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COMMISSION STAFF WORKING PAPER
EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT

Accompanying the document

**PROPOSAL FOR A REGULATION OF THE EUROPEAN PARLIAMENT AND OF
THE COUNCIL**

on safety of offshore oil and gas exploration and production activities

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1. PROBLEM DEFINITION AND NEED FOR ACTION

There have been in the past three decades at least 11 major offshore disasters¹, and several lesser incidents² that could have escalated into such. The Deepwater Horizon disaster in April 2010 reignited discussions on risk management in offshore oil and gas operations.

The risks remain significant also in the EU despite reductions in some Member States through reforms after the Piper Alpha (1988) and Alexander Kielland (1980) disasters. A frequency and cost analysis of accidents in Europe today puts the estimated levelized average annual economic losses and damage from offshore accidents in the EU in a value range of €205 – 915 million³ (this constitutes the IA's baseline scenario). The situation requires action to reduce the risks, ensure effective response to major incidents, and provide for a quick recovery of the affected regions and businesses. Risk of an event is the product of the likelihood and consequences of its occurrence.

The *likelihood* of a major accident cannot be underestimated, particularly in the face of a reported⁴ persistent lack of reduction in major incident indicators. The ever present precursors⁵ of potential major accidents ('near misses') remind us of the need to keep improving practices and reduce the risks.

Possible *consequences* of a major accident in the sector are extreme. They include multiple fatalities, major environmental damage and, collateral damage to coastal and marine livelihoods⁶. Even smaller accidents can seriously lower public and market confidence and precautionary restrictions⁷ on production can affect security of energy supply and the economy.

Despite similar hazards, the offshore industry operates to different environmental, health and safety standards in each EU jurisdiction while EU law covers only partially the relevant aspects of offshore activities⁸. This does not create a suitable, comprehensive and EU-wide coherent regulatory environment prioritizing continuous reduction of risks of major accidents. While improvements are justified in all regions, the regulation of offshore hazards outside the North Sea is less developed, relying more on prescribing detailed requirements rather than effective risk control. The Communication "Facing the challenge of the safety of offshore oil and gas activities" (COM (2010) 560 Final) identified shortcomings and areas for action in EU's regulatory frames and industry practices. This Impact Assessment evaluates alternative policy options and their possible impacts.

With respect to the safety of offshore oil and gas operations, the EU faces a threefold problem:

¹ §. 2.1 IA document.

² E.g. Brent B 2003, Gullfaks C 2010, Ganneth F 2011

³ Assuming a recurrence rate of 35 years for a major incident and an average economic cost range of €5 billion (clean-up only) - €30bn (full economic cost), this amounts to costs of €140 - €350 million p.a.. Add to this an estimated €65 million of annual property losses resulting from more common less serious documented accidents. These estimates are based on detailed probability and accident statistics analyses in Annex I.

⁴ <http://www.ptil.no/news/rnnp-2010-major-challenges-in-important-areas-article7810-79.html>

⁵ Oil & gas leaks, failures of production process safety and well control; failures due to invalid design change; maintenance backlogs.

⁶ E.g. fishing, tourism, sometimes ports, agriculture.

⁷ E.g. Moratoria in the Gulf of Mexico 2010, Italy today and in 1988 in the UK (Ocean Odyssey accident)

⁸ § 2.1 IA document.

- 1) The risk of a major offshore oil or gas accident occurring in EU waters is significant and the existing fragmented legislation and regulatory and industry practices do not provide for all achievable reductions in the risks throughout the EU.
- 2) The existing regulatory framework and operating arrangements do not provide for the most effective response to accidents wherever they occur in EU waters.
- 3) Under existing liability regimes, the responsible party (e.g. company leaking oil) may not always be clearly identifiable and/or may not be able, or liable, to pay all the costs to remedy the damage it has caused.

The table below gives an overview of the underlying **risk drivers** identified in our analysis, stakeholder consultations and international investigations.

