

A stylized graphic of a globe, composed of several overlapping, light blue curved lines that form a grid-like pattern, representing latitude and longitude. It is positioned on the left side of the slide.

The International Association of Oil & Gas Producers

Representing the upstream industry around the world since 1974

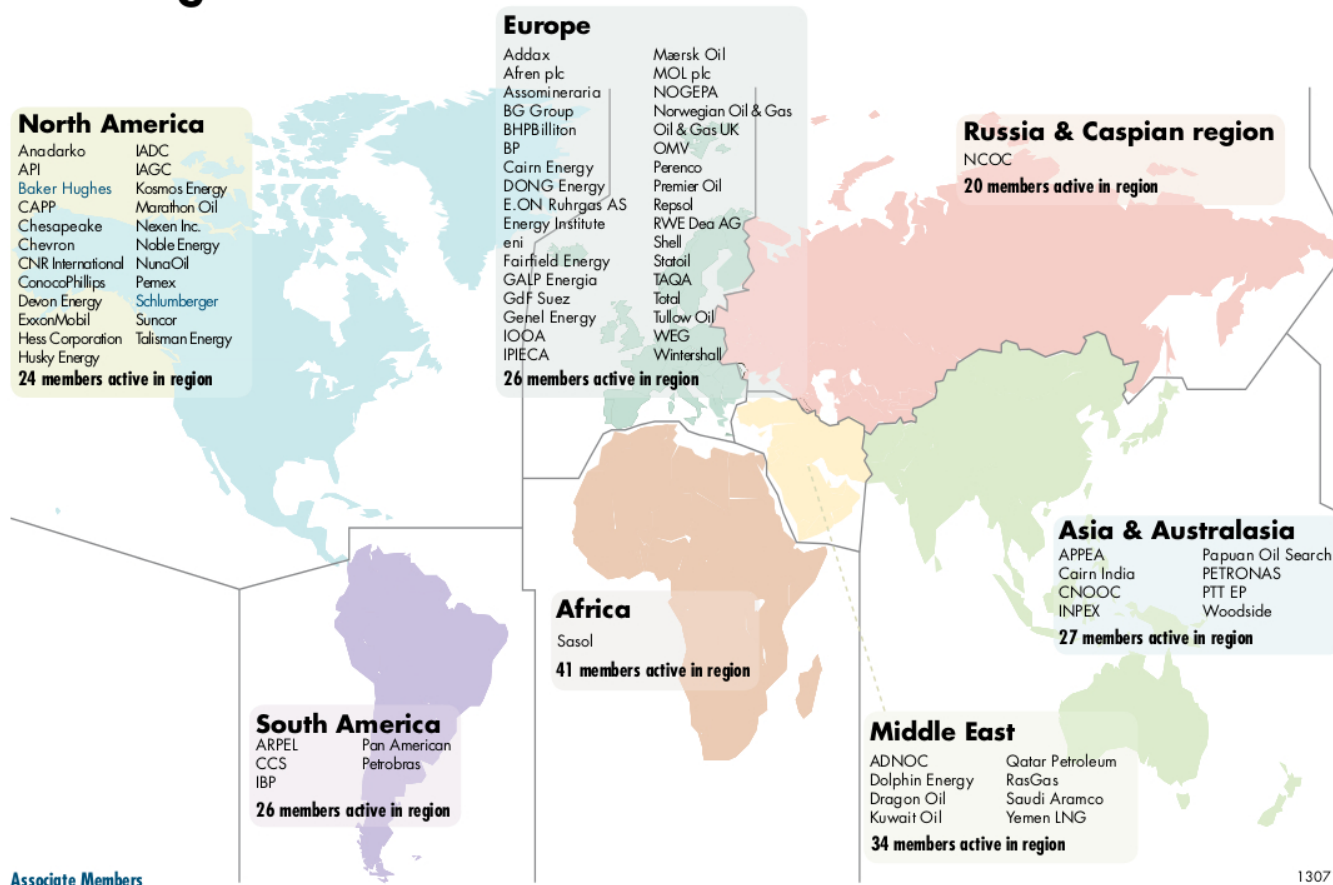
Progress of collaborative efforts to prevent and respond to major incidents

