

<p>Title: Implementation of Directive 2013/30/EU on the safety of oil and gas operations and on updating UK oil and gas legislation</p> <p>IA No:</p> <p>Lead department or agency: Health and Safety Executive</p> <p>Other departments or agencies: Department of Energy and Climate Change Department for Transport Department for Environment Food and Rural Affairs</p>	Impact Assessment (IA)		
	Date: 17th April 2014		
	Stage: Consultation		
	Source of intervention: European		
	Type of measure: Secondary Legislation		
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Summary: Intervention and Options		RPC Opinion: RPC Opinion Status	

Cost of Preferred (or more likely) Option

Total Net Present Value	Business Net Present Value	Net cost to business per year (EANCB on 2009 prices)	In scope of One-In, Two-Out?	Measure qualifies as
£142.99m	£142.99m	£12.67m	No	N/A

What is the problem under consideration? Why is government intervention necessary?

In 2011, the EC published proposals for a direct acting European Regulation to strengthen the EU Offshore oil and gas regulatory system. The UK argued strongly for a Directive to enable it to build the new requirements into its existing world-class regime. The Directive, which must be implemented by 19th July 2015, contains requirements relating to licensing, environmental protection and oil spill response, and liability in addition to safety matters, and therefore requires a coordinated implementation approach between the relevant Government departments. Intervention is necessary to establish an offshore competent authority (CA), to amend existing legislation or implement new provisions and to introduce administrative measures to fully transpose the Directive within the stated time-frame. Offshore oil and gas legislation needs to be updated to simplify definitions, fill gaps, reduce the stock of regulations and to bring emerging energy technologies within the scope of the legislation.

What are the policy objectives and the intended effects?

The UK Policy objectives are: (1) To fully transpose the Directive by: Building on the UK's exemplary offshore safety and environmental regimes and further enhancing it; maintaining the existing high levels of protection for worker's safety and the environment; and keeping burdens on industry to a minimum.
(2) To simplify and update oil and gas major hazard legislation to take account of operational lessons learned and maintain industry/public confidence in the regulation of emerging energy technologies

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Alternatives to regulation do not apply as they would not fulfil our obligations under EU Law. Our preferred legislative option is to mesh the majority of requirements into existing legislation and incorporate new provisions where necessary. We will use copy out where possible, but will also use elaboration to ensure consistency with domestic regulations and also use administrative procedures. The bulk of the requirements will be implemented via new Offshore Installations (Safety Case) Regulations 2015 (SCR 2015) which will replace SCR 2005. The remaining environmental requirements will be implemented by new Offshore Petroleum Activities (Offshore Safety Directive) Regulations 2015 that will amend The Merchant Shipping (Oil Pollution Preparedness, Response and Co-operations Convention) Regulations 1998. There are 4 options for establishing the CA (plus the notional do-nothing option): (2) a partnership CA to regulate the major hazard risks covered by the Directive; (3) a partnership CA to cover all offshore safety and environmental regulation; (4) HSE becoming the offshore CA; (5) the creation of a 'stand-alone' CA. The preferred option is option 2. This would provide a single regulatory face of the CA to industry and achieve compliance by July 2015 without incurring Machinery of Government change.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: July 2020

Does implementation go beyond minimum EU requirements?			No		
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.	Micro Yes	< 20 Yes	Small Yes	Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)			Traded: N/a		Non-traded: N/a

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible SELECT SIGNATORY: Date:

Summary: Analysis & Evidence

Policy Option 1

Description: Status quo

FULL ECONOMIC ASSESSMENT

Price Base Year 2014	PV Base Year 2015	Time Period Years 10	Net Benefit (Present Value (PV)) (£m) Nil		
		Low: Nil	High: Nil	Best Estimate: Nil	

COSTS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	Nil	4	Nil	Nil
High	Nil		Nil	Nil
Best Estimate	Nil		Nil	Nil

Description and scale of key monetised costs by 'main affected groups'

This is the notional baseline and no monetised costs have been estimated.

Other key non-monetised costs by 'main affected groups'

By failing to implement the Directive, the UK Government would face a reputational risk from failing to comply with its legal obligations and likely face infraction proceedings by the European Commission.

BENEFITS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Nil	4	Nil	Nil
High	Nil		Nil	Nil
Best Estimate	Nil		Nil	Nil

Description and scale of key monetised benefits by 'main affected groups'

This is the notional baseline and no monetised benefits have been estimated.

Other key non-monetised benefits by 'main affected groups'

No non-monetised benefits have been considered.

Key assumptions/sensitivities/risks

No applicable.

Discount rate (%) 3.5

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies as
Costs: Nil	Benefits: Nil	Net: Nil	N/A	N/A

Summary: Analysis & Evidence

Policy Option 2

Description: Transpose Offshore Directive into UK law with partnership Competent Authority for offshore major hazard risk

FULL ECONOMIC ASSESSMENT

Price Base Year 2014	PV Base Year 2015	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -74.50	High: -220.01	Best Estimate: -142.99

COSTS (£m)	Total Transition (Present Value, Constant Price)		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	32.1	4 Years	5.1	74.5
High	82.9		16.4	220.0
Best Estimate	57.3		10.2	143.0

Description and scale of key monetised costs by 'main affected groups'

The costs of transposing the Directive would be mostly borne by business, either directly or through cost recovery by the Offshore Competent Authority. Based on best estimate ten-year present values, the direct cost to industry of complying with changes to HSE legislation to implement the Directive would be around £107m and to comply with changes to DECC legislation, around £24m. Costs recovered by the Competent Authority would be around £2.4m for its set-up and management, around £8.3m for assessments related to changes to HSE legislation and around £0.75m for changes related to DECC legislation. The costs of the simplification and update of additional HSE legislation would be a ten-year present value of around £0.4m to industry.

Other key non-monetised costs by 'main affected groups'

The costs to industry of amendments to the environmental liability requirements have not been estimated in this consultation stage IA. A new requirement for owners or operators to have the independent verifier consider well notifications has not been costed in this consultation stage IA as the necessary information could not be gathered from the industry focus groups. This will be sought during consultation.

BENEFITS (£)	Total Transition (Constant Price)		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low		4 Years		
High				
Best Estimate				

Description and scale of key monetised benefits by 'main affected groups'

No benefits have been monetised.

Other key non-monetised benefits by 'main affected groups'

The Directive is intended to reduce the likelihood of offshore major accidents. While the current UK regime is well-established and robust, it is expected that the greater oversight provided by the joint Competent Authority for safety and environmental risks would provide greater assurance. Further amendments to safety legislation would permit the control of health and safety risks in emerging onshore gas and hydrocarbon sectors.

Key assumptions/sensitivities/risks

Discount rate (%) 3.5

The key assumption for costs to industry over the appraisal period is the number of installations, as discussed in section 7. The number of new installations coming into scope of the regulations each year and the number dropping out is not certain and is subject to a reduction in viable fields on the UK Continental Shelf (UKCS). While pragmatic assumptions have been made for this consultation stage IA, further work will be undertaken to refine this for the final stage.

BUSINESS ASSESSMENT (Option 2)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies as
Costs: £12.7	Benefits: £0.0	Net: -£12.7	No	N/A

Summary: Analysis & Evidence

Policy Option 3

Description: Transpose Offshore Directive into UK law with partnership Competent Authority for all offshore oil and gas risks

FULL ECONOMIC ASSESSMENT

Price Base Year 2014	PV Base Year 2015	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -74.80	High: -220.39	Best Estimate: -143.33

COSTS (£m)	Total Transition (Present Value, Constant Price)		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	32.1	4 Years	5.1	74.8
High	82.9		16.4	220.4
Best Estimate	57.3		10.3	143.3

Description and scale of key monetised costs by 'main affected groups'

Monetised costs under Option 3 are similar to those under Option 2. The only difference is in the set up and operating costs of the Offshore Competent Authority, which under Option 3 would be a partnership between HSE and DECC covering all offshore risks, not just those for major accidents. The costs recovered from industry for Competent Authority set-up and management would be a present value of around £2.7m.

Other key non-monetised costs by 'main affected groups'

As under Option 2, the costs to industry of amendments to the environmental liability requirements have not been estimated in this consultation stage IA. Costs to industry for having the independent verifier consider the well notification have not been possible to estimate at this stage. Further work will be undertaken during consultation to do so for the final stage IA.

BENEFITS (£)	Total Transition (Constant Price)		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low		4 Years		
High				
Best Estimate				

Description and scale of key monetised benefits by 'main affected groups'

No benefits have been monetised

Other key non-monetised benefits by 'main affected groups'

The Directive is intended to reduce the likelihood of offshore major accidents. While the current UK regime is well-established and robust, it is expected that the greater oversight provided by the joint Competent Authority for safety and environmental risks would provide greater assurance. Further amendments to safety legislation would permit the control of health and safety risks in emerging onshore gas and hydrocarbon sectors.

Key assumptions/sensitivities/risks

Discount rate (%) 3.5

As under Option 2, the key assumption for costs to industry is the number of installations in scope over time. Further work will be undertaken to refine assumptions about numbers of new and discontinued installations during consultation.

BUSINESS ASSESSMENT (Option 3)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies as
Costs: £12.7	Benefits: £0.0	Net: -£12.7	No	N/A

Summary: Analysis & Evidence

Policy Option 4

Description: Transpose Offshore Directive into UK law with HSE becoming Competent Authority for offshore major hazard risks

FULL ECONOMIC ASSESSMENT

Price Base Year 2014	PV Base Year 2015	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -74.52	High: -220.04	Best Estimate: -143.02

COSTS (£m)	Total Transition (Present Value, Constant Price)		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	32.7	4 Years	5.0	74.5
High	83.6		16.3	220.0
Best Estimate	57.9		10.1	143.0

Description and scale of key monetised costs by 'main affected groups'

Monetised costs under Option 4 are similar to those under Options 2 & 3. The only difference would be the set up and operating costs of the Offshore Competent Authority, which under Option 4 would be HSE having taken on a team from DECC environmental. The costs recovered from industry related to Competent authority set-up and management estimated at this stage would be a present value of around £1.8m. Additional costs of around £0.6m would be borne by Government for administrative management in bringing the team into HSE, which would not be recovered from industry.

Other key non-monetised costs by 'main affected groups'

As under Option 2, the costs to industry of amendments to the environmental liability requirements have not been estimated in this consultation stage IA. Costs to industry for having the independent verifier consider the well notification have not been possible to estimate at this stage. In addition, the costs for HSE to operate as the Offshore Competent Authority, which would be passed onto industry have not been estimated at this stage. Further work will be undertaken during consultation to do so for the final stage IA.

BENEFITS (£)	Total Transition (Constant Price)		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low		4 Years		
High				
Best Estimate				

Description and scale of key monetised benefits by 'main affected groups'

No benefits have been monetised

Other key non-monetised benefits by 'main affected groups'

The Directive is intended to reduce the likelihood of offshore major accidents. While the current UK regime is well-established and robust, it is expected that the greater oversight provided by the joint Competent Authority for safety and environmental risks would provide greater assurance. Further amendments to safety legislation would permit the control of health and safety risks in emerging onshore gas and hydrocarbon sectors.

Key assumptions/sensitivities/risks

Discount rate (%) 3.5

As under Options 2 & 3, the key assumption for costs to industry is the number of installations in scope over time. Further work will be undertaken to refine assumptions about numbers of new and discontinued installations during consultation.

BUSINESS ASSESSMENT (Option 4)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies as
Costs: £12.6	Benefits: £0.0	Net: -£12.6	No	N/A

Summary: Analysis & Evidence

Policy Option 5

Description: Transpose Offshore Directive into UK law with standalone Competent Authority for offshore major hazard risks

FULL ECONOMIC ASSESSMENT

Price Base Year 2014	PV Base Year 2015	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -74.10	High: -221.66	Best Estimate: -143.62

COSTS (£m)	Total Transition (Present Value, Constant Price)		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	32.3	4 Years	5.0	74.1
High	85.2		16.3	221.7
Best Estimate	58.5		10.1	143.6

Description and scale of key monetised costs by 'main affected groups'

Monetised costs under Option 5 are similar to those under Options 2 to 4. The only difference is in the set up and operating costs of the Offshore Competent Authority, which under Option 5 would be a standalone statutory body incorporating the current relevant sections of HSE and DECC. The costs recovered from industry for Competent Authority set-up and management estimated at this stage would be a present value of around £3m.

Other key non-monetised costs by 'main affected groups'

As under Options 2 to 4, the costs to industry of amendments to the environmental liability requirements have not been estimated in this consultation stage IA. Costs to industry for having the independent verifier consider the well notification have not been possible to estimate at this stage. In addition, the running costs for the standalone Offshore Competent Authority have not been estimated at this stage. Further work will be undertaken during consultation to do so for the final stage IA.

BENEFITS (£)	Total Transition (Constant Price)		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low		4 Years		
High				
Best Estimate				

Description and scale of key monetised benefits by 'main affected groups'

No benefits have been monetised

Other key non-monetised benefits by 'main affected groups'

The Directive is intended to reduce the likelihood of offshore major accidents. While the current UK regime is well-established and robust, it is expected that the greater oversight provided by the joint Competent Authority for safety and environmental risks would provide greater assurance. Further amendments to safety legislation would permit the control of health and safety risks in emerging onshore gas and hydrocarbon sectors.

Key assumptions/sensitivities/risks

As under Options 2 to 4, the key assumption for costs to industry is the number of installations in scope over time. Further work will be undertaken to refine assumptions about numbers of new and discontinued installations during consultation.

Discount rate (%) 3.5

BUSINESS ASSESSMENT (Option 5)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies as
Costs: £12.7	Benefits: £0.0	Net: -£12.7	No	N/A

Evidence Base (for summary sheets)

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1. Introduction to the Sector

1. The UK oil and gas industry is the UK's largest industrial investor, supporting around 350,000 jobs directly and indirectly in extraction and exploration, plus another 100,000 in exporting goods and services¹. It makes a substantial contribution to the UK's economy and in 2012-13 it paid £6.5 billion in direct taxes². To-date the UK has produced around 42 billion barrels of oil and gas and further overall recovery is forecast to be around 20 billion more³.
2. In addition to the economic importance, maximising recovery of the UK's indigenous supplies of oil and gas will help maintain security of supply as the UK transitions to a low-carbon future, with DECC's projections showing that in 2030 oil and gas will still be providing 70% of the UK's primary energy requirements. In 2012, the UK Continental Shelf (UKCS) produced 67% of the UK's oil product demand and 53% of gross UK gas demand⁴.

2. Problem under consideration

3. Following the Deepwater Horizon incident in the Gulf of Mexico in April 2010, the European Commission (EC) expressed its initial views on the safety of offshore oil and gas operations in its communication "Facing the challenge of the safety of offshore oil and gas activities" (published on 13 October 2010).⁵ The EC communication concluded that the existing divergent and fragmented regulatory framework applying to the major hazards relating to offshore oil and gas operations in Europe, along with current industry safety practices, did not provide adequate assurance that risks from offshore accidents were minimised throughout the European Union.
4. In October 2011, the EC published its proposals for a direct acting European Regulation to strengthen the EU offshore oil and gas regulatory system. During negotiations on the draft instrument, the UK stakeholders (Ministers, industry and offshore workforce representatives) argued strongly for a Directive rather than a direct acting European Regulation, as the latter would have resulted in the need to revoke many of the UK's existing offshore oil and gas regulations. Industry argued that totally different regulations would result in excessive burdens and a potential reduction in safety. Furthermore, since the EC claimed to be using the UK's regulatory system as a template for the proposals, it was felt that its intention was to maintain and promote this exemplary regime.
5. The UK also negotiated the inclusion in the Directive of additional key safety and environmental requirements from the UK regime that were considered to be essential to mitigating the risk of major accidents (e.g. the design notifications for production installations, relocation notifications and weekly well reports). By the end of these negotiations, the UK had successfully secured a Directive, the aim

¹ <http://www.oilandgasuk.co.uk/employment.cfm>

² <https://www.gov.uk/oil-and-gas-taxation#government-revenues-from-uk-oil-and-gas-production>

³ DECC reserve and resource estimates, last updated September 2012

⁴ Energy Trends Table 1.3 June 2013

⁵ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0560:FIN:EN:PDF>

of which is to reduce as far as possible the occurrence of major accidents related to offshore oil and gas operations and to limit their consequences.

6. Directive 2013/30/EU (the Directive) was published on 28th June 2013. It contains requirements relating to licensing, safety and environmental protection so the Department of Energy and Climate Change (DECC) and the Health and Safety Executive (HSE) will jointly lead the transposition to fully implement the Directive by 19 July 2015.
7. To ensure that industry can maintain existing procedures as far as possible to keep administrative burdens to a minimum, the majority of the Directive requirements will be transposed into new Offshore Installations (Safety Case Regulations) 2015 (SCR 2015). Many of the requirements are already implemented through the existing Offshore Installations (Safety Case Regulations) 2005 (SCR 2005), but where existing regulations need to be amended or elaborated and where new provisions are necessary, these will be incorporated into SCR 2015, which will replace SCR 2005.
8. The Directive requires that a report on major hazards is produced by operators and owners. HSE and DECC propose to use the safety case as the vehicle to deliver this requirement. As the UK's offshore safety regime already requires operators and owners to produce a safety case, which has a great deal of the information required to be in the report on major hazards, the regulations requiring a safety case will be amended to provide details of the relevant environmental information required to meet the Directive requirements. However, duplicating environmental information already provided for assessment and acceptance under the Oil Pollution Emergency Plan (OPEP), Environmental Management System (EMS) and Environmental Impact Assessment (EIA) processes, would introduce unnecessary administrative burdens on the Industry and regulators. We are therefore proposing that the safety case only contains relevant short descriptions of such environmental information and/or with appropriate links to existing environmental demonstrations and assessments (e.g. OPEPs, EMS and EIA). Guidance will be provided in relation to the relevant content of the environmental information submitted to DECC and the descriptions that will be required in the safety case.
9. In practice, this will mean that operators and owners will not have to include within the safety case the same environmental information and/or demonstrations and assessments that they have already provided to DECC for assessment and acceptance, and short descriptions or links will be sufficient. However, additional, or revised, environmental information not assessed and accepted by DECC, for example information that forms part of a combined safety and environmental submission will have to be submitted with the safety case for the competent authority to assess, and when appropriate, accept. From a competent authority perspective, this will mean that the safety case cannot be accepted, until the assessment and acceptance procedures under the OPEP, EMS and EIA processes have also been completed. However, we do not see this being an obstacle, as the existing timescales for all relevant assessment and acceptance procedures will remain unchanged, with the use of the new competent authority IT portal expected to improve the efficiency and effectiveness of the submission and acceptance processes over time.
10. In addition, further legislative amendments are required to implement the environmental requirements of the Directive.

11. The UK environmental legislative regime relating to offshore oil and gas operations is very comprehensive. Following a review of the Articles of the Directive, it is apparent that the majority of its obligations are already met by existing legislation. Therefore, to ensure effective transposition, DECC proposes to introduce one set of Regulations which will amend the Merchant Shipping (Oil Pollution Preparedness, Response Co-operation Convention) Regulations 1998 (the "OPRC Regulations") to implement other Directive requirements.
12. With respect to the national emergency response plans and emergency preparedness provisions of the Directive, it is considered that existing UK legislation and guidance meets those requirements. On that basis, the Department for Transport (DfT) and the Maritime and Coastguard Agency (MCA) do not need to introduce new legislation for the purposes of implementing the Directive's provisions in Articles 29 and 30. Consequently, no Impact Assessment is needed for these aspects.
13. The Department for Environment, Food and Rural Affairs (Defra) and the Devolved Administrations (DAs) are responsible for transposing Article 38 of the Directive, which extends the offshore scope of the Environmental Liability Directive (ELD) to cover water damage in marine waters that fall within the scope of the Marine Strategy Framework Directive. Defra and the DAs will achieve transposition via appropriate amendments to their respective Environmental Damage (Prevention and Remediation) Regulations.
14. Some of the requirements will also be delivered by updating existing administrative mechanisms (e.g. confidential systems for reporting safety and environmental concerns).
15. The Directive requires Member States to establish a new offshore Competent Authority (CA) by 19 July 2015 to oversee industry compliance with the Directive and to undertake certain related functions such as accepting and/or assessing reports on major hazards and other required documentation. Under the current UK regime, the Health and Safety Executive (HSE) is responsible for implementing health and safety legislation as it relates to offshore oil and gas operations, and this is performed by their Energy Division. The Department of Energy and Climate Change (DECC) is responsible for implementing offshore environmental legislation, and this is performed by their Offshore Oil and Gas Environment and Decommissioning team (OGED).
16. DECC and HSE already work closely together, albeit separately, under a Memorandum of Understanding (MoU) which establishes a framework for liaison between the two regulators and their regimes. Examples include a coordinated sign-off procedure for all new exploration and appraisal wells, and joint environmental and safety inspections if this is considered appropriate. The MoU is supported by a high-level Cross-Departmental group.
17. These existing liaison arrangements are not sufficient to comply with the requirements of the Directive. Four options for a new CA are considered in this impact assessment. The preferred option is for DECC and HSE to extend the existing arrangements and to work in partnership to deliver the CA functions specified in the Directive, with each party concentrating on their areas of expertise. This CA would be governed via an enhanced MoU between DECC

and HSE, and would be similar to the existing model used for the regulation of onshore major hazard installations⁶.

2.1. Updating the regime and reducing the stock of regulation

18. In parallel with the changes to the UK offshore oil and gas safety regime in relation to the Directive, HSE is also considering some simplifications and updates to existing oil and gas major hazard legislation to take account of operational lessons and to bring some emerging energy technologies (e.g. underground coal gasification) within scope. We are also taking this opportunity to reduce the stock of offshore legislation when appropriate:

- Under Directive 92/91 on the minimum requirements for improving the safety and health of workers in the mineral-extracting industries through drilling, we are proposing to bring the emerging technology of underground coal gasification within the scope of our onshore oil and gas major hazard legislation;
- Hydrocarbon gas is now being stored onshore in solution mined salt caverns, with operators voluntarily complying with the UK's onshore major hazard regime. To achieve consistency longer-term, and maintain public and investor confidence that robust regulation is in place, we plan to update our onshore oil and gas major hazard legislation to cover these activities;
- We propose updating the definition of an offshore installation in the Offshore Installations and Pipelines (Management and Administration) Regulations 1995 to provide clarity and consistency with the definition in the 2013 Health and Safety at Work etc Act (Application Outside Great Britain) Order;
- We plan to amend the definition of operator of a production installation and well operator to ensure that an operator can be identified for high risk decommissioning activities if a petroleum licence holder is no longer in place.
- We plan to mesh the Offshore Installations (Safety Zones) Regulations 1987 into the new SCR 2015 and then revoke the 1987 regulations;
- We plan to place the requirement to register deaths on onshore installations into the Offshore Installations and Pipeline Works (Management and Administration) Regulations and then revoke the Logbook and Registration of Deaths Regulations 1972; and
- We propose to revoke the Offshore Safety (Miscellaneous Amendments) Regulations 2002 (which extends the definition of offshore installation) and incorporate the requirements in the updated definition of offshore installation (mentioned above).

⁶ The COMAH Competent Authority for onshore major hazard installations involves HSE and the Environment Agency (in England and Wales) and the Scottish Environment Protection Agency (in Scotland).

3. Rationale for intervention

3.1. Transposition approach

19. The rationale for the transposition approach takes full account of the Government's Guiding Principles for EU Legislation. The key focus is on minimising the burdens on the offshore oil and gas industry and fulfilling the UK's goal (regulator, industry and trade unions) of keeping intact the high standards maintained under the UK's current offshore regulatory regimes. Therefore, although the Government's preferred approach is to use 'copy out' for transposition where possible, we intend to mesh the majority of Directive requirements into the existing safety and environmental regimes. We do not intend to 'gold plate' any of the Directive's minimum requirements that will be new to the UK offshore regimes, but there are a few elements of the current legislation that go beyond the Directive, which we propose to keep in order to maintain the standards of the existing regime. Similarly, where necessary we will elaborate the Directive requirements to ensure that they are clear to industry and to maintain consistency with the current regulations.
20. In summary, we will 'copy out' where possible but also use a variety of approaches to implement the Directive. We will:
- Transpose Directive requirements using existing UK regulations and amending them as necessary to fully meet the duties. The SCR 2005 will be revoked and re-introduced as SCR 2015 with the existing provisions expanded and new duties included;
 - Amend The Merchant Shipping (Oil Pollution Preparedness, Response Co-operation Convention) Regulations 1998 to implement other Directive requirements;
 - Amend the respective UK Environmental Damage (Prevention and Remediation) Regulations to transpose Article 38 of the Directive;
 - Maintain standards under the current oil and gas regime (e.g. definitions of major accident enter and leave notifications and the existing coverage of oil spill response plans) and justify any gold-plating of Directive requirements in this IA;
 - Elaborate the Directive's wording to clarify what is required (e.g. by adding 'as low as is reasonably practicable' or other UK legal terms) to ensure consistency with the existing UK health and safety regime;
 - Not fully implement any requirements that are not enforceable (e.g. The Directive places an absolute duty on operators and owners of offshore installations to prepare standards and guidance. However, it does not indicate which operators or owners must do this, and what guidance they must produce. These omissions make this requirement unenforceable. We will modify this requirement to meet with the current UK practice, that operators and owners are encouraged to take part in producing guidance and standards; and
 - Implement some of the Directive's requirements by using administrative means (e.g. the functions of the new offshore CA and mechanisms for reporting safety and environmental concerns).

3.2. Gold Plating

21. By maintaining the current offshore oil and gas regime and existing standards for safety and environmental protection there are a few areas where we potentially gold plate the Directive implementation. In each case, this is to maintain the current scope and standards, for example by keeping existing UK legislative requirements within SCR 2015 or relevant environmental legislation. In summary, the three areas of gold plating proposed to maintain the scope of the current UK offshore oil and gas regimes and the present health, safety and environmental standards are:

- Maintaining the definition of major accident that industry is used to, and to keep diving operations of fewer than five people in scope;
- Keeping non-production installations within scope for enter and leave notification requirements to maintain health and safety standards;
- Maintaining an approval procedure for operator appointments rather than weakening it by replacing it with a notification procedure.

3.3. Updating HSE domestic oil and gas legislation and reducing stock

22. Learning from operational experience over the past ten years, HSE has identified that amendments to health and safety legislation are necessary to clarify what structures fall within the definition of offshore installation. DECC legislative amendments will give legal certainty about who is the operator when a Petroleum Licence holder is not in place (e.g. as it has been revoked, relinquished or expired); some amendments to health and safety legislation will be required to complement this new approach.

23. Experience of regulating the early exploration phase of shale gas operations in the UK has highlighted to the Government the importance of having robust regulation in place to build public and investor confidence. To ensure that future emerging energy technologies (e.g. underground coal gasification) are covered by a robust regulatory regime for their exploration phase, while making sure that the UK fully implements Directive 92/91, steps need to be taken to bring such activities within scope of our onshore oil and gas regulatory regime.

