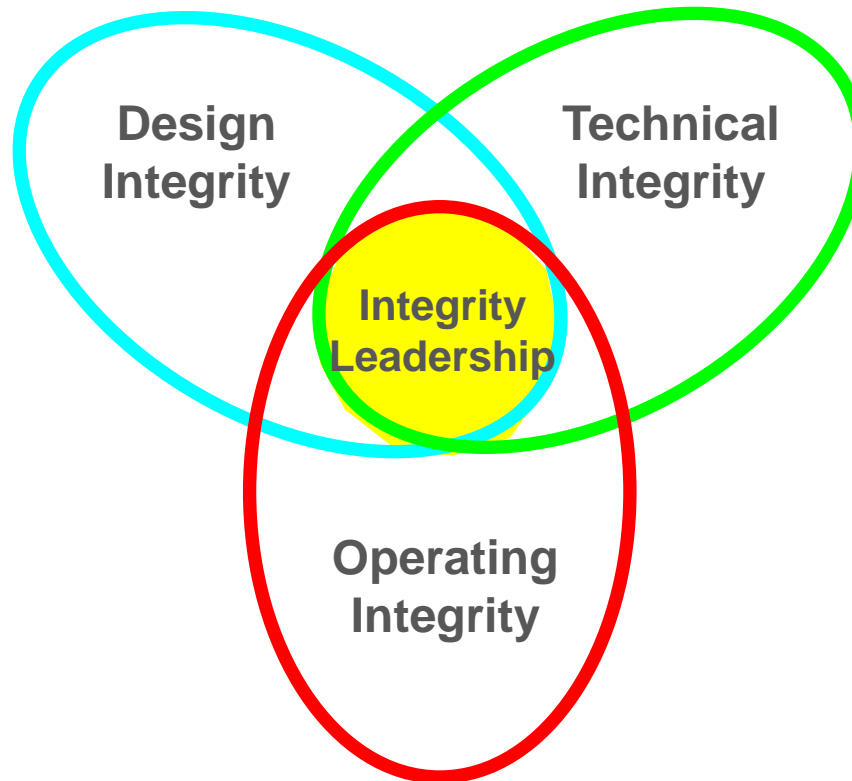
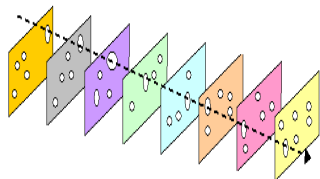


Goal Zero is a Mindset

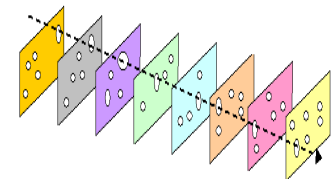
PROCESS SAFETY

Our Process Safety aspiration – “Our Assets and People are safe and we know it”

*We design and build
so that AI-PS risks
are
As Low As
Reasonably
Practicable (ALARP)*



*We maintain the
hardware
barriers*

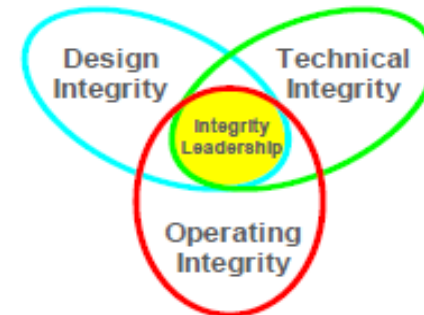


*We work within
the operational
barriers*

PROCESS SAFETY

As do our Process Safety Basic Requirements (PSBRs) ...

