

# IRF

# Offshore Safety

# Performance Measures



# Why Measure Safety Performance?

- **Compare performance among IRF countries**
- **Identify changes over time – are we improving?**
- **Focus IRF efforts where improvements are needed**
- **Provide benchmark for evaluating the effect of IRF collaboration**



# Performance Data is Available

## Valuable Data Sources...

- **Individual IRF countries incident data gathering, compiling, and publishing**
- **Industry organizations (i.e. IADC and OGP) compile incident data on a global basis**
- **International databases (e.g. WOAD)**



# Performance Data is Available

## IRF data provides a unique perspective ...

- **Data is comprehensive (all operators)**
- **IRF represents different offshore environments**
- **IRF represents different regulatory regimes**
- **Promote development of standard indicators and definitions**



# Performance Indicators

- **Fatalities**
- **Major Injuries**
- **> 3 Days Lost Time**
- **1-3 Days Lost Time**

**Per Million Hours Worked**



# Estimating the Cost of Injuries

## Lost Time Injuries, CY 2006

- **Major Injuries** 2,072 Days
  - **3 Day Injuries** 1,980 Days
  - **1-3 Day Injuries** + 402 Days
- 4,454 Days**

**12.2 Man-Years Lost Time**



# Performance Indicators

- **Major HC Gas Release**

**Rate > 1 kg/sec for at least 5"**

**Amount > 300 kg**

- **Significant HC Gas Release**

**Rate .1 – 1 kg/sec for 2-5"**

**Amount 1 – 300 kg**

**Per Million BOE Production**



# Qualitative Information

## HC Gas Release Summaries

- **During separation plant maintenance = large release; large-scale evacuation**
- **After well perforation = cloud of gas covering main deck**
- **Leak from gas lift riser = gas entered safe and process areas; shutdown, muster, evacuation**



# Performance Indicators

- **Fires**
- **Collisions**
- **Loss of Well Control**

**Per 100 Offshore Installations**

**Per 100 Well-Related Activities**



# Qualitative Information

## Near Miss Summaries

- **Traveling block assembly fell to drill floor = potential fatality, blowout**
- **Anchor dragged across subsea gas line = potential > 800 kg gas release, explosion, fatalities**
- **Helicopter water landing = 15 crew in sea for 75 min; potential fatalities**



# Challenges

- **Different reporting requirements -- type and amount of information reported**
- **Availability of information for normalizing incident data (e.g. hours worked)**
- **Definitions -- clear enough to provide consistent reporting & categorization?**



# Status

- **Compiled information for 2004-2006 (involved re-working 2004-05 data)**
- **Reviewing details of definitions and consistency of categorizations**
- **Establishing clear data quality parameters**
- **Several countries modifying reporting requirements**



# Revisions to Align with IRF Criteria

- **Australia**
- **Canada - Nova Scotia / Newfoundland**
- **Netherlands**
- **New Zealand**
- **United States**



# Summary

- **We are encouraged by the progress we have made to date and anticipate more in the coming year**
- **We expect that these indicators will help us assess our individual and collective safety performance**
- **We realize that understanding and improving safety performance involves more than measuring where we are; understanding hazards and predicting risk is also important**



# Performance Measurement Workgroup

## Australia

Ian Crawford

## Brazil

Raphael Moura

## Canada

John Kennedy  
Stuart Pinks

## Netherlands

Jos Marx

## New Zealand

Trevor Harrison

## Norway

Torleif Husebo

## United Kingdom

Alan Thompson

## United States

Melinda Mayes