24. To maintain public and investor confidence in hydrocarbon gas storage in salt caverns, and ensure that any future operators follow the robust regulation that has been voluntarily adopted by this sector, we plan to update our onshore oil and gas major hazard legislation to cover these activities. Non-legislative approaches would not deliver the same outcome in terms of ensuring future operators comply, maintaining public and investor confidence that a robust regulatory regime is in place, and ensuring that operational information is delivered to the regulator on time so that they can intervene effectively.

25. Under the Red Tape Challenge and the commitment to meet Professor Lofstedt's recommendations following his review of health and safety⁷, HSE also agreed to take steps to contribute to the Governments goal of reducing the stock of

⁷ Reclaiming Health and Safety for all: An independent review of health and safety legislation by Professor Ragnar Lofstedt; November 2011

regulation and consider if it can simplify its oil and gas regulation and approved codes of practice.

4. Policy objectives

26. The UK policy objectives are to fully transpose the Directive requirements into Domestic Legislation by July 2015 in a way that:

- Minimises the adverse impact of any changes on the oil and gas industry and UK interests by adopting the least burdensome approach;
- Maintains the current levels of protection for safety and the environment;
- Embeds the new requirements so that they further enhance the UK's world class offshore oil and gas regulatory regime; and
- Is open and transparent and ensures consistency with current regulations.

27. In addition, the UK will also look to deliver policy objectives related to:

- Updating and simplifying existing oil and gas legislation and guidance;
- Maintaining public and investor confidence in emerging energy technologies by bringing them within scope of a robust and appropriate health and safety regime; and
- Contributing to the Government's goal of reducing the stock of regulations.

5. Description of options considered (including do nothing)

5.1. Offshore Competent Authority

28. There are several options for establishing the offshore CA, all of which will fulfil the Directive, but which would function slightly differently and impose slightly different costs on industry through the cost recovery of their set-up costs.

29. For all the options, outlined, below, opinions differ between various stakeholders as to their preferred option e.g. health and safety stakeholders and other offshore industry representatives favouring maximised integration of safety and environmental regulation, and NGOs, industry environmental representatives and other industry representatives being concerned that environmental priorities could be lost as a result of such integration. This IA will aid them to understand the rationale behind the proposed partnership CA approach, and why it is preferred to other possible options. It briefly outlines the range of CA options that have been considered, and the estimated costs of setting up each option, which would then be recovered from industry.

5.1.1 Option 1: Do Nothing

30. When considering options for transposition of the Directive within the Impact Assessment, the 'do nothing' option was not considered viable as it would not deliver UK obligations under EU law. Although DECC and HSE already work closely together under a Memorandum of Understanding (MoU) which establishes a framework for liaison between the two regulators and their regimes, these existing liaison arrangements are not sufficient to comply with the requirements of the Directive. The 'do nothing' or status quo option appears in this impact assessment as Option 1 only as the notional baseline against which the other options are assessed.

5.1.2 Option 2: A DECC/HSE partnership Competent Authority to deliver the requirements of the Offshore Directive 2013/30/EU

31. This option would involve relevant functions of DECC and HSE being brought together under a partnership CA whose role it is to regulate major hazard offshore safety and environmental risks covered by the Directive. Each party⁸ would concentrate on their areas of expertise, working under shared policies, procedures and information portals and reporting to a senior CA Management Group. It would provide a single regulatory face for the offshore industry covering all major safety and environmental issues that are contained in the Directive on the safety of offshore oil and gas operations.

32. There are strong advantages to this proposed option. Work has already started to deliver this option as it provides the minimum change necessary to comply with Directive 2013/30/EU. It is the easiest option to achieve compliance with the Directive by July 2015 as current established systems would be broadly maintained and it is similar to the approach used to regulate the onshore major hazards industries via the COMAH Competent Authority.⁹ In addition, it avoids any disruption from Machinery of Government changes, which is particularly important at this time, given the changes already proposed under the Wood Review.¹⁰

33. The scope of the CA would be limited to major hazard safety/environmental regulation under the requirement arising from Directive 2013/30/EU. Thus, the CA would include the substantial majority of HSE's offshore work, and HSE considers that its residual personal health, safety and welfare responsibilities offshore could easily follow the CA policies, processes and procedures to provide an integrated approach to safety, health and welfare offshore. However, the CA would only cover a small proportion of DECC's offshore environmental inspection/regulation remit, so the existing, separate, DECC regulatory regime for non-safety related environmental risk (such as major oil spill prevention where there is no link to safety i.e. pipelines, chemical permitting, oil discharge permitting and environmental impact/habitat assessment) would remain a parallel regime outside the CA, whilst continuing to work closely with it.

⁸ Primarily staff from DECC's Oil & Gas Environmental and Decommissioning Team (OGED) and HSE's Energy Division

⁹ <http://www.hse.gov.uk/comah/authority.htm>

¹⁰ <http://www.woodreview.co.uk/>

5.1.3 Option 3: A DECC/HSE partnership Competent Authority covering all offshore safety and environmental regulation

34. This option is similar to Option 2 above, with relevant parts of DECC and HSE working in a partnership CA, but the difference is that the scope of the CA would include all offshore safety and environmental regulation, not just those aspects limited to the major hazard safety/environmental issues covered by the Directive. It would therefore provide a "single regulatory face for the offshore industry and stakeholders for all aspects of safety & environment. As with Option 2, each party¹¹ would concentrate on their areas of expertise, but working under shared policies, procedures and a single information portal, reporting to a senior CA Management Group. The CA Management Group could thus have the opportunity to consider any differing priorities/approaches between major and non-major hazard safety and environmental regulation, and take any efficiencies forward if both partners agreed. However, such a role already exists under the terms of reference of the Senior Oversight Board, established following the Government response to the Maitland recommendation on continuous improvement¹² which includes the MCA and covers at sea response, whereas a CA Management Board, under this option, would not.
35. This option shares some advantages of Option 2 as it avoids Machinery of Government changes, is similarly easy to implement as current established systems would be broadly maintained, and is feasible, if challenging, to put in place by the July 2015 deadline. However, although this Option 3 would provide full compliance with Directive, the wider responsibilities of the CA would actually go beyond the Directive's requirements. This option would mean greater integration of the offshore health, safety and environmental regimes. HSE and DECC have no remit in environment or safety, respectively elsewhere in their organisations and as such integration is likely to be challenging given the differing regulatory regimes. The UK's offshore environmental legislation differs significantly to the goal-setting safety regime as it is governed by a complex set of EU and internationally derived legal instruments, which adopt the precautionary principle and in many cases are prescriptive in their approach.

5.1.4 Option 4: HSE becomes the offshore safety and environment Competent Authority

36. This option is a progression from the partnership offshore safety/environmental regulator of Option 2. Under it, HSE would become the UK's single offshore safety & environmental regulator/CA, undertaking offshore environmental regulation as well as its current responsibilities. This would be done initially under an agency arrangement (or similar) from DECC until the necessary

¹¹ Primarily staff from DECC's Oil & Gas Environmental and Decommissioning Team (OGED) and HSE's Energy Division

¹²

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/84191/Offshore_Oil_and_Gas_in_the_UK_Maitland_Response_Final.pdf - Government response to an independent review of the regulatory regime (Maitland Review) "DECC, HSE and MCA will establish a senior oversight group, to provide assurance that the offshore regulatory regime remains fit for purpose and, where appropriate to agree recommendations for further change as they arise."

legislative change could be put in place. Its offshore environmental expertise would be provided by staff moving to HSE from DECC's Oil & Gas Environmental Directive.

37. Whilst this option would provide full compliance with the Directive as with Option 3 above this option means incorporation of the, necessarily, very different environmental regulatory regime into HSE, which has no remit in this area elsewhere. It would also mean that the environmental synergies with other parts of DECC would be lost, for example, OGED undertake the Strategic Environmental Assessment process which covers all offshore energy activities (e.g. renewables, gas storage, carbon capture and storage etc).
38. Like Option 3, Option 4 goes beyond the Directive's requirements. It would be a challenging timescale to implement by the July 2015 date, given the necessarily different regimes and regulatory frameworks, required Machinery of Government changes, with attendant resource and cost implications.

5.1.5 Option 5: An independent “stand alone” offshore safety & environmental Competent Authority

39. This option would create a completely new body to fulfil the functions of UK's offshore safety and environment regulator, separate from both DECC and HSE. This would fully meet the Directive's requirements (and would go beyond it, as do Options 3 and 4), and would provide the most focused CA of all the options. However, it would involve the most significant, costly and disruptive machinery of government change, especially at a time when industry and its regulators face other significant changes arising from implementation the Wood Review recommendations. This option would mean bringing together the two very different health and safety and environmental regulatory regimes and the associated challenges. In addition, this approach would also change the regulatory mechanisms recommended by the Cullen Report following the Piper Alpha disaster which recognised the benefits of integrating the work of the offshore safety regulator with the broader major hazard functions of HSE. Crucially, this option presents a very significant risk of infraction, as there would be an extremely challenging transition timescale to meet the implementation date of July 2015 for a CA.

5.2. Legislation

40. The preferred legislative option is to transpose the bulk of the Directive requirements into the new Offshore Installations (Safety Case Regulations) 2015 (SCR 2015) which will replace the SCR 2005. This will include amending existing regulations, and incorporating new requirements to fully implement the Directive.
41. The environmental requirements will be implemented by the Offshore Petroleum Activities (Offshore Safety Directive) Regulations 2015 that will introduce new environmental provisions and amend the Merchant Shipping (Oil Pollution Preparedness, Response Co-operation Convention) Regulations 1998, and through amendments to the respective UK Environmental Damage (Prevention and Remediation) Regulations.

42. A range of approaches will also be used to further integrate the new requirements into the UK regime and this will include using administrative mechanisms and procedures when appropriate, for example, to establish the offshore CA.
43. In terms of the additional updates to the UK's onshore major hazard oil and gas legislative regime to bring emerging energy technologies within scope, non-legislative options were considered. However, these would not deliver the goal of maintaining public and investor confidence that a robust regulatory regime was in place, or ensure that future operators complied with the necessary standards.
44. The Option of copying-out the Directive and creating a new piece of legislation, was considered, and although simpler from a legal perspective, would place unnecessary burdens on industry. A key goal of the transposition is to minimise the impact on industry by maintaining as much as possible of the existing regime. Since the introduction of the Safety Case regime in 2005, the UK has developed an exemplary oil and gas regulatory system. During negotiations the EU also used the UK regime as a template and as an example of good practice. Changing this regime would put the UK at a significant disadvantage and create unnecessary administrative burdens.

6. Summary of research undertaken to inform consultation stage IA

45. Representatives of the offshore oil and gas industry have been heavily involved in the research to inform estimation of the direct costs to industry in this analysis, which was completed in two phases. The first phase was to estimate the baseline costs to industry of the existing major hazard regimes, both offshore and onshore, and which led to the creation of the Baseline Assessment in 2012. This was in anticipation of the need for robust baseline estimates for this impact assessment and was a major undertaking as such an exercise to cost compliance had never been undertaken before.
46. The second phase has sought to estimate the costs to industry of the changes to the major hazard regimes brought about to implement the Directive in UK law, thereby adjusting the current costs faced by industry as estimated by the Baseline Assessment. This has run from late 2013 up until completion of this consultation-stage impact assessment in April 2014. This research will continue into the consultation period as the cost estimates are refined through consultation responses and any necessary further work is carried out to fill gaps or address emerging issues.
47. The same method was used for both pieces of research to ensure consistency. Both used a heavily adapted version of the Delphi method¹³ across two focus groups, with an interim period for the participants to gather data. The idea behind this was to take a small sample, but to try to ensure that the measurements taken were consistent and accurate. A quantitative census survey of all companies in

¹³ Named after the Oracle of Delphi, the Delphi method involves consulting a panel of experts to gain understanding of a subject or area, particularly in forecasting changes, such as industry costs for changes to legislation.

the sector was considered, but HSE social researchers deemed this too onerous on business to fill in and likely to have a low response rate. Non-response bias would be almost inevitable, as those who responded would necessarily be those with spare resource to fill in a lengthy survey. A survey of this type would also be prone to measurement error, as there would be no way to check that respondents had included or excluded the same costs from their measurements.

48. In creating the Baseline Assessment, an initial focus group was held in September 2011 with an industry group of representatives from several companies to go through a pre-prepared question set. The members of the group were selected to ensure that it captured a wide range of offshore companies that varied by size and type of installation. The initial meeting aimed to reduce measurement error by ensuring that members responded based on a common understanding of what should be included and excluded and clarifying what constituted 'good' and 'bad' evidence for costs. Based on the initial discussion with the group, the question set was refined to clarify some issues and cover additional areas raised by the group. This was then sent to participants to complete. The results were collated before the second focus group.
49. A second focus group was held in December 2011 with the same participants to provide an opportunity for the representatives to challenge each other's results, correct any errors and misunderstandings, and reach a consensus that allowed ranged costs to be estimated. This was followed by a stage of validation or 'reality checking' held in January 2012 with a group of five companies who had not been on the original group to challenge any unjustified assumptions and assess if the estimates were realistic. This took the form of a three-hour meeting and led to a few minor amendments, but no major changes.
50. Lastly, all of the participants were sent a copy of the final report for comment. This was to ensure that the information presented included the necessary caveats and reflected what was agreed at the second focus group and the validation meeting. Attendees were informed that a nil response would be treated as indication that they had no issues with the analysis. Although some comments were given regarding the background discussions, no comments were received on the costs.
51. As mentioned above, the method for the second phase of research to estimate the change in costs brought about through the Directive has been similar. An initial focus group was held at the start of March 2014 to discuss impacts and evidence and the second at the start of April to agree ranged cost estimates, which have been used as part of the analysis in this IA. Although no formal verification focus group will be held, as was done with the Baseline Assessment, the process of consultation will give the industry the chance to review and comment on the cost estimates, allowing for a wider verification of the estimates.

7. Risks and Assumptions

52. All costs and benefits are appraised over a period of 10 years from the year of implementation, 2015, to 2024. This is in keeping with impact assessment guidance that a ten-year period should be used where the lifetime of the policy is not identifiable.

53. Many of the costs in this analysis have been estimated based on forecasts of the number of installations on the UK Continental Shelf (UKCS) over the ten-year appraisal period. At the time of writing in April 2014 there are estimated to be around 386 installations operating in 2015, the first year of this analysis and the year when the regulations would be implemented.
54. Based on observation of the last three years' submissions of new safety cases, each year on average around 15 more installations begin operating on the UKCS, either as installations fixed in position or as mobile installations that can move to different locations. However, the analysis in this consultation stage impact assessment acknowledges that this may include some degree of double-counting as some of these 15 installations might be mobile installations moving from one part of the UKCS to another, and therefore already be in scope of the regulations. Further work will be undertaken during consultation to estimate the scale of this effect and to produce a more robust model of new installations to refine ongoing costs for the final stage IA.
55. Each year on average around 1.5 installations begin decommissioning. This is also based on observation of the last three years' submission of dismantling installations safety cases. However, estimates from DECC's Decommissioning Unit are that this number is expected to increase sharply as fields come to the end of their usable lives. They have estimated that the number may increase to around 20 installations per annum in the next few years, which would lead to a net decrease in installations over time. However, this figure is subject to uncertainty as some installations may be mothballed for a period rather than decommissioned in case changes in the oil price make their operation economically viable. This analysis acknowledges that there is uncertainty in the number of installations to be decommissioned over the next ten years, but accepts that the recent figure of 1.5 per annum is too low. Further work will be undertaken during consultation to produce robust estimates for the number of installations expected to be decommissioned to refine cost estimates for the final stage IA.
56. For the consultation stage IA, this analysis will take a pragmatic approach and assume that each year 15 installations would begin decommissioning work. The decommissioning of installations can take several years to complete, depending on the size and complexity of the installation. This analysis will assume that each decommissioning operation would take between 1 and 5 years to complete and that of the 15 that begin decommissioning, 3 will be complete after 1 year, a further 3 after 2 years and so on. As such, this assumption delivers a 'steady state' of installation numbers after 5 years, as shown in Table 1.

Table 1: Forecast number of installations 2015 - 2024

Year	No. of installations
Year 0 (2015)	386
Year 1 (2016)	398
Year 2 (2017)	407
Year 3 (2018)	413
Year 4 (2019)	416
Year 5 (2020)	416
Year 6 (2021)	416
Year 7 (2022)	416
Year 8 (2023)	416
Year 9 (2024)	416

57. The impact assessment includes costs and benefits that extend into the future. Consequently, it is important that any monetised impacts are expressed in present values, to enable comparison over time. The discount rate used to generate these present values is defined in the H M Treasury Green Book¹⁴ as 3.5% for any appraisal period of less than 30 years.
58. Costs are in terms of opportunity and financial costs. Where market values are not available, costs are expressed in terms of the best proxy value where relevant. For instance, for any compliance activities that take up the time of a worker or operator/owner, there is a cost of that time. The best proxy for the value of this time is what they could have produced during that time if they were not required to perform these compliance tasks. It is assumed that the worker's productivity is best reflected by the true cost of employing that person (they create as much value as they are paid). In reality this could be conservative for some occupations and staff, but is the best estimate available and is recommended by Government in the Green Book. The true economic cost of employing the person is assumed to be their gross hourly wage rate inflated by 30% to reflect the non-wage costs of employment (such as employer tax and NI contributions, employer contributions to pension and overheads).
59. Ranges are calculated around all estimates to reflect uncertainty in the estimates. The range is either that specified by industry at the focus groups or if a point estimate was provided, a range of +/-10% is added around the estimate. These ranges will be narrowed where possible in the final Impact Assessment.
60. In preparing the costs in this Impact Assessment, we met with industry in a series of focus groups to discuss likely impacts and for them to calculate the costs of each of the new requirements. However, we have to recognise that there are a number of uncertainties at this stage (e.g. the exact information that they will need to provide under a specific requirement), which means that these can only be approximate costs at this time.
61. We have prepared this Impact Assessment following a detailed gap analysis with supporting legal advice. In time, alternative legal interpretations may evolve. This could highlight infraction risks for the UK or identify additional potential areas of 'gold plating'. It is also possible that political developments (e.g. Scottish Independence) could have a future impact on these proposals and that some of the emerging energy technologies considered in the Impact Assessment start

¹⁴ Available at: http://www.hm-treasury.gov.uk/d/green_book_complete.pdf

sooner or later than we have anticipated, and are undertaken to a smaller or greater degree than currently forecast. We recognise such risks, and proposals would have to be modified if any changes have a significant impact on the way forward outlined within this document.

8. Key Changes

8.1. Setting up the Offshore Competent Authority

62. The preferred option in this IA is for DECC and HSE to work in a partnership CA to deliver the functions specified in the Directive, with each party concentrating on their areas of expertise (Option 2). This CA would be governed via an enhanced MoU between DECC and HSE, and would be similar to the existing model used for the regulation of onshore major hazard installations¹⁵. A high-level oversight CA Board would provide the forum to agree on implementation arrangements and achieve shared perspectives and decisions.
63. Although the day-to-day functions of the CA would be delivered by the respective parts of DECC's OGED and HSE's Energy Division (ED), both partners would be working under a set of common CA arrangements. From a stakeholder perspective, this would manifest itself by a single regulatory face from the CA, including:
- DECC and HSE staff working seamlessly under a set of common CA systems and processes;
 - A CA IT portal for all notifications and submissions to the CA, regardless of whether they relate to major hazard safety or environmental issues;
 - A single, coherent set of CA assessment/acceptance procedures for safety cases, required notifications etc;
 - A single CA intervention plan for each operator and owner, covering all planned CA inspection activities;
 - CA proactive interventions fully coordinated and planned, with the presumption of joint DECC/HSE visits wherever appropriate;
 - Coordinated CA investigations, with decisions made at an early stage as to which regulatory partner should lead;
 - A single enforcement model covering all CA enforcement; and
 - A CA website for all information relating to the CA.
64. These proposals would avoid major machinery of Government changes, and would provide a single, consistent regulatory face for industry with respect to the prevention of the major hazard safety and environmental events covered by the Directive (i.e. those of low probability/high consequence). It provides minimal changes to the already robust UK offshore regulatory regime, fully implements the Directive in line with UK Government policy, and avoids unnecessary 'gold plating'.

¹⁵ The COMAH Competent Authority for onshore major hazard installations involves HSE and the Environment Agency (in England and Wales) and the Scottish Environment Protection Agency (in Scotland).

65. Under this proposal DECC's existing regulation of offshore chemical/oil discharge permits and their environmental assessment regime would not change and would not be covered by the CA.
66. The Directive requires that the UK ensure "the independence and objectivity of the competent authority in carrying out its regulatory functions". It further specifies that "conflicts of Interest shall be prevented between, on one hand, the regulatory functions of the competent authority and, on the other hand the regulatory functions relating to economic development of the offshore natural resources and licensing of offshore oil and gas operations". Although DECC is currently responsible for licensing and the economic development of oil and gas resources via the DECC Licensing, Exploration and Development (LED) Team, this will change shortly following the recommendation in the final report of Sir Ian Wood's "UKCS Maximising Recovery Review"¹⁶. A new arm's length regulatory body will be created, charged with effective stewardship and economic regulation of UKCS hydrocarbon recovery. Implementation of this recommendation will reinforce the separation of the CA function and the regulatory functions relating to economic development of the offshore natural resources and licensing of offshore oil and gas operations.

8.2. Operating the Offshore Competent Authority

67. Working as a partnership CA, DECC and HSE would have new responsibilities under the Directive. They would be required to report to the Commission on national measures they have in place regarding access to knowledge, assets and expert resources. They would also be required to produce a report on transposition arrangements.
68. The CA would also need to have a system to receive, assess and accept safety cases, notifications and other documents that are submitted by operators/owners, in addition to providing publicly available information on the structure, accountability, policies, processes and procedures of the CA. DECC and HSE agree that the most effective way to achieve these requirements is to develop an IT portal and create a single point of contact for industry. Once set up this will be maintained as part of CA procedures.
69. There would be new administrative procedures required to manage CA operations. These include the CA Management Board, maintaining common operational systems and processes and planning co-ordinated regulatory activity.
70. The CA would also need to assess/approve the information that is submitted by operators/owners to comply with the new regulatory requirements (which are explained in more detail in the changes to legislation sections below). These relate to:

¹⁶ <http://www.woodreview.co.uk/> The Wood Review examined key factors that affect UKCS performance and developed recommendations designed to enhance economic recovery of oil and gas reserves in the future. The interim report was published on 11 November 2013. The final report and recommendations were produced in early 2014 and funding announced in the March 2014 budget to implement the recommendations.

- Descriptions of the Internal Emergency Response Plan;
- The Independent Verification Scheme;
- Corporate Major Accident Policy (CMAPP);
- Safety and Environmental Management System (SEMS);
- Safety Cases;
- Design and Relocation Notification;
- Well Notifications;
- Combined Operations Notifications;
- Dismantling;
- Reporting Imminent Danger or increased risks of a major accident; and
- Reporting major accidents outside the EU.

Other new regulatory requirements are for the CA to advise the Licensing Authority on the technical and financial aspects of new licensees on request. The CA would also be required to send an additional delegate to the European Offshore Authorities workgroup meetings.

8.3. Changes to HSE Legislation to implement the Directive

71. This section describes all of the changes to HSE legislation to implement the Directive; the costs follow in Section 9.

8.3.1 Internal Emergency Response Plans

72. Presently, owners or operators prepare and submit emergency response plans under safety legislation, the Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations 1995 (PFEER); and operators submit oil pollution emergency plans (OPEPs) under environmental legislation, the Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations 1998 (OPRC). Section 8.5.1 covers the amendments needed to address the revised OPEP requirements.

73. HSE would make amendments to require that the PFEER plan is updated to contain the additional information required under the Directive, including an inventory of emergency response equipment. Although this is currently not a legal provision, owners / operators already keep this type of safety information, and HSE's legislation will require that an inventory of safety emergency response equipment is prepared. Inventories of environmental emergency response equipment are covered in the OPEP.

74. Operators/owners would also need to provide a brief description of the Internal Emergency Response Plan (referring to both safety and environment submissions) in the safety case and well notifications.

8.3.2 Independent verification

75. Presently, under SCR 2005, owners or operators are required to have in place an independent verification scheme to provide assurance that safety-critical elements (SCE) of the installation's plant and equipment are suitable for their intended purpose.

76. Under SCR 2015, this verification scheme would need to be described in the safety case and extended to cover the verification of safety and environmental-

critical elements (SECE). This has the potential to impose both a one-off cost to industry for the establishment of this expanded scheme and an ongoing cost from the increased resources necessary to manage a scheme with a wider remit.

77. The extent of any changes to the verification scheme relative to the present one would in part depend on whether installations have any plant or equipment that is environmental-critical, but not safety critical, that would have to be included in the verification system. Early discussions with DECC and industry suggest that there are no such elements, but experience of onshore oil and gas operations suggests that the performance standards for SECE may be different depending on whether they are being considered from a safety or environmental perspective. If this proves to be the case, it will be assessed at the time of review of the SECE submissions, but it is not currently anticipated that there will be any additional costs to industry.
78. The verification scheme would need to comply with some new criteria outlined in the Directive (e.g. arrangements to manage the flow of information between the operator/owner and the independent verifier and to ensure the verifier is given sufficient authority to carry out their functions). The efforts necessary to make existing schemes compliant will depend in part on the extent to which they already fulfil the criteria through standard operating procedures.

8.3.3 Corporate Major Accident Prevention Policy (CMAPP)

79. There is a new requirement for operators/owners to prepare a Corporate Major Accident Prevention policy (CMAPP) that covers their installations. HSE and DECC believe that although operators/owners will already have some policies in place that may provide some of the information needed, they will not have one that specifically covers the prevention of major accidents. This will have to be produced under SCR 2015 and a copy of this policy will need to be submitted with the Safety Case.

8.3.4 Safety and Environmental Management System

80. There is already a legal requirement in the UK to have a safety management system (SMS) under the Offshore Installations (Safety Case) Regulations 2005 and DECC have in place a voluntary agreement implementing a requirement of the Convention for the Protection of the Marine Environment of the North East Atlantic (the OSPAR Convention) that operators should maintain an environmental management system (EMS).
81. To minimise the changes to the UK's offshore oil and gas regime and burdens on Industry, HSE and DECC propose to maintain the current arrangements that separately require safety and environmental management systems. It would be acceptable to bring these requirements together, although industry may prefer to maintain separate systems as DECC's EMS requirements cover the management and control of all environmental risks, not just major environmental incidents.
82. To ensure that safety management systems include the additional information required under the Directive, HSE will include these requirements within SCR 2015. Section 8.5.2 details how DECC will formalise their environmental management system requirements to ensure they contain the information required under the Directive.

83. Under the Directive, operators and owners will need to set out in a statement how the safety and environmental management systems will be brought together and integrated with the overall management system. In addition, operators and owners will need to provide a description of the safety and environmental management system in the safety case and design notifications.

8.3.5 Safety Cases

84. The UK already operates a safety case regime under the current SCR 2005. The Directive requires that a report on major hazards is produced. The UK propose to use the safety case, updated by the SCR 2015, to include relevant descriptions relating to environmental information, and include appropriate links to existing environmental demonstrations and assessments, to meet the Directive requirements for a report on major hazards. Operators/Owners would need to submit short descriptions of the Verification Scheme, Safety and Environmental Management System, and Internal Emergency Response Plan in the safety case, but these requirements are assessed in the respective sections of this impact assessment.