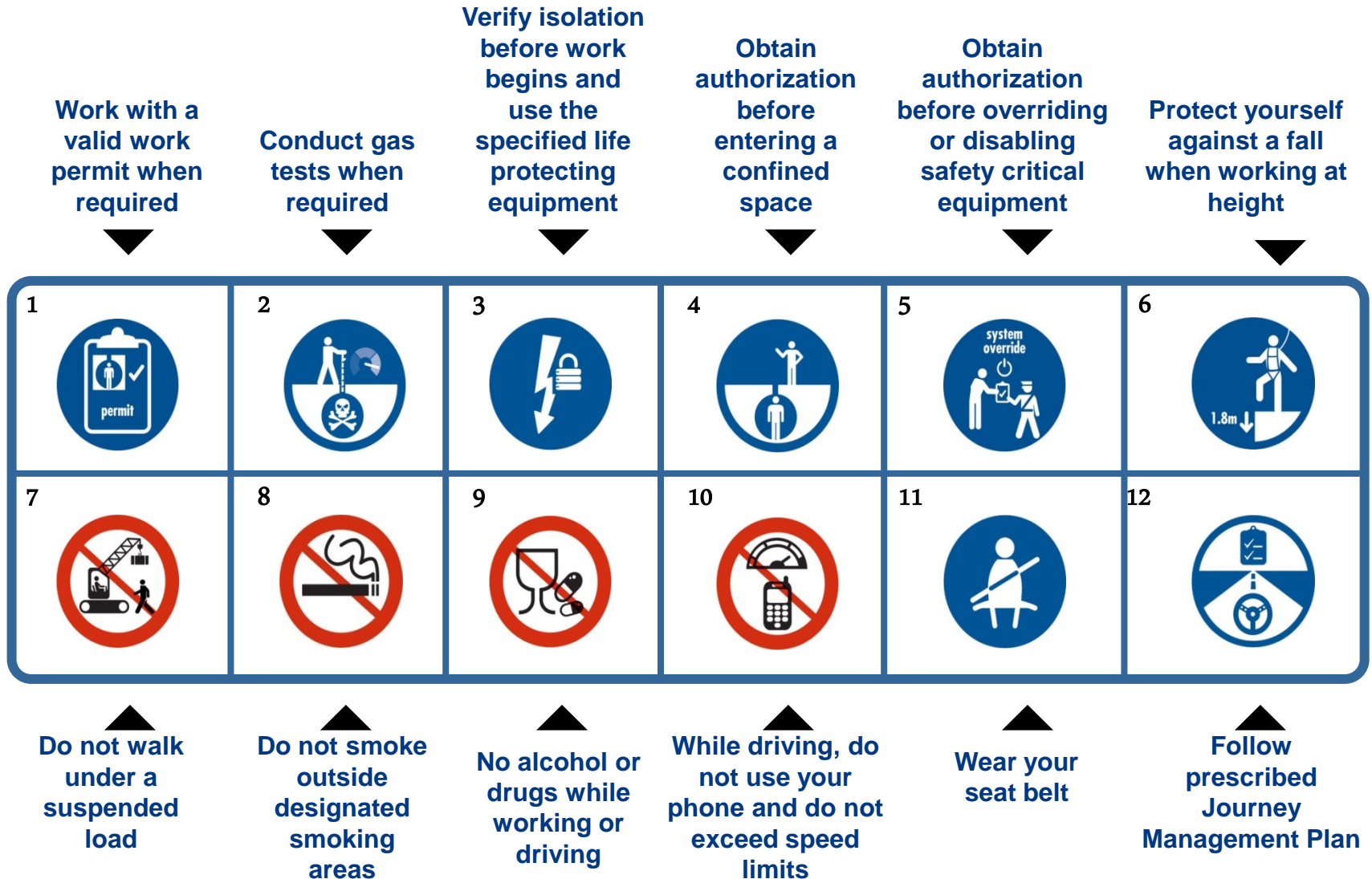
1. **SAFE SITING OF PORTABLE BLDGS**
2. **ESD VALVES ON PLATFORM RISERS**
3. **TEMPORARY REFUGES**
4. **PERMIT TO WORK**
5. **MANAGEMENT OF CHANGE**



6. **AVOID LIQUID RELEASE TO ATMOSPHERE**
7. **AVOID TANK OVERFILL FOLLOWED BY VAPOR CLOUD RELEASE**
8. **AVOID BRITTLE FRACTURE OF METALLIC MTLS**
9. **ALARM MANAGEMENT**
10. **SOUR GAS (H₂S)**
11. **DEEPWATER WELL DESIGN AND CONSTRUCTION**

