



JOINT RESEARCH CENTRE

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Director

Directorate Energy, Transport and Climate

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**Mr. Gwenole Cozigou**

Director

Directorate Transformation & Advanced Value Chains

Brussels, July 27, 2016

**Subject: European Commission Joint Research Centre Study April 2016, assessing the impacts of possible amendments to the ATEX, Machinery and Pressure Equipment Directives with respect to equipment intended for use in the offshore oil & gas industry**

Dear Mr. Szymanski,

Dear Mr. Cozigou,

As **European Community Shipowners' Associations (ECSCA), International Association of Drilling Contractors (IADC) and International Marine Contractors' Association (IMCA)**, we represent the interests of the oil and gas drilling industry stakeholders, including mobile offshore drilling units' owners and operators.

The large offshore mobile asset-owning sector is concerned about the study conducted by the European Commission Joint Research Centre examining the extension of the scope of the European Union product safety legislation (EU PSD) by including equipment installed and used on Mobile Offshore Drilling Units (MODUs). The industry has followed the European Commission's/JRC work closely providing input throughout the whole process towards the adoption of the final report.

The report seems to be a further study of the legal structures governing standards relating to the safety of the offshore hydrocarbons industry, and an important topic for us. The European Commission led the world to introduce measures to control major accidents with the entry into force of the Directive 2013/30/EU on safety of offshore oil and gas operations (OSD). This is the cornerstone for offshore safety in the EU.

Although the industry welcomes the European Commission initiative to explore ways to further improve the safety record of MODUs, it seriously doubts that the extension of the scope of the EU PSD to cover MODUs is the appropriate tool to achieve such goal. The focus of the OSD is specifically aimed at the risk of major accident hazards offshore, and the safety systems specific to this type of operation, as opposed to the generic EU PSDs. Therefore, a general reduction of risk levels offshore is much more likely to be achieved through the OSD than the PSDs.

The JRC report is presented as a *Deepwater Horizon Oil Spill* disaster follow-up, but nothing in way of documenting a justifiable risk reduction for major hazards can be demonstrated. Also, in respect of subsidiarity, it has not been demonstrated that issues are insufficiently resolved at Member state level. Both principles should be catered to in order to justify an extension of the scope of EU PSD.

There are misconceptions prevalent in the document that in our view should be corrected or adjusted in case of an “actual” impact assessment. Currently, it is our interpretation that burdens would almost solely be offset on end users of the equipment, ie. drilling contractors. In addition, it remains undocumented that an extension would have a benefit in respect of major accidents, as the examples given by authorities are largely occupational incidents.

All in all, the existing rules and standards for MODU equipment already ensure a very high MODU safety standard. Any extension of EU product safety legislation is unlikely to produce an even higher safety standard or reduce the probability for or frequency of major accidents on MODUs. International standards are constantly being developed and modified on a continuous basis, notably after the Macondo incident. Changing the current dynamics would not add safety benefits and it could potentially have detrimental effects on a level playing field in terms of competition affecting all in the supply chain; MODU equipment manufacturers/suppliers, owners and operators. More precisely, the following implications should be noted:

### **1. Market access and mobility**

MODUs operate on a world-wide basis. They are built to and are maintained to internationally recognised standards that allows their free movement between EU member states and globally. Imposing additional EU specific requirements could be a barrier to that free movement and potentially significantly increase both manufacturing and operating costs<sup>1</sup>.

### **2. Cost and resources**

The MODU owners/operators industry is reassured that the compliance costs, direct and indirect, that need to be considered for design and certification can be substantial. Increased costs include, inter alia, the need for double certification or recertification when entering the EU sector. Additional cost may be required for retrofit, and downtime given retrofits. Such increase in the cost could lead to detrimental impacts for the whole sector; loss of business, decline of businesses and inevitable loss of jobs.

### **3. Supply shortages**

Double certification appears to be the only feasible course of action as it would not be prudent to have to refurbish equipment whenever moving in or out of EU sectors. This and additional documentation requirements may lead to backlogs, especially on complex, long lead items. This in turn may cause delays in campaigns and downtime for refurbishments.