85. Owners/operators would also need to include additional general information in the safety case, such as details of the relevant codes, standards and guidance used in the construction and commissioning of the installation. They also need to provide 'any other relevant details' that the CA considers is necessary before a safety case is accepted, but in practice this is probably already covered by the existing regime.

8.3.6 Design and Relocation Notifications

86. Under the current SCR 2005 Regulations, owners or operators of installations are required to submit a design notification in the case of a planned production installation. In addition, where an existing production installation is to be moved, the operator must submit a relocation notification. There are separate requirements to provide environmental information.

87. The key change under the Directive and the SCR 2015, is that Design and Relocation Notifications must now include reference to the environmental information, in addition to the existing safety information. For example, they will need to describe the design concept in relation to major hazard scenarios for both the environment and safety. Although HSE and DECC estimate that the information needed for these notifications may already be produced (e.g. in an Environmental Statement (ES) that describes the option selection process, the proposed re-allocation of a production installation and the environmental considerations relating to the selection and relocation), additional work would be needed to briefly describe and/or make appropriate links to this information within a design or relocation notification .

8.3.7 Well Notifications

88. Under the current UK regime, well operators are required to submit a well notification. This notification provides the regulator with a range of information, related to the planned well operations. This includes particulars of the well, a description of the well operations and the programme of work. The Directive requires that additional information is included in a well notification and the requirements will be included in the SCR 2015. The requirements include environmental information needing to be submitted along with safety information

in the well notifications. Again HSE and DECC estimate that the information needed for these notifications may already be produced as a result of other requirements (e.g. an ES or a request for a Direction than an ES is not required). Additional work will be needed to briefly describe and/or make appropriate links to the information within a well notification.

89. The well notification must now include the findings and comments of the independent competent person (ICP) with a description of the actions taken by the well operator in response to these findings. The well operator must also consult the ICP before submitting a material change to a well notification.

8.3.8 Combined Operations Notifications

90. Combined Operations Notifications are already submitted under the current regime, but there are new requirements under the Directive. Under the SCR 2015, the operator would need to include environmental information within the notification. Again, HSE and DECC estimate that the information needed for these notifications may already be produced as a result of other requirements (e.g. a request for a navigational consent to locate a non-production installation). Additional work would be needed to briefly describe and/or make appropriate links to this information within a combined operations notification

8.3.9 Dismantling a fixed production installation

91. Under the Directive, new information is required when a fixed production installation is being dismantled and the requirements will be included in the SCR 2015. The requirements include: information on the means of isolating hazardous substances and the permanent sealing of wells; a description of the risks to workers and the environment, the total exposed population; and information on the emergency response arrangements to secure safe evacuation and rescue of personnel and to maintain control systems for preventing a major accident to the environment. Again, HSE and DECC estimate that the information needed for these notifications may already be produced as a result of other requirements (e.g. the Decommissioning Programme and supporting documents). Additional work would be needed to briefly describe and/or make appropriate links to this information in the decommissioning safety case.

8.3.10 Reporting imminent danger or increased risks of a major accident

92. When an activity carried out by an operator or owner poses an immediate danger to human health or significantly increases the risk of a major accident, the Directive requires that they must take suitable measures, including suspending the activity, until the danger or risk is adequately controlled. When an operator takes such action, they must notify the offshore CA no later than 24 hours after taking the action. Although we would expect industry to already take such measures, there will be a requirement under the SCR 2015 to report this to the CA.

8.3.11 Reporting major accidents outside the EU

93. This is a new requirement on UK-registered companies with operations outside the EU. Under the SCR 2015, these companies will now need to report to the

offshore CA on request details of any major accidents they, or their subsidiaries, have been involved in outside the EU.

8.3.12 Safety Zones

94. The UK Offshore Installations Safety Zones Regulations 1987 specify when a vessel can enter an offshore safety zone. Under the Directive, the owner or operator of the installation would be able to grant permission for a vessel to enter the safety zone for reasons other than those specified in the regulations. HSE believes there may be potential savings to industry if there are occasions when industry would use this provision.

8.3.13 Collecting and recording data

95. The Directive requires operators/owners to use suitable methods of recording and collecting data that ensures reliability and prevents the possibility of the data being manipulated. This is a new requirement, but industry report that they already have such measures in place.

8.3.14 Enter and Leave notifications

96. In addition, MAR currently requires a notification on the day the installation leaves or enters the UK but in reality industry sends these notifications to HSE prior to the installation leaving or entering the UK. The Directive requires the notification to be submitted prior to the day of entry or departure and HSE intend to copy out this definition and amend MAR. As industry already submit these notifications prior to the day of entry or departure, HSE estimate that this will have no practical impact on industry and as such would pose no additional cost.

8.3.15 Promoting change to staff

97. The focus group reported that it would take effort to communicate and promote the changes required by the Directive across their organisations and to build the new requirements into their procedures and practices. The activities identified as necessary to familiarise all staff with the changes would include visiting installations, preparing and distributing promotional material, holding meetings and workshops, updating websites and training.

8.3.16 Implementing Act on data reporting criteria and format

98. The Directive indicates that an Implementing Act will be introduced to outline a new offshore data reporting system. This could consist of up to 10 new reporting criteria, as well as standard formats within which operators/owners would have to notify the CA. There will also be standard formats for the CA to use when preparing Annual Reports to the European Commission and for the CA making information publically available. As a result of these Implementing Acts, there would be additional burdens on the CA and Industry in terms of reporting systems.

8.4. Gold Plating of HSE Legislation

8.4.1 Definition of major accident

99. The current UK definition of major accident includes “the failure of life support systems for diving operations in connection with the installation, the detachment of a diving bell used for such operations or the trapping of a diver in a diving bell or other subsea chamber used for such operations”. This is not included in the Directive definition. The definition of major accident does make provision for ‘any other incident leading to fatalities or serious injury to five or more persons...’ and given that most diving operations associated with offshore installations involve five or more people, this is likely to be covered in most instances. It could also be argued that any subsea work on installations or pipelines is likely to be covered by other aspects of the Directive’s definition of a major accident. However, a small number of such diving operations will involve fewer than five people and we would prefer to make it legally clear that such diving operations remain within scope of the new SCR. Retaining the current diving-specific element in the definition of the major hazard definition would provide clarity and consistency.
100. HSE is concerned that the omission of such operations from the definition of major accident, and so consideration within the safety case, which is the document that lays out the measures in place to effectively control major accident risks, would have a detrimental effect on offshore diving safety. Commercial diving is widely recognised as a hazardous work activity – particularly offshore. Over the last 40 years, at least 52 divers have died while working in the offshore oil and gas industry in the North Sea.
101. As all operators/owners are currently required to address diving matters in the safety cases, there would be no additional burden on industry from maintaining all diving operations within the definition of major accident. Recent discussions with the Diving Industry Committee (DIC), and informal discussions with the offshore diving industry, indicate that retention of the diving-specific major hazard definitions would be widely supported. HSE is therefore proposing to keep this reference to diving operations within the UK definition of major accident.
102. The Directive’s definition of major accident also only covers an event involving major damage to the structure of the installation, where there is a significant potential to cause fatalities or serious personal injury. The definition of major accident in SCR 2005 does not have the qualification relating to fatalities or serious injury, and so this could be seen as gold plating. As keeping the SCR wording will maintain current practices and standards we will keep the current wording in the UK definition.

8.4.2 Enter or Leave notifications for non-production installations

103. The Offshore Installations and Pipeline Works (Management and Administration) Regulations 1995 (MAR), currently covers this requirement. In the UK, HSE monitors the movements of both production and non-production installations (NPIs, e.g. drilling rigs), but the Directive only requires production installations to submit these notifications. As such the current regime includes an element of gold plating. However, HSE believes it is crucial to continue to monitor the movement of NPIs under the major hazard regime to maintain safety standards and minimise the possibility of major accidents on NPIs, such as the

Deepwater Horizon disaster in the Gulf of Mexico. Industry is already following this regime so there is no additional burden in maintaining this requirement.

8.5. Changes to DECC Environmental Legislation to implement the Directive

104. This section of the Impact Assessment (IA) outlines the changes required to DECC's offshore environmental legislative regime to implement the Directive.
105. The environmental legislative regime relating to offshore oil and gas operations is very comprehensive. Following a review of the Articles of the Directive, it is apparent that the majority of the environmental requirements are already met by existing legislation. Only minimal changes are therefore necessary to meet the environmental requirements of the Directive. Apart from amendments to the emergency response legislation, no other changes to the existing offshore environmental legislation are anticipated.
106. DECC proposes to introduce one set of Regulations, which will amend the Merchant Shipping (Oil Pollution Preparedness, Response Co-operation Convention) Regulations 1998 (the "OPRC Regulations") and implement other Directive requirements. The proposed regulations would include provisions relating to specific elements of the Directive that are described below.

8.5.1 Amendments to the OPRC Regulations

107. The OPRC Regulations implement, in part, the International Convention on Oil Pollution Preparedness, Response and Co-operation 1990, and came into being as a consequence of the Merchant Shipping (Oil Pollution Preparedness, Response and Cooperation) Order 1997. The regulations require harbour authorities and operators of oil handling facilities and offshore installations, where there is a risk of an oil pollution incident, to have Oil Pollution Emergency Plans that are compatible with the National Contingency Plan and appropriate to deal with oil pollution in the area for which the harbour authority or operator is responsible. The Secretary of State (SoS) for DECC exercises the powers in relation to offshore installations and pipelines, and it is the duty of operators to implement the approved plan in the event of an oil pollution incident. There are also powers of inspection for the SoS in relation to offshore installations and pipelines. The OPRC Regulations also contain provisions requiring masters of United Kingdom ships, and individuals having charge of harbours, oil handling facilities and offshore installations to report certain events involving the discharge of oil. The OPRC Regulations do not currently extend to owners of non-production installations. The operator currently submits the OPEP, which includes details of the non-production installation.
108. The proposed regulations for transposing the Directive will amend the OPRC Regulations to align them with the requirements of the Directive. The existing OPRC regulations already require the following:
- Every operator of an offshore installation to have an OPEP in place;
 - Every operator to submit a plan to the SoS for approval;
 - In preparing the OPEP every operator to take into account any guidance;

- Every operator to fully review its OPEP every 5 years after submission;
 - Every operator to implement its OPEP in the event of an oil pollution incident;
 - Individuals in charge of offshore installations to report oil in the sea to HM Coastguard; and
 - Persons duly authorised by the SoS to have the power to inspect any offshore installation.
109. To align the OPRC Regulation with the obligations of the Directive, a number of amendments are proposed. The OPRC requirements will be extended to:
- (a) include the decommissioning of offshore installations. There will be a new requirement for offshore operators to prepare an OPEP for decommissioning operations, which will be the responsibility of the operator of the relevant production facilities that are being decommissioned.
 - (b) Include owners of non-production offshore installations, who will be required to submit an OPEP for their installations. The required content of a non-production OPEP will be aligned with the requirements of the Directive where it relates to an oil pollution incident as a consequence of a major accident and the response to such an incident.
 - (c) Require operators to submit an addendum to the owner's plan to cover specific well operations or a series of operations. Similarly, there is an additional requirement for the operator's OPEP to be amended to take into account any additional risks related to an oil pollution incident identified for combined operations, prior to those operations commencing.
 - (d) Amend the requirement under the OPRC to 'submit a plan' to a requirement for every offshore installation to have an approved OPEP (as part of the Directive's obligations to produce an Internal Emergency Response Plan, or IERP) prior to the commencement of the offshore oil and gas operations covered by the plan. This will also include requirements for operators and owners to:
 - undertake a full review and re-submission of an OPEP every 5 years, measured from the date of approval of the original plan.
 - to undertake a full review and re-submission of an OPEP following any relevant material change, or when directed to undertake such a review by DECC.
 - (e) require operators and owners to undertake OPEP exercises to maintain relevant preparedness for the implementation of the plan and interaction with the external emergency response plan. Operators and owners will also be required to retain evidence of OPEP exercises undertaken both onshore and offshore and to provide that evidence on request.
 - (f) provide powers to prohibit operations where no OPEP is in place, where the plan is deemed insufficient or where the requirements of the plan are not being met; and for Inspectors to be able to serve notices when deemed appropriate.
 - (g) require operators/owners to include in the OPEP an analysis of the oil spill response effectiveness and a complete inventory of oil spill emergency response equipment pertinent to their offshore oil and gas operations.

8.5.2 Provisions in new Regulations concerning Environmental Management Systems (EMS)

110. There are no requirements regarding EMSs in the current environmental legislation. However, OSPAR Convention¹⁷ Recommendation 2003/5 requires Contracting Parties to 'Promote the Use and Implementation of Environmental Management Systems by the Offshore Industry'. This Recommendation was implemented in the UK through voluntary agreement based on guidance issued by DECC. In relation to Traditional and Frontier Seaward Production Licences, including continuations of Promote Licences, the Department will not award a licence in response to any application that is not supported by an EMS that satisfies the guidance, or where the applicant does not provide a commitment to produce one before they wish to plan, develop and undertake any offshore operations. The current arrangements do not fully satisfy the Directive requirement, e.g. the EMS isn't an explicit mandatory requirement as part of a Safety and Environmental Management System and does not currently apply to the owners of non-production installations.
111. To ensure full alignment with the provisions of the Directive, a number of requirements pertaining to EMS are proposed in the new Regulations. There would be an obligation for every relevant operator and owner to have an EMS prior to the commencement of operations relating to production and non-production installations commencing.
112. Operators of production installations will be required to submit an EMS, which satisfies both the Directive and the OSPAR requirements. However, owners of non-production installations will be required to submit EMSs, which are restricted to the EMS requirements set out in the Directive. Although owners of non-production installations do not have to submit an EMS to DECC at present, research indicates that most owners will already have a suitable EMS, although minor changes may be required to meet the Directive requirements.
113. In addition operators/owners will be required to:
- Undertake a full review of the EMS, and to re-submit the EMS (or an adequate description) to DECC for acceptance following any relevant material change, or when directed to undertake such a review by DECC.
 - Amend / change a submitted EMS (or the description of the EMS) when directed by DECC should the EMS be considered inappropriate for any reason.

8.5.3 Financial liability arrangements

114. Operators undertaking exploration and appraisal well drilling operations using a Mobile Drilling Unit (MoDU) are currently required to provide evidence of financial liability arrangements, to ensure that sufficient funds or indemnity provisions are available to cover both first party costs (well control) and third party costs (caused by pollution damage), associated with an oil pollution incident. This requirement is currently linked to the legal requirement to prepare and implement an OPEP as detailed in the OPRC Regulations. If the required financial arrangements are not in place, DECC would take the view that the

¹⁷ OSPAR is the mechanism by which fifteen Governments of the western coasts and catchments of Europe, together with the European Union, cooperate to protect the marine environment of the North East Atlantic.

operator had not demonstrated that the provisions of the OPEP could be fully implemented, so approval of the OPEP would be withheld.

115. The Directive requires that appropriate financial provisions are taken into account when assessing applicants for licences or for different stages of operatorship. The new regulations will therefore include powers to require details of financial liability arrangements to be submitted to support relevant OPEPs.

8.5.4 Existing Legislation – Charging Schemes

116. In accordance with Article 8(7) of the Directive, the UK intends to establish or amend charging schemes whereby the financial costs to the CA in carrying out its duties under the Directive will be recovered from licensees, operators or owners.
117. DECC is currently undertaking a major review of the charging schemes associated with the environmental legislative regime. This is a complex exercise and it is not intended to develop new schemes prior to implementation of the Directive. However, provisions will be brought forward in separate regulations which will provide for a scheme to recover relevant departmental costs. This will be addressed in a separate IA.

8.6. Changes to DECC Licensing Legislation to implement the Directive

118. At this stage it is anticipated that changes to the licensing regime for both DECC and industry will be limited, because there are existing procedures covering most of the points at which the Directive requires action by the Licensing Authority. While there will be some minor adjustments to ensure full implementation, we do not expect significant increases in the burden of licensing procedures. However this assessment may alter following consultation and further analysis.
119. The Directive requires the Licensing Authority to take into account, at licence award and assignment the potential licensee's capability to meet the requirements of the Directive. It also sets out procedures for the appointment and disqualification of operators. However, all these checks and procedures are already in place: DECC already checks a new licensee's financial capacity at both award and assignment of a licence; already checks a new operator's financial security and competence, and already approves and can disqualify operators. It is likely that the existing checks and procedures will substantially satisfy the environmental requirements of the Directive without needing anything more than minor changes.
120. A new element of licensing procedure is that the Directive requires licensing decisions to take account of safety issues, and applicants will therefore have to provide new information to the Licensing Authority to inform them of the decisions. Assessment of the new information will entail adding the HSE, as part of the CA, as a new consultee in the licensing procedure, but existing IT systems can encompass this requirement without major new costs. For companies, there will be additional information requirements, which will be described in the licensing guidance.

121. The Directive requires Member States to impose a new duty on licensees to ensure that the operator has the capacity to meet its obligations, and that it actually does so. This duty will be implemented directly in the new regulations, but it will only constitute a legal duty to do what DECC expects every responsible licensee to be doing already. It will not therefore represent a new burden either on the Licensing authority or on business.

8.7. Maintaining Existing Standards and Gold Plating in DECC Legislation

8.7.1 Oil Pollution Emergency Plans

122. The International Convention on Oil Pollution Preparedness, Response and Cooperation¹⁸ (OPRC Convention) was adopted by the International Maritime Organization (IMO) in 1990 and came into force in the United Kingdom (UK) on 16 December 1997 and was implemented through The Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations 1998 (OPRC Regulations).

123. The OPRC Convention encourages States to: respond to a major oil pollution incident; maintain an adequate capability to deal with oil pollution emergencies; and have plans in place which are coordinated with its External Emergency Response Plan.

124. To satisfy the requirements of the OPRC Convention, DECC requires that an Oil Pollution Emergency Plan (OPEP) is submitted by the operator of all offshore installations and associated pipelines in the UKCS where there is a risk of oil pollution. The Convention requirements are also currently satisfied in submissions prepared by operators involved in well or combined operations. The OPEP is a response document which is implemented by operators when responding to any oil pollution event irrespective of whether the instigating event/incident constitutes a major accident.

125. DECC propose to maintain the existing OPEP requirements for operators in addition to imposing the additional Directive requirements for an IERP that relate to the environmental aspects.

126. DECC considers that restricting the OPEP to the content specified in the Directive would exclude important information in relation to modelling the scope of an oil release, where it may impact shorelines or cross international median lines, or identifying the environmental sensitivities which could be impacted by a release.

127. The additional detail required under OPRC is not considered to be gold-plating¹⁹, as this is an international requirement for all qualifying oil pollution emergency plans. The additional detail provides valuable information for evaluating the potential extent of a major oil pollution incident, the suitability of

¹⁸ [http://www.imo.org/About/Conventions/ListOfConventions/Pages/International-Convention-on-Oil-Pollution-Preparedness,-Response-and-Co-operation-\(OPRC\).aspx](http://www.imo.org/About/Conventions/ListOfConventions/Pages/International-Convention-on-Oil-Pollution-Preparedness,-Response-and-Co-operation-(OPRC).aspx)

¹⁹ In accordance with the Better Regulation Framework Manual 1.9.8.iii

the response plans and the environmental sensitivities that could be impacted. As this information is already provided, there will be no practical impact on industry.

8.7.2 Environmental Management Systems

128. The UK is a signatory to The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention), and it is UK government policy to implement all OSPAR Recommendations. OSPAR Recommendation 2003/5 was introduced in 2003 and DECC currently complies with this recommendation by requiring operators of all Traditional and Frontier Seaward Production Licences, including continuations of promote licences, to have either an EMS certified to an internationally recognised standard (ISO14001 or EMAS) or an EMS that is verified to meet the requirements of the OSPAR recommendation. Existing operators' EMSs are generally integrated within the organisations' overall management systems and may also be integrated with safety and quality management systems. The current arrangements do not fully satisfy the Directive requirement in that the EMS isn't an explicit mandatory requirement as part of a Safety and Environmental Management System.
129. Under the new legislative requirements, operators will be required to have an EMS which meets both the OSPAR recommendation and the requirements of the Directive in relation to EMSs.
130. DECC considers that a single comprehensive EMS which covers all environmental aspects would be simpler to manage than two separate systems, and would meet both the Directive and OSPAR requirements. As such, this would not be gold plating as it would continue to fulfil the international obligation under OSPAR.²⁰ As industry is already providing EMS to the required standard, there would be no additional costs.

8.7.3 Licensing Provisions

131. The existing Model Clause that deals with operatorship provides that the licensee may not allow an operator to act as such without the prior approval of the Secretary of State. The Directive, however, requires only that the Licensing Authority should have a power to object to the appointment of an operator after the event. That would be a less robust system, and being less robust would support the Directive's objectives less well and DECC could not implement it without amending all existing licences (with or without the licensee's agreement). In those special cases where implementation will require the creation of new operatorship provisions, DECC will do so without gold-plating (i.e. it will give the Licensing Authority a right of objection after the event). In those cases where licences already implement satisfactory operatorship provisions, it is most reasonable (and most consistent with the Directive's objectives) to leave them as they are, even though to do so counts as gold-plating. However, as it maintains the current standard, it poses no additional burden.

²⁰ In accordance with the Better Regulation Framework Manual 1.9.8.iii

8.8. Changes to Legislation to implement Article 38 of the Directive

132. The Directive also extends, through Article 38, the offshore scope of the Environmental Liability Directive (ELD) for oil and gas operations and other anthropogenic activities. The ELD already applies to damage affecting protected habitats and species out to 200 nautical miles and damage to all waters covered by the Water Framework Directive which extend to between 1 and 3 nautical miles of the landward baseline of the territorial sea within different countries of the UK. The Directive extends the scope of water damage to cover all marine waters within the scope of the Marine Strategy Framework Directive (MSFD).
133. Defra and the Devolved Administrations will be consulting on this issue during the summer separately to the other proposed changes discussed in this IA. However, the costs of this measure are included in this IA in Section 9.10.
134. The ELD only requires action where a business or other operator has caused – or is imminently about to cause - significant environmental damage. Evidence to date suggests this happens very rarely. In the five years since the law came into force between 2009 and 2014, there have been only three cases of water damage on land or in coastal waters in the UK. Across the EU from 2007 to 2014 there have been 389 cases of water damage²¹. By comparison there are likely to be fewer applicable cases on average in the area between 1 and 200 nautical miles (as evidenced in the original ELD Impact Assessment (IA)) because of reduced levels of economic activity and owing to increased difficulty to monitor, detect and enforce offshore damage. This assessment is strengthened by the fact that no cases of damage to species and habitats in the marine environment have yet fallen under the ELD in any country in the EU. This suggests that damage to water beyond 1 or 3 nautical miles might happen once every ten years or more cross the UK.
135. If and where such damage does arise, there are likely to be costs under existing arrangements to address the damage, depending on the nature of damage caused. Analysis undertaken for the original ELD IA suggested that opportunities to directly restore damage will be limited in the marine environment and that the measures required will therefore largely be to compensate for the damage. There may be limited opportunities to take such measures in the marine environment so these may sometimes be taken on land. The compensatory measures for one case of water damage on land are estimated to have cost less than £200k (from the damage assessment for the case). The costs of cases across the EU range from £2440 to £2.07 million (for all types of cases, not just water damage) although this is likely to include some costs that would have been incurred irrespective of the ELD.
136. The main costs are therefore likely to relate to paying for environmental improvements.
137. Work from the original ELD IA suggests the following activities have the potential to cause damage in the marine environment: fisheries, shipping,

²¹ This figure masks a wide variation reported by Member States, three of which accounted for 80% of the incidents. The very great majority reported fewer than a dozen, with 14 reporting zero or one case.

activities releasing contaminants on land, contaminants from the oil and gas industries, mariculture, litter, disturbance, engineering operations and dredging and dumping. But that damage would have to be very significant to trigger action under the ELD.

138. Further investigation and discussion with stakeholders will be carried out by Defra during the consultation to consider:

- the likelihood of potential damage caused by different activities affecting environmental status as defined under the MSFD;
- the potential for “catastrophic” cases of damage with much larger costs;
- whether the actions to pay for environmental improvements to compensate for offshore water damage are likely to be within the range presented;
- the scale of benefits from the improvement works required;
- whether businesses and other operators will need to take time to familiarise themselves with the changes; and
- whether businesses or operators will take anticipatory action to reduce their liabilities.

8.9. Changes to HSE regulations for updating the safety regime and reducing the stock of regulation

8.9.1 Updating the health and safety regulatory regime

The definition of offshore installation

139. In April 2013, HSE introduced the Health and Safety at Work etc. Act 1974 (Application Outside Great Britain) Order 2013. In this Order, the definition of offshore installation was updated to give legal clarity that it was vessels whose primary purpose is accommodation, or those undertaking activities that involved mechanically entering the pressure containment boundary of a well, that fell within the scope of this definition.

140. At this time, HSE also recognised that if an offshore installation was ever used for other purposes, these would likely be related to oil and gas activities (e.g. used as helicopter bases). When such installations came to the end of their life, HSE would want to ensure that it could still regulate future high risk decommissioning and demolition activities associated with such installations using its offshore major hazard regulations. HSE therefore removed the exclusion of any structure “which has ceased to be used for any of the purpose specified”, from the Order. This was to ensure that all activities in relation to a non-mobile structure which was formally an offshore installation, continued to be covered by the Order.

141. For consistency, and to ensure health and safety standards are maintained when high risk decommissioning and dismantling activities on offshore installations occur, HSE is now proposing to make the same changes to the definition of the offshore installation in the Offshore Installations and Pipeline Works (Management and Administrative) Regulations 1995 (MAR).

Identifying an operator when there is no licensee

142. To ensure that the highest safety standards are maintained during the high risk decommissioning and dismantling operations associated with offshore installations and wells, HSE propose that the definition of well operator and operator of a production installation are changed across HSE's offshore oil and gas regulations (e.g. SCR and MAR). These amendments will ensure that an operator can still be identified for well abandonment and offshore installation decommissioning operations when a licensee is not in place to appoint an operator.
143. Under HSE legislation, the operator of the production installation submits a decommissioning safety case and the operator of the well prepares a well notification, which outline how decommissioning operations will be performed safely. HSE will tell DECC if they have any concerns in relation to the planned decommissioning work before DECC issue consent. DECC has indicated to HSE that some licenses for offshore installations and wells will not be renewed. Under HSE legislation, it is the licensee who appoints the operator of the production installation or the operator of the well, so if there is no licence in place this will mean that legally there is no appointed operator and HSE may not receive a decommissioning safety case or well notification to consider. This issue was brought to HSE and DECC's attention when the first well, where a licence was no longer in place, was considered for decommissioning. The proposed amendments will fill this legislative gap and maintain HSE's jurisdiction to regulate work activities on offshore installations and wells when a licence is not in place. Currently operators are complying with the regulations voluntarily and therefore there are no costs to industry associated with these amendments.
144. DECC Licensing legislative amendments (see Section 8.6), will give legal certainty about who is the operator when a Petroleum Licence holder is not in place (e.g. as it has been revoked, relinquished or expired). The amendments HSE propose to make to the offshore health and safety legislation will complement DECC's new approach and will maintain HSE's jurisdiction to regulate work activities

Underground Coal Gasification (UCG)

145. HSE's onshore major hazard regime delivers part of Directive 92/91, which covers the minimum requirements for improving the safety and health of workers in the mineral-extracting industries through drilling. It is relevant to note that the Framework Health and Safety Directive (89/391/EEC), under which the drilling Directive is made, requires advances in technology to be taken into account and used to deliver improved levels of protection with regards to workers' health and safety over time. Therefore, it is expected that the minimum standards will evolve over time (in line with technological advances). At the time the UK implemented Directive 92/91, it did not foresee UCG taking place. However, a recent survey of Member States as part of a European Commission Review of Directive 92/91²² indicated that some Member States already see this activity as being "mineral extraction through drilling" and so is covered by Directive 92/91.
146. Bringing UCG within the UK's onshore oil and gas major hazard framework will enable the UK to continue to meet the requirements of European Directive 92/91, making sure new technologies are brought within scope. Therefore, the

costs associated with updating the UK regime are not governed by the one-in two-out rule.