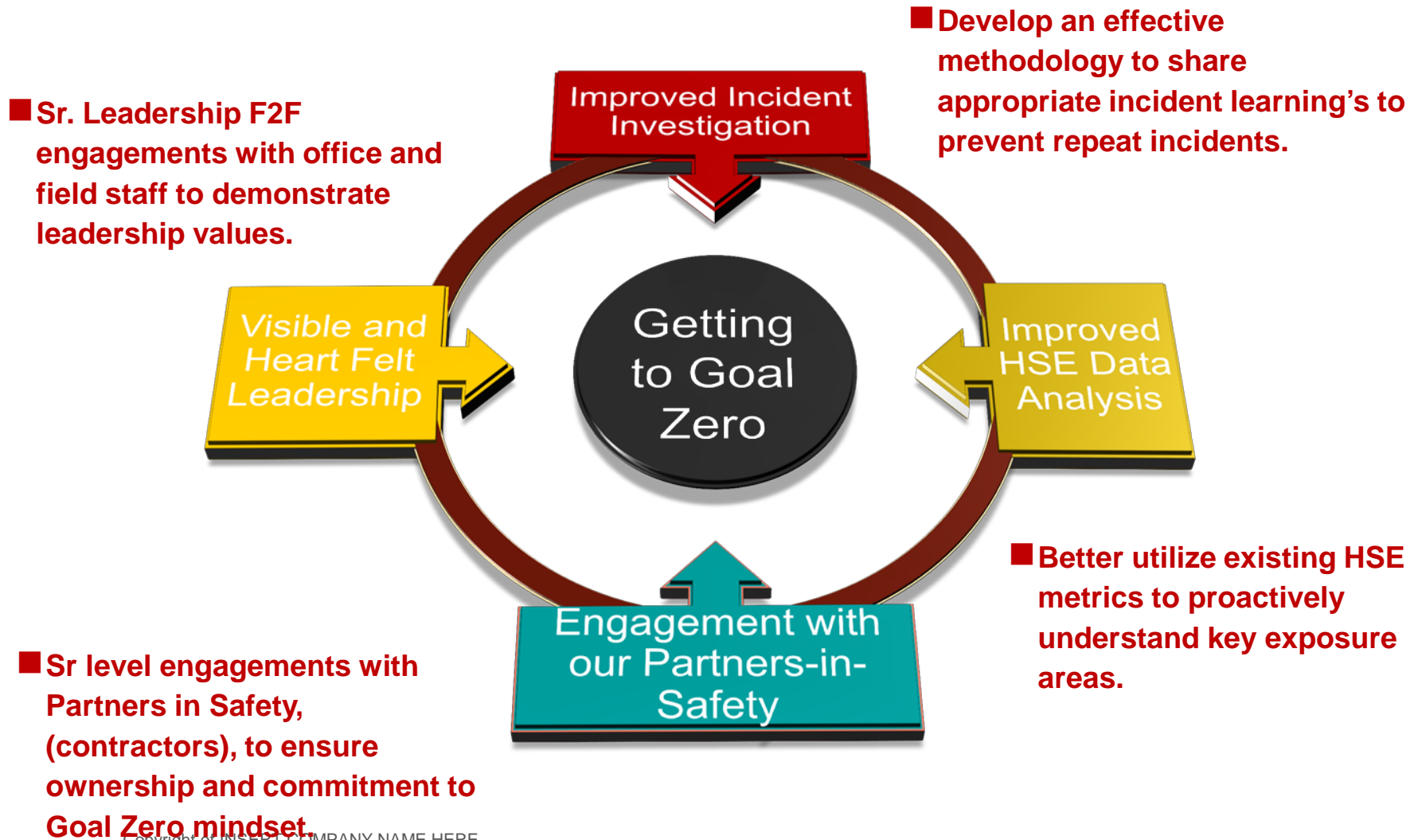
PERSONAL SAFETY - LIFE SAVING RULES

OUR LIFE-SAVING RULES SHOW OUR COMMITMENT TO PEOPLE ...