International Regulators' Offshore Safety Conference, Perth, 22nd October 2013


Some 80 members around the world

OGP

Base region of Members



130717

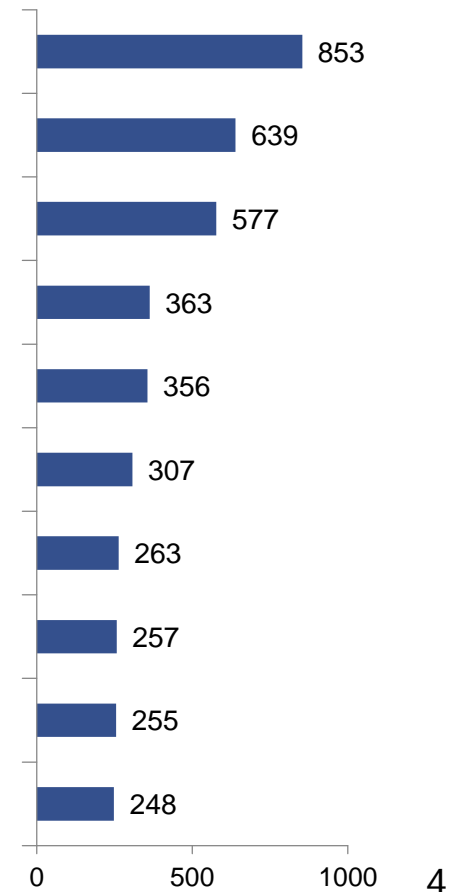
- 
- To work on behalf of the world's oil and gas exploration and production (E&P) companies to promote safe, responsible and sustainable operations.

Most downloaded publications over 3 months

(May 1 – Aug 1, 2013)

Report No. Report name

2012s	Safety & Health performance indicators - 2012 data
459	Life-Saving Rules
456	Process safety – recommended practice on key performance indicators
2011s	Safety & Health performance indicators - 2011 data
449	Environmental management in Arctic oil & gas operations - good practice guide
415	Asset integrity – the key to managing major incident risks
2011e	Environmental performance indicators - 2011 data
n/a	Factsheet: Oil & natural gas: the basics
459_4	Life-Saving Rules – A1 poster of all 18 Rules
485	Standards and guidelines for drilling, well constructions and well operations



OGP represents the upstream industry before a number of organisations



- **The organisations include:**
 - Barcelona Convention
 - Commission for Sustainable Development
 - EU
 - Helsinki Commission
 - IMO
 - International Regulators' Forum
 - International Whaling Commission
 - ISO
 - OSPAR
 - World Bank

Global Industry Response Group

Prevention of and response to major offshore well incidents

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Prevention

Better capabilities and practice in well engineering design and well operations management

OGP Wells Expert Committee
International Association
of Oil & Gas Producers



Intervention

Improved capping response in the event of an incident and to study further the need for – and feasibility of – global containment solutions

SUBSEA WELL RESPONSE PROJECT
Oil Spill Response



Response

Effective and fit-for-purpose oil spill response preparedness and capability

OSR
Oil Spill Response
Joint Industry Programme



Governments, regulators, NOIAs, OSROs and industry initiatives

Well incident prevention

International standards



Framework

- EU/US sanctions continue to block major ISO/TC67 work for API and OGP members
- OGP and API have established a Joint Task Force to identify potential solutions for preserving a single set of international standards
- Meanwhile, OGP is hosting a number of sanctions compliant international standards development groups
- Draft International Standards (DIS/FDIS) are sent to ISO for balloting/ issuing
- API standards work continues unrestricted, but is not available for the OGP hosted international standards development pending clarification from US regulators (i.e. OFAC)

Accomplishments by OGP hosted group (well safety related only)

- 5 draft standards delivered to ISO
- 4 standards in drafting with 15-20 experts working on each

Next steps

- Work and complete safety critical international standards that are independent of API input
- Resolve restriction on API input, based on US regulator response, to mitigate risk of a dual set of standards emerging for international applications