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<sup>1</sup> More than 140 rigs are currently at European waters according to figures provided by IADC

Also, some equipment vendors that do not have the EU as a core market may become subject to delays given the process required to understand EU Directive requirements, or worst case abandon marketing their products in the EU.

The industry has set out in the accompanying **Annex** an analysis vis-à-vis the JRC report highlighting certain limitations in the research conducted that in some cases lead to unwarranted and unjustified conclusions. The ultimate goal of the comments provided is to reflect the abovementioned points and enable to report objectively that MODUs are currently regulated under existing EU legal codes to an equivalent, in fact higher, standard than other major hazard sectors in the EU.

As the JRC report is expected to be further examined by the European Commission services and the dedicated working groups monitoring the implementation of the Directives, the industry remains engaged in providing any additional input.

Yours sincerely,

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*In CC:*

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## ANNEX

REF.	JRC REPORT TEXT	COMMENT
<b>Executive Summary</b>		
Page 3	<p>Cost impact: "In this respect, the report concludes that the extension of ATEX to cover MODUs would have only a small impact regarding electrical equipment, since the requirements for its protection against explosive atmospheres are very similar to these currently applied by the IMO MODU Code/IEC-Ex scheme."</p>	<p>On the contrary, the extension of ATEX to cover MODUs would indeed have a big impact on the cost. The additional cost is unlikely to be derived from design changes but from additional documentation and certification. It would actually be an administrative burden without technical improvement behind it.</p> <p>Self-certification is according to the ATEX directive acceptable for zone 2 equipment. This is not accepted as per IEC and self-certification is in the industry considered as a reduced safety/additional risk for the operation. It is therefore not a misconception, as assumed by the JRC. On drilling rigs zone 2 equipment constitutes a large proportion of the equipment used. In addition, in well-established regulatory frameworks the documentation requirements will drive up costs as all changes to existing requirements, irrespective of the substantive content, will be challenging.</p>
Page 3	<p>"As the objectives of the MD are not covered by the IMO MODU Code, there is a gap in the safety of equipment, which could in principle be covered by extending the MD to oil and gas offshore equipment specifically designed to be installed on-board MODUs. In our opinion, the extension of scope of MD would most likely have positive impact on safety and environment, limited impact on costs for ship owners, no impact foreseen for SMEs and increased business for certification bodies. However, the option of extending MD to MODUs would require further investigation. This deeper analysis could go into further detail, clarifying, among other, whether certain equipment (e.g. compensators) can be treated as machinery"</p>	<p>MODU's are subject to many other codes not only the MODU Code. On a MODU, much of the drilling equipment is built and maintained to the appropriate API standard. Then there are other standards such as Class Rules and Flag State requirements (it is understood that there can be differences in these standards, but they are not significant). A proper assessment should take into account all international standards, not just the MODU code.</p> <p>API standards are referred to on pages 27 &amp; 34, but the report appears not to recognise their significance regarding drilling / pressure equipment (and others) on a MODU. Relevant API standards associated with containment of wellbore pressure include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• API RP 7G Drill Stem Design and Operating Limits (16<sup>th</sup> edition, 2009)</li> <li>• API Spec 16A/ISO 13533:2001 Specification for Drill-Through Equipment (3<sup>rd</sup> edition, 2004)</li> <li>• API 16AR, Repair and Remanufacturing of Drill-Through Equipment (1<sup>st</sup> edition currently being balloted)</li> <li>• API Spec 16C Choke and Kill Equipment (2<sup>nd</sup> edition, 2015)</li> <li>• API Spec 16D Control Systems for Drilling Well Control Equipment and Diverter Equipment (2<sup>nd</sup> edition, 2004)(3<sup>rd</sup> edition currently being balloted)</li> <li>• API Spec 16F Marine Drilling Riser Equipment (1<sup>st</sup> edition, 2004)</li> </ul>

REF.	JRC REPORT TEXT	COMMENT
		<ul style="list-style-type: none"> <li>• API RP 16Q Recommended Practice for Design, Selection, Operation and Maintenance of Marine Drilling Riser Systems (1<sup>st</sup> edition, 1993)(2<sup>nd</sup> edition currently being balloted)</li> <li>• Spec 16R Specification for Marine Drilling Riser Couplings (1<sup>st</sup> edition 1997)</li> <li>• API Spec 16RCD Rotating Control Devices (2<sup>nd</sup> edition 2015)</li> <li>• API Std 53 BOP Equipment Systems for Drilling Wells (4<sup>th</sup> edition 2012)(5<sup>th</sup> edition currently being balloted)</li> <li>• API RP 64 Diverter Systems Equipment and Operations (2<sup>nd</sup> edition, 2001) (revised edition currently being balloted)</li> </ul> <p>It is worthy of note that only one of the above has an ISO equivalent.</p>
Page 4	"The limited response rates to the survey (in particular for manufacturers, Notified Bodies and standardization bodies)."	<p>In order to be comprehensive, the survey should have included actual well control equipment suppliers – which are almost exclusively located outside of the EU and may not even be aware of the survey. (The API "Composite List, which identifies organizations authorized to use the API Monogram can be used as an indicator for the locations of such companies. It is available at: <a href="http://perforatordirectory.api.org/2015apicompositelist.pdf">http://perforatordirectory.api.org/2015apicompositelist.pdf</a>) Having built BOPs, Diverters, C&amp;K manifolds etc. to API for years it is likely to have a significant impact if additional certification requirements are imposed. Any additional efforts invested by the manufacturers will be transferred to the end user (this also explains why suppliers/manufacturers will not perceive this as burdensome – any additional cost will be transferred to us). In addition, almost all drilling equipment today is produced by American companies according to their specifications. There is an ongoing "conflict" between API and ISO, with little prospect of alignment. Some will argue that embargoes/sanctions are being used to protect API/ American interests.</p>
<b>Introduction</b>		
Page 5	"However, the IMO MODU Code does not cover drilling operations which are now covered by legislation of Member States (a harmonised approach at EU level does not exist at the moment."	This is incorrect – the paper has just referred to the OSD, and the control of major accidents entails (according to the OSD) the definition and control of SECE, which are safety – and environmentally critical systems (well control being a key element).
<b>Overview and forecast of the global MODU market (Section 2.2)</b>		
Page 8	"The main drivers of the current building cycle are the old age of the global jack-up and semi-submersible fleet and the strong demand for	It is not appropriate to refer to new building cycle as currently one high specification rig after another is being stacked. This analysis does not reflect the current or future market.

REF.	JRC REPORT TEXT	COMMENT
	<p>deepwater units (advances in technology are allowing the drilling of wells in waters below 10,000 ft (3,048 m) and in more demanding high pressure and high temperature environments). The ascension of deepwater and ultra-deepwater floaters does not, however, mean that midwater and shallow water vessels are destined to go out of business."</p>	
Page 10	Day rates	None of the day rates quoted are correct by today's standards. The average of 2016 is in the order of at least 100-150.000 USD lower for a drillship, and significantly lower dayrates prevail for semis and JUs.
Page 14	<p>"In the last years significant discoveries have been made in the previously unexplored deepwater areas in the North Sea (in the Faroe and Shetland Islands, and in the Dromberg field offshore Ireland)."</p>	This is incorrect, currently no exploration of note off the Faroe Islands shows any promise. There is little activity in Irish waters and the number of exploration wells to be drilled in the UK sector and other parts of Europe in 2016 is expected to be the lowest for many years
<b>Typical Oil and Gas equipment (Section 3.1)</b>		
Page 16	<p>"Thus, due to the loss of confidence of the shipping industry in the classification societies, the role of these and their rules have not been considered in the preparation of this report even though if it is integral to the application of the MODU Code"</p>	This statement remains unsubstantiated. Reference 7 is to the Commission paper on offshore safety where the claim is not substantiated either. All MODU's are built to and are maintained under Class Rules. In the UK, MODU owners have used the Classification Societies in independently verifying their SECs as article 17 of the Offshore Safety Directive now requires all member states to have their SECs independently verified. Since the verification of SECs is now a general requirement in the EU, this adds a layer of independence on which reliance can be placed. Verification is often delegated to Classification societies and their affiliated consultancies, and the statement could hence be construed as a lack of confidence in the judgment of the Continental Shelf Authorities that allow such verification to be performed by Class. If the statement in the report were to remain uncontested, this would also indicate a lack of confidence in the judgment of Maritime Authorities, since they have also delegated a number of responsibilities to Class, as their Recognised Organisations.
<b>ATEX Directive vs IMO MODU Code (Section 4.1)</b>		
Page 26	<p>"(...) and IEC, this latter being accepted worldwide but not in Europe, as shown in Figure 4."</p>	This seems to imply that IEC is not considered acceptable in the EU.

