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**PUBLIC CONSULTATION**  
**Improving offshore safety, health and environment in Europe**

**Questions for the public**

Please use this response form for your replies. Thank you for respecting the maximum length for the replies as indicated after each question. This will ensure that your responses are taken into account in their entirety.

Please send the filled response form to the [ENER-CONSULT-OFFSHORE mailbox](#)

**Authorisations**

As described in the consultation document, the competent authorities of the EU Member States define the concrete regulatory requirements and conditions for starting, pursuing and terminating offshore activities within the broader boundaries of EU legislation. These authorities govern also the authorisations for offshore activities in a given area (both in terms of access to exploit a certain geographical area, and in terms of approval to perform concrete activities), regulatory requirements on ongoing activities and closing of operations.

1. Which changes, if any, would you recommend to the authorisation conditions for offshore prospection or exploration or production activities? Please specify which authorisations your recommendations concern (all authorisations, those in a specific country, those authorising only a certain stage(s) such as prospection, exploration or production etc) (Please limit your response to maximum 1000 words)

N/A

2. European law <sup>1</sup>foresees that the competent national authorities shall ensure that authorisations are granted on the basis of selection criteria which consider, among other things, the financial and technical capability of the companies wishing to carry out offshore oil or gas operations.
  - a) What key elements<sup>2</sup> should this technical capacity requirement include in your view?  
Please limit your response to maximum 500 words
  - b) Similarly, what key elements should the financial capability requirement include in your view? (Please limit your response to maximum 500 words)

N/A

3. How (such as through legislation or voluntary measures at international, EU or national levels or by industry) should the adoption of state-of-the-art authorisation practices be best achieved throughout the EU? Should neighbouring EU Member States be consulted

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<sup>1</sup> Directive 94/22/EC of the European Parliament and of the Council of 30 May 1994 on the conditions for granting and using authorizations for the prospection, exploration and production of hydrocarbons

<sup>2</sup> Focus is only on the main elements of this capability as opposed to detailed requirements which vary according to the different geological, geophysical, technical and other circumstances of each individual case.

on the award of authorisations? (Please limit your response to maximum 1000 words)

N/A

### **Prevention of accidents**

4. Please describe here any recommendations or changes (to the current regulatory framework or practices) - if any - that you consider important to improve the prevention of accidents affecting the health or safety of workers on offshore oil and gas installations in the EU: (Please limit your response to maximum 1000 words)

Hydrogen sulphide (H<sub>2</sub>S) is a toxic and lethal gas that can be emitted from produced water from offshore oilfields where seawater or commingled seawater and produced water reinjection have been used for secondary recovery. Reservoir souring causes the gas itself.

Whilst biocides have traditionally been used to combat biofouling and microbial influenced corrosion control in the injection pipelines, they are neither applied nor effective in the reservoir itself. The mixture of sulphate rich, deaerated seawater and a carbon rich environment can provide the ideal conditions (temperature dependent) for sulphate reducing bacteria and this leads to the generation of H<sub>2</sub>S in the near well bore area. When this water is produced H<sub>2</sub>S can be released on the top-side, to which workers are thus exposed. This is especially the case in seawater injection fields.

This puts workers on the oil platforms at risk, as only a small inhalation of H<sub>2</sub>S in a confined atmosphere leads to immediate death due to acute short-term exposure. Prolonged low-level exposure to H<sub>2</sub>S also poses a risk to the health and safety of workers.

5. Please describe here any recommendations or changes (to the current regulatory framework or practices) – if any – that you consider important in order to better prevent damage to the natural environment from accidents on offshore oil and gas installations: (Please limit your response to maximum 1000 words)

N/A

### **Verification of compliance and liability for damages**

The enforcement of offshore health and safety regulations is the general responsibility of national public authorities. The enforcement measures include various activities such as on-site inspections, safety audits and reporting requirements for companies. The organisation, scope and frequency of these measures vary in the different Member States depending on national practices, laws and the local conditions.

While focus on compliance should prevent accidents, a robust liability regime needs also to be in place as accidents resulting in major oil spills may cause extensive environmental, economic and social damage. The financial consequences on the entities found liable for the accident may be significant. EU legislation defines the common principles (e.g. 'polluter pays - principle') and goals for ensuring liability for environmental damages while national laws and courts put them in practice. Concerning environmental liability, the applicable EU law (Directive 2004/35/EC) addresses pure ecological damage in terms of protected species and natural habitats (biodiversity damage), water pollution damage and land damage. As regards affected waters, the ELD covers the territorial waters (up to 12 nautical miles off the shoreline), but not all marine waters under the jurisdiction of EU Member States (up to 200 or 370 nautical miles).

Responsibilities for traditional damage (such as loss of life; personal injury, health defects; damage

to property and economic loss affecting for example fishermen) are usually determined by civil courts or tribunals in accordance with national laws and/or case law following goals and principles defined at national level.

Closely linked with the liability is the competence of the liable parties to actually stand up to their obligations. Insurance coverage in the offshore oil and gas sector is partial, with some companies insuring risks to a certain degree and others not. The insurance market does not currently provide products sufficient to cover damages of the magnitude seen in the Deepwater Horizon accident. Moreover, there are no international or EU-wide funds similar to those in maritime transport that would cover environmental or traditional liability.