147. Recent experience of the political and public interest in shale gas has resulted in a great deal of scrutiny of HSE's onshore oil and gas major hazard legal framework. The requirements contained within our onshore major hazard legislation have been seen as broadly sufficient to regulate health and safety. However, we are not in such a strong position for UCG. This activity is out of scope of our onshore major hazard legislation. As the first UCG pilot is expected to start onshore in 3-5 years (the Coal Authority does not anticipate an offshore project, if at all, within the next ten years), HSE (with support from DECC and the Coal Authority) is proposing to bring UCG within the scope of HSE's onshore oil and gas major hazard regime.

Onshore Combustible Gas Storage and Recovery

148. Natural gas storage and recovery activities have been taking place in the UK for many years in depleted oil and gas reservoirs both onshore and offshore. These are usually filled with natural gas through a borehole, which is designed and constructed to standards similar to those used for onshore and offshore gas extraction wells. The storage of hydrocarbon gas is likely to grow in the coming years as the need increases to store such gas when it is available in the summer, for recovery when it is required in the winter. There are three possible scenarios for offshore hydrocarbon gas storage and recovery:

- In depleted and partially depleted hydrocarbon fields - such activities have been taking place onshore and offshore for many years;
- Processes that will use naturally occurring geological formations that do not include petroleum (e.g. chalk) - this approach is still under development; and
- Storage in solution mined salt caverns (currently takes place onshore).

149. In the future as well as storing and recovering hydrocarbon gas, it may also be necessary to store and recover the products of UCG. We will therefore collectively call this "combustible gas storage and recovery". As combustible gas storage and recovery activities have major hazard potential, it is important to ensure HSE has the jurisdiction to regulate all three storage and recovery scenarios, using relevant onshore and offshore major hazard regulations. Currently, and for the foreseeable future, offshore storage and recovery will take place in depleted oil and gas reservoirs only, and these activities are already covered by our offshore oil and gas regime.

150. Onshore, combustible gas storage and recovery currently takes place in both depleted reservoirs and solution mined salt caverns. HSE currently regulates onshore hydrocarbon gas storage and recovery in depleted reservoirs using its onshore oil and gas major hazard regime (e.g. the Borehole Sites and Operations Regulations 1995 (BSOR) and the offshore wells regulations - which apply onshore and offshore). These regulations ensure HSE receives notifications covering the design, construction and operation of wells used for hydrocarbon gas storage and recovery. Well notifications allow HSE to intervene early and provide advice before storage operations begin. The legislation also requires operators to have an independent well examination scheme in place, an important additional barrier to ensuring well integrity.

151. Legal advice suggests that underground storage of combustible gas in solution mined salt caverns and geological formations that do not contain oil and

gas are not covered by BSOR or the well design and construction regulations. This is because of limitations in the current definitions contained in both regulations and which pre-date unconventional methods of gas storage and extraction.

152. To date there are nearly 75 active salt cavern combustible gas storage sites which HSE are responsible for, with over 85 associated wells. All the companies drilling these wells have voluntarily worked to the requirements of our onshore oil and gas major hazard regime, although sometimes the required information is provided slightly later than required under the regulations. The construction of two more underground salt cavern storage sites, with up to 24 new wells, has recently started by the same operators who have voluntarily provided information to HSE. We expect they will do this again in the future, so there will be no additional costs associated with these changes.
153. HSE anticipates that sometime in the future it is possible that new operators may enter this field who do not want to voluntarily meet the requirements of the legislation. If such a situation did arise, HSE would want to maintain standards and to ensure a level playing field between existing and new contractors. Therefore, HSE is proposing to formally bring these activities within the scope of its onshore oil and gas major hazard legislation. This will also help to maintain public and investor confidence, by ensuring a robust regulatory regime is in place for this emerging sector.

Reporting well dangerous occurrences

154. The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR) require that well dangerous occurrences (e.g. a blowout) are reported to HSE. This allows HSE to investigate such incidents when appropriate, to identify the lessons learnt from such incidents and to ensure that action is taken by the operator when necessary. Amendments to these regulations are required to ensure that all well dangerous occurrences associated with the emerging energy technologies outlined above (e.g. UCG and onshore combustible gas storage and recovery) are reported. There is also a need to clarify who has the duty to report such occurrences. HSE proposes an amendment to the definition of “well” and “responsible person” in RIDDOR.

8.9.2 Further reducing the stock of offshore regulations

155. The Government is looking to reduce its overall stock of regulations that apply to businesses, including those associated with the safety of offshore oil and gas operations. HSE proposes meshing some existing Regulations, which were made a long time ago and now only have a few remaining requirements, into some of the core offshore health and safety legislation. In total HSE expects to reduce the stock of offshore regulations by three by taking these steps.
156. The remaining requirements of the Offshore Installations (Safety Zones) Regulations 1987 will be meshed into the new SCR 2015 and the 1987 regulations will be revoked.
157. The Logbook and Registration of Deaths Regulations 1972 will be revoked, with the remaining requirement to register deaths on offshore installations included in the Offshore Installations and Pipeline Works (Management and Administration) Regulations.

158. The Offshore Safety (Miscellaneous Amendments) regulations 2002, which extend the definition of offshore installation, will be revoked and these requirements incorporated into the updated definition of offshore installation included in the new and amended regulations.

9. Costs and Benefits Appraisal

9.1 Costs for Setting up the Offshore Competent Authority

159. Costs for setting up the CA would be recovered from industry through the existing charging scheme. The costs that follow are all to be recovered from industry, unless stated otherwise.

9.1.1 Option 1 set up costs

160. Under the notional Option 1, the status quo remains and no CA would be set up. The other options will be assessed against this baseline.

9.1.2 Option 2 set up costs

161. Under Option 2, HSE and DECC would work together in a partnership CA to regulate offshore health and safety and environmental major accident risks. HSE and DECC would continue to manage their own areas of specialism, but with a new over-arching management structure. The time necessary to set this up has been estimated by the joint working group including representatives from HSE and DECC currently engaged in managing the establishment of the CA. This included time to train staff, to set up new processes and procedures and to establish a user group. This has been converted to a cost of time by HSE economists using the full economic cost model and it is planned that this cost will be recovered from industry.

162. The estimated work time given by the joint working group covered over 11 thousand hours and nearly 20 different grades of staff, including administrators, technical specialists and senior civil servants. The cost has been estimated using each worker's Full Economic Cost (FEC) and is summarised in Table 2. Adding a range of +/- 10%, this gives an **estimated one-off cost to industry** of this time of between about £820 thousand and £1 million, with a **best estimate of around £911 thousand**. This would be recovered from industry through the CA's charge-out rate for cost-recoverable activity in Year 0 of the appraisal period, once established.

Table 2: Summary of calculation of Option 2 CA set up costs

Government worker	Hours spent	FEC per hour	Total cost of time
DECC Senior Civil Servant	26.3	£56.75	£1,490
DECC Higher Executive Officer	652.5	£22.43	£14,636
DECC Grade 7	435.0	£40.64	£17,677
DECC Grade 6	438.8	£46.15	£20,248
DECC Environmental Inspector/Manager	435.0	£58.58	£25,484
DECC Senior Environmental Inspector/Manager	1,256.3	£63.17	£79,363
DECC Environmental Inspector/Manager Team Leader	153.8	£64.47	£9,913
DECC Environmental Investigator	45.0	£31.55	£1,420
DECC Senior Environmental Investigator	352.5	£34.96	£12,322
DECC Environmental Investigator Team Leader	135.0	£46.37	£6,260
DECC IT Specialist	780.0	£63.21	£49,305
HSE Band 1 Offshore Inspector (Higher)	525.0	£129.45	£67,963
HSE Band 2 Offshore Inspector (Higher)	2,115.0	£120.32	£254,476
HSE Band 3 Offshore Inspector (Higher)	2,737.5	£108.34	£296,589
HSE Band 4 Administrator	75.0	£50.67	£3,800
HSE Band 5 Administrator	165.0	£44.70	£7,376
HSE Band 6 Administrator	450.0	£37.86	£17,038
HSE Band 3 IT Worker	375.0	£63.21	£23,705
HSE Senior Civil Servant Band 2	15.0	£129.15	£1,937
TOTAL Option 2 set up costs	11,245	-	£911,002

Note: totals may not sum due to rounding

9.1.3 Option 3 set up costs

163. Under Option 3, HSE and DECC would enter into a partnership CA to regulate all health and safety and environmental risks. Even though the remit of the CA under Option 3 would be wider than under Option 2, the joint working group estimated that the set up costs for the overarching management structure would be the same (and would be recovered from industry).

164. This gives an **estimated one-off cost to industry** of between about £820 thousand and £1 million, with a **best estimate of around £911 thousand**. This would be recovered from industry in Year 0 of the appraisal period.

9.1.4 Option 4 set up costs

165. Under Option 4, the 75 staff (split roughly equally between technical support and environmental specialists, managers and inspectors) at DECC environmental would move to HSE. HSE would then operate as the CA for both health and safety and environmental risks offshore.

166. The cost of setting up this arrangement has been estimated based on recent experience of the Office of Nuclear Regulation (ONR) taking on ten staff from the Department for Transport (DfT)'s Radioactive Materials Transportation team in 2011. The time taken to manage and deliver this movement was estimated by ONR and reviewed by the CA joint working group who commented on how it should be adjusted to account for the movement of a larger group of staff. This cost would be borne by HSE and not recovered from industry.
167. The estimated cost of time is as follows:
- around 36 months of Band 4 Administrator time at a full economic cost of around £63 thousand per annum
 - around 24 months of Band 3 Offshore Inspector time at a full economic cost of around £135 thousand per annum
 - around 9 months of Band 2 Offshore Inspector time at a full economic cost of around £150 thousand per annum
 - around 3-and-a-half months of Band 2 Senior Civil Servant time at a full economic cost of around £161 thousand per annum
168. Adding a range of +/- 10%, this gives an **estimated one-off cost to Government** of between about £556 thousand and £679 thousand, with a **best estimate of around £617 thousand**. This would be borne in Year 0 of the appraisal period.
169. In addition, the joint working group concluded that the costs of training, setting up procedures and establishing the user group, as described under Option 2, above, would also be necessary under Option 4. This gives an **estimated one-off cost to industry** of between about £820 thousand and £1 million, with a **best estimate of around £911 thousand**. This would be recovered from industry in Year 0 of the appraisal period.

9.1.5 Option 5 set up costs

170. Under Option 5, the CA would be established as a new statutory body, which would incorporate the relevant functions of HSE and DECC. The costs of this arrangement have been estimated based on recent experience of ONR becoming a statutory corporation in 2014²³ and of DECC in establishing the Committee on Climate Change (CCC) as a statutory body in 2008.
171. ONR have estimated²⁴ that the cost of their incorporation was around £960 thousand. This included around £590 thousand for setting up back-office functions, £200 thousand for specialist external advice on legal, human resource and other issues and around £170 thousand on external engagement.
172. DECC have estimated that the cost of setting up the CCC was around £3.3 million, which included staff, research, general support and running costs of the Committee itself.

²³ <http://www.onr.org.uk/legal-framework-and-regulations.htm>

²⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/197622/onr_ia.pdf

173. It is not certain at this stage whether either of these examples would be perfect proxies for an offshore statutory CA and they may be either an over- or under-estimate. For example, the ONR cost may be an underestimate because the offshore sector includes more installations than does the nuclear sector. Similarly, ONR already existed as a semi-autonomous regulator before becoming a statutory corporation so parts of its infrastructure were already established. However, the CA joint working group have concluded that it is reasonable that the cost of the offshore CA would be within the range of these two estimates. This is an area of the costs requiring further development for the final stage impact assessment. Further work will be undertaken with the joint working group to refine this estimate during consultation and we will look to any cost estimates from DECC in establishing an executive agency responsible for operational regulation offshore oil and gas industry as recommended by the Wood Review.²⁵

174. This gives an estimated **one-off cost to industry** of between around £960 thousand and £3.3 million, with a **best estimate of around £2.1 million**. This would be recovered from industry in Year 0 of the appraisal period.

9.1.6 Reporting to the European Commission on knowledge management

175. The CA would be required by the Directive to report to the European Commission (EC) on the arrangements put in place to manage access to knowledge, assets and expert resources. The CA working group have estimated that the full economic cost (FEC) of time necessary to complete this would be as follows:

- around 4 hours of DECC Grade 6 time at an FEC of £46.15 per hour
- around 22.5 hours of DECC Senior Environmental Inspector/Manager time at an FEC of £63.17 per hour
- around 7.5 hours of DECC Environmental Manager Team Leader time at an FEC of £64.47 per hour
- around 4 hours of HSE Band 1 Offshore Inspector time at an FEC of £129.45 per hour
- around 11 hours of HSE Band 2 Offshore Inspector time at an FEC of £120.32 per hour
- around 22.5 hours of HSE Band 3 Offshore Inspector time at an FEC of £108.34 per hour

176. This would be recovered from industry. Adding a range of uncertainty of +/- 10%, this gives an **estimated one-off cost to industry** of between around £5.7 thousand and £7.0 thousand, with a **best estimate of around £6.4 thousand**. This cost would be recovered in Year 0 of the appraisal period and would be borne under all Options 2 to 5.

²⁵

9.1.7 Reporting to the European Commission on transposition

177. The CA would also be required by the Directive to report to the EC on the arrangements it has put in place to transpose the Directive in UK law. The CA working group have estimated that the full economic cost (FEC) of time necessary to complete this would be as follows:

- around 15 hours of DECC Higher Executive Officer time at an FEC of £22.43 per hour
- around 15 hours of HSE Band 2 Regulatory Inspector time at an FEC of £74.30 per hour

178. This would be recovered from industry. Adding a range of uncertainty of +/- 10%, this gives an **estimated one-off cost to industry** of between around £1.3 thousand and £1.6 thousand, with a **best estimate of around £1.5 thousand**. This cost would be recovered in Year 0 of the appraisal period and would be borne under all Options 2 to 5.

9.1.8 Setting up online portal

179. DECC and HSE propose to extend the online portal that DECC already have in place for the submission of documents by industry, the cost of which would be recovered from industry. DECC and HSE agree that this development of this existing system is the most effective way to carry out the functions required of it under the Directive. DECC have estimated this **one-off cost to industry** at between around £150 thousand and £200 thousand, with a **best estimate of around £175 thousand**. This would be recovered in Year 0 of the appraisal period and would be borne under all Options 2 to 5.

9.1.9 Implementing Act on data reporting criteria and format

180. HSE had estimated to the European Commission the cost of adapting existing databases and systems for the new reporting criteria at between around £13.5 thousand and £16.5 thousand, with a best estimate of around £15 thousand, which be recovered from industry. This estimate included both HSE time and charges from IT contractors and was based on the assumption that the reporting system enacted would be based on that currently in place in the UK under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR). However, the EC has decided to introduce an Implementing Act that will outline a new offshore data reporting system. Initial estimates from HSE are that this would cost 5 to 10 times the cost of the simple adaptation, above. This gives an estimated **one-off cost to industry** of between around £67.5 thousand and £165 thousand, with a **best estimate of around £113 thousand**. This would be recovered in Year 0 of the appraisal period and would be borne under all Options 2 to 5. We acknowledge that this is a rough estimate at this stage and will attempt to refine it for the final stage IA as plans progress for construction of the new systems.

9.1.10 Summary of Set Up Costs to Competent Authority

181. Table 3 summarises the costs recovered from industry to set up the CA.

Table 3: Summarised costs to industry to set up Competent Authority (£thousands)

	Low	Best Estimate	High
CA Arrangement Set Up Costs			
Option 2	£820	£911	£1,002
Option 3	£820	£911	£1,002
Option 4	£1,376	£1,528	£1,681
<i>of Option 4 costs, not recovered from industry</i>	£556	£617	£679
Option 5	£960	£2,130	£3,300
Other CA Set Up Costs (All Options)			
Knowledge management report to EC	£6	£6	£7
Transposition report to EC	£1	£1	£2
Extending online portal	£150	£175	£200
Setting up reporting system	£68	£113	£165
Total (Options 2 to 5)			
Option 2	£1,044	£1,206	£1,376
Option 3	£1,044	£1,206	£1,376
Option 4	£1,600	£1,824	£2,055
<i>of Option 4 costs, not recovered from industry</i>	£556	£617	£679
Option 5	£1,185	£2,425	£3,674

Note: figures are ten-year present values. Totals may not sum due to rounding.

9.2 Costs for operating the Offshore Competent Authority

182. Costs for operating the CA would be recovered from industry through the existing charging scheme. The costs that follow are all recovered from industry, unless stated otherwise.

9.2.1 Option 1 management costs

183. Under the notional Option 1, the status quo remains and no CA would be set up. The other options will be assessed against this baseline.

9.2.2 Option 2 management costs

184. The processes required to manage the operations of the CA under Option 2 and the time required to do so have been estimated by the joint working group and these efforts have been costed by HSE economists using the full economic cost model. These costs would be recovered from industry. The management functions would include the CA management board, the maintenance of CA processes and procedures and operational liaison between HSE and DECC. These costs would be additional to current operating costs of DECC and HSE, which would continue.

185. The time required to manage the CA estimated by the joint working group covered nearly 1 thousand hours and nearly 15 different grades of staff. The cost

has been estimated using each worker's Full Economic Cost (FEC) and is summarised in Table 4. Adding a range of +/- 10%, this gives an estimated annual cost to industry of between around £70 thousand and £86 thousand, with a best estimate of around £78 thousand.

186. This ongoing cost would be borne from Year 1 to Year 9 of the appraisal period. This gives an **estimated present value over ten years** of between around £533 thousand and £652 thousand, with a **best estimate of around £592 thousand**.

Table 4: Summary of calculation of Option 2 CA annual management costs

Government worker	Hours spent	FEC per hour	Total cost of time
DECC Senior Civil Servant	37.5	£56.75	£2,128
DECC Senior Executive Officer	18.8	£28.24	£530
DECC Grade 7	37.5	£40.64	£1,524
DECC Grade 6	75.0	£46.15	£3,461
DECC Environmental Inspector/Manager	120.0	£58.58	£7,030
DECC Senior Environmental Inspector/Manager	157.5	£63.17	£9,950
DECC Environmental Inspector/Manager Team Leader	37.5	£64.47	£2,418
HSE Band 1 Offshore Inspector (Higher)	37.5	£129.45	£4,854
HSE Band 2 Offshore Inspector (Higher)	157.5	£120.32	£18,950
HSE Band 3 Offshore Inspector (Higher)	157.5	£108.34	£17,064
HSE Band 2 Administrator	37.5	£73.30	£2,749
HSE Band 3 Administrator	37.5	£59.86	£2,245
HSE Band 6 Administrator	18.8	£37.86	£710
HSE Senior Civil Servant Band 1	18.8	£96.93	£1,818
HSE Senior Civil Servant Band 2	18.8	£129.15	£2,422
TOTAL Option 2 Management Costs	968	-	£77,852

Note: totals may not sum due to rounding

9.2.3 Option 3 management costs

187. The time required to manage the operations of the CA under Option 3 have been estimated by the working group to be the same as under Option 2, but with additional costs required to maintain procedures to cover the CA's broader scope and more time spent on operational liaison to cover the wider responsibilities. The cost has been estimated using each worker's Full Economic Cost (FEC) and is summarised in Table 5. Adding a range of +/- 10%, this gives an estimated annual cost to be recovered from industry of between around £110 thousand and £135 thousand, with a best estimate of around £123 thousand.

188. This ongoing cost would be borne from Year 1 to Year 9 of the appraisal period. This gives an **estimated present value over ten years** of between around £839 thousand and £1 million, with a **best estimate of around £923 thousand**.

Table 5: Summary of calculation of Option 3 CA annual management costs

Government worker	Hours spent	FEC per hour	Total cost of time
DECC Senior Civil Servant	37.5	£56.75	£2,128
DECC Senior Executive Officer	18.8	£28.24	£530
DECC Grade 7	37.5	£40.64	£1,524
DECC Grade 6	90.0	£46.15	£4,154
DECC Environmental Inspector/Manager	240.0	£58.58	£14,060
DECC Senior Environmental Inspector/Manager	292.5	£63.17	£18,479
DECC Environmental Inspector/Manager Team Leader	52.5	£64.47	£3,385
HSE Band 1 Offshore Inspector (Higher)	37.5	£129.45	£4,854
HSE Band 2 Offshore Inspector (Higher)	277.5	£120.32	£33,389
HSE Band 3 Offshore Inspector (Higher)	277.5	£108.34	£30,065
HSE Band 2 Administrator	37.5	£73.30	£2,749
HSE Band 3 Administrator	37.5	£59.86	£2,245
HSE Band 6 Administrator	18.8	£37.86	£710
HSE Senior Civil Servant Band 1	18.8	£96.93	£1,818
HSE Senior Civil Servant Band 2	18.8	£129.15	£2,422
TOTAL	1492.5	-	£122,510

Note: totals may not sum due to rounding

9.2.4 Option 4 management costs

189. The ongoing management costs under Option 4 are not estimated at this stage to be greatly different from those currently incurred by DECC and HSE. The joint working group considers that there may be some operational cost savings related to administration, but it is not certain at this stage what the scale of these might be. As such, there is estimated to be **no cost or cost saving in this consultation stage IA**, but further evidence will be sought during consultation.

9.2.5 Option 5 management costs

190. The ongoing management costs under Option 5 have not been estimated by the joint working group. As the statutory CA body proposed under Option 5 would incorporate the present offshore functions of HSE and DECC, any additional running costs of the CA would be off-set to some extent by the saved running costs that HSE and DECC currently incur. It is not certain at this stage what these running costs would be and how they would compare to those currently incurred. As such, there is estimated to be **no cost or cost saving in this consultation stage IA**, but further evidence will be sought during consultation.

9.2.6 Running the online portal

191. Having been set up as discussed in paragraph 179, the online portal would require ongoing IT resource to be maintained, serviced and updated. This has been estimated by the joint working group to cost around between around £36 thousand per annum and £60 thousand per annum, with a best estimate of around £48 thousand. An additional estimated £30 thousand per annum in online hosting charges would be incurred. All of this cost would be recovered from industry.
192. This ongoing cost would be borne from Year 1 to Year 9 of the appraisal period. This gives an **estimated present value over ten years** of between around £502 thousand and £685 thousand, with a **best estimate of around £593 thousand**. This cost would be borne under all Options 2 to 5.

9.2.7 Summary of Costs for Operating Offshore Competent Authority

193. Table 6 summarises the costs recovered from industry for operating the CA.

Table 6: Summary of costs for Operating Offshore CA (£thousands)

	Low	Best Estimate	High
CA Management Costs			
Option 2	£533	£592	£652
Option 3	£839	£932	£1,025
Option 4	Unquantified	Unquantified	Unquantified
Option 5	Unquantified	Unquantified	Unquantified
Other CA Running Costs (All Options)			
Running online portal	£502	£593	£685
Total (Options 2 to 5)			
Option 2	£1,035	£1,186	£1,336
Option 3	£1,341	£1,525	£1,710
Option 4	£502*	£593*	£685*
Option 5	£502*	£593*	£685*

Note: figures are ten-year present values. Totals may not sum due to rounding. *Totals for Options 4 and 5 omit management costs, which have not been estimated in this consultation stage IA

9.3 Costs for CA assessments related to HSE Legislation

194. Costs for the CA assessing submissions related to HSE legislation would be recovered from industry through charging. The costs that follow are all recovered from industry, unless stated otherwise.

9.3.1 Internal Emergency Response Plans

195. The CA would be required to assess the description of the Internal Emergency Response Plans (IERPs). The joint working group have estimated that each assessment would require the following resources, to be cost recovered from industry:
- around 2 hours of DECC Environmental Inspector/Manager time at an FEC of £58.58 per hour
 - around 4 hours of HSE Band 2 Offshore Inspector time at an FEC of £120.32 per hour
 - around 22.5 hours of HSE Band 3 Offshore Inspector time at an FEC of £108.32 per hour
196. This gives an additional cost per assessment of around £3 thousand. There would be a one-off cost for assessing all 386 installations' existing descriptions of IERPs by 2018 when they are required to become compliant. For simplicity, this cost is assumed to be distributed equally across 2016, 2017 and 2018. Adding a range of +/- 10%, this gives a **ten-year present value cost to be recovered from industry** of between around £973 thousand and £1.2 million, with a **best estimate of around £1.1 million**.
197. In addition, there would be an ongoing cost to the CA to assess the descriptions of the IERPs of new installations, of which there are estimated by HSE inspectors to be around 15 per annum on average, based on observation of the last three years' data. New installations and new well operations must comply with the new regulations by 2016, so this ongoing cost will be borne from Year 1 of the appraisal period until Year 9.
198. The additional cost required to assess new installations' descriptions of IERPs is estimated to be the same as for existing installations. Applying a range of +/- 10%, this gives an average annual cost to industry of between around £40 thousand and £49 thousand, with a best estimate of around £45 thousand.
199. This gives a **ten-year present value cost to be recovered from industry** of between around £308 thousand and £376 thousand, with a **best estimate of around £342 thousand**. This cost would be borne under all Options 2 to 5.

9.3.2 Independent Verification

200. The CA would be required to assess the additional information in installations' verification schemes as they are extended to cover environment-critical elements and to verify additional criteria. This will impose additional burdens on the CA to assess this further information.
201. The joint working group have estimated that this would not be a substantially greater burden as this is expected to only be a small increase in the scope of operators' schemes. They have estimated that each scheme would only require around 2 hours of DECC Environmental Inspector/Manager time at an FEC of £58.58 and around 7.5 hours of HSE Band 3 Offshore Inspector time at an FEC of £108.34. This gives a total cost per scheme of just less than £1 thousand and would be recovered from industry.
202. There would be a one-off cost of assessing all 386 existing installations' schemes by 2018 when they are required to become compliant. For simplicity, this cost is assumed to be distributed equally across 2016, 2017 and 2018.

Adding a range of +/- 10%, this gives a **ten-year present value cost to be recovered from industry** of between around £298 thousand and £364 thousand, with a **best estimate of around £331 thousand**. This cost would be borne under all Options 2 to 5.

