How industry association members (Owners and Operators within the OSD) are getting prepared to deal with the implementation of the Offshore Safety Directive
In summary

- IOGP is only indirectly involved
- Information has been provided by several operators on how they get prepared
- Global industry preparedness; existing, in progress, and to be evaluated

Feed back from Operators

- **Common priorities in countries where goal setting principles are already in force**
  - Update of Safety Cases (RoMH); includes environmental impacts and changes in SECE performance standards to address environmental criticality.
  - Incident reporting
  - Verification scheme
  - Corporate Emergency Response Plan

- **Initiatives in other countries**
  - Workshop and seminars; e.g. 1 day Offshore safety seminar with an objective to have industry/authorities/contractors all together; e.g. 1 day seminar organized by Operator for its different Business Units in Europe.
Example Operator N. 1

- Preparing the revision of safety cases in line with timeframe requested by the Competent Authority as per definition of Offshore Safety Directive
  - Plan in place with associated resources to include the new environmental content
  - Contributing on safety cases of MODU’s on charter
  - Working on processes for well notifications
- Incident Reporting
  - System require little modification to accommodate EU requirements
- Independent verification already in place including well examination
- Financial capability — so far in line with MS requirements
- Access to OSRL and OSPRAG caps, and dispersant stockpile

Example Operator N. 2

- Changes due to OSD are not that significant
  - Vast majority of what is required already exists in the Company system
  - Waiting for final guidance to improve if necessary the reporting system
- New
  - The company has implemented a Corporate Major Accident Prevention Policy
- OSD Implementation
  - Adding in info on environmental into existing safety cases
    - Concern on what level of detail we have to provide in new safety cases
  - SECEs: some minor changes in SCE performance standards to cover environmental criticality
  - Well notification and Examination - new regime requires to include comments from examiner in the notification (need good coordination)
Example Operator N. 3

- **OSD has fixed three different deadlines for safety cases review**
  - One August 2015, one July 2017, one April 2018

- **New OSD Regulations – changes**
  - Petroleum licensing
  - Oil spill response

- **Verification and well examination already in place**

- **New**
  - Addition of Corporate Major Accident Prevention Policy
  - Update of Integrated Safety and Environment Management System
  - Identification of SECEs: update of current SCEs with information on Environment accidents
  - Update emergency Response plan, include in safety cases, review oil pollution response arrangements
  - Update assessment of the consequences of any major environmental incident

Global industry preparedness
Offshore Safety Directive
Key Articles for Operators / Owners

- Financial Capacity [Article 4]
- Public participation [Article 5]
- Documents to be submitted for carrying out offshore oil and gas operations [Article 11 – Annex 1]
- Priority for cooperation [Article 19.7 – Annex VI]
- Sharing of information [Article 23 – Annex IX]

Documents to be submitted for carrying out offshore Oil and Gas Operations

1. INFORMATION TO BE SUBMITTED IN A DESIGN OR RELOCATION NOTIFICATION FOR A PRODUCTION INSTALLATION
2. INFORMATION TO BE SUBMITTED IN A REPORT ON MAJOR HAZARDS FOR OPERATION OF A PRODUCTION INSTALLATION
3. INFORMATION TO BE SUBMITTED IN A REPORT ON MAJOR HAZARDS FOR A NON-PRODUCTION INSTALLATION
4. INFORMATION TO BE SUBMITTED IN A NOTIFICATION OF WELL OPERATIONS
5. INFORMATION TO BE SUBMITTED RELATING TO A VERIFICATION SCHEME
6. INFORMATION TO BE PROVIDED IN RESPECT OF A MATERIAL CHANGE TO AN INSTALLATION, INCLUDING REMOVAL OF A FIXED INSTALLATION
7. INFORMATION TO BE SUBMITTED IN A NOTIFICATION OF COMBINED OPERATIONS
8. INFORMATION TO BE SUBMITTED IN RESPECT OF A CORPORATE MAJOR ACCIDENT PREVENTION POLICY
9. INFORMATION TO BE PROVIDED IN RESPECT OF A SAFETY AND ENVIRONMENTAL MANAGEMENT SYSTEM
10. INFORMATION TO BE PROVIDED IN AN INTERNAL EMERGENCY RESPONSE PLAN
Global industry response

- Design of Production Installation, Report on Major Hazards, including Changes and Removal, and covering safety and environment
  - ISO 17776, DIS ballot will start on 2015-06-25
- Verification Scheme
  - Practice not covered by a global industry guideline yet; Technical Authorities, second or/and 3rd party - third party if required by law.
- Notification of Well Operations, Notification of Combined Operations
  - No global industry work so far