SAFETY LEADERSHIP

And where we focus our Safety Leadership attention ...

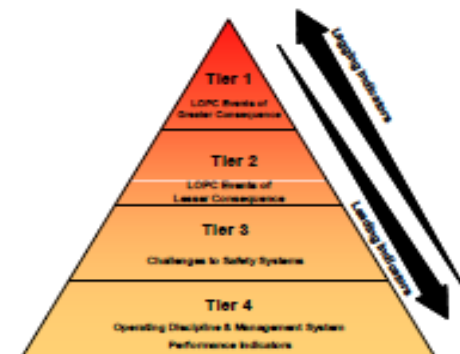


METRICS

As are measurable Safety Metrics ...

- Management should review asset integrity and process safety performance metrics on a regular basis
 - Sr/Executive Management – Quarterly
 - Operations/Line Management – Weekly/Monthly
 - Field Supervision – Daily/Weekly
- Performance metrics should contain a good mix of leading and lagging indicators
 - Leading: alarm rates, PM/CM schedule compliance, overdue MoCs, Near Misses
 - Lagging: HC spills, OSHA Recordables, fires

Industry PS Performance Metrics - API RP 754
Four Tiers



LEARNING FROM INCIDENTS (LFI)

As is learning from our and others past incidents...

- We encourage the reporting of all incidents and failures.
- We recognize individuals who intervene and stop potentially unsafe work.
- We proactively share learnings and encourage local self assessment.
- We look for the causal relationship between culture and performance.



Welcome to the [December 2012](#) issue of the Deep Water LFI Newsletter. Published monthly, the contents will provide the latest LFI Alerts & Newsflashes as well as Industry Alerts.

For more information visit The Global Learning from Incidents [LFI Alert Database](#):

- Group LFI Alerts for Significant Incidents, High Potential Incidents (RAM C5, D5, E5) and other incidents with high learning value for multiple Shell businesses
- LFI Alerts issued by businesses
- LFI Newsflashes issued by Group and businesses

UAD Alerts

[UAD-AW-201207 LOPC during maintenance, T250 Fluorine Flash Gas Compressor "A"](#)



The removal of a PSV had been preceded by closing, tagging and locking the single 4" ball isolation valve in line with the permit to work and the facility risk based isolation procedures which called for single isolation only. The valve did not provide a secure isolation. A pressure spike upstream through the HP flow system and a quantity of gas and residual oil in the flare header had blown past the tagged and locked closed 4" isolation valve.

Group Alerts

[GRP-AW-201213 Driving in Adverse Weather Conditions](#)



A Shell contracted truck loaded with pipes was travelling to an onshore rig site when it encountered foggy weather and rolled over. The driver sustained minor injuries but the truck was damaged beyond repair.

This Alert was developed by Upstream Americas and contains a [reflecting learning video](#) for engaging with frontline staff. Reflective learning videos are one of the new tools developed by the Incident Investigation & Learning GDT. More information on them can be found [here](#).

ASSURANCE PROCESS

A key ingredient of our Safety Culture is a robust Assurance Process ...

- **Should have multiple levels of assurance;**
 - **Corporate level – audits against company stds/policies, reports to Corporate Business Assurance Committee (BAC)**
 - **Business level - audits against local stds/policies, including regulatory reqts**
 - **Local level - self-assessment against local stds/work procedures**
 - **External – third party audits: Process Safety, SEMS, Asset Integrity Assurance**