203. In addition, there would be an ongoing cost to assess new installations' verification schemes, of which there are estimated to be around 15 per annum on average. New installations must comply with the new regulations by 2016, so this ongoing cost would be borne from Year 1 of the appraisal period until Year 9.
204. The additional cost of assessing new installations' schemes is not estimated to be different from existing installations. Applying a range of +/- 10%, this gives an average annual cost to industry of between around £12.4 thousand and £15.1 thousand, with a best estimate of around £13.8 thousand.
205. This gives a **ten-year present value cost to be recovered from industry** of between around £94 thousand and £115 thousand, with a **best estimate of around £105 thousand**. This cost would be borne under all Options 2 to 5.

9.3.3 Corporate Major Accident Prevention Policy

206. The CA would be required to review Corporate Major Accident Prevention Policies (CMAPPs) and check that they fulfilled the Directive's requirements.
207. The joint working group have estimated that such a review would take around 2 hours of DECC Environmental Inspector/Manager time at an FEC of £58.58 per hour and around 11 hours of HSE Band 3 Offshore Inspector time at an FEC of £108.34 per hour. Adding a range of +/- 10%, this gives a total cost per CMAPP of between around £1.2 thousand and £1.5 thousand, with a best estimate of around £1.3 thousand and would be recovered from industry.
208. There would be a one-off cost of assessing the CMAPPs of the approximately 100 companies and contractors currently operating by 2018 when they are required to become compliant. For simplicity, this cost is assumed to be distributed equally across 2016, 2017 and 2018. This gives a **ten-year present value cost to be recovered from industry** of between around £112 thousand and £136 thousand, with a **best estimate of around £124 thousand**. This cost would be borne under all Options 2 to 5.
209. In addition, DECC have estimated that between 6 and 20 CMAPPs would need to be assessed for licensing purposes each year on average, with a best estimate of around 13. This gives an annual average cost of between around £7.2 thousand and £29 thousand, with a best estimate of around £17 thousand. This would be borne from Year 1 of the appraisal period to Year 9 and be recovered from industry.
210. This gives a **ten-year present value cost to be recovered from industry** of between around £55 thousand and £222 thousand, with a **best estimate of around £131 thousand**. This cost would be borne under all Options 2 to 5.

9.3.4 Safety and Environmental Management System

211. The CA would be required to review and assess operators/owners' descriptions of their Safety and Environmental Management System (SEMS)

when submitted as part of the safety case. Each review is estimated by the joint working group to require the following additional resources:

- around 2 hours of DECC Higher Executive Officer time at an FEC of £22.43 per hour
- around 4 hours of HSE Band 2 Offshore Inspector time at an FEC of £120.32 per hour
- around 15 hours of HSE Band 3 Offshore Inspector time at an FEC of £108.34 per hour.

212. This gives an estimated cost per SEMS description of around £2.1 thousand and would be recovered from industry.

213. There would be a one-off cost of assessing all 386 existing installations' SEMS descriptions by 2018 when they are required to become compliant. For simplicity, this cost is assumed to be distributed equally across 2016, 2017 and 2018. Adding a range of +/- 10%, this gives a **ten-year present value cost to be recovered from industry** of between around £661 thousand and £807 thousand, with a **best estimate of around £734 thousand**. This cost would be borne under all Options 2 to 5.

214. In addition, there would be an ongoing cost to assess new installations' SEMS descriptions, of which there are estimated to be around 15 per annum on average. New installations must comply with the new regulations by 2016, so this ongoing cost would be borne from Year 1 of the appraisal period until Year 9.

215. The additional cost of assessing new installations' SEMS descriptions is not estimated to be different from existing installations. Applying a range of +/- 10%, this gives an average annual cost to industry of between around £28.6 thousand and £35.0 thousand, with a best estimate of around £31.8 thousand.

216. This gives a **ten-year present value cost to be recovered from industry** of between around £218 thousand and £266 thousand, with a **best estimate of around £242 thousand**. This cost would be borne under all Options 2 to 5.

9.3.5 Safety cases

217. The CA would be required to review and assess additional information added to installations' safety cases. Each review is estimated by the joint working group to require the following resources:

- around 2 hours of DECC Environmental Inspector/Manager time at an FEC of £58.58 per hour
- around 4 hours of HSE Band 2 Offshore Inspector time at an FEC of £120.32 per hour
- around 11 hours of HSE Band 3 Offshore Inspector time at an FEC of £108.34 per hour.

218. This gives an estimated cost per safety case of around £1.8 thousand and would be recovered from industry.

219. There would be a one-off cost of assessing all 386 existing installations' safety cases by 2018 when they are required to become compliant. For simplicity, this cost is assumed to be distributed equally across 2016, 2017 and 2018. Adding a range of +/- 10%, this gives a **ten-year present value cost to be**

recovered from industry of between around £580 thousand and £709 thousand, with a **best estimate of around £644 thousand**. This cost would be borne under all Options 2 to 5.

220. In addition, there would be an ongoing cost to assess new installations' safety cases, of which there are estimated to be around 15 per annum on average. New installations must comply with the new regulations by 2016, so this ongoing cost would be borne from Year 1 of the appraisal period until Year 9.
221. The additional cost of assessing new installations' schemes is not estimated to be different from existing installations. Applying a range of +/- 10%, this gives an average annual cost to industry of between around £24 thousand and £29 thousand, with a best estimate of around £27 thousand.
222. This gives a **ten-year present value cost to be recovered from industry** of between around £184 thousand and £224 thousand, with a **best estimate of around £204 thousand**. This cost would be borne under all Options 2 to 5.

9.3.6 Design and Relocation Notifications

223. The CA would be required to review and assess additional information added to installations' design and relocations notifications each time such a notification were submitted.
224. The joint working group estimated that for design notifications, which are submitted prior to construction of the installation, the additional information included would be at quite a high level and the additional work required to assess it would be minimal. As such, it is assumed to be minimal in this estimation.
225. For each relocation notification, the joint working group estimated that the additional resources required to review would be around 4 hours of DECC Senior Executive Officer time at an FEC of £28.24 per hour and 7.5 hours of DECC Environmental Inspector/Manager time at an FEC of £58.58 per hour. This gives an estimated cost per assessment of around £550 and would be recovered from industry.
226. Based on the last three years' data the estimated number of relocation notifications submitted per annum is estimated to be around 76. Adding a range of +/- 10%, this gives an estimated annual average estimated cost to industry of between around £37 thousand and £46 thousand, with a best estimate of around £41 thousand. This would be borne from Year 1 of the appraisal period to Year 9.
227. This gives a **ten-year present value cost to be recovered from industry** of between around £284 thousand and £347 thousand, with a **best estimate of around £315 thousand**. This cost would be borne under all Options 2 to 5.

9.3.7 Well Notifications

228. The CA would be required to review and assess additional information added to installations' well notifications each time such a notification were submitted. For each notification, the joint working group estimated that the additional resources required to review would be around 7.5 hours of HSE Band 3 Offshore Inspector time at an FEC of £108.34 per hour. This gives an estimated cost per assessment of around £810 and would be recovered from industry.

229. Based on the last three years' data the estimated number of well notifications submitted per annum is estimated to be around 550. Adding a range of +/- 10%, this gives an estimated annual average estimated cost to industry of between around £402 thousand and £492 thousand, with a best estimate of around £447 thousand. This would be borne from Year 1 of the appraisal period to Year 9.
230. This gives a **ten-year present value cost to be recovered from industry** of between around £3.1 million and £3.7 million, with a **best estimate of around £3.4 million**. This cost would be borne under all Options 2 to 5.

9.3.8 Combined Operations Notifications

231. The CA would be required to review and assess additional information added to installations' combined operations notifications each time such a notification were submitted. However, the joint working group have estimated that the additional information is so little as to require no additional work. As such, this requirement is estimated to generate **no additional cost**.

9.3.9 Dismantling a Fixed Production Installation

232. The CA would be required to review and assess additional information added to installations' safety cases for installations being dismantled each time such a safety case were submitted. For each safety case, the joint working group estimated that the additional resources required to review would be as follows:
- around 2 hours of DECC Environmental Inspector/Manager time at an FEC of £58.58 per hour
 - around 7.5 hours of HSE Band 2 Offshore Inspector time at an FEC of £120.32 per hour
 - around 22.5 hours of HSE Band 3 Offshore Inspector time at an FEC of £108.34 per hour.
233. Adding a range of +/- 10%, this gives an estimated cost per assessment of between £3.1 thousand and £3.8 thousand, with a best estimate of around £3.5 thousand and would be recovered from industry.
234. Based on estimates from DECC's Decommissioning Team, the number of installations expected to commence decommissioning and so need to submit a decommissioning safety case over the next ten years is estimated to be around 15 per annum. This gives an annual average cost to industry of between around £47 thousand and £57 thousand, with a best estimate of around £52 thousand. This would be borne from Year 1 of the appraisal period to Year 9.
235. This gives a **ten-year present value cost to be recovered from industry** of between around £355 thousand and £434 thousand, with a **best estimate of around £395 thousand**. This cost would be borne under all Options 2 to 5.

9.3.10 Reporting imminent danger or increased risks of a major accident

236. The CA would be required to review and assess reports from industry on situations where they have to take action when operations pose an immediate danger to human health or significantly increase the risk of a major accident, and

where there is immediate risk of a major accident. However, the joint working group have estimated that this would not impose any burden beyond work that would be completed anyway. As such, this requirement is estimated to generate **no additional cost**.

9.3.11 Reporting major accidents outside the EU

237. The CA would request reports from UK-registered companies regarding major accidents occurring outside of the European Union (EU). The joint working group have estimated that they would request only around 1.5 reports per annum on average, due to the infrequent nature of major accidents and fact that only UK-registered companies would be in scope. For each report, the joint working group estimated that the additional resources required to receive and review would be as follows:

- around 15 hours of HSE Band 2 Offshore Inspector time at an FEC of £120.32 per hour
- around 30 hours of HSE Band 3 Offshore Inspector time at an FEC of £108.34 per hour
- around 4 hours of HSE Band 6 Administrator time at an FEC of £37.86 per hour

238. Adding a range of +/- 10%, this gives an estimated annual cost of between around £7 thousand and £8.6 thousand, with a best estimate of around £7.8 thousand and would be recovered from industry. This cost would be borne from Year 1 of the appraisal period to Year 9.

239. This gives a **ten-year present value cost to be recovered from industry** of between around £53 thousand and £65 thousand, with a **best estimate of around £59 thousand**. This cost would be borne under all Options 2 to 5.

9.3.12 Safety Zones

240. For the new provisions on granting permission for vessels to enter safety zones, the joint working group estimated there would be no impact on practice and so **no costs or savings**.

9.3.13 Implementing Act on data reporting criteria and format

241. HSE estimate that they would receive between around 180 and 220 additional reports against the new criteria, with a best estimate of around 200 per annum. The resources estimated to process reports once received, based on the current experience under RIDDOR, is around 15 minutes each for a Band 2 Administrator at an FEC of £73.30 per hour and a Band 6 Administrator at an FEC of £37.86 per hour. This gives an annual average cost of between about £5 thousand and £6.1 thousand, with a best estimate of around £5.6 thousand.

242. In addition, HSE would be required to produce a report to the Commission each year on report statistics. HSE have estimated that the resources to do this would be similar to those currently incurred to produce reports on RIDDOR. That is, between around 38 hours and 46 hours, with a best estimate of around 42 hours, spent by each of a Band 3 Offshore Inspector at an FEC of £108.34 and a Band 1 Offshore Inspector at an FEC of £129.45. This gives an annual average

cost of between around £9 thousand and £11 thousand, with a best estimate of around £10 thousand.

243. This ongoing cost would be borne from Year 1 to Year 9 of the appraisal period and be recovered from industry. This gives a **ten-year present value cost to be recovered from industry** of between around £106 thousand and £130 thousand, with a **best estimate of around £118 thousand**. This cost would be borne under all Options 2 to 5.

9.3.14 Offshore Oil and Gas Authorities Group (EUOAG)

244. Following implementation, the CA would send an additional delegate to the EUOAG working group, which meets around 3 times per year. This is estimated to require around 113 hours each year of an HSE Band 2 Regulatory Inspector's time at and FEC of £74.30 per hour, plus around £1,500 in travel and subsistence costs per annum.
245. Adding a range of +/- 10%, this gives an estimated annual average cost per annum of between around £9 thousand and £11 thousand, with a best estimate of around £10 thousand and would be recovered from industry. This would be borne from Year 1 of the appraisal period to Year 9.
246. This gives a **ten-year present value cost to be recovered from industry** of between around £69 thousand and £81 thousand, with a **best estimate of around £75 thousand**. This cost would be borne under all Options 2 to 5.

9.3.15 Summary of CA Costs for Assessments related to Changes in HSE Legislation

247. Table 7 summarises the costs to be recovered from industry from CA assessments related to changes in HSE legislation.

Table 7: Summary of CA costs for assessments related to changes in HSE legislation (£thousands)

	Low	Best Estimate	High
Internal Emergency Response Plans	£1,281	£1,423	£1,566
Independent Verification	£392	£435	£479
Corporate Major Accident Prevention Policy	£166	£255	£359
Safety and Environmental Management Systems	£878	£976	£1,073
Safety Cases	£763	£848	£933
Design and Relocation Notifications	£284	£315	£347
Well Notifications	£3,060	£3,400	£3,740
Dismantling a fixed installation	£355	£395	£434
Reporting major accidents outside the EU	£53	£59	£65
Implementing Act on data reporting criteria and format	£106	£118	£130
Offshore Oil & Gas Authorities Group	£69	£75	£81
Combined Operations Notifications	Nil	Nil	Nil
Reporting imminent danger or increased risk of a major accident	Nil	Nil	Nil
Safety Zones	Nil	Nil	Nil
Total (Options 2 to 5)	£7,408	£8,300	£9,207

Note: figures are ten-year present values. Totals may not sum due to rounding.

9.4 Costs for CA assessments related to DECC Legislation

248. This part of the Impact Assessment outlines the additional CA costs relating to the changes to DECC's offshore environmental and licensing legislative regimes required to implement the Directive. These costs would all be recovered from industry, unless otherwise stated.

249. Table 8 below sets out the salary rates (inflated by 30% to reflect real economic costs e.g. overheads) for the DECC personnel that will be involved with various duties imposed by the Directive.

Table 8: Salaries and Full Economic Costs (FECs) for DECC personnel

Grade	Annual Salary	Daily Rate (FEC)	Hourly Rate (FEC)
Environmental Inspector / Manager	£114,231	£439.35	£58.58
Senior Executive Officer (SEO)	£55,068	£211.80	£28.24
Higher Executive Officer (HEO)	£43,739.80	£168.23	£22.43
Executive Officer (EO)	£33,538.70	£129	£17.43

9.4.1 Amendments to the OPRC Regulations

250. Workloads relating to changes to the OPRC Regulations to meet the Directive requirements for the 10 year assessment period are summarised below:

- New Oil Pollution Emergency Plans (OPEPs) for new Production Installation decommissioning operations from 2015 to 2024.
- Review OPEPs for existing Production Installations by 2018.
- New OPEPs for new Production Installations from 2015 to 2024.
- Review of new OPEPs for Production and Non-Production Installations five years after initial preparation during the period from 2015 to 2024 (one review for each OPEP).
- New OPEPs for existing Non-Production Installations, including MODUs / Intervention Vessels, from 2015 to 2016
- New OPEPs for new Non-Production Installations, including MODUs / Intervention Vessels, from 2015 to 2024
- New OPEP Addenda for well operations from 2015 to 2024.
- New OPEP Addenda for combined well operations from 2015 to 2024.

251. The requirements and associated costs relating to specific Directive obligations are outlined below.

9.4.1.1 Extend the OPEP requirements (as part of the Directive obligation to produce an Internal Emergency Response Plan (IERP)) to include the decommissioning of offshore installations

252. OPEPs for new decommissioning activity will have to be submitted and approved as soon as the new regulation comes into force (i.e. from 2015 until 2024). OPEPs for decommissioning activity would be time-limited and would expire when the decommissioning operations were completed, so there would not be a regular review requirement.

253. There is a significant amount of uncertainty as to the actual pace of decommissioning operations per year, due to certain factors such as the oil price e.g. a sudden increase in the price of a barrel of oil can lead to the deferral of proposed decommissioning plans by many years. Based on information currently available to DECC on expected future decommissioning activities on the United Kingdom Continental Shelf, it is at present anticipated that, from 2015, approximately 15 installations per year will cease operations and three will be removed within a year of cessation of operations, with the remainder being subject to longer more complex decommissioning activities which could take many years before all structures and associated infrastructure are fully removed.

254. DECC assumptions for assessing / approving decommissioning OPEPs during 2015 to 2024.

Each year, DECC would need to review 15 OPEPs pertaining to potential decommissioning operations.

Based on estimates from the staff who would carry out the work, the resource implications for DECC in assessing / approving the decommissioning OPEPs are:

Environmental Inspector / Manager:

- Time required for assessing / approving one decommissioning OPEP would be 1 day at a day rate of £439.35
- 15 days required to assess / approve 15 OPEPs

255. Total annual costs to DECC to be recovered from industry for assessing and approving decommissioning OPEPs (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach)

The **NPV of the total costs to be recovered from industry** for undertaking the review and approval of 15 decommissioning OPEPs per year during the 10-year period 2015 and 2024 would be between £51.1 thousand and £62.4 thousand with a **best estimate of £56.7 thousand**.

9.4.1.2 Amend the OPEP requirements for Production Installations (as part of the Directive's obligations to produce an IERP)

256. **Existing OPEPs for Production Installations:** Production OPEPs can cover one or more fields, and will cover all the production installations associated with that field or fields. One OPEP could therefore cover a number of production installations. DECC will have to liaise with HSE to find out which production installations require / have a safety case, and then assign the relevant OPEP to all the relevant installations.

257. There are currently 101 existing Production Installation OPEPs that will all need to be updated by 2018 (e.g. to reflect the new Directive requirements relating to inventories of response equipment and the effectiveness of response plans), and future reviews will have to be aligned with the Safety Case review timetable. The implementation of the Directive will therefore result in a requirement to review the 101 existing production OPEPs including the additional elements required by the Directive by 2018, whereas the review process would normally have been spread over a five-year period under present legislation. As such, there would be an additional cost both because of the review of the additional elements in the OPEPs and the 'brought forward' cost of reviewing the rest of the OPEPs earlier than they would have been under the baseline. In this consultation stage IA, only the cost of reviewing the additional criteria has been estimated. The number of OPEP reviews to be brought forward and how far forward they would be brought is difficult to estimate and will depend on the review schedules of the existing OPEPs, the review schedule of the safety cases with which they are to be aligned and the impact of decommissioning work. Further work will be undertaken during consultation to better model the number of 'brought forward' OPEP reviews to estimate this cost for the final stage IA if proportionate to do so.

258. It is currently projected that a total of 9 installations could be removed by decommissioning activities by 2018, potentially reducing the total number of existing OPEPs to 92.

259. DECC assumptions for reviewing / re-approving additional elements in existing OPEPs for Production Installations by 2018 (*Transitional element*)

92 existing OPEPs would be submitted to DECC for review

Based on estimates from the staff who would carry out the work, the resource implications for DECC in reviewing / re-approving 92 existing OPEPs are:

Environmental Inspector / Manager:

- Time required for reviewing / re-approving one existing OPEP would be 0.50 days at a half-daily rate of £219.68.
- 46 days required to review / re-approve 92 existing Production Installation OPEPs by 2018.

260. Total costs to DECC to be recovered from industry for reviewing and re-approving existing OPEPs for Production Installations by 2018 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach)

The **NPV of the total costs to be recovered from industry** for undertaking the review / re-approval of existing OPEPs by 2018 would be between £17 thousand and £20.8 thousand with a **best estimate of £18.9 thousand**.

261. **New OPEPs for new Production Installations:** Based on data collated by DECC and HSE on new developments over recent years, it is estimated that 4 new OPEPs will be required per year from 2015 to 2024 to cover new Production Installations. During the 10-year appraisal period, DECC will therefore have to review and approve a total of 40 OPEPs for new Production Installations.

262. DECC assumptions for assessing/approving new OPEPs for Production installations from 2015 to 2024.

40 OPEPs for new Production Installations are expected to be submitted to DECC.

Based on estimates from the staff who would carry out the work, the resource implications for DECC in assessing / approving the new Production Installation OPEPs are:

Environmental Inspector / Manager:

- Time required for assessing / approving one OPEP would be 1 day at a day rate of £439.35.
- 40 days required to assess / approve 40 new OPEPs from 2015 to 2024.

263. Total costs to DECC to be recovered from industry for assessing/approving OPEPs for new Production installations from 2015 to 2024 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach)

The **NPV of the total costs to be recovered from industry** for undertaking for assessing/approving OPEPs for new Production installations from 2015 to 2024 would be between £13.6 thousand and £16.6 thousand with a **best estimate of £15.1 thousand**.

264. **Subsequent five-yearly reviews of Production Installation OPEPs:** Taking into consideration the fact that over the timescale of 2015 to 2024:

- 150 installations will cease operations of which approximately 30 will be fully decommissioned and removed from the UKCS;
- It is assumed that 30 OPEPs would be permanently removed by 2024; and
- 40 new Production Installations are expected to come on stream (and, at this juncture, it is highly unlikely that any of these new Production Installations would be decommissioned prior to 2024),

265. It is estimated that during the 10-year appraisal period, 111 OPEPs for Production Installations would be subject to their five yearly review. This is based on the current 101 Production Installation OPEPs and adjusting for the 30 Production Installations expected to complete decommissioning work over the appraisal period and the 40 new Production Installations expected to begin work over the same period.

266. There could also be instances where existing Production Installation OPEPs might be submitted to DECC for review as a result of material changes to an installation's operations e.g. a new field being connected to a floating vessel or platform ('tied-back') and added to the OPEP. However, it is impossible to estimate whether this would have a significant effect on the review cycle. It also has to be borne in mind that the DECC OPEP review cycle will have to be aligned with the HSE safety case review cycle, and this could also have an effect on the review cycle. For the purpose of this Impact Assessment, it is therefore assumed for simplicity that there would be one full five-yearly review cycle for 111 OPEPs during the period up to 2024 and that these would be spread evenly over that period. In reality the timing of the creation/update of the Production Installation OPEPs, described above, would result in a greater concentration of reviews in some years than others. However, it has not been possible to estimate the impact of this at this stage due to uncertainties around the alignment of the OPEP review cycle with the safety case review cycle and the impacts of decommissioning work. Further work will be undertaken to model the OPEP cycle for the final stage IA if possible.

267. DECC assumptions for reviewing / re-approving OPEPs for Production installations under five-yearly review cycle.

Based on estimates from the staff who would carry out the work, the resource implications for DECC in carrying out the review of 111 Production Installation OPEPs would be:

Environmental Inspector / Manager:

- Time required for reviewing one OPEP would be 0.50 days at a half-day rate of £219.68
- 55.5 days required for reviewing / re-approving 111 Production Installation OPEPs over the period up to 2024.

268. Total costs to DECC to be recovered from industry for reviewing and re-approving OPEPs for Production Installations under the five year review process from 2020 to 2024 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach)

The **NPV of the total costs to be recovered from industry** for undertaking the review / re-approval of OPEPs under the five year review process up to 2024 would be between £17.3 thousand and £21.1 thousand with a **best estimate of £19.2 thousand**.

9.4.1.3 Extend the OPEP requirements (as part of the Directive obligation to produce an IERP) to the owners of Non-production Installations

269. Responsibility for the development and maintenance of an OPEP will be extended to the owners of non-production installations.

270. **New OPEPs for existing Non-production Installations:** There are currently 40 non-production installations, e.g. Mobile Drilling Units (MoDUs) / Intervention Vessels / Flotels (i.e. floating accommodation units), operating in UK waters. The owners of these installations will be required to prepare OPEPs that will have to be submitted to DECC and approved within a year of the new regulations coming into force i.e. by July 2016. This will be new work directly related to implementation of the Directive.

271. DECC assumptions for assessing and approving new OPEPs for existing Non-production Installations by 2016 (*Transitional element*).

There will be 40 new OPEPs submitted for approval during 2015 and 2016

Based on estimates from the staff who would carry out the work, the resource implications for DECC in assessing / approving the new OPEPs are:

Environmental Inspector / Manager:

- Time required for assessing / approving one OPEP would be one day at a day rate of £439.35.
- 40 days required for assessing approving 40 new OPEPs by 2016

272. Costs to DECC to be recovered from industry for assessing and approving new OPEPs for Non-production installations by 2016 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach)

The **NPV of the total costs to be recovered from industry** for undertaking the assessment / approval of 40 new OPEPs by 2016 would be between £15.5 thousand and £19 thousand with a **best estimate of £17.3 thousand**.

273. **New OPEPs for new Non-production Installations:** Based on data collated by DECC and HSE on new non-production installations operating in the UKCS over recent years, it is estimated that 5 new OPEPs will be required per year from 2015 to 2024 to cover new non-production Installations. However, as non-production installations move around the UKCS, this figure might be overestimated and this will be further explored with industry during the consultation period. From 2015 to 2024, DECC will therefore have to review and approve a total of 50 OPEPs for new non-Production Installations.

274. DECC assumptions for assessing and approving new OPEPs for new Non-production Installations from 2017-2024.

There will be 50 new OPEPs submitted for approval during the period 2015 to 2024

Based on estimates from the staff who would carry out the work, the resource implications for DECC in assessing / approving the new OPEPs are:

Environmental Inspector / Manager:

- Time required for assessing / approving one OPEP would be one day at a day rate of £439.35.
- 50 days required for assessing approving 50 new OPEPs by 2024

275. Costs to DECC to be recovered from industry for assessing and approving new OPEPs for Non-production installations from 2015 to 2024 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach)

The **NPV of the total costs to be recovered from industry** for undertaking the assessment / approval of 50 new OPEPs by 2016 would be between £17 thousand and £20.8 thousand with a **best estimate of £18.9 thousand**.

276. **Subsequent five-yearly reviews of OPEPs for Non-production Installations:** The new OPEPs for Non-production Installations would have to be reviewed on a five-yearly cycle that would have to be aligned with the safety case review cycle. At this juncture, it is assumed that it is unlikely that there would be a material change to force an early review, and that every OPEP for a Non-production Installation will be reviewed once during the period 2020 up to 2024. It is assumed for simplicity that these reviews would be spread evenly over this period, but in reality the timing of the creation/update of the Non-Production Installation OPEPs, described above, would result in a greater concentration of reviews in some years than others. However, it has not been possible to estimate the impact of this at this stage due to uncertainties around the alignment of the OPEP review cycle with the safety case review cycle and the impacts of decommissioning work.

277. DECC assumptions for reviewing and re-approving OPEPs for Non-production installations up to 2024,

Based on estimates from the staff who would carry out the work, the resource implications for DECC in reviewing / re-approving existing OPEPs are:

Environmental Specialist:

- Time review and re-approve one OPEP would be 0.5 days at a half-day rate of £219.68.
- 20 days required to review 40 Non-production Installation OPEPs; during the period up to 2024.

278. Total costs to DECC to be recovered from industry for assessing and re-approving OPEPs for Non-production installations from 2020 up to 2024 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach).

The **NPV of the total costs to be recovered from industry** for undertaking the review / approval of Non-production Installation OPEPs up to 2024 would be between £4.4 thousand and £5.4 thousand with a **best estimate of £4.9 thousand**.