Global industry response

- Corporate Major Accident Prevention and Internal Emergency Response Plan
  - ISO 15544
  - Subsea Well Response Joint Industry Project
  - Oil Spill Response Joint Industry Project
  - IOGP Report 487 - Mutual Aid Framework
- Safety and environmental Management System
  - IOGP Reports 510 and 511 - Operating Management System Framework,
- Sharing of Information
  - Industry contribution to the Common Reporting Format IR Guidance
  - IOGP User’s Guide – Annual revision for reporting
Global industry response

- Public participation
  - IOGP and IPIECA Guidelines and Recommended Practice documents
- Priority for cooperation – standards and guidance on best practices in relation to control of Major Hazard.
  - IOGP Standards Committee work
  - IOGP Report 485, standards and guidelines for well construction and well operations
- Financial capability
  - IOGP made its comments and concerns known

ISO 17776
Offshore production installations - Major Accident Hazard management during the design of new installations

This International Standard covers the following main elements:
- establishing general requirements for identifying MA hazards and their causes;
- evaluating MA hazards to understand their likelihood and possible consequences;
- developing suitable strategies for managing MA hazards;
- progressively improving the understanding of MA hazards and their consequences to guide design decisions during the development phases of the installation;
- providing the measures needed to manage a MA;
- maintaining the measures throughout the life of the installation.

This International Standard should be read in conjunction with ISO 13702 and ISO 15544.
IOGP latest developments – 1/2

- **Report 530**, Electrotechnical standards relevant for the oil and gas industry; March 2015
- **Report 471**, Oxy-Arc Underwater Cutting Recommended Practice; March 2015
IOGP latest developments – 2/2

- **Report 518**, Aerial observation of oil spills at sea; February 2015
- **Report 519**, Contingency planning for oil spills on water; April 2015
- **Report 532**, Dispersants: surface applications; April 2015
- **ISO/TS 16530-2**, Well integrity in the operational phase is the first standard to be released by ISO under the new IOGP Standards Solution

---

**Report 471**

Underwater oxy-arc cutting, also commonly referred to as “burning” has been utilized extensively in the underwater diving environment.

The frequency of diver fatalities, injuries, incidents, and asset damage occurring while using this process continues to be unacceptably high within the global diving industry.

This Recommended Practice has been developed to assist with the management of this activity and provide control measures, guidance and processes to ensure the safe execution of this technique.
IPIECA-IOGP Good practice guidelines for the development of an effective spill response capability

Report 518
Report 519
Report 532

IPIECA-OGP Good Practice Guide Series; current views on good practice for a range of oil spill preparedness and response topics.
Undertaken by the OGP-IPIECA Oil Spill Response Joint Industry Project (JIP).

http://oilspillresponseproject.org/completed-products

Report No: 2013p

• Summarizes information on exploration and production (E&P) activities carried out by contributing IOGP member companies in 2013
• Data have been submitted by 39 of IOGP’s 63 member operating companies working in 84 countries worldwide.
Normalized process safety events per million work hours – Tier 1 and Tier 2

<table>
<thead>
<tr>
<th>Year</th>
<th>Tier 1</th>
<th>Tier 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>0.29</td>
<td>0.52</td>
</tr>
<tr>
<td>2012</td>
<td>0.19</td>
<td>0.5</td>
</tr>
<tr>
<td>2013</td>
<td>0.19</td>
<td>0.61</td>
</tr>
<tr>
<td>2014</td>
<td>0.15</td>
<td>0.51</td>
</tr>
</tbody>
</table>

Number of PSE for normalized results

<table>
<thead>
<tr>
<th>Year</th>
<th>Tier 1</th>
<th>Tier 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>278</td>
<td>475</td>
</tr>
<tr>
<td>2012</td>
<td>228</td>
<td>582</td>
</tr>
<tr>
<td>2013</td>
<td>252</td>
<td>803</td>
</tr>
<tr>
<td>2014</td>
<td>246</td>
<td>836</td>
</tr>
</tbody>
</table>


**2015 Feb.** Collision between wells while drilling leads to blowout

**2014 Dec.** Ejection of work string during bull-heading operations (onshore)

**2014 Nov.** Kick taken while drilling 8.5° reservoir section in Deepwater exploration well
Lessons Learned

• Collision between wells while drilling leads to blowout

• What Went Wrong?
  - Use of an incomplete data base that did not include all the wells in vicinity of the drilling location, resulting in an under-estimation of the potential collision risks.
  - Company rules not observed (requesting double check of directional drilling company anti-collision calculation with independent software)
  - Revision of the directional drilling programme should have been made once Conductor Pipe inclination was recorded.
  - Once a problem was detected, decision was made to drill ahead without proper risk assessment and analysis.
  - A closer supervision should have been in place at the rig-floor during this non routine operation.
  - Stop work authority was not exercised