AUGER - KEY SUCCESS FEATURES

Our House

Shell
Contractors
Drilling
Visitors



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1. Work Planning

- ☐ Hazard Identification
- ☐ Engineering Risk Reduction
- ☐ Crew Engagement

2. Beach - Felt Leadership

- ☐ Visible field engagements
- ☐ Quality Time and Focus

3. Offshore field leadership

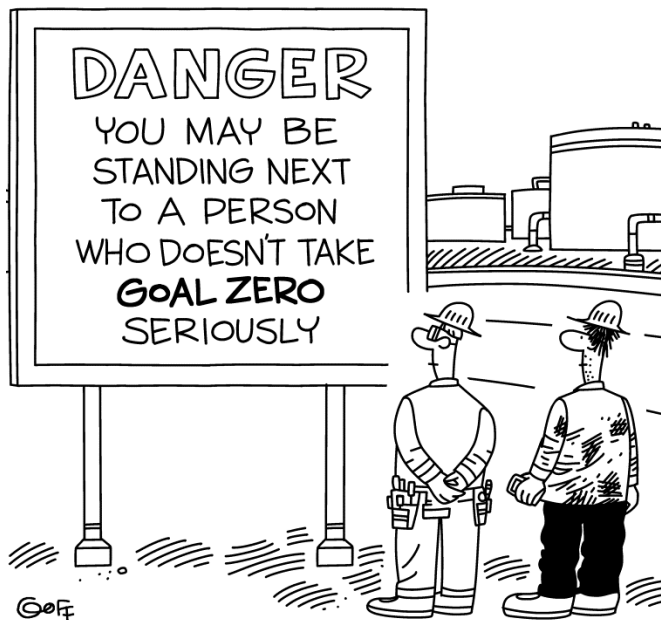
- ☐ Deck Safety People
- ☐ Supervision
- ☐ Foreman

4. Crew Training

AUGER - HOW IS IT DIFFERENT?

ITS NOT:

- ❑ Statistics
- ❑ PowerPoint
- ❑ Telling



WHAT WE DO DIFFERENTLY:

- ❑ Leadership visible at the sharp end!
- ❑ Sense of Personal Ownership & Urgency
- ❑ Deck time for Safety professionals and Offshore Leadership
- ❑ Listening / engagement
- ❑ Focus on People, Behaviors, Exposure, and Hazards
- ❑ Breakdown barriers to action
- ❑ Humility



Our House - Our Family



“Every Day is Safety Day in Our House!”

“I am my brother’s keeper”

“I work safely for my family”

**“Good Safety is about
choices and behaviors”**

**“Its different here at Auger,
the people really care about
each other”**

CHALLENGES: MEASURING SAFETY CULTURE

Joelle Mitchell, NOPSEMA (29 Oct 2012):

Survey findings should be used to drive further qualitative inquiry; they should not be interpreted in isolation from qualitative data.

CHALLENGES - COLLECTION AND ASSESSMENT OF INCIDENT DATA

I'd like to propose that the IRF work closely with the WEC and with the OGP, and then align with the new Center for Offshore Safety in the U.S. to create one, common global system to track such data.

~ Marvin Odum, 2011 IRF Conference, Stavanger

MORE SAFETY CULTURE CHALLENGES:

- Instilling “safety as a value” in new employees
- Buy-in with our “partners-in-safety”
- Public and regulator perceptions
- Competency assurance
- Maturity of process safety and personal safety

ROLE OF THE REGULATOR

We believe goal-setting regulatory regimes promote attributes that are fundamental to leading safety cultures.

- Risk based
- Data and analyses driven
- Promotes information sharing
- Provides positive reinforcement
- Candid communication
- Promotes innovation
- Provides flexibility to adjust
- Contributes to trust

ROLE OF THE REGULATOR

Regulatory regimes function most effectively when a single entity has broad safety and pollution prevention responsibility. Gaps, overlap, and confusion are not in the interest of safety or regulatory efficiency.

~Vancouver (2010) IRF Conference

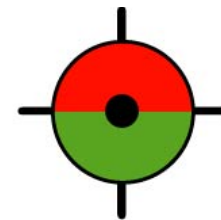
*Summary
“It is not possible for a regulator to create a culture of safety in an organization by inspection or audit; that culture needs to come from within the organization. The regulator’s role is to regulate in a manner that helps the organization be safe.”*

“Goal-oriented regulations build on the view that employers and employees in the industry are competent and willing to cooperate on finding good HSE solutions.”