Well incident prevention

Training, Behaviours & competence



Phase 1

- Define & recommend enhancements for existing global Well Control Training, Examination & Certification, OGP Report #476 issued Oct 2012
- Recommendations are embraced by IADC WellCAP and IWCF; primary objective of single Well Control Standard is being achieved

Well incident prevention

Training, Behaviours & competence



Phase 2

- **Syllabus delivered by Aberdeen University:**
 - OGP Well Operations Crew Resource Management (WOCRM) Training Syllabus
- **Work programme for development of a training standard from the syllabus**

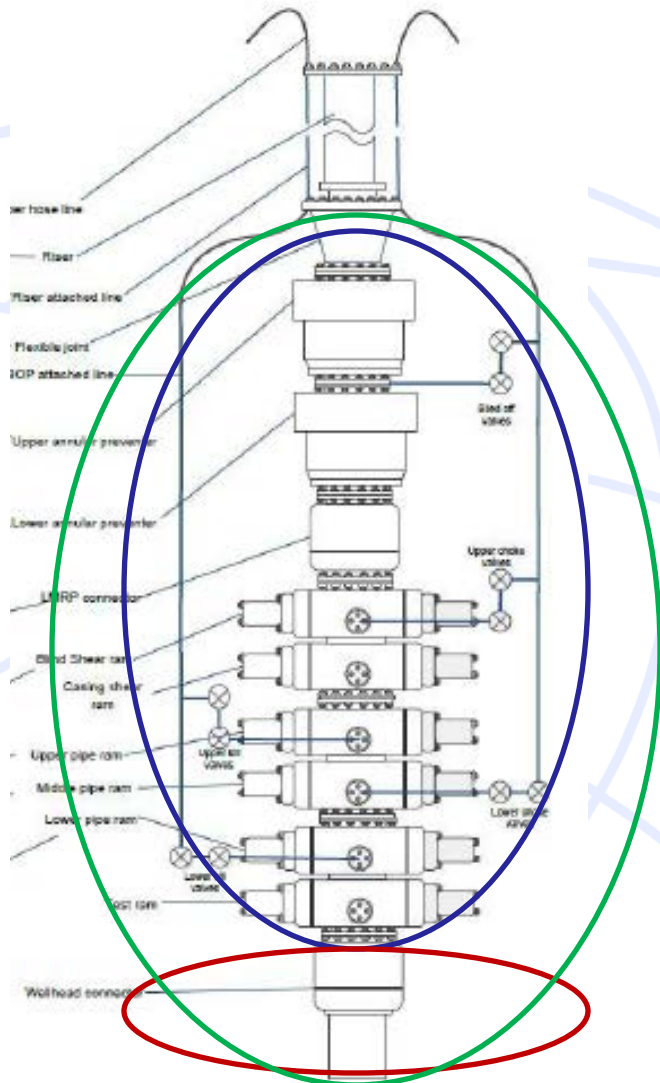
Phase 3

- **Define & recommend competence assessment & assurance tools: Draft international standard at ballot stage by ISO**