Driver category	Underlying drivers
<i>Drivers of significant and insufficiently mitigates risks in EU offshore operations</i>	
Industry evolution	<i>Ageing infrastructure and maturing industrial environment</i>
	<i>Structural shift of the industry towards diversification</i>
	<i>Shift to "frontier" operations and new technologies</i>
Company-specific corporate practice	<i>Inconsistent use of state of the art practices and technology</i>
	<i>Failures of compliance with rules and standards</i>
	<i>Inadequate/uneven safety culture in companies</i>
Drivers related to the regulatory framework	<i>Uneven technical expertise amongst regulators</i>
	<i>Suboptimal transparency and sharing of information</i>
	<i>Fragmented regulatory framework</i>
<i>Divers of suboptimal level of emergency preparedness</i>	
State of risk-based planning	<i>Inconsistencies in emergency planning between MS</i>
	<i>Cross-border incompatibility of response assets</i>
Integration of public and industry plans and assets	<i>Lack of information on industry emergency response inventories</i>
	<i>Inconsistency in the quality of company emergency plans</i>
<i>Drivers of inadequate liability provisions</i>	
Clarity and comprehensiveness of liability provisions	<i>Clarity and scope of EU legislation on environmental liability</i>
	<i>Lack of financial capacity and guarantees</i>
	<i>Inadequate compensation schemes for traditional damages</i>

Table 1

2. JUSTIFICATION FOR EU ACTION

Industry has the primary responsibility and the means to control offshore risks. Reducing the risk of a large offshore accident requires state of the art practices to become the norm throughout EU. All operators can be expected to have reviewed their practices after the Deepwater Horizon, yet, reactions are uneven: only few have announced and/or implemented specific measures. This underlined the need for complementary action by public authorities.

In line with **subsidiarity** EU action has been considered only where it can achieve the objectives more effectively than the Member States or where actions by Member States alone may not deliver optimal improvements. While UK, NL, DK and NO have all apply the goal-setting regulatory approach, they could improve their systems towards a composite North Sea benchmark. Benefits could be broader in the Mediterranean, the Black and the Baltic Seas where some countries have less experience in managing the growing offshore operations.

The absence of international or EU action would exacerbate one of the main problem drivers, the fragmentation of regimes and national policies in the EU.

Aligning national practices is desirable in prevention, response and liability in the EU where a severe accident may lead to a cross-border oil spill. An EU blueprint seems the best means to achieve the desired situation EU-wide. It could also solve the difficulties of meaningfully comparing industry performance, sharing intelligence and incident data.

Proportionality has been ensured by assessing the effectiveness, costs, benefits of EU action to achieve the desired outcome.

As a result, EU action is proposed only where the objective can be achieved more cost effectively than by the Member States. Cost-effectiveness is sought where administrative costs are involved (e.g. transparency). Industry's self regulation (e.g. response technology) and international options (e.g. civil liability) are also duly taken into account.

As most problem drivers are global, **international solutions** are desirable in parallel. However, discussions in OSPAR, NSOAF, IRF, the G-20 and IMO suggest that rapid progress is unlikely through these fora alone as they lack overarching authority to drive progress or ensure compliance.

3. MAIN POLICY OBJECTIVES

Considering the three-fold problem, an EU initiative should attain two **general objectives**:

1. Prevent a major incident from occurring in EU offshore oil and gas exploitation (relating, in particular, to major accident hazards (MAH)).
2. Allow the EU deal effectively with a major emergency, should preventive measures fail.

These are broken down to four **specific objectives** to act on the full scope of the sector from prevention to response and remedy:

1. Ensure a consistent use of best practices for major hazards control by oil and gas industry offshore operations potentially affecting EU waters or shores;
2. Implement best regulatory practices in all European jurisdictions with offshore oil and gas activities;
3. Strengthen EU's preparedness and response capacity to deal with emergencies potentially affecting EU citizens, economy or environment;
4. Improve and clarify existing EU liability and compensation provisions.