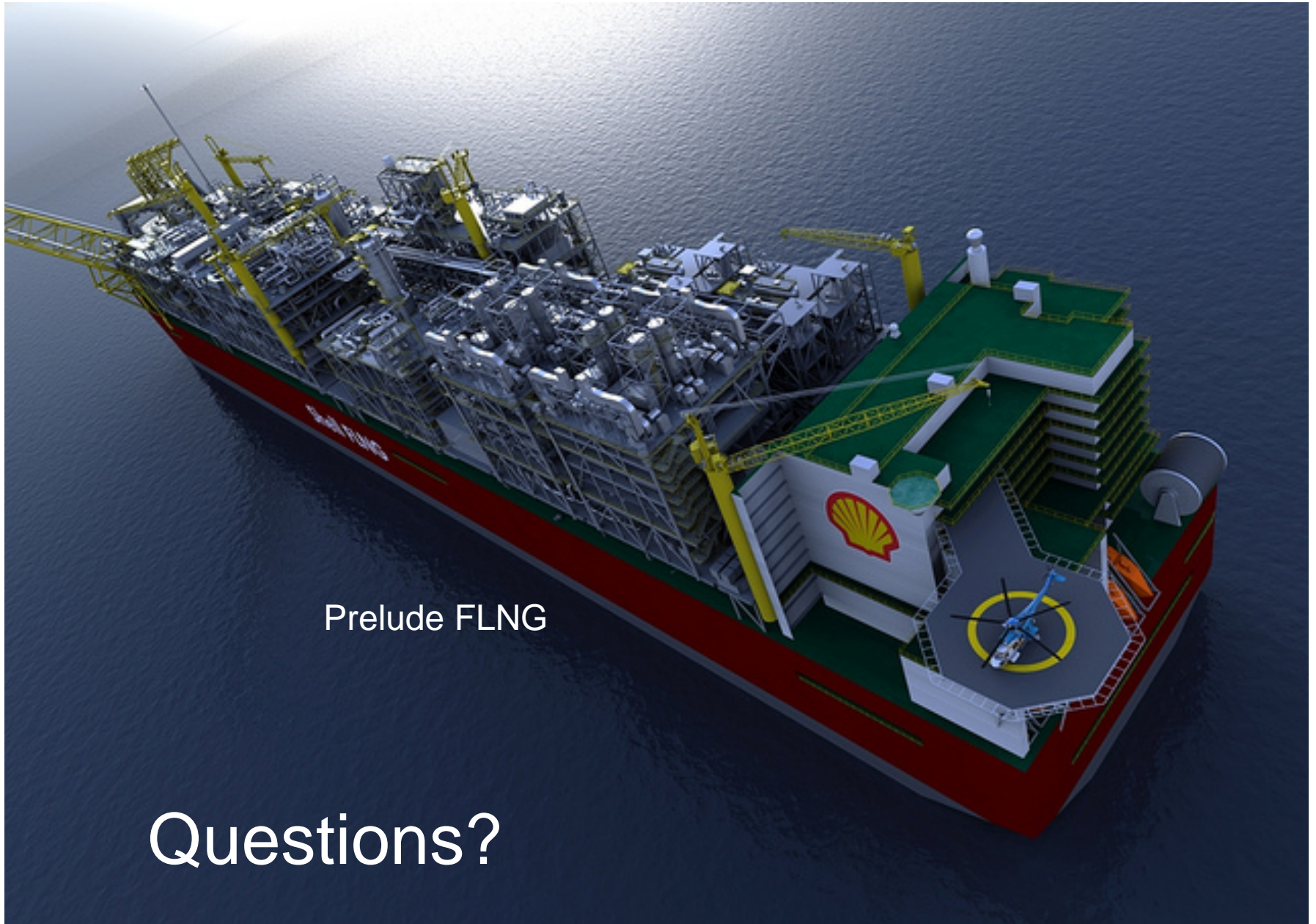
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Prelude FLNG

Questions?