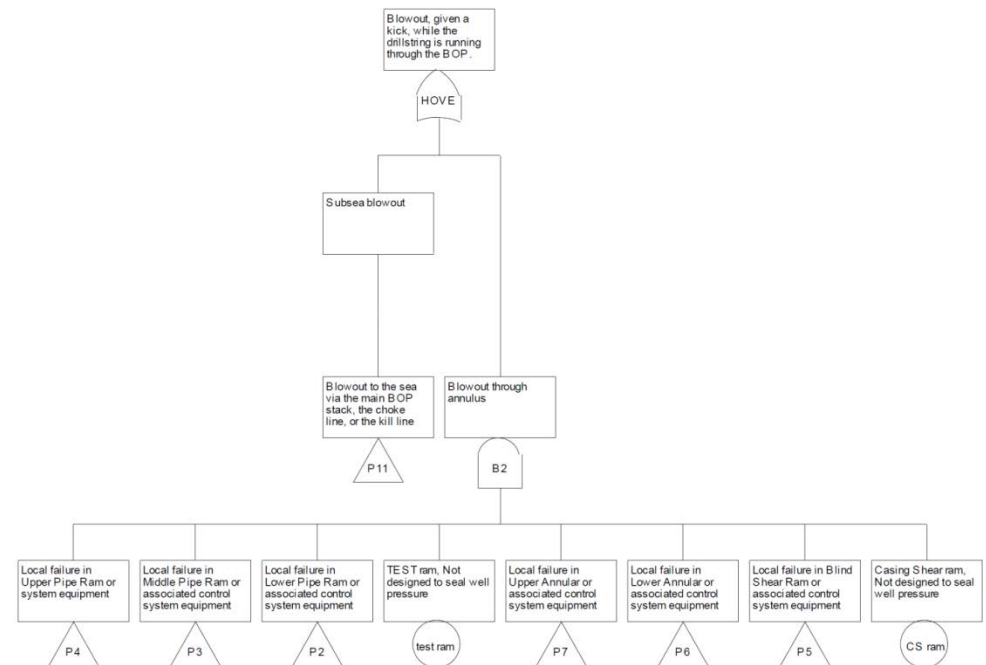
Well incident prevention

BOP technology – fault tree reliability analysis

OGP



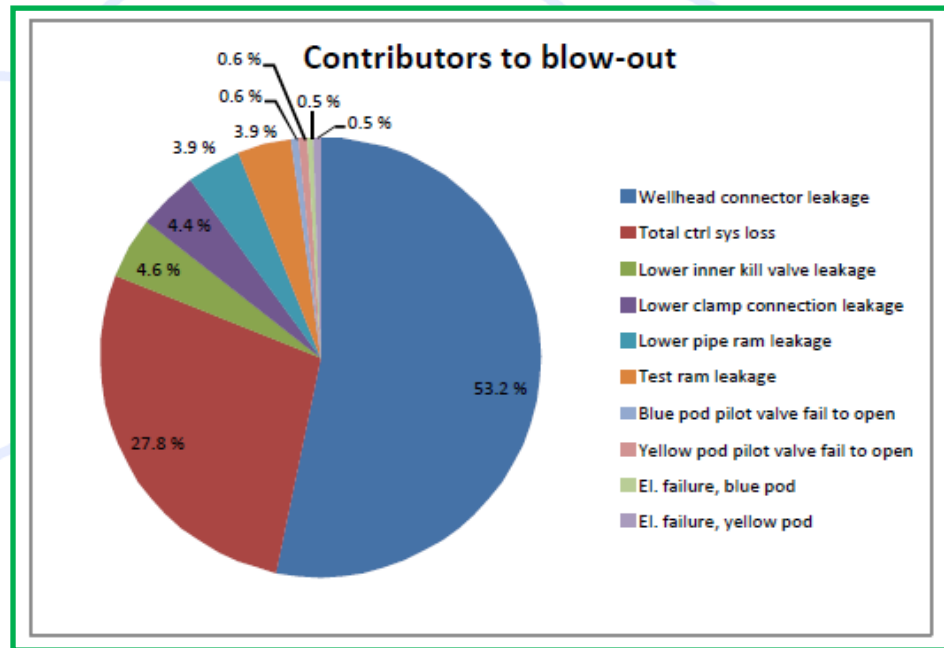
Fault tree – top part



Well incident prevention

BOP technology – fault tree reliability analysis

The Safetec study has assessed the relative contribution to risk of a blow-out from equipment.



- For the BOP system as defined in ISO 14224, i.e. including the connector to the Wellhead, the indicated reliability is of the order of SIL 2.
- The connector is a sub-unit to the BOP system that has no role in shutting-in the well. For the BOP system without the connector the indicated reliability is of the order of SIL 3.