279. **Well operations:** There is a requirement for the OPEP to be amended to take into account any additional risks identified for proposed well operations, prior to those operations commencing. For well operations involving Non-production Installations, the operator undertaking the well operations will be responsible for preparing an addendum to the owner's plan to cover specific well operations or groups of well operations. Similar addenda are already required for well operations undertaken from Production Installations. The addenda would be time-limited and would expire when the well operations were completed, so there would not be a regular review requirement. Based on well operations applications (drilling, intervention and abandonment) received by DECC in recent years, it is anticipated that 300 well operations addenda will be submitted each year from 2015 to 2024.

280. DECC assumptions for assessing / approving 'well operation' addenda (2015 to 2024).

Each year, 300 'well operations' addenda will be submitted to DECC for review.

Based on estimates from the staff who would carry out the work, the resource implications for DECC in assessing / approving the 'well operation' addenda are:

Environmental Inspector / Manager:

- Time required for assessing / approving one 'well operation' addendum would be 0.25 days at a quarter-day rate of £109.84.
- 75 days required to assess / approve 300 'well operations' addenda per year. Over 10 years this would equate to 750 days to deal with 3,000 addenda.

281. Total costs to DECC to be recovered from industry for assessing and approving 'well operation' addenda during the period 2015 to 2024 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach).

The **NPV of the total costs to be recovered from industry** for assessing / approving 'well operation' addenda from 2015 to 2024 would be between £255 thousand and £312 thousand with a **best estimate of £284 thousand**.

282. **Combined Operations:** Addenda to the Production Installation and Non-production Installation OPEPs will be required to cover all combined operations (e.g. well operations and accommodation requirements). The addenda would be time-limited and would expire when the operations were completed, so there would not be a regular review requirement. The addenda to the Production Installation OPEPs are a current requirement and the addenda to the Non-production Installation OPEPs would be broadly similar. Each year around 61 combined operations notifications are submitted to HSE, based on the last three years data. Not all of these will require an individual OPEP addendum as some OPEPs cover more than one combined operation. As such, based on combined operations addenda received by DECC in recent years, it is anticipated that 40 addenda for 'combined operations' (additional to the well operations addenda) will be submitted each year from 2015 to 2024.

283. DECC assumptions for assessing / approving 'combined operations' addenda during the period 2015 to 2024.

Each year, 40 'combined operations' addenda will be submitted to DECC.

Based on estimates from the staff who would carry out the work, the resource implications for DECC in assessing / approving the 'combined well operation' addenda are:

Environmental Inspector / Manager:

- Time required for assessing / approving one 'combined operations' addendum would be 0.25 days at a quarter-day rate of £109.84
- 10 days required to assess / approve 40 'combined operations' addenda per year. Over 10 years this would equate to 100 days to deal with 400 addenda.

284. Total costs to DECC to be recovered from industry for assessing and approving 'combined operations' addenda during the period 2015 to 2024 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach).

The **NPV of the total costs to be recovered from industry** for assessing / approving 'combined operations' addenda during the period 2015 to 2024 would be between £34 thousand and £41.6 thousand with a **best estimate of £37.8 thousand**.

9.4.1.4 Preparedness for the implementation of the plan and interaction with the external emergency response plan

285. Operators and owners are required to undertake OPEP exercises and to retain evidence of the exercises undertaken both onshore and offshore and to provide that evidence on request. Exercises are a current requirement and there are considered to be no additional administrative or financial burdens for the CA.

9.4.1.5 Powers of Inspectors to prohibit operations where no OPEP is in place, or where the plan is deemed insufficient or the requirements of the plan are not being met

286. Appointed Inspectors will be able to serve notices as and when deemed appropriate. Whilst there are already procedures in place that would prevent the issue of other approvals if there was no OPEP in place, or the OPEP was unacceptable, it is theoretically possible that DECC would use the new provisions to prohibit an activity if an offshore inspection confirmed that trained staff / equipment requirements referred to in an OPEP were not being met. However, in reality it is highly unlikely that this would happen and so this is estimated to impose **no cost on industry or the regulator**.

9.4.2 Provisions in new Regulations concerning Environmental Management Systems (EMS)

287. Workloads relating to the EMS provisions to meet the Directive requirements are summarised as follows:

- Extend EMS requirements to cover decommissioning activities.
- Review amended EMS for existing Production Installations from 2015 to 2018.
- New EMS for new Production Installations from 2015 to 2024.
- New EMS for Non-Production Installations (e.g. MODUs / Intervention Vessels) from 2015 to 2016.
- Review of EMS for all installations from 2020 to 2024.

288. The above requirements and associated costs will apply as outlined below.

9.4.1.3 Extending EMS requirement to decommissioning operations

289. There will be an obligation for operators to maintain an EMS to cover decommissioning operations. The operators will already hold an EMS, but the requirement for a management system to cover the decommissioning phase will have legal force under the new regulations and operators will have to amend the system to specifically address environmental issues relating to the decommissioning activities. The EMS will also require amendment to satisfy the requirements of the Directive.

290. As indicated in paragraph 253, it is anticipated that from 2015 approximately 15 installations per year will cease operations with 3 being removed within a year

of the cessation of operations and the remainder being subject to longer more complex decommissioning activities.

291. DECC assumptions for assessing / accepting decommissioning EMSs during 2015 to 2024:

From 2015 to 2024, DECC would need to review 150 EMSs pertaining to decommissioning operations.

Based on estimates from the staff who would carry out the work, the resource implications for DECC in assessing / accepting the decommissioning EMSs are:

Environmental Inspector / Manager:

- Time required for assessing / accepting one decommissioning EMS would be 1 day at a day rate of £439.35.
- 150 days required to assess / accept 150 decommissioning EMSs over the course of 2015 to 2024.

HEO

- Time required for assessing / accepting one decommissioning EMS would be 0.25 days at a quarter-day rate of £42.06.
- 37.5 days required to assess / accept 150 decommissioning EMSs; over the course of 2015 to 2024

292. Total costs to DECC to be recovered from industry for assessing and accepting the decommissioning EMSs from 2015 to 2024 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach).

The **NPV of the total costs to be recovered from industry** for undertaking the review and approval of 150 decommissioning EMSs during 2015 to 2024 would be between £55.9 thousand and £68.4 thousand with a **best estimate of £62.2 thousand**.

9.4.2.2 Amending EMSs for existing production installations

293. EMSs are operator-specific systems that cover all the offshore exploration and production operations undertaken by the operator. One EMS will therefore cover a range of fields and production installations. DECC will have to liaise with HSE to assign the relevant EMS to all the relevant installations and their Safety Cases.

294. There are presently 57 active offshore operators that have an accepted EMS, and most of those systems will have to be updated during the transition period up to 2018 to incorporate minor changes to meet the Directive requirements (e.g. to provide extra information on the potential environmental hazards of a major accident) as indicated, such updating exercises will have to be aligned with the safety case review timetable). In addition to the initial review, all production installation EMS will require a review on a five yearly cycle in line with the safety case review, which will occur once in the period 2018 to 2024 (see below).

295. DECC assumptions for assessing / accepting updated Production Installation EMSs during 2015 to 2018 (*transitional element*).

57 existing Production would be submitted for assessment / acceptance.

Based on estimates from the staff who would carry out the work, the resource implications for DECC in assessing / accepting the updated Production Installation EMSs are:

Environmental Inspector / Manager:

- Time required for assessing / accepting one updated Production Installation EMS would be 0.5 days at a half-day rate of £219.68.
- 28.5 days required to assess / accept 57 updated EMSs.

HEO

- Time required for assessing / accepting one updated EMS would be 0.25 days at a quarter-day rate of £42.06.
- 14.25 days required to assess / accept 57 updated EMSs.

296. Total costs to DECC to be recovered from industry for assessing / accepting updated Production Installation EMSs from 2016 to 2018 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach).

The **NPV of the total costs to be recovered from industry** for assessing / accepting updated Production Installation EMSs from 2016 to 2018 would be between £12.5 thousand and £15.3 thousand with a **best estimate of £13.9 thousand**.

9.4.2.3 EMSs for new production installations

297. There are currently around 5 to 6 new operators established during each biannual offshore licensing round, but they will only require an EMS prior to undertaking offshore operations. Nevertheless, DECC expects 2 new EMSs on average to be created each year from 2015 to 2024.

298. DECC assumptions for assessing / accepting EMSs for new Production Installation EMSs from 2015 to 2024.

Based on an average of 2 new EMSs for new Production Installations each year, 20 EMSs will be submitted during the period from 2015 to 2024.

Based on estimates from the staff who would carry out the work, the resource implications for DECC in assessing / accepting the new Production Installation EMSs are:

Environmental Inspector / Manager:

- Time required for assessing / accepting one new Production Installation EMS would be 1 day at a day rate of £439.35.

- 20 days required to assess / accept 20 new Production Installation EMSs.

HEO

- Time required for assessing / accepting one new Production Installation EMS would be 0.5 days at a half-day rate of £84.12.
- 10 days required to assess / accept 20 new Production Installation EMSs.

299. Total costs to DECC to be recovered from industry for assessing and accepting new Production Installations EMSs during 2015 to 2024 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach).

The **NPV of the total costs to be recovered from industry** for assessing / accepting new Production Installation EMSs from 2015 to 2024 would be between £8.1 thousand and £9.9 thousand with a **best estimate of £9 thousand**.

9.4.2.4 EMSs for non-production installations

300. All owners of non-production installations will be required to have an EMS that meets DECC's requirements. There are 40 non-production installations owned by 20 non-production companies, and each company will have to seek approval for a new EMS during the period 2015 to 2016.

301. DECC assumptions for assessing and accepting new EMSs for Non-production Installations between 2015 and 2016 (*Transitional element*).

There will be 20 new EMSs submitted for acceptance during the period 2015 to 2016.

Based on estimates from the staff who would carry out the work, the resource implications for DECC in assessing / accepting the new OPEPs are:

Environmental Inspector / Manager:

- Time required for assessing / accepting one new Non-production Installation EMS would be 1 day at a day rate of £439.35.
- 20 days required to assess / accept 20 new Non-production Installation EMSs during the period 2015 to 2016.

HEO

- Time required for assessing / accepting one new Non-production Installation EMS would be 0.5 days at a half-day rate of £84.12.
- 10 days required to assess / accept 20 new Non-production Installation EMSs during the period 2015 to 2016.

302. Costs to DECC to be recovered from industry for assessing and accepting new EMSs for Non-production installations during 2015 and 2016 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach).

The **NPV of the one-off transitional costs to be recovered from industry** for undertaking the assessment / acceptance of 20 new EMSs would be between £9.3 thousand and £11.3 thousand with a **best estimate of £10.3 thousand**.

9.4.2.5 Five-yearly review of EMSs for all installations

303. The EMS for all Installations will have to be reviewed on a five-yearly cycle that would have to be aligned with the safety case review cycle. At this juncture, it is assumed that it is unlikely that there would be a material change to force an early review, and that every EMS will be reviewed once during the period up to 2024. This would include the 57 production installation EMSs and 20 non-production installation EMSs. It is assumed for simplicity that these reviews would be spread evenly across the period 2020 to 2024. In reality the timing of the creation/update of EMSs, described above, would result in a greater concentration of reviews in some years than others. However, it has not been possible to estimate the impact of this at this stage due to uncertainties around the alignment of the EMS review cycle with the safety case review cycle and the impacts of decommissioning work.
304. Costs relating to the review of the Safety and Environmental Management System (SEMS) descriptions provided for individual installations are detailed in the CA cost assessments related to the HSE legislation.
305. DECC assumptions for five-yearly review of EMSs for all installations during period from 2020 to 2024.

There will be 77 EMSs submitted for review and acceptance up to 2024.

Based on estimates from the staff who would carry out the work, the resource implications for DECC in reviewing / approving the new OPEPs are:

Environmental Inspector / Manager:

- Time required for reviewing / re-approving one EMS would be 0.5 days at a half-day rate of £219.68.
- 38.5 days required to review / accept 77 EMSs during the period 2020 to 2024.

HEO

- Time required for reviewing / accepting one updated EMS would be 0.25 days at a quarter-day rate of £42.06.
- 19.25 days required to review / accept 77 EMSs during the period 2020 to 2024.

306. Costs to DECC to be recovered from industry for reviewing and accepting EMSs for Non-production installations up to 2024 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach).

The **NPV of the total costs to be recovered from industry** for undertaking the review / accepting of 77 EMSs up to 2024 would be between £14.3 thousand and £17.4 thousand with a **best estimate of £15.9 thousand**.

9.4.3 Financial liability arrangements

307. Based on the number of development wells drilled in recent years, expanding the scope of the financial responsibility provisions to wells other than exploration and appraisal wells will result in approximately 50 additional reviews per year.

308. DECC assumptions for undertaking financial reviews every year from 2015 to 2024.

Based on estimates from the staff who would carry out the work, the resource implications for DECC in undertaking 50 additional financial reviews every year are:

SEO:

- Time required for undertaking one financial assessment review would be 2 hours at a total cost of £56.48.
- 135 days required to review 500 financial assessments at a daily rate of £211.80 during the period 2015 to 2024.

HEO:

- Time required for undertaking one financial assessment review would be 2 hours at a total cost of £44.86.
- 135 days required to review 500 financial assessments at a daily rate of £168.23 during the period 2015 to 2024.

EO:

- Time required for undertaking one financial assessment review would be 3 hours at a total cost of £52.29.
- 203 days required to review 500 financial assessments at a daily rate of £129.00 during the period 2015 to 2024.

309. Costs to DECC to be recovered from industry for assessing and accepting 'combined operation' descriptions from 2016 to 2024 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach).

The **NPV of the total costs to be recovered from industry** for reviewing financial data from 2015 to 2024 would be between £59.5 thousand and £72.7 thousand with a **best estimate of £66.1 thousand**.

9.4.4 Changes to DECC Licensing Legislation to implement the Directive

310. DECC does not expect these changes to its licensing procedures to create any additional costs for the CA beyond those described elsewhere in this paper. All procedures required of the Licensing Authority are already in place for control of licence awards and licence transfers; operator approvals and disqualifications; and licence revocation. For example, when a licensee seeks consent to a change of operator, the licensee will have to submit relevant documentation detailed in the guidance, but the additional cost will fall on the CA (DECC Offshore Oil and Gas Environment and Decommissioning (OGED) and HSE Energy Division (ED)) and is described in Section 8.6
311. The efficient deployment of existing IT systems will ensure that the Licensing Authority will incur no additional cost in making that information available to the CA. Nor does DECC expect a significant increase in the number of cases. The Licensing Authority will also ensure that, in future, operatorship will survive the end of a licence, but that will not create a requirement for a new approval.

9.4.5 Financial and technical aspects

312. The CA would be required to advise the licensing authority on the technical and financial aspects of new licensees. This would be required on an annual basis for licence changes, of which around 50 are made each year, and during new licensing rounds, which occur on average every 2 years and would require consideration of around 250 licences. DECC already give such advice so this would impose no additional cost, but HSE have estimated that the additional resources required each year on average would be as follows:
- around 16 hours of HSE Band 1 Offshore Inspector time at an FEC of £129.45 per hour
 - around 32.5 hours of HSE Band 2 Offshore Inspector time at an FEC of £120.32 per hour
 - around 60 hours of HSE Band 3 Offshore Inspector time at an FEC of £108.34 per hour
313. Adding a range of +/- 10%, this gives an estimated annual average cost per annum of between around £11 thousand and £14 thousand, with a best estimate of around £12.5 thousand and would be recovered from industry. This would be borne from Year 1 of the appraisal period to Year 9.
314. This gives a **ten-year present value cost to be recovered from industry** of between around £85.5 thousand and £104.5 thousand, with a **best estimate of around £95 thousand**. This cost would be borne under all Options 2 to 5.

9.4.6 Summary of Costs for Assessments Related to DECC Legislation

315. Table 9 summarises the costs to be recovered from industry for assessments related to changes to DECC legislation.

Table 9: Estimated costs for assessments related to changes to DECC legislation

	Low	Best Estimate	High
OPEPs			
Decommissioning OPEPs	£51	£57	£62
Amendments to OPEPs for Production Installations	£48	£53	£59
Extending OPEPs to Non-Production Installations	£37	£41	£45
Well Operation OPEPs	£255	£284	£312
Combined Operations OPEPs	£34	£38	£42
OPEP Issuing Prohibition Notices	Nil	Nil	Nil
OPEP Exercises	Nil	Nil	Nil
EMSs			
Decommissioning EMSs	£56	£62	£68
Amendments to EMSs for Production Installations	£21	£23	£25
Extending EMSs to Non-Production Installations	£9	£10	£11
Five-Yearly Review of all EMSs	£14	£16	£17
Financial Liability Arrangements	£60	£66	£73
Financial and technical aspects	£85	£95	£104
Changes to DECC Licensing Legislation	Nil	Nil	Nil
Total (Options 2 to 5)	£670	£745	£819

Note: figures are ten-year present values. Totals may not sum due to rounding.

9.5 Costs to industry for complying with changes to HSE Legislation to implement the Directive

316. The costs to industry to comply with the new regulations have been estimated during two focus group meetings with industry representatives in Aberdeen in March and April 2014, as discussed in Section 6. The costs estimated by each company were based on the full economic cost of time of the workers involved and expectations about how long it would take to complete the work. However, when the group met to discuss the cost estimates, it was apparent that the different companies' time costs and length of time they expected the work to take were quite variable. As such, the focus group was not able to agree on a suitable duration and cost of time for each requirement; rather, they discussed their estimates and agreed a suitable total cost that reflected their expectations.

317. However, to illustrate the amount of work predicted by the group and to make it easier for the costs to be commented on during the consultation, the indicative hours spent have been generated using an average full economic cost of time for a Health, Safety and Environment Manager. This has come from *Hays Oil & Gas*

*Global Salary Survey 2013*²⁶ and is estimated at £71.67 per hour. This figure is broadly consistent with the costs of time given by the focus group.

9.5.1 Internal Emergency Response Plans

318. Under the regulations, owners or operators would be required to add additional environmental information to their emergency plan under the Offshore Installations (Prevention of Fire and Explosion, Emergency Response) Regulations 1995 (PFEER). Although the focus group agreed that they already supplied most of this information to the regulator, they estimated that the additional cost of time required to assemble this for the emergency plan per installation would be between around £1.4 thousand and £12 thousand, with a best estimate of around £6.6 thousand. This is the equivalent of between around 20 hours and 164 hours of a Health, Safety and Environment Manager, with a best estimate of around 92 hours.
319. In addition, owners or operators would be required to assemble an inventory of emergency response equipment. The focus group reported that many already had the required information in separate documents but the additional work would be collating all the information and adding new items if necessary. They estimated that this would cost between around £1.5 thousand and £8.6 thousand per installation, with a best estimate of around £5 thousand. This is the equivalent of between around 21 hours and 120 hours of a Health, Safety and Environment Manager, with a best estimate of around 70 hours.
320. Owners or operators would also be required to write a description of the IERP to be included in the safety case and well notification. The focus group estimated that the cost of time would be between around £1.3 thousand and £15.4 thousand per submission, with a best estimate of around £8.3 thousand. This is the equivalent of between around 18 hours and 215 hours of a Health, Safety and Environment Manager, with a best estimate of around 116 hours.
321. This gives a total one-off cost of compliance per installation of between around £4.2 thousand and £36 thousand, with a best estimate of around £20 thousand. This is the equivalent of between around 59 hours and 500 hours of a Health, Safety and Environment Manager, with a best estimate of around 279 hours. The focus group did note that this might provide an overestimate when scaled across the industry as companies with multiple installations may find it easier to complete the work as they did so across their fleet due to increased familiarity and economies of scale. However, the group was not able to agree a reasonable method to take account of this, so at this stage we will note it as a risk that the estimated cost across industry may be too high.
322. There would be a one-off cost of compliance for the 386 installations currently operating when they are required to become compliant by 2018, which is Year 3 of the appraisal period. For simplicity, this cost is assumed to be distributed equally across 2016, 2017 and 2018. This gives a **ten-year present value cost to industry** of between around £1.5 million and £12.4 million, with a **best estimate of around £6.9 million**. This cost would be borne under all Options 2 to 5.

²⁶ http://hays.clikpages.co.uk/Oil_and_Gas_Salary_Guide_2013/. Hays gives the average annual salary of a Manager Lead / Principal of Health, Safety and Environment as around £107,500 per annum. Multiplying by 1.3 to give the full economic cost, then dividing by 52 weeks per year and again by 37.5 hours per week gives an estimated hourly cost of £71.67.

323. In addition, there would be an ongoing cost for new installations to add additional information to IERPs, create inventories and descriptions. There are estimated to be around 15 new installations per annum. New installations must comply with the new regulations by 2016, so this ongoing cost would be borne from Year 1 of the appraisal period until Year 9.
324. The additional work for new installations to complete this work over and above what they would have to do under the existing requirements is not assumed to be different from the work for existing installations. This gives an annual average cost to industry of between around £63 thousand and £536 thousand, with a best estimate of around £300 thousand.
325. This gives a **ten-year present value cost to industry** of between around £483 thousand and £4.1 million, with a **best estimate of around £2.3 million**. This cost would be borne under all Options 2 to 5.
326. Lastly, the focus group were asked whether the additional components and criteria of the IERP would lead to an increase in the ongoing costs necessary to keep it up-to-date. The group felt that there would be a cost for some, but for others it would be absorbed into the existing running costs. They were not able to make a reasonable estimate of the proportion of installations that would incur any additional cost, so this analysis has assumed the proportion is between 25% and 75% with a best estimate of around 50% to test sensitivity. Further efforts will be made during consultation to refine this assumption for the final stage IA.
327. For those installations that would incur additional costs, the focus group estimated that this would cost between £5.2 thousand and £15.4 thousand per annum, with a best estimate of around £10.3 thousand. This is the equivalent of between around 73 hours and 215 hours of a Health, Safety and Environment Manager per annum, with a best estimate of around 144 hours and is assumed to be borne each year following the initial set up costs, above.
328. This cost would be borne by installations as they moved into scope. This would include all new installations from 2016 and existing installations as they became compliant from 2016 to 2018. Then from Year 4, all installations would bear this cost. Over the appraisal period, this gives a total estimated average annual cost of between around £419 thousand and £3.7 million, with a best estimate of around £1.7 million.
329. This gives a **ten-year present value cost to industry** of between around £3.1 million and £27.4 million, with a **best estimate of around £12.2 million**. This cost would be borne under all Options 2 to 5.

9.5.2 Independent verification

330. Under the regulations, owners or operators would be required to expand their independent verification schemes to incorporate new criteria and to include environmental-critical elements (ECEs) in addition to the safety-critical elements (SCEs). Although there was some disagreement in the focus group as to whether there would be any ECEs that are not already considered as SCEs, the focus group did agree that the average cost of time per installation to include new criteria would be between around £10 thousand and £30 thousand, with a best estimate of around £20 thousand. This is the equivalent of between around 140

hours and 420 hours of a Health, Safety and Environment Manager, with a best estimate of around 280 hours.

331. Owners or operators would also be required to provide a description of the extended scheme in the safety case. The focus group estimated that the cost of time would be between around £2.3 thousand and £2.8 thousand, with a best estimate of around £2.5 thousand. This is the equivalent of between around 31 hours and 38 hours of a Health, Safety and Environment Manager, with a best estimate of around 35 hours.
332. Lastly, the group estimated that the independent verifier would charge between around £10 thousand and £20 thousand to establish new criteria for the ECEs, with a best estimate of around £15 thousand.
333. This gives a total one-off cost of compliance per installation of between around £22.3 thousand and £52.8 thousand, with a best estimate of around £37.5 thousand.
334. There would be a one-off cost of compliance for the 386 installations currently operating when they are required to become compliant with the new regulations by 2018, which is Year 3 of the appraisal period. For simplicity, this cost is assumed to be distributed equally across 2016, 2017 and 2018. This gives a **ten-year present value cost to industry** of between around £8.0 million and £18.8 million, with a **best estimate of around £13.4 million**. This cost would be borne under all Options 2 to 5.
335. In addition, there would be an ongoing cost for new installations to add these provisions to their verification schemes. There are estimated to be around 15 new installations per annum. New installations must comply with the new regulations by 2016, so this ongoing cost would be borne from Year 1 of the appraisal period until Year 9.
336. The additional work for new installations to complete this work over and above what they would have to do under the existing requirements is not assumed to be different from the work for existing installations. This gives an annual average cost to industry of between around £334 thousand and £791 thousand, with a best estimate of around £563 thousand.
337. This gives a **ten-year present value cost to industry** of between around £2.5 million and £6.0 million, with a **best estimate of around £4.3 million**. This cost would be borne under all Options 2 to 5.
338. Lastly, the focus group were asked whether the additional components and criteria of the verification scheme would lead to an increase in the ongoing costs necessary to manage and keep it up-to-date. The focus group estimated that this would cost between around £0.5 thousand and £2 thousand per annum for each installation, with a best estimate of around £1.3 thousand. This is the equivalent of between around 7 hours and 28 hours of a Health, Safety and Environment Manager per annum, with a best estimate of around 17 hours and is assumed to be borne each year following the initial set up costs, above.
339. This cost would be borne by installations as they moved into scope. This would include all new installations from 2016 and existing installations as they became compliant from 2016 to 2018. Then from Year 4, all installations would bear this cost. Over the appraisal period, this gives a total estimated average

annual cost of between around £162 thousand and £648 thousand, with a best estimate of around £405 thousand.

340. This gives a **ten-year present value cost to industry** of between around £1.2 million and £4.8 million, with a **best estimate of around £3.0 million**. This cost would be borne under all Options 2 to 5.

9.5.3 Corporate Major Accident Prevention Policy (CMAPP)

341. Under the regulations, owners or operators would be required to prepare a Corporate Major Accident Prevention Policy (CMAPP) that meets the criteria set out in the Directive. The focus group agreed an average cost of time per installation to complete this and clear it through internal review procedures. HSE analysts have adjusted this figure to give an estimated average cost for each of the approximately 100 companies currently operating that will need to produce a CMAPP. This gives between around £38.6 thousand and £77.2 thousand per company, with a best estimate of around £57.9 thousand. This is the equivalent of between around 555 hours and 1,110 hours of a Health, Safety and Environment Manager, with a best estimate of around 833 hours.

342. There would be a one-off cost of compliance for the 100 companies and contractors currently operating when they are required to become compliant with the new regulations by 2018, which is Year 3 of the appraisal period. For simplicity, this cost is assumed to be distributed equally across 2016, 2017 and 2018. This gives a **ten-year present value cost to industry** of between around £3.6 million and £7.2 million, with a **best estimate of around £5.4 million**. This cost would be borne under all Options 2 to 5.

343. In addition, there would be an ongoing cost for new companies to prepare CMAPPs, which would be borne from Year 1 of the appraisal period until Year 9. DECC have estimated that between around 6 and 20 CMAPPs would be submitted to the CA each year as part of licensing processes, with a best estimate of around 13. The additional work for new companies to complete this is not assumed to be different from the work for existing companies. However, it is not clear at this stage how many of these CMAPPs would be produced by companies who had not produced one before (and so would bear the full cost described in paragraph [341349](#)) and how many might be companies that have produced one previously, and so would be expected to bear a lower cost. Further work will be undertaken to estimate this for the final stage IA, but this analysis acknowledges that this cost estimate may be an overestimate in this consultation stage IA. The annual average cost to industry is estimated at this stage to be between around £232 thousand and £1.5 million, with a best estimate of around £753 thousand.

344. This gives a **ten-year present value cost to industry** of between around £1.8 million and £11.7 million, with a **best estimate of around £5.7 million**. This cost would be borne under all Options 2 to 5.

345. Lastly, the focus group were asked what the additional effort would be to keep the CMAPP up-to-date. The focus group estimated that this would most likely take the form of an annual review and cost between around £1.3 thousand and £5.8 thousand per annum per installation, with a best estimate of around £3.6 thousand. This is the equivalent of between around 18 hours and 81 hours of a Health, Safety and Environment Manager per annum, with a best estimate of

around 50 hours and is assumed to be borne each year following the initial set up costs, above.

346. This cost would be borne by installations as they moved into scope. This would include all new installations from 2016 and existing installations as they became compliant from 2016 to 2018. Then from Year 4, all installations would bear this cost. Over the appraisal period, this gives a total estimated average annual cost of between around £421 thousand and £1.9 million, with a best estimate of around £1.1 million.
347. This gives a **ten-year present value cost to industry** of between around £3.1 million and £13.8 million, with a **best estimate of around £8.5 million**. This cost would be borne under all Options 2 to 5.

9.5.4 Safety and Environmental Management System

348. Under the regulations, owners or operators would be required to set out in a statement how their safety and environmental management systems work together and provide a description of these in the safety case and design notification. The focus group did not see a great deal of distinction between what they would have to produce to fulfil the requirement for the statement and for the description and reported that the amount of work needed to comply with these arrangements would depend on the current level of integration of the installations' existing management systems.
349. The group estimated that some installations would need only to add some additional information to the description of management systems they already have in place and that the rest would only need to create the statement explaining how the two integrate with the overall management system. However, the group was unable to make a reasonable estimate of the proportionate split of installations across these two activities. This analysis will assume that between 25% and 75% of installations would need to add to expand their description with a best estimate of 50%, and that the remainder (75% to 25% with a best estimate of 50%) would need to create a statement for the safety case. This is in order to test the cost estimate's sensitivity to this assumption, and it turns out to not be particularly sensitive, as explained in the next three paragraphs.
350. The focus group estimated that the cost required to extend the safety management description would be between around £1.3 thousand and £7 thousand, with a best estimate of around £4.2 thousand. This is the equivalent of between around 18 hours and 98 hours of a Health, Safety and Environment Manager, with a best estimate of around 58 hours.
351. The focus group also estimated that the cost required to create a statement for the safety case would be between around £1.3 thousand and £5 thousand, with a best estimate of around £3.2 thousand. This is the equivalent of between around 18 hours and 70 hours of a Health, Safety and Environment Manager, with a best estimate of around 44 hours.
352. There would be a one-off cost of compliance for the 386 installations currently operating when they are required to become compliant with the new regulations by 2018, which is Year 3 of the appraisal period. For simplicity, this cost is assumed to be distributed equally across 2016, 2017 and 2018. This gives a **ten-year present value cost to industry** of between around £468 thousand and

£2.3 million, with a **best estimate of around £1.3 million**. This cost would be borne under all Options 2 to 5.

353. In addition, there would be an ongoing cost for new installations to produce these descriptions and statements. There are estimated to be around 15 new installations per annum. New installations must comply with the new regulations by 2016, so this ongoing cost would be borne from Year 1 of the appraisal period until Year 9.

354. The additional work for new installations to complete this work over and above what they would have to do under the existing requirements is not assumed to be different from the work for existing installations. However, it must be noted that new installations would bear both costs above for producing the description and statement, rather than just one of them as the existing installations would. This gives an annual average cost to industry of between around £39 thousand and £180 thousand, with a best estimate of around £110 thousand.

355. This gives a **ten-year present value cost to industry** of between around £297 thousand and £1.4 million, with a **best estimate of around £833 thousand**. This cost would be borne under all Options 2 to 5.

9.5.5 Safety Case

356. Under the regulations, safety cases would be required to contain additional information as outlined in the Directive. This is in addition to the CMAPP and descriptions of the verification scheme, SEMS and IERP, the costs of which have already been calculated, above.

357. The focus group estimated that the cost of doing this could be substantial, including the time required for internal review and approval of the document. They estimated that this would cost between around £15 thousand and £45 thousand for a production installation safety case, with a best estimate of around £30 thousand. This is the equivalent of between around 209 hours and 628 hours of a Health, Safety and Environment Manager, with a best estimate of around 419 hours.

358. The focus group estimated that the cost for a non-production installation safety case would be between around £5 thousand and £15 thousand, with a best estimate of around £10 thousand. This is the equivalent of between around 70 hours and 209 hours of a Health, Safety and Environment Manager, with a best estimate of around 140 hours.

359. There would be a one-off cost of compliance for the 386 installations currently operating when they are required to become compliant with the new regulations by 2018, which is Year 3 of the appraisal period. For simplicity, this cost is assumed to be distributed equally across 2016, 2017 and 2018. Based on the current make-up of the sector, it is estimated that 66% of installations would be production installations and the remainder non-production. This gives a **ten-year present value cost to industry** of between around £4.2 million and £12.5 million, with a **best estimate of around £8.4 million**. This cost would be borne under all Options 2 to 5.

360. In addition, there would be an ongoing cost for new installations to produce and add information to their safety cases. There are estimated to be around 15 new installations per annum, of which 4 are expected to be production installation and 11 non-production, based on the last three year's data. New installations must comply with the new regulations by 2016, so this ongoing cost would be borne from Year 1 of the appraisal period until Year 9.
361. The additional work for new installations to add this to their safety cases over and above what they would have to do under the existing requirements is not assumed to be different from the work for existing installations. This gives an annual average cost to industry of between around £115 thousand and £345 thousand, with a best estimate of around £230 thousand.
362. This gives a **ten-year present value cost to industry** of between around £874 thousand and £2.6 million, with a **best estimate of around £1.7 million**. This cost would be borne under all Options 2 to 5.
363. Lastly, the focus group were asked what the additional effort would be to keep the safety case up to date in light of the additional information it would contain. The focus group discussed that this would be an addition to the ongoing review processes already in place and cost between around £2 thousand and £3 thousand per annum for each installation, with a best estimate of around £2.5 thousand. This is the equivalent of between around 28 hours and 42 hours of a Health, Safety and Environment Manager per annum, with a best estimate of around 35 hours and is assumed to be borne each year following the initial set up costs, above.
364. This cost would be borne by installations as they moved into scope. This would include all new installations from 2016 and existing installations as they became compliant from 2016 to 2018. Then from Year 4, all installations would bear this cost. Over the appraisal period, this gives a total estimated average annual cost of between around £648 thousand and £972 thousand, with a best estimate of around £810 thousand.
365. This gives a **ten-year present value cost to industry** of between around £4.8 million and £7.1 million, with a **best estimate of around £6.0 million**. This cost would be borne under all Options 2 to 5.

9.5.6 Design and Relocation Notifications

366. Under the regulations, additional environmental information would be required to be added to design notifications and to relocation notifications. This is in addition to the descriptions of the verification scheme and SEMS, which have been costed above.
367. The focus group estimated that the cost of time required to add the additional information to a design notification would be between around £2 thousand and £3 thousand, with a best estimate of around £2.5 thousand. This is the equivalent of between around 28 hours and 42 hours of a Health, Safety and Environment Manager, with a best estimate of around 35 hours.
368. For a relocation notification, the group estimated that the cost of adding information would be minimal as most of it was already present, and so agreed that this cost would be nil.

369. Each year, around 6 design notifications are submitted, based on the last three years' data. This gives an estimated annual cost to industry of between around £12 thousand and £18 thousand, with a best estimate of around £15 thousand. This cost would be borne from Year 1 of the appraisal period to Year 9.
370. This gives a **ten-year present value cost to industry** of between around £91 thousand and £137 thousand, with a **best estimate of around £114 thousand**. This cost would be borne under all Options 2 to 5.

9.5.7 Well Notifications

371. Under the new regulations, additional environmental information would be required to be added to well notifications and it would be made a requirement to have the independent competent person (ICP, or well examiner) to consider the notification or any material change to a well notification prior to submission.
372. The focus group estimated that the cost of time required to add the additional information to a well notification would be between around £2 thousand and £3 thousand, with a best estimate of around £2.5 thousand. This is the equivalent of between around 28 hours and 42 hours of a Health, Safety and Environment Manager, with a best estimate of around 35 hours.
373. Each year, around 550 well notifications are submitted, based on the last three years' data. This gives an estimated annual cost to industry of between around £1.1 million and £1.7 million, with a best estimate of around £1.4 million. This cost would be borne from Year 1 of the appraisal period to Year 9.
374. This gives a **ten-year present value cost to industry** of between around £8.4 million and £12.6 million, with a **best estimate of around £10.5 million**. This cost would be borne under all Options 2 to 5.
375. The focus group were not able to make an estimates of the costs (if any) of having the ICP consider well notifications and material changes to well notifications prior to submission. Generally, the members of the focus group did involve the ICP in preparing the notification or material change and got him or her to consider the supporting documentation and technical information that went into them. However, they did not always get the ICP to consider the actual notification itself.
376. As such, the focus group were unable to make a reasonable estimate as to what they would need to do to comply or how much it would cost to do so. Therefore, while no cost to business of having the ICP review these notifications have been estimated in this consultation stage IA, further work will be undertaken with industry during consultation to estimate any significant impacts of these requirements.

9.5.8 Combined Operations Notifications

377. Under the regulations, additional environmental information would be required to be added to combined operations notifications. The focus group estimated that most combined operations would not need any additional work to achieve compliance, but that perhaps 20% or so would. For those requiring additional information, the cost of time required to complete this would be between around

£4.5 thousand and £5.5 thousand, with a best estimate of around £5 thousand. This is the equivalent of between around 63 hours and 77 hours of a Health, Safety and Environment Manager, with a best estimate of around 70 hours.

378. Each year, around 61 combined operations notifications are submitted, based on the last three years' data. This gives an estimated annual cost to industry of between around £55 thousand and £67 thousand, with a best estimate of around £61 thousand. This cost would be borne from Year 1 of the appraisal period to Year 9.

379. This gives a **ten-year present value cost to industry** of between around £418 thousand and £510 thousand, with a **best estimate of around £464 thousand**. This cost would be borne under all Options 2 to 5.

9.5.9 Dismantling of a fixed production installation

380. Under the regulations, additional information would be required to be added to safety cases for installations being dismantled, but the focus group estimated that the cost of adding this additional information would be negligible as much of it is already included. As such, this is expected to impose **no cost on industry**.

9.5.10 Reporting imminent danger or increased risk of a major accident

381. Under the regulations, owners or operators would be required to report to the CA on instances of imminent danger or increased risk of a major accident or when a major accident had actually taken place. The focus group reported that making such a report on the rare instances that it might be required were negligible and agreed that this would impose **no cost on industry**.

9.5.11 Reporting major accidents outside the EU

382. Under the regulations, UK-registered companies would be required to report to the CA on major accidents outside the EU. The focus group reported that such events were very rare and that the effort required to make such a report were it necessary to do so would be negligible as the information would be readily to hand and already prepared for internal purposes. As such, they agreed that this would impose **no cost on industry**.

9.5.12 Safety Zones

383. Under the regulations, vessels would be able to request permission of the installation owner or operator to enter the installation's safety zone if necessary, whereas presently they may only request permission of the regulator. HSE analysts considered that this might yield a saving to business if there were any instances in which this might be applicable. However, the focus group agreed that they could not envisage any such circumstances and agreed that this would have **nil impact on industry**.

9.5.13 Collecting and Recording Data

384. Under the regulations, installations would be required to have in place technical measures to collect and record data. The focus group reported that these were already in place and that this would impose **no costs on industry**.

9.5.14 Enter and Leave Notifications

385. Under the Directive, notifications of entry into or departure from the UKCS would be required to be made slightly earlier than under the present regime. The focus group reported that they are already compliant with the new standard as so this would impose **no costs on industry**.

9.5.15 Promoting Change to Staff

386. During the first focus group with industry, the group reported that it would take considerable effort to publicise the changes to the regulations to their staff and to embed them into their procedures and practices. They described this as 'promoting change to staff' and it can be thought of as the process through which the offshore industry will familiarise with the changes.

387. The activities that the focus group described included making visits to installations, preparing and distributing promotional material, holding workshops and town hall-style meetings, updating websites and training. Several respondents said that they already had ongoing training programmes in place to maintain awareness of the existing regulations and that these additional activities would constitute a temporary expansion of this process.

388. The focus group agreed that the cost of this would be between around £20 thousand and £50 thousand per installation, with a best estimate of around £35 thousand. This is the equivalent of between around 279 hours and 698 hours of a Health, Safety and Environment Manager, with a best estimate of around 488 hours.

389. There would be a one-off cost of compliance for the 386 installations currently operating when they are required to become compliant with the new regulations by 2018, which is Year 3 of the appraisal period. For simplicity, this cost is assumed to be distributed equally across 2016, 2017 and 2018. This gives a **ten-year present value cost to industry** of between around £7.2 million and £18 million, with a **best estimate of around £12.6 million**. This cost would be borne under all Options 2 to 5.

9.5.16 Implementing Act on data reporting criteria and format

390. HSE understand from engagement with industry that the requirement to report under the Implementing Act would impose no additional costs as such reports would be routine and incorporated into existing processes for internal reporting, investigation and learning mechanisms. However, additional database and computer systems would be required to manage the new reports in a system parallel to RIDDOR. HSE estimate that approximately 30 owners or operators would need to do this and that each would bear costs similar to those estimated for HSE in paragraph 180. This gives an **estimated one-off cost to industry** of between around £2 million and £5 million, with a **best estimate of around £3.4 million**. This cost would be borne under all Options 2 to 5. We acknowledge that

this is a rough estimate and will undertake further work with industry during consultation to produce a more refined and robust estimate for the final stage IA.

9.5.17 Summary of costs to industry from changes to HSE legislation

391. Table 10 summarises the direct costs to industry from changes to HSE legislation.

Table 10: Summary of costs to industry from changes to HSE legislation (£thousands)

	Low	Best Estimate	High
Internal Emergency Response Plans	£5,028	£21,402	£43,816
Independent Verification	£11,751	£20,685	£29,619
Corporate Major Accident Prevention Policy	£8,464	£19,590	£32,773
Safety and Environmental Management Systems	£765	£2,149	£3,712
Safety Case	£9,822	£16,071	£22,320
Design and Relocation Notifications	£91	£114	£137
Well Notifications	£8,368	£10,461	£12,553
Combined Operations Notifications	£418	£464	£510
Promoting change to staff	£7,210	£12,617	£18,024
Databases for Reporting Act	£2,025	£3,375	£4,950
Dismantling a fixed installation	Nil	Nil	Nil
Reporting imminent danger or increased risk of a major accident	Nil	Nil	Nil
Reporting major accidents outside the EU	Nil	Nil	Nil
Safety Zones	Nil	Nil	Nil
Collecting and recording data	Nil	Nil	Nil
Enter and Leave Notifications	Nil	Nil	Nil
Total (Options 2 to 5)	£53,941	£106,927	£168,414

Note: figures are ten-year present values. Totals may not sum due to rounding.

9.6 Costs of Gold Plating of HSE Legislation

9.6.1 Definition of major accident

392. HSE proposes to retain the current definition of major accident as used in SCR 2005, which goes beyond that in the Directive, in order to keep within scope diving operations of fewer than five people. As this maintains the current standard, it will impose **no additional cost on industry or the regulator**.

393. To illustrate the implications of keeping these operations within scope, HSE have attempted to estimate the costs to industry and the regulator of keeping these operations in scope to aid decision-making on this issue. However, these

costs have been found to be very small, not least because diving operations of less than five people are rare.

394. The standards necessary to control diving risks are established in the Health and Safety at Work etc. Act 1974 and the Diving at Work Regulations 1997, which must be complied with irrespective of major hazard regulations. Therefore there would be no operational savings of removing these operations from scope.
395. It is only in the drafting of an installation's safety case that these diving operations may impose a cost, as consideration of their risks and how they will be managed must be recorded. However, the control measures on diving in the safety case would be quite generic and the content that deals with operations of less than five people specifically is estimated to be of minimal effort to produce and then keep up to date.
396. Therefore, we estimate that the costs of keeping diving operations of less than five people in scope of the major hazard regulations are minimal. However, they do ensure that the high risks of such operations are fully considered in the safety management of the installation.

9.6.2 Enter or leave notifications for non-production installations

397. HSE proposes to retain the current standard whereby both production and non-production installations are required to notify the regulator of their entry into or departure from UK territorial waters. The Directive only requires production installations to do this, but HSE believes that removing non-production installations from scope of this requirement would have a detrimental impact on safety standards in that it would not allow HSE to maintain safety standards and minimise the possibility of major accidents on NPIs, such as the Deepwater Horizon disaster in the Gulf of Mexico. As this maintains the current standard, it will impose **no additional cost on industry or the regulator**.
398. However, to illustrate the implications of keeping these installations within scope, indicative costs have been estimated to aid decision-making on this issue. It is estimated based on observed data that each year on average there are around 16 entry or leave notifications and that 14 are made by non-production installations. The Offshore Baseline Assessment estimated that the cost to industry of preparing and submitting such a notification is between around £350 and £860 in 2012 prices, with a best estimate of around £550. This gives an annual average cost to industry of between around £4.9 thousand and £12 thousand, with a best estimate of around £7.7 thousand. This would be borne from Year 1 of the appraisal period to Year 9 and would constitute a saving if this requirement were removed.
399. This gives an estimated present value over ten years of between around £37 thousand and £92 thousand, with a best estimate of around £59 thousand. However, as industry is already compliant with this measure, this is a baseline cost and no additional cost is imposed on industry.

9.7 Costs to industry for complying with changes to DECC Environmental Legislation to implement the Directive

9.7.1 Amendments to the OPRC Regulations

400. Workloads relating to changes to the OPRC Regulations to meet the Directive requirements for the 10 year assessment period are summarised below:

- New OPEPs for new Production Installation decommissioning operations from 2015 to 2024.
- Review OPEPs for existing Production Installations by 2018.
- New OPEPs for new Production Installations from 2015 to 2024.
- Review of new OPEPs for Production and Non-Production Installations five years after initial preparation during the period from 2015 to 2024 (one review for each OPEP).
- New OPEPs for existing Non-Production Installations, including MODUs / Intervention Vessels, from 2015 to 2016
- New OPEPs for new Non-Production Installations, including MODUs / Intervention Vessels, from 2015 to 2024
- New OPEP Addenda for well operations from 2015 to 2024.
- New OPEP Addenda for combined well operations from 2015 to 2024.

401. The requirements and associated costs relating to specific Directive obligations are outlined below.

9.7.1.1 Extend the OPEP requirements (as part of the Directive obligation to produce an IERP) to include the decommissioning of offshore installations

402. As explained in Section 9.4.1.1, each year, operators of installations scheduled for decommissioning would have to prepare and submit 15 OPEPs to DECC for review and approval, and so there would be 150 OPEPs submitted during the period 2015 to 2024.

403. Industry estimated at the focus group that the cost of preparing and submitting one decommissioning OPEP would be between £10,000 and £15,000 with best estimate of around £12,500. This is the equivalent of between around 140 hours and 209 hours of a Health, Safety and Environmental Manager with a best estimate of around 174 hours.

404. This gives a **ten year present value cost to industry** of between £1.3 million and £1.9 million with a **best estimate of £1.6 million**.

9.7.1.2 Amend the OPEP requirements for Production Installations (as part of the Directive's obligations to produce an IERP)

405. **Existing OPEPs for Production Installations:** As explained in paragraphs 256 to 258, operators would have to revise and submit a total of 92 existing Production Installation OPEPs for review / re-approval by 2018.

406. As discussed in paragraph 257, any ‘brought forward’ cost for reviewing these OPEPs earlier than scheduled has not been estimated at this stage, but attempts will be made to do so for the final stage IA.
407. Industry estimated at the focus group the cost of adding the additional Directive requirements e.g. the assessment of oil response effectiveness and inventories of oil spill response equipment as costing around £10,000 per OPEP.
408. This is equivalent to between around 126 to 153 hours (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach) with a best estimate of a Health, Safety and Environmental Manager with a best estimate of 140 hours.
409. The **NPV of the total costs to industry** for preparing and submitting existing Production Installation OPEPs by 2018 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach) are between £773 thousand and £945 thousand with a **best estimate of £859 thousand**.
410. **New OPEPs for new Production Installations:** Based on data collated by DECC and HSE on new developments over recent years, it is estimated that 4 new OPEPs will be required per year from 2015 to 2024 to cover new Production Installations. During the 10-year assessment period, DECC will therefore have to review and approve a total of 40 OPEPs for new Production Installations.
411. Industry estimated at the focus group that the additional time costs in relation to the Directive requirements e.g. the assessment of oil response effectiveness and inventories of oil spill response equipment would cost around £10,000 per OPEP.
412. This is equivalent to between around 126 to 153 hours (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach) with a best estimate of a Health, Safety and Environmental Manager with a best estimate of 140 hours.
413. The **NPV of the total costs to industry** for new Production Installation OPEPs by from 2015 to 2024 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach) are between £310 thousand and £379 thousand with a **best estimate of £344 thousand**.
414. **Subsequent five-yearly reviews of Production Installation OPEPs:** As explained in paragraphs 264 to 266, for the purpose of this Impact Assessment it is assumed that there would be one full five-yearly review cycle for 111 OPEPs during the period up to 2024 and that these reviews will be spread evenly over that period.
415. Discussion with industry at the focus group gave an estimate of £25,000 to produce an entirely new production OPEP, including all requirements (not just those of the Directive). Based on DECC’s experience of reviewing existing OPEPs we have made an assumption that the cost to industry of submitting an OPEP for 5 year review is approximately 10%, or £2500. This assumption will be tested with industry during the consultation period and adjusted in the final IA if required.
416. This is equivalent to between around 31 to 38 hours (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach) with a best

estimate of a Health, Safety and Environmental Manager with a best estimate of 35 hours.

417. The **NPV of the total costs to industry** for 5-yearly review of Production Installation OPEPs from 2020 to 2024 (calculated by deploying a low (-10%) / best estimate (medium) / high (+10%) approach) are between £197 thousand and £240 thousand with a **best estimate of £218 thousand**.

9.7.1.3 Extend the OPEP requirements (as part of the Directive obligation to produce an IERP) to the owners of Non-production offshore installations

418. Responsibility for the development and maintenance of an OPEP will be extended to the owners of non-production installations.

419. **New OPEPs for existing Non-production Installations:** There are currently 40 non-production installations operating in UK waters. The owners of these installations will be required to prepare OPEPs that will have to be submitted to DECC and approved within a year of the new regulations coming into force i.e. by July 2016. This will be new work directly related to implementation of the Directive.

420. Industry estimated at the focus group that the cost of preparing and submitting a non-production installation OPEP to DECC would be between £10,000 and £15,000 with best estimate of around £12,500. This may be an overestimate as industry was anticipating that an OPEP for a non-production installation would be done to the same requirements as that for a production installation. However, this is not the case as OPEPs for non-production installations will only be required to satisfy the requirements of the Directive. This will be further explored with industry during the consultation period to determine whether this will make any significant difference to the cost. This is the equivalent of between around 140 hours and 209 hours of a Health, Safety and Environmental Manager with a best estimate of around 174 hours.

421. This gives a **ten year present value cost to industry** of between around £393 thousand and £590 thousand with a **best estimate of £492 thousand**.

422. **New OPEPs for new Non-production Installations during the period 2015 to 2024:** Based on data collated by DECC and HSE on new non-production installations operating in the UKCS over recent years, it is estimated that 5 new OPEPs will be required per year from 2015 to 2024 to cover new non-production Installations. However, as non-production installations move around the UKCS, this figure might be overestimated and this will be further explored with industry during the consultation period. From 2015 to 2024, DECC will therefore have to review and approve a total of 50 OPEPs for new non-Production Installations.

423. As explained in paragraph 420, industry estimated that the cost of preparing and submitting a non-production installation OPEP to DECC would be between £10,000 and £15,000 with best estimate of around £12,500.

424. This gives a **ten year present value cost to industry** of between around £484 thousand and £592 thousand with a **best estimate of £538 thousand**.

425. **Subsequent five-yearly reviews of OPEPs for Non-production Installations:** As explained in paragraph 276, the 40 new OPEPs for Non-production Installations would have to be reviewed on a five-yearly cycle that

would have to be aligned with the safety case review cycle. At this juncture, it is assumed that it is unlikely that there would be a material change to force an early review, and that every OPEP for a Non-production Installation will be reviewed once during the period 2020 to 2024.

426. Discussion with industry gave an estimate of £10,000 to £15,000 to produce a new production OPEP from scratch including all requirements (not just those of the Directive). Based on DECC's experience of reviewing existing OPEPs we have made an assumption that the cost to industry of submitting a non-production installation OPEP for 5 year review is approximately 10%, or £1000 to £1500 with a best estimate of £1250. This assumption will be tested with industry during the consultation period and adjusted in the final IA is required.
427. This is the equivalent of between around 14 hours and 21 hours of a Health, Safety and Environmental Manager with a best estimate of around 17 hours.
428. This gives a **ten year present value cost to industry** of between around £22.5 thousand and £33.7 thousand with a **best estimate of £28.1 thousand**.
429. **Well operations:** As explained in paragraph 279, it is anticipated that 300 well operations addenda will be submitted each year from 2015 to 2024.
430. Industry estimated at the focus group that the cost of preparing and submitting a well operations OPEP addendum to DECC would be between £1,440 and £10,000 with best estimate of around £5,700. This is the equivalent of between around 20 hours and 140 hours of a Health, Safety and Environmental Manager with a best estimate of around 80 hours.
431. This gives a ten year present value cost to industry of between around £3.6 million and £25.8 million with a **best estimate of £14.7 million**.
432. **Combined Operations:** As explained in paragraph 282, based on combined operations addenda received by DECC in recent years, it is anticipated that 40 addenda for 'combined operations' (additional to the well operations addenda) will be submitted each year from 2015 to 2024.
433. Industry estimated at the focus group that the cost of preparing and submitting a combined operations OPEP addendum to DECC would be between £5,000 and £10,000 with best estimate of around £7,500. This is the equivalent of between around 70 hours and 140 hours of a Health, Safety and Environmental Manager with a best estimate of around 105 hours.
434. This gives a ten year present value cost to industry of between around £1.7 million and £3.4 million with a **best estimate of £2.6 million**.

9.7.1.5 Preparedness for the implementation of the plan and interaction with the external emergency response plan

435. Operators and owners are required to undertake OPEP exercises and to retain evidence of the exercises undertaken both onshore and offshore and to provide that evidence on request. Exercises are a current requirement and the cost implications for industry relating to retaining the evidence of exercises are considered to be negligible as most, if not all, operators do this already.