REF.	JRC REPORT TEXT	COMMENT
Page 28	<p>“On the contrary, the IMO MODU Code does not specify any protection class for mechanical equipment placed in hazardous zones, and only sets out the following recommendations:</p> <ul style="list-style-type: none"> <li>• Mechanical equipment should be limited to that necessary for operational purposes;</li> <li>• Mechanical equipment and machinery in hazardous areas should be so constructed and installed as to reduce the risk of ignition from sparking due to the formation of static electricity or friction between moving parts and from high temperatures of exposed parts due to exhausts or other emissions”</li> </ul>	<p>Mechanical moving equipment in hazardous areas cannot be seen out of context from the ESD hierarchy, stipulating that non-essential, non-Ex-equipment will be tripped on lowest ESD.</p> <p>As described the ESD-system will shut down the equipment in prioritized order, typically at around 10-20% LEL.</p> <p>Again the requirement for electrical equipment is set out with the Class Rules, something that all MODU’s are built to and comply with. The Classification Societies in turn use international recognised standards when developing their rules for such equipment.</p>
<b>The Blow-out Preventer (BOP) and its control unit (Section 5.2)</b>		
Page 41-46	Blowout preventers	<p>Blowout preventers – onshore and offshore being the same cannot be unanimously argued, as there are no subsea BOPs onshore.</p> <p>Both blow-out preventers and associated equipment is designed in line with either DNV-OS-E101 – Drilling facilities or NORSOK DD-01. The equipment is highly specialized and there are few manufacturers.</p>
Pages 46 - 52	NORSOK Stds	NORSOK Stds are <b>not</b> universally used out with MODU’s built to / operating in Norway.
<b>The on-line survey</b>		
Page 60	<p>“On the contrary, (35/51) stakeholders, more than two-thirds (68.6%) of the stakeholders involved, believe that the exclusion of MODUs from the EU Product Safety Directives does not create any safety problem. In detail, there is no safety problem for 3/11 (manufacturers/installers/suppliers); 19/19 (drilling contractors/operators); 8/8 certification bodies; 1/7 of public authorities; and 4/6 of “other types of entities”. 13/51 of the stakeholders involved in the survey (25.5%) either did not know or did not answer. ”</p>	<p>The stakeholder are indeed in the best position to give feedback on this topic as they are best placed to evaluate the situation and implement any changes. Also the MODU owners would be the ones to shoulder the costs of any change.</p>

REF.	JRC REPORT TEXT	COMMENT
<b>Extending the scope of the individual Product Safety Directives (Section 8.1)</b>		
Page 93	"Overall, the extension of scope of MD would have positive impact on safety and environment, limited impact on costs for ship owners, no impact foreseen for SMEs and increased business for certification bodies."	Additional certification cost will invariably be offset to the end user so it is not correct to say that there would be no impact foreseen for SMEs.
Page 100	"v) burden for companies would not increase since it is likely that company already deal with this type of equipment on fixed offshore platforms."	It should be clarified that the "no burden" statement would only be correct for manufacturing companies, not Oil and Gas companies. The whole value chain from procurement to verification of compliance will be affected.
Pages 116 & 148	Feedback from Manufactures and Certification bodies	Any costs incurred by these two entities will be on passed to the MODU owner as increased costs of equipment and certification fees.