Well incident prevention

BOP technology – fault tree reliability analysis

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Conclusion

- **Challenge**
 - Maintaining the specified SIL level during the operating life of the BOP
- **Main indicated areas for improvement**
 - The control system, which is the BOP subunit which fails most often when tested;
 - The wellhead connector, which is the most important subunit in term of 'component importance'.
- **Required**
 - Better Collection of data related to failures of subunits and of their component/maintainable items or their Parts (taxonomy levels 6, 7, and 8 of ISO 14224)
- **Critical areas not covered by the analysis**
 - Reliability of critical subunits, including shear rams' ability to seal under adverse conditions

Well incident prevention

Well control incident database



Accomplishments

- Well Control Incidents Database was launched July 31st 2012
- “OGP Well Control Incident Web Site” went live in April 2013
- 15 incidents in database, issued as alerts to OGP members

Next steps

- For trending, collection of WCI on an annual basis with the structured process in place for collection of occupational and process safety performance indicators

The Challenge

- Promoting the reporting
- Sharing and learning from events

Well intervention Capping

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Key objectives on capping achieved

Design a capping toolbox with a range of equipment to allow wells to be shut in



4 x
capping toolboxes constructed

Design additional hardware for the subsea injection of dispersant



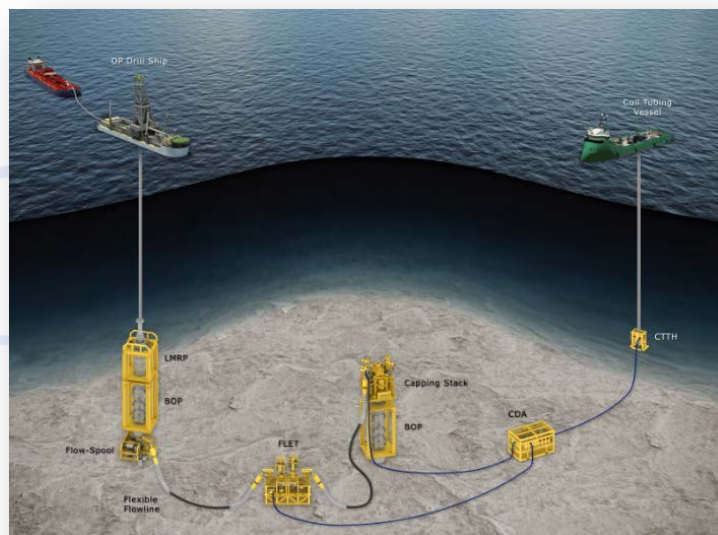
2 x
subsea injection, BOP manual
intervention, and debris clearance

Assess and implement
deployment option



Well intervention Containment

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**Standard Industry
Hardware**