9.7.1.6 Powers of Inspectors to prohibit operations where no OPEP is in place, or where the plan is deemed insufficient or the requirements of the plan are not being met

436. The current OPRC regulations require that operators submit an OPEP prior to commencing operations. In line with the requirements of the Directive DECC proposes to require that the OPEP is approved as part of the IERP prior to the commencement of operations. DECC has never delayed or prohibited an oil and gas operation as a result of an operator not having an approved OPEP or one that does not meet the OPRC requirements, once approved. DECC does not envisage this changing as given the requirements of the Directive and the link between the IERP and the Safety Case it will be virtually impossible for any operator or owner to undertake operations without an approved OPEP. Therefore, DECC **does not anticipate any additional costs to industry** as this simply introduces a legal requirement to do what operators are already expected to do.

9.7.2 Provisions in new Regulations concerning Environmental Management Systems (EMS)

437. Workloads relating to the EMS provisions to meet the Directive requirements are summarised as follows:

- Extend EMS requirements to cover decommissioning activities.
- Review amended EMS for existing Production Installations from 2015 to 2018.
- New EMS for new Production Installations from 2015 to 2024.
- New EMS for Non-Production Installations (e.g. MODUs / Intervention Vessels) from 2015 to 2016.
- Review of EMS for all installations from 2020 to 2024.

438. The above requirements and associated costs will apply as outlined below.

9.7.2.1 Extending EMS requirement to decommissioning operations

439. As indicated in paragraph 253, it is anticipated that from 2015 approximately 15 installations per year will cease operations with 3 being removed within a year of the cessation of operations and the remainder being subject to longer more complex decommissioning activities.

440. Discussions with industry estimate that an existing EMS costs between £15,000 to £20,000 per installation to maintain/update. Based on DECC's experience of reviewing existing EMSs and the minor additional requirements for the EMS under the Directive we have assumed that the cost of such adjustments is 10%, or £1500 to £2000 with a best estimate of £1750. However, this assumption will be tested with industry during consultation and adjusted in the final IA, if required. This is the equivalent of between around 21 hours and 28

hours of a Health, Safety and Environmental Manager with a best estimate of around 24 hours.

441. This gives a **ten year present value cost to industry** of between around £194 thousand and £258 thousand with a **best estimate of £226 thousand**.

9.7.2.2 Amending EMSs for existing production installations

442. There are presently 57 active offshore operators that have an accepted EMS, and most of those systems will have to be updated during the transition period up to 2018 to incorporate minor changes to meet the Directive requirements (e.g. to provide extra information on the potential environmental hazards of a major accident) as indicated, such updating exercises will have to be aligned with the safety case review timetable). In addition to the initial review, all production installation EMS will require a review on a five yearly cycle in line with the safety case review, which will occur once in the period 2018 to 2024 (see below).

443. As explained in paragraph 440, the estimated cost to industry of making each amendment is £1500 to £2000 with a best estimate of £1750.

444. This gives a **ten year present value cost to industry** of between around £79.8 thousand and £106.5 thousand with a **best estimate of £93.2 thousand**.

9.7.2.3 EMSs for new production installations

445. There are currently around 5 to 6 new operators established during each biannual offshore licensing round, but they will only require an EMS prior to undertaking offshore operations. Nevertheless, DECC expects 2 new EMSs on average to be created each year from 2015 to 2024.

446. Discussions with industry identified that an existing EMS costs between £15,000 to £20,000 per installation to maintain/update. Based on DECC's experience of reviewing existing EMSs and the minor additional requirements for the EMS under the Directive we have assumed that the cost of such adjustments is 10% - £1500 to £2000 with a best estimate of £1750. However, this assumption will be tested with industry during consultation and adjusted in the final IA, if required.

447. This is the equivalent of between around 21 hours and 28 hours of a Health, Safety and Environmental Manager with a best estimate of around 24 hours.

448. This gives a **ten-year present value cost to industry** of between around £25.8 thousand and £34.4 thousand with a **best estimate of £30.1 thousand**.

9.7.2.4 EMSs for non-production installations

449. All owners of non-production installations will be required to have an EMS that meets the Directive requirements. There are 40 non-production installations owned by 20 non-production companies, and each company will have to seek approval for a new EMS during the period 2015 to 2016. The focus group and

further industry discussions confirmed that the vast majority of non-production installation owners already have an existing EMS.

450. Discussions with industry estimated that an existing EMS costs between £15,000 to £20,000 per installation to maintain/update. Based on DECC's experience of reviewing existing EMSs and the minor additional requirements for the EMS under the Directive we have assumed that the cost of such adjustments is 10% - £1500 to £2000 with a best estimate of £1750. However, this assumption will be tested with industry during consultation and adjusted in the final IA, if required.
451. This is the equivalent of between around 21 hours and 28 hours of a Health, Safety and Environmental Manager with a best estimate of around 24 hours.
452. This gives a ten year present value cost to industry of between around £29.5 thousand and £39.3 thousand with a **best estimate of £34.4 thousand**.
453. In addition the focus group and further industry discussions confirmed that although the vast majority of non-production installation owners already have an existing EMS, it is estimated that a maximum of 1-2 do not. The focus group estimated a £150,000 one-off cost to create an EMS resulting in a cost to industry occurring in 2016 of between £150,000 to £300,000 with a best estimate of £225,000. This may be an overestimate as industry were anticipating that an owner's EMS would need to satisfy the same requirements as those submitted by operators. However, this is not the case as the EMS submitted by owners of non-production installations will only be required to satisfy the EMS requirements of the Directive. This will be further explored with industry during the consultation period in order to refine the cost estimate. Based on current information, this is the equivalent of between 2,093 hours and 4,186 hours of a Health, Safety and Environmental Manager with a best estimate of 3,139 hours.
454. This gives a ten year present value cost to industry of between around £145 thousand and £290 thousand with a **best estimate of £217 thousand**.

9.7.2.5 Five-yearly review of EMSs for all installations

455. As explained in paragraph 303, it is assumed for simplicity that the review of the 77 EMSs would be spread evenly across the period 2020 to 2024. Costs to the CA relating to the review of the Safety and Environmental Management System (SEMS) descriptions provided by individual installations in the safety case are detailed in Section 9.3.4.
456. Discussions with industry estimated that an existing EMS costs between £15,000 per installation to review. Based on those discussion and DECC's experience of reviewing existing EMSs we have assumed that the cost of such adjustments is 25% and 33%, or £,3750 to £5,000 with a best estimate of £4,375. However, this assumption will be tested with industry during consultation and adjusted in the final IA, if required.
457. This is the equivalent of between around 52 hours and 70 hours of a Health, Safety and Environmental Manager with a best estimate of around 61 hours.

458. This gives a ten year present value cost to industry of between around £227 thousand and £303 thousand with a **best estimate of £265 thousand**.

9.7.3 Financial Liability Arrangements

459. Based on the number of development wells drilled in recent years, expanding the scope of the financial responsibility provisions to wells other than exploration and appraisal wells will result in approximately 50 additional reviews per year.

460. The industry focus group estimated that the provision of evidence of financial liability would cost between £1,300 and £8,000 with a best estimate of £4,650.

461. This is the equivalent of between around 18 hours and 112 hours of a Health, Safety and Environmental Manager with a best estimate of around 65 hours.

462. This gives a **ten year present value cost to industry** of between around £559 thousand and £3.4 million with a **best estimate of £2 million**.

9.7.4 Summary of Costs to Industry for Complying with Changes to DECC Legislation

463. Table 11 summarises costs to industry from complying with changes to DECC legislation to implement the Directive.

Table 11: Estimated costs to industry from changes to DECC legislation

	Low	Best Estimate	High
OPEPs			
Decommissioning OPEPs	£1,291	£1,614	£1,937
Amendments to OPEPs for Production Installations	£1,280	£1,422	£1,564
Extending OPEPs to Non-Production Installations	£900	£1,058	£1,215
Well Operation OPEPs	£3,615	£14,719	£25,823
Combined Operations OPEPs	£1,722	£2,582	£3,443
Prohibition Notices	Nil	Nil	Nil
OPEP Exercises	Nil	Nil	Nil
EMSs			
Decommissioning EMSs	£194	£226	£258
Amendments to EMSs for Production Installations	£106	£123	£141
Extending EMSs to Non-Production Installations	£174	£252	£329
Five-Yearly Review of all EMSs	£227	£265	£303
Financial Liability Arrangements	£559	£2,001	£3,443
Total (Options 2 to 5)	£10,068	£24,262	£38,457

Note: figures are ten-year present values. Totals may not sum due to rounding.

9.8 Costs to industry for complying with changes to DECC Licensing Legislation to Implement the Directive

464. The Directive requires the Licensing Authority to take into account at licence award and assignment the potential licensee's capability to meet the requirements of the Directive. It also sets out procedures for the appointment and disqualification of operators. However, all these checks and procedures are already in place. The Directive also requires Member States to impose a new duty on licensees to ensure that the operator has the capacity to meet its obligations and that it actually does so. However, this will only constitute a legal duty to do what DECC understands every licensee to be doing already. As a result, DECC consider that only minor administrative changes will be required to satisfy the Directive requirement and will **not create any additional costs to industry**.

9.9 Costs for Maintaining Existing Standards and Gold Plating of DECC Legislation

9.9.1 Oil Pollution Emergency Plans and Environmental Management Systems

465. As detailed in Sections 8.7.1 and 8.7.2, there are two areas where DECC maintains a current standard under the Directive Implementation. In relation to operators of production installations, DECC intends to retain the current requirements for environmental management systems and oil pollution emergency plans to ensure that existing standards are maintained and that the UK can continue to satisfy the requirements of the international conventions detailed in these sections. As these requirements are covered by international conventions, they are not classified as gold plating.²⁷ As industry is already adhering to these requirements, there will be **no additional costs imposed on the industry**.

9.9.2 Licensing Provisions

466. The existing Model Clauses within each licence provide that a licensee may not allow an operator to act as such without the prior approval of the Secretary of State. The Directive requires the Licensee to submit a prior notification to the Licensing Authority before appointing an operator, and the Licensing Authority should then have to the power to object. In practice, these are essentially the same process, except that the Directive's process would be less robust because it allows for effective approval by oversight or error; and being less robust it would support the Directive's objectives less well. Furthermore, since the existing procedure is set out in the Model Clauses in each licence, DECC could not implement it without amending all existing licences, with or without the licensees' agreement. As a result, where licences already implement the need for positive approval, DECC intends to leave those provisions in place. The difference between approval and notification will not create a difference in the information that licensees must submit to the Licensing Authority, nor will it affect the licensee's contractual arrangements, nor will it make any difference to the essential decision that the Licensing Authority and CA must make. The retention of an approval system will therefore impose **no additional cost on industry, the Licensing Authority or the CA**.

9.10 Costs to industry for complying with legislation to implement Article 38

467. The Environmental Liability Directive (ELD) only requires action where a business or other operator has caused – or is imminently about to cause - significant environmental damage. Evidence to date suggests this happens very rarely. In the five years since the law came into force between 2009 and 2014, there have been only three cases of water damage on land or in coastal waters in the UK. Across the EU from 2007 to 2014 there have been 389 cases of water

²⁷ In accordance with the Better Regulation Framework Manual 1.9.8.iii

damage²⁸. By comparison there are likely to be fewer applicable cases on average in the area between 1 and 200 nautical miles (as evidenced in the original ELD impact assessment) because of reduced levels of economic activity and owing to increased difficulty to monitor, detect and enforce offshore damage. This assessment is strengthened by the fact that no cases of damage to species and habitats in the marine environment have yet fallen under the ELD in any country in the EU. This suggests that damage to water beyond 1 or 3 nautical miles might happen once in ten years or less across the UK.

468. If and where such damage does arise, there are likely to be costs under existing arrangements to address the damage, depending on the nature of damage caused. Analysis undertaken for the original ELD Impact Assessment (IA) suggested that opportunities to directly restore damage will be limited in the marine environment and that the measures required will therefore largely be to compensate for the damage. There may be limited opportunities to take such measures in the marine environment so these may sometimes be taken on land. The compensatory measures for one case of water damage on land are estimated to have cost less than £200k (from the damage assessment for the case). The costs of cases across the EU range from £2440 to £2.07 million (for all types of cases, not just water damage) although this is likely to include some costs that would have been incurred irrespective of the ELD.
469. The main costs are therefore likely to relate to paying for environmental improvements.
470. Work from the original IA suggests the following activities have the potential to cause damage in the marine environment: fisheries, shipping, activities releasing contaminants on land, contaminants from the oil and gas industries, mariculture, litter, disturbance, engineering operations and dredging and dumping. But that damage would have to be very significant to trigger action under the ELD.
471. Further investigation and discussion with stakeholders will be carried out by Defra during the consultation to consider:
- the likelihood of potential damage caused by different activities affecting environmental status as defined under the MSFD;
 - the potential for “catastrophic” cases of damage with much larger costs;
 - whether the actions to pay for environmental improvements to compensate for offshore water damage are likely to be within the range presented;
 - the scale of benefits from the improvement works required;
 - whether businesses and other operators will need to take time to familiarise themselves with the changes; and
 - whether businesses or operators will take anticipatory action to reduce their liabilities.

²⁸ This figure masks a wide variation reported by Member States, three of which accounted for 80% of the incidents. The very great majority reported fewer than a dozen, with 14 reporting zero or one case.

9.11 Costs to industry for complying with changes to update additional HSE legislation

9.11.1 Updating the definition of offshore installation in MAR

472. As discussed in paragraphs 139 to 141, the proposed changes would bring clarity and consistency across offshore regulations and make sure health and safety standards are maintained when high-risk decommissioning and dismantling activities occur. There are no procedural changes and so **no additional costs to industry or the regulator**.

9.11.2 Identifying a duty holder when there is no licensee

473. As discussed in paragraphs 142 to 144, these proposals will ensure that an operator can be identified for well abandonment and decommissioning operations when a licensee is not in place to appoint an operator. Industry is currently complying voluntarily so there are **no additional costs to industry or the regulator** associated with these amendments.

9.11.3 Underground Coal Gasification (UCG)

474. HSE is aware of only two onshore UCG projects expected to begin within the next ten years and no offshore ones. The onshore projects are expected to start up in the next 3 to 5 years. The costs associated with bringing them into scope have been estimated as part of the Onshore Baseline Assessment project, which produced an estimate of the annual cost for an onshore operator to be within scope of BSOR and DCR. This was estimated to be around £38.2 thousand per annum in 2012 prices. Adding a range of +/- 10% gives between around £34.4 thousand and £42.1 thousand.
475. Assuming that both operations will start up in four years' time, this gives a total cost to industry of between around £69 thousand and £84 thousand, with a best estimate of around £76 thousand to be borne from Year 4 to Year 9 of the appraisal period.
476. This gives a **present value over ten years** of between around £331 thousand and £404 thousand, with a **best estimate of around £368 thousand**. However, this will not be in scope of One In, Two Out (OITO) as it is covered by Directive 92/91/EEC as explained in paragraph 146.

9.11.4 Onshore Combustible Gas Storage and Recovery

477. HSE estimate that bringing hydrocarbon storage into scope of the major hazard regulations will bring approximately two onshore sites, with up to 24 wells, into scope. These new sites will be operated by companies already compliant voluntarily. We expect they will continue to comply voluntarily with these new sites, and so there is not expected to be any additional cost above what would occur in the baseline.
478. However, to give an indicative cost, as discussed in paragraph 474, the annual cost of a site being in scope of the onshore regulations are estimated to be between around £34.4 thousand and £42.1 thousand, with a best estimate of around £38.2 thousand.

479. This gives a total annual cost for the two sites of between around £69 thousand and £84 thousand, with a best estimate of around £76 thousand. These sites are already operational and so these costs would start to be borne from the start of the appraisal period.

480. This gives an estimated present value over ten years of between about £593 thousand and £724 thousand, with a best estimate of around £658 thousand. However, as we expect these sites to be compliant anyway, this is not an additional cost.

9.11.5 Reporting well dangerous occurrences

481. As well as becoming compliant with BSOR and DCR, UCG and hydrocarbon storage sites would also be required to comply with RIDDOR reporting of Dangerous Occurrences with respect to wells. HSE estimate that currently around 43 such reports are made per annum and that the inclusion of the four sites described above might result in only another one or two reports over the ten year appraisal period. HSE estimate that each report takes between 1 and 4 hours to complete and that this is done by a Health, Environmental and Safety manager at an FEC of around £71.67.

482. As such, any additional cost is expected to be minimal. Furthermore, were these reports produced by hydrocarbon storage sites that are expected to be compliant voluntarily, they would pose no additional cost; and were they produced by UCG sites, the cost would be in scope of Directive 92/91 and so be out of scope of OITO.

483. Therefore, this analysis estimates that there would be **no or negligible costs to industry or the regulator** of these proposed measures.

9.11.6 Further reducing the stock of offshore regulations

484. In total HSE expects to reduce the stock of offshore regulations by three, as discussed in Section 8.9.2. This may result in a small amount of work for industry to familiarise with the changes, but this is estimated to be lost in familiarises with the wider changes to the regulations under the Directive. As the requirements on industry will remain unchanged, there are expected to be **no costs or savings to industry or the regulator**.

9.12 Benefits

9.12.1 Major accidents relating to offshore oil and gas operations

485. The intention of the Directive is to reduce the likelihood of major accidents relating to offshore oil and gas operations and to limit their consequences. This should collectively provide further protection for the safety of offshore workers and limit potential damage to infrastructure, increase the protection of the marine environment and coastal economies against pollution and mitigate the consequences of major environmental accidents.

486. In the event of an incident, the measures in the Directive further strengthen the response mechanisms that are currently in place and ensure that there are funds available to cover first party costs (well control) and third party costs (caused by pollution damage). In addition, the extension to the Environmental Liability Directive will ensure water damage is covered in all marine waters within the scope of the Marine Strategy Framework Directive.
487. Major accidents offshore are rare, but when they do happen they are likely to have devastating and irreversible consequences:
488. “The Deepwater Horizon disaster (Gulf of Mexico 2010) demonstrated how huge and far-reaching the consequences of a single accident can be, particularly as regards to maritime and coastal pollution. Eleven people lost their lives, an estimated 4.9 million barrels (660,000 tonnes) of oil were spilled into the sea and a state-of-the-art drilling rig, valued at US \$560 million was written off as a total loss of the disaster²⁹ The oil spill occasioned a response effort involving 48,000 people, 6,500 vessels and 125 aircraft at it’s peak.³⁰
489. More recently, in UK waters in 2012, a major gas release occurred on the Total E&P UL Ltd Elgin Offshore Wellhead platform. Personnel on the platform and an adjacent drilling rig were evacuated without injury but HSE declared the gas release a Major Incident. It took 51 days to successfully “kill” the well³¹ and Total estimated that the closures cost around £1.4 billion in lost revenues, as well as £250 million in costs dealing with the incident.
490. Taking the measures outlined in this Impact Assessment to further mitigate the risk of an offshore major accident will also help to maintain public and investor confidence in the UK’s offshore oil and gas industry. The indirect impacts of offshore major accidents, the effects on oil prices (and the knock-on effect on other goods and services) and the security of energy supply, for example can all have a significant effect on the health of the UK’s economy. Major accidents can also have big impacts on the reputation of a company and affect share prices. BP reported that following the Deepwater Horizon incident, its shares lost more than half their value and in order to pay the related costs (clean up costs, claims from affected businesses/individuals, penalties etc) the company suspended dividend payments and needed to set up a \$30 billion asset divestment programme.³²
491. It is not possible to estimate the reduction in risk or frequency of major accidents brought about by the Directive and so estimate costs as these are rare events and the baseline risk is not possible to estimate. However, the costs described above should serve to illustrate the magnitude of possible savings if the measures only serve to reduce risk by a small amount.

9.12.2 Increased oversight of the CA

492. The joint CA is expected to further strengthen the existing robust regimes for environmental and safety major accident regulation in the UK by providing greater oversight and assessing the risks holistically. The risk of a major accident

²⁹ Figures from Transocean Ltd reported in the EC Impact Assessment for the ‘Proposal for a regulations of the European Parliament and of the Council’ Brussels, 27.10.2011

³⁰ BP sustainability Review, 2010, cited in the EC Impact Assessment (As above)

³¹ A ‘well kill’ involves stopping a bore hole with heavy fluids to prevent further release.

³² EC Impact Assessment (as above)

is already well controlled by the existing regimes operated by HSE and DECC. It is not possible to estimate any reduction in the risk of a major accident from the operation of the joint CA. However it is anticipated to be very small given the mature and robust nature of the UK's present regulatory structure. As such, this benefit is expected to be minimal and not possible to quantify.

9.12.3 Single point of contact

493. The joint CA and implementation of a single online portal would allow owners and operators to submit health, safety and environmental information to the regulator at a single point of contact and avoid duplication. The online portal would also collect information on the regulations and guidance for owners and operators in one place, rather than having it hosted on separate websites. This might deliver some savings to business in the administrative burdens of seeking out and submitting information to the regulator. However, this is expected to be small and has not been quantified.

9.12.4 Joint inspection visits

494. It is anticipated that the joint HSE-DECC CA may deliver savings to industry through joint visits by HSE and DECC inspectors. This may deliver a saving to industry in terms of the time spent preparing for the visit and escorting the inspectors, whether an onshore office visit or an offshore installation visit. However, it would not deliver savings in terms of the cost of transporting inspectors or providing accommodation nor in any costs recovered for inspector time.

495. The industry focus group were able to estimate the cost of their time spent managing these visits based on past experience. They estimated that for one onshore inspection visit the total cost of time was between around £15 thousand and £20 thousand, with a best estimate of around £17.5 thousand. This is the equivalent of between around 209 hours and 279 hours of a Health, Safety and Environment Manager, with a best estimate of around 244 hours.

496. They also estimated that for one offshore inspection visit the total cost of time was between around £25 thousand and £35 thousand, with a best estimate of around £30 thousand. This is the equivalent of between around 349 hours and 488 hours of a Health, Safety and Environment Manager, with a best estimate of around 419 hours.

497. However, it is not certain at this stage what number of such inspection visits that might be saved by the CA, if any. Further work will be undertaken with the joint working group to estimate this if possible as the arrangements for the CA develop and any quantifiable savings will be included in the final stage IA.

9.12.5 Underground Coal Gasification & Onshore Combustible Gas Storage and Recovery

498. The extension of the onshore regulations to cover underground coal gasification (UCG) and combustible gas storage and recovery is viewed by HSE as necessary to regulate risks to employees and members of the public in a robust and proportionate manner. In this way, HSE expects that this will reduce

the risk of injury, fatality and major accident over the ten-year appraisal period. However, this reduction cannot be quantified.

499. In addition, where the application of the well-established onshore regulations to these emerging sectors provides a greater assurance of reduced health and safety operating risks, this will build public and investor confidence in these emerging sectors. This will create an environment where these emerging energy technologies are more likely to develop further (e.g. into a production stage for UCG) and so add further benefits (e.g. tax revenue) to the UK economic longer-term.

9.13 Summary of Costs and Benefits

500. Table 12 summarises all quantified costs and benefits to industry and Government.

Table 12: Summarised quantified costs and benefits of all options (£thousands)

	Low	Best Estimate	High
Costs to Industry			
Setting Up the Competent Authority			
Option 2	£1,044	£1,206	£1,376
Option 3	£1,044	£1,206	£1,376
Option 4	£1,044	£1,206	£1,376
Option 5	£1,185	£2,425	£3,674
Operating the Competent Authority			
Option 2	£1,035	£1,186	£1,336
Option 3	£1,341	£1,525	£1,710
Option 4	£502	£593	£685
Option 5	£502	£593	£685
Other Costs (All Options)			
CA Assessments Related to HSE Legislation	£7,408	£8,300	£9,207
CA Assessments Related to DECC Legislation	£670	£745	£819
Costs of Complying with Changes to HSE Legislation	£53,941	£106,927	£168,414
Costs of Complying with DECC Environmental Legislation	£10,068	£24,262	£38,457
Costs of Complying with Legislation to Implement Article 38	Unquantified	Unquantified	Unquantified
Costs of Complying with Changes to Additional HSE Legislation	£331	£368	£404
Costs of Gold Plating of HSE Legislation	Nil	Nil	Nil
Costs of Gold Plating of DECC Legislation	Nil	Nil	Nil
Costs of Complying with DECC Licensing Legislation	Nil	Nil	Nil
Costs to Government			
Unrecovered costs of moving staff in Option 4	£556	£617	£679
Benefits			
All Options 2 to 5	Unquantified	Unquantified	Unquantified
Net Totals			
Option 2	£74,498	£142,994	£220,013
Option 3	£74,804	£143,334	£220,387
Option 4	£74,520	£143,019	£220,041
Option 5	£74,105	£143,621	£221,660

Note: figures are ten-year present values. Totals may not sum due to rounding. *Totals for Options 4 and 5 omit management costs, which have not been estimated in this consultation stage IA

501. In addition, some impacts have yet to be quantified in this consultation stage impact assessment and some assumptions require estimation or further refinement. Further work will be undertaken during consultation to estimate the

likely impact of these. Each of these cost components is discussed above in the relevant section of the IA, but they are collected in Table 13 below for reference.

Table 13: Summary of areas requiring further research for final stage IA

Measure or area	Likely scale of change in cost or saving	Further work to be undertaken
Model of installations over time requires further refinement (see paragraphs 53 to 56)	This consultation stage IA has taken a pragmatic approach in forecasting the number of installations in scope in light of expected changes in decommissioning rates. Refinement of this model may lead to either an increase or decrease in costs to industry depending on whether the decommissioning rates were higher or lower than currently assumed.	Further work will be undertaken with DECC's Decommissioning Unit to produce robust and defensible estimates during consultation.
Competent Authority set-up costs under Option 5 (see paragraphs 170 to 174)	This has been estimated using rough proxies for this consultation-stage IA. Revision may lead to either an increase or decrease in costs recovered from industry.	Further work will be undertaken with the Competent Authority joint working group to assess these costs as their plans develop during consultation.
Competent Authority management costs under Options 4 and 5 (see paragraphs 189 to 190)	This was not able to be estimated in this consultation stage IA. It is expected to be a large ongoing cost to be recovered from industry as the management costs under Option 2 and 3 are estimated to be substantial.	Further work will be undertaken with the Competent Authority joint working group to assess these costs as their plans develop during consultation.
Cost of reporting systems for industry and Government (see paragraphs 180 and 390398)	For the implementing Act on data reporting criteria and format, this consultation stage IA has estimated the cost of updating reporting systems quite roughly. Revision may lead to either an increase or decrease in costs recovered from industry.	Further work will be undertaken with HSE's IT service providers as their plans develop to deliver the systems and evidence will be sought from industry during consultation.
Number of 'brought forward' OPEP reviews (see paragraphs 257 and	The number of OPEP reviews expected to take place earlier than they would otherwise has not	Further work will be undertaken during consultation as part of the modelling of installation

406)	been estimated at this stage. Estimation of this is expected to result in a small additional cost to be recovered from industry.	numbers over time (see above) to estimate this impact for the final stage IA.
Proportion of installations needing to take greater action to maintain IERP (see paragraph 326334)	The focus group estimated that only some fraction of installations would need to take additional action to keep the IERP up to date, but could not estimate what this fraction might be. This consultation-stage IA has used a range of percentages to test for sensitivity and revision may lead to either a slight increase or slight decrease in costs to industry.	Further evidence will be sought from industry during consultation.
Independent Competent Person