4. POLICY OPTIONS

Several distinct policy options can be envisaged depending on the degree of change in offshore practices or policy ambition sought. Each policy option consists of a package of measures which will act upon the risk drivers identified in chapter 1. Four policy options are developed in addition to the do-nothing baseline option (option 0):

Option 1 ("North Sea basic") is the entry level for meaningful EU intervention. It introduces in EU law the major hazards report (MHR) as a concept building on the safety and health document required by Directive 92/91/EC but going further, reflecting recognized good practice in several North Sea jurisdictions.

Option 1+ ("North Sea +") goes beyond Option 1 by introducing in addition to MHR a number of soft law measures inspired by widely recognized good practices available in some North Sea jurisdictions concerning e.g.: tight consideration of the technical capacity of applicants for offshore oil and gas licenses; converging national emergency response plans; developing compatible national and industry owned response assets and making them available to other countries at need; and clarifying the scope of the environmental provisions relevant to the liability of operators (e.g. applicability of waste legislation) as regards offshore

oil and gas accidents. The EU would also propose to EU based companies voluntary agreements on using EU standards beyond EU waters.

Option 2 ("EU Best practice") develops a more comprehensive package of reforms based on widely recognised global best practices in major hazard risk control. These would be mandated EU-wide and environmental risk assessment would be incorporated into the MHR. This option would lead to further improvements also in the North Sea region and would create preconditions for EU-wide regulatory dialogue amongst competent national authorities.

Option 3 ("EU Agency") further reinforces the impact of Option 2 by introducing an EU agency to institutionalise and thereby consolidate the reforms achieved by option 2. It would undertake inspections and investigations, monitor and enforce consistency in performance, develop intervention capacity and assist capacity building in adjacent non EU countries.

Each option is constituted by a set of specific **measures**, some common to more than one option, some option specific. For example, as Option 1+ builds on Option 1, it includes measures from Option 1 and complements them with some others. Option 2 contains in part additional measures, partly retains measures included in the previous options but implements them by different means. This reflects the fact that a measure can be implemented by different means, often offering a trade-off between effectiveness and complexity/practicality.

The measures have been derived through stakeholder consultation and research. The table below gives a complete list of measures and their presence or absence in individual options; it also indicates the general implementation means for each measure within different options. As result, each of the policy options is characterized on one hand by the set of measures retained in the option and by the preferred implementation means for each measure under that option.

No.	Measure	Option 0	Option 1	Option 1+	Option 2	Option 3
1	Detailed verification of the technical capacity of potential operator	0 (= not done)	0	G (guide-lines)	L	EU agency
2	Establishing regular inspections and a penalties regime	0	Law	L	L	EU
3	Submission of formal safety assessments for acceptance by the regulator	0	L	L	L	EU
4	Extension of MHR into a comprehensive risk management model	0	0	0	L	L
5	Extending EU practices to overseas operations	0	0	G	G	EU
6	Establishing a Competent Authority	0	0	0	L	EU
7	Establishing a platform for regulatory dialogue	0	0	0	L	EU
8	Comprehensive information sharing and transparency	0	0	0	L	L
9	Preparedness for effective emergency response to major offshore accidents	0	0	G	L	EU
10	Ensuring cross-border availability and compatibility of intervention assets	0	0	G	L	EU
11	Clarifying the scope of environmental liability	0	0	G	L	L

Table 2 Comparison of policy options

In addition to the measures listed in table 2, three other measures have been identified dealing with (i) product safety, (ii) financial capacity guarantees and (iii) compensation schemes for traditional damages. These measures would act on the drivers listed in table 1 but they are

insufficiently mature to be included in this impact assessment, and are deferred for separate assessment.

5. IMPACT ASSESSMENT OF OPTIONS

The impact assessment evaluated each option regarding the extent to which it mitigates the risks, its impact on compliance costs of EU MS, industry and the Commission, and the wider non quantifiable impacts (social, economic and environmental).

Option 0 (no EU action) has no additional cost nor impact on the baseline cost range €205-915m⁷. It does not affect the problem drivers consistently across the Member States. While some improvements in national legislations and Member State and industry practices are expected, their effect may be counterbalanced by increase in risk levels due to growing complexity of offshore operations (more complex and remote drills, etc.).

Option 1 results in an increase in compliance costs of ca **€36m/year**, falling mainly on the industry. The option secures consistent risk assessments by industry and regulators, an upgraded sanction/penalty regime and a partial improvement in the safety culture of industry. The resulting reduction in risk expressed against the baseline cost is estimated at ca **€7 – 30m/yr**, an average **3% decrease** in baseline risk.

Option 1+ introduces additional running costs on Member States of ca. **€3m** and a further **€16m** on industry so cumulative industry compliance costs become ca **€2m**. It secures limited improvement in technical capability verification; clarifies the liability of operators for pollution; and formalises the goal of making emergency assets and plans suitable for sharing across MS borders. It begins to secure some influence for EU to raise global standards. The benefit of Options 1+ is **€25 - €109/yr**, an average **12% reduction** in baseline risk.

Option 2 represents additional annual compliance/implementation costs for industry of €70m making a cumulative industry total of ca **€122m**; a further €9-15m administrative costs are calculated making a cumulative sum of ca **€12 – 18m** for Member States, plus one-off administration costs of ca **€18 -€44m**. It addresses all of the identified problem drivers. The measures under this option together cut the baseline risk costs by between **€103 – 455m/year** - a **50% reduction** in baseline risk.

Option 3 consolidates the benefits of option 2, promotes regulatory coherence, offers technical assistance to new or evolving national regimes and strengthens coordination and transparency. However, risk base regimes fear it could reduce benefits by compromising regional or national priorities with institutional, or averaged, objectives. It introduces annual running costs for the Commission of c. **€34m/yr** and **€18-44m** one-off start-up costs plus **€10's** million for purchase of capital response assets. Compliance costs for industry and Member States, and overall benefits under the option are comparable with Option 2.

6. PREFERRED POLICY OPTIONS AND LEGAL INSTRUMENT

The **preferred policy option is Option 2**, i.e. a comprehensive offshore reform raising throughout EU, through new law, the level of risk management and emergency preparedness in the offshore industry to best practices. Apart from consistency this option increases greater transparency of industry and regulator performance.

This option can in the most decisive way (50%) reduce the baseline risk through enhanced prevention and mitigation should an incident nonetheless occur. The risk reduction in average monetary terms (ca. **€279m p.a.**) compares favourably with the estimated cumulative costs of its implementation (**€12-18m p.a.** in administrative costs for Member States and a **€122m p.a.**

in compliance costs for the industry). Option 2 is more affordable administratively and economically as the additional running costs of Option 3 (ca €34m p.a.) fail to bring corresponding decrease in risks. Option 1+ is a choice with modest positive impact (12%) and modest enforcement possibilities while the benefits of Option 1 are insufficient to justify the costs – albeit small. Among the stakeholders, the NGOs and classification societies tend to favour changes more than regulators and, in particular, industry.

A **Regulation** is proposed to implement Option 2. It has advantages over a Directive due to its clarity, consistency and speed of implementation through direct application⁹ and because its primary purpose is to secure conformity of application of regulations where currently implementation is fragmented amongst Member States. By acting directly on the industry, the Regulation would also provide for a more level playing field. It would also cater well for emergency planning to fight transboundary pollution.

7. MONITORING AND EVALUATION

An evaluation of the effects of the Regulation should be done not later than five years from the entry into force of the legislation. Safety performance indicators and data on compliance verification activities should be used in that context (See IA Chapter 8). The proposals to improve transparency and reporting are expected to facilitate evaluation and monitoring and compare offshore risks across the EU.

In addition, regular meetings with the competent authorities will allow the Commission to monitor the sector. They will also help knowledge sharing between traditional and new EU offshore regions.

⁹ There has been a preference for Directives in legal acts covering high risk/ high value industries (e.g. IPPC, SEVESO II Directive), whereas narrower high risk sectors (e.g. civil aviation) often use Regulations.