**Containment
Toolbox**

**Containment
Guidelines**

Well planning

**Offshore
installation**

**Technical
specifications**

**System
operations**

**Functional
specifications**

**Emergency
disconnect**

**System
mobilisation**

**Decommission
ing**



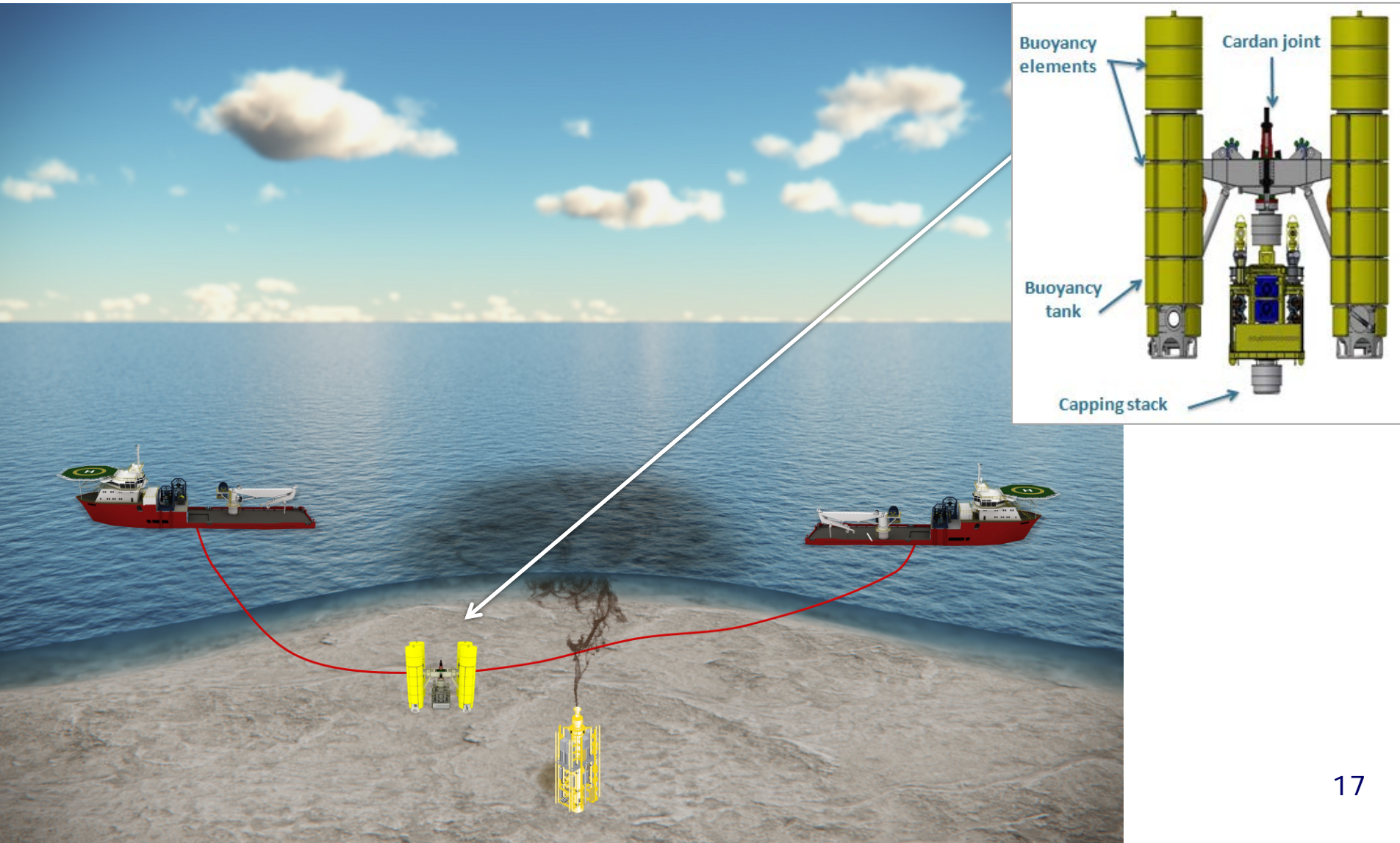
1. Flow spool with subsea test tree latch
2. Coiled tubing termination head (CTTH)
3. Flowline end termination (FLET)
4. Innovative side-entry flow spool



**Mutual
Aid**

Well intervention Offset Installation System (OIS)

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Oil spill response

Oil Spill Response JIP

OGP

- **Effective and fit-for-purpose oil spill response preparedness and capability**
- **18 work items**
- **Planned project end ultimo year 2014**
- **Results captured in the form of good practice guidelines divided into four areas:**
 - Strategy (3 docs);
 - Preparedness (5 docs);
 - Response (12 docs);
 - Impacts (3 docs)

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[illegible]

IIIECA-OGP Oil Spill Response Joint Industry Project (OSR-JIP) Seminar: JIP Program Update and Upstream Risk Assessment and Response Resource Planning (JIP 6)

Date – Thursday 24 October 2013

Venue – QV1 Theatre

Time – 12:30 pm (light luncheon provided) for a 1.30 pm start – 4:00pm (followed by afternoon tea)

Cost – No Cost, however numbers are limited, so please register early.

Registration should be undertaken directly via an email request (providing name, organisational and contact details and any special dietary requirements) to the following address with the Subject Line: “JIP Seminar Registration – QV1”:

dhills@appea.com.au

Offshore petroleum technical seminar: Acoustic impacts and marine life

Date – Thursday 24 October 2013

Venue – QV1 Theatre. Level 2, 250 St Georges Terrace, Perth

Time – 08:30 – 12:00

Cost – \$250.00

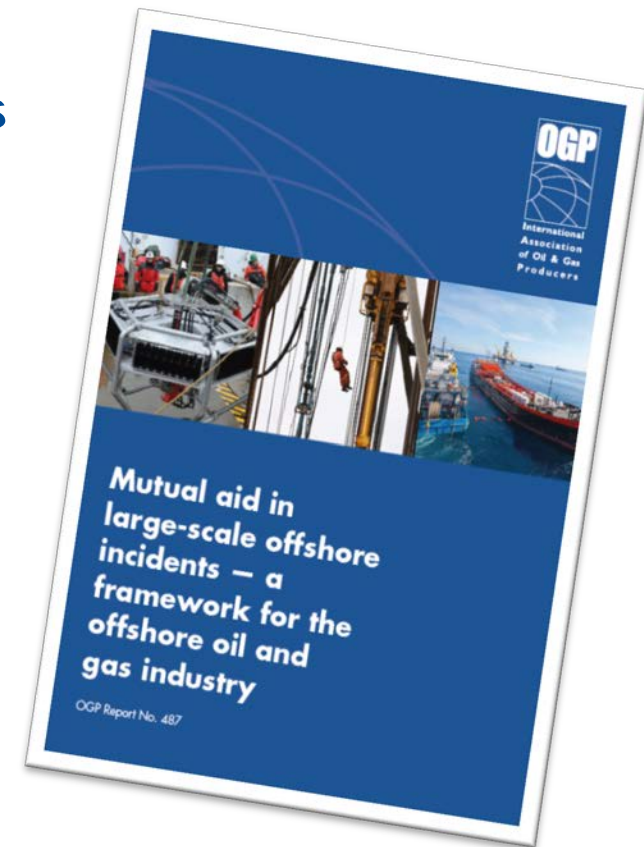
Registration via <http://irfconference2013.com.au/registration/>

Mutual Aid in Large-Scale Offshore Incidents



Mutual Aid guidelines

- A framework for the offshore oil and gas industry
- defines some terms related to mutual aid
- lays out some guiding principles
- outlines a common process
- highlights some of the issues likely to be encountered
- offers some practical measures to enhance and sustain mutual aid arrangements
- is targeted for use by operators and local industry associations in consultation with regulators



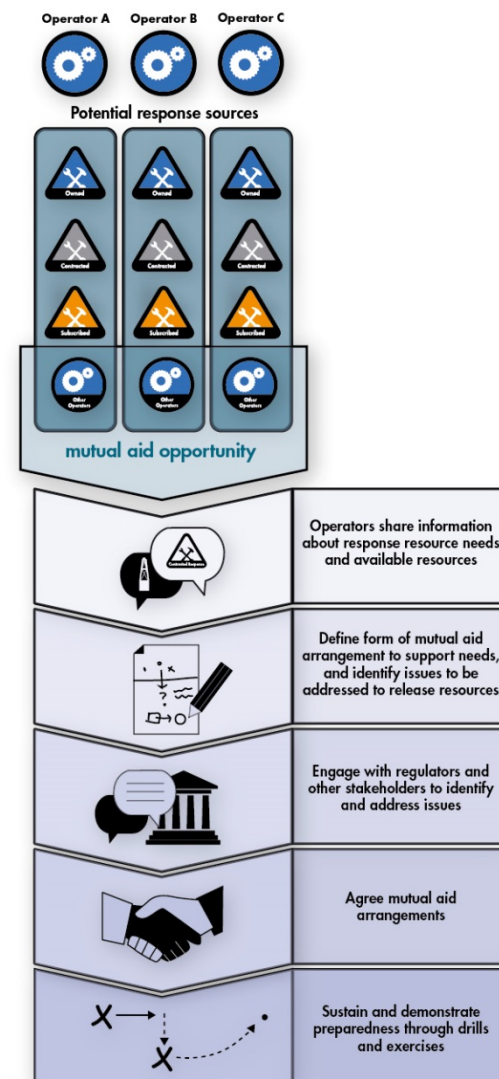
Mutual Aid in Large-Scale Offshore Incidents

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A conceptual process

- Systematic risk assessment and resource identification
- Information sharing to identify mutual aid opportunities
- Cooperative dialogue to define appropriate mutual aid arrangement
- Engagement with regulators and other stakeholders to identify and address issues
- Cooperative practices to sustain and demonstrate preparedness



Mutual Aid in Large-Scale Offshore Incidents

OGP

Next steps

- Presentation to IADC and IMCA members
- Communicate framework to regional and local operators associations – via OGP website
- Roll out at selected industry conferences