6. Please describe here any recommendations you would like to make on how to improve compliance of the offshore oil and gas industry with applicable offshore safety legislation and other regulatory measures in the EU. (Please limit your response to maximum 1000 words)

N/A

7. In your view, which are the key measures to supervise and verify compliance of the industry with offshore health, safety and environmental rules and who should do the supervision and verification? (Please limit your response to maximum 1000 words)

Setting a European standard for hydrogen sulphide (H<sub>2</sub>S) as done via Directive 98/24/EC is the best way to ensure common safety targets for this industry.

These European standards should however not remain at the level of an STEL (short term exposure limits) as there are often sharp peaks in emissions. Setting a ceiling value over which H<sub>2</sub>S emissions would not be allowed leads to better protection of workers, when used in conjunction with monitoring tools and preventative measures on H<sub>2</sub>S emissions

8. In your view, should the existing environmental liability legislation (Directive 2004/35/EC) be extended to cover environmental damage to all marine waters under the jurisdiction of the EU Member States? (Please limit your response to maximum 1000 words)

N/A

9. In your view, is the current legislative framework sufficient for treating compensation or remedial claims for traditional damage caused by accidents on offshore installations? If not, how would you recommend improving it? (Please limit your response to maximum 1000 words)

N/A

10. In your view what would be the best way(s) to make sure that the costs for remedying and compensating for the environmental damages of an oil spill are paid even if those costs exceed the financial capacity of the responsible party? (Please limit your response to maximum 1000 words)

### **Transparency, sharing of information and state-of-the-art practices**

Transparency of an offshore regulatory regime means the policy and practices on how the

regulatory authorities and offshore industry share information with each other, between peers or with the civil society. The degree of transparency affects the awareness of the public authorities, the industry and the civil society, i.e. on offshore oil and gas activities and the way they are managed and controlled. It may also affect the nature of communication, commercial interests of companies, spreading of technologies, lessons learned and cross-border cooperation. An example of transparency in the offshore sector is the practice of some EU national regulatory authorities to publish information such as accident statistics and license award decisions concerning offshore operations.

11. What information on offshore oil and gas activities do you consider most important to make available to citizens and how? (Please limit your response to maximum 1000 words)

N/A

12. What is the most relevant information on offshore oil and gas activities that the offshore companies should in your view share with each other and/or with the regulators in order to improve offshore safety across the EU? How should it best be shared? (Please limit your response to maximum 1000 words)

N/A

13. What information should the national regulators share with each other and how to improve offshore safety across the EU? (Please limit your response to maximum 1000 words)

N/A

14. Which means, if any, would you recommend using to promote, across the EU, the use of state of the art practices to protect occupational health and safety during offshore oil and gas operations? (Please limit your response to maximum 1000 words)

There should be a best available technology (BAT) document referencing the latest technologies, solutions and best practices available to tackle exposure to H<sub>2</sub>S on oil field. This would allow experts to view health and safety offshore in a holistic manner and therefore to tackle all dangers that may arise on such installation to the highest standards. There are a number of solutions already on the market to tackle H<sub>2</sub>S emissions on oil fields and the use of nitrate-based chemicals in particular is a mature solution that has been in use for an extended period of time.

Today, the water injection aspect of the oilfield operation is the poor relation, with oil production and the production system the key focus. The EU should recommend that more monitoring and focus on good water injection management would lead to lower levels and incidents of H<sub>2</sub>S gas in production systems. H<sub>2</sub>S should not be treated after generation but instead the generation should be minimised. Best practice should include an assessment of the sulphate removal systems and mitigation strategies i.e. nitrate injection. 'Scavenger' should only used where low levels need to be removed.

Some sections of the industry are already using nitrate technology to minimize H<sub>2</sub>S in reservoirs, and others are basing their nitrate programmes on the souring potential indicated by their reservoir simulations. However a best practice document for all of the above would ensure that the appropriately high level of safety for workers and the environment is in place by all actors.

15. Which means, if any, would you recommend using to promote, across the EU, the use of

state of the art practices to protect the environment against accidents caused by offshore oil and gas operations? (Please limit your response to maximum 1000 words)

N/A

### **Emergency response and International activities**

The emergency response capacity at present consists of resources and contingency plans on the level of the industry, national administrations and of the EU. In general, contingency plans are required for all offshore installations and are complemented by national and EU contingency plans to respond to large scale accidents. Adequacy of resources and their coordination, both affect the effectiveness of response to offshore accident. In response to recent accidents, particularly the one of the Deepwater Horizon drilling rig in the Gulf of Mexico, the emergency capacities are being strengthened. For instance, new response devices are being developed for use in deepwater conditions.

In the Mediterranean and the Black Sea offshore, oil and gas activities are underway both on EU and adjacent non-EU waters. This causes a risk for cross-border environmental damages from a possible offshore accident, not only across internal EU borders, but also across EU's external border. Apart from an interest in promoting high offshore safety practices also in adjacent regions, the EU participates in international activities to increase safety of offshore activities.

In response to the differing regulatory requirements both within the EU and internationally, some oil and gas companies have adopted company practices or standards that they apply to their activities in the EU and outside. Others adjust their practices more substantially to suit local conditions in the given country.

16. In your view what should be the role of the EU in emergency response to offshore oil and gas accidents within the EU? (Please limit your response to maximum 1000 words)

N/A

17. Please describe any recommendations you may have concerning cooperation with non-EU countries to increase occupational safety and/or environmental protection in offshore oil and gas operations internationally? (Please limit your response to maximum 1000 words)

N/A

18. Please describe here any recommendations you may have on how to incentivise oil and gas companies with headquarters in the EU to apply European offshore safety standards and practices in all their operations worldwide: (Please limit your response to maximum 1000 words)

N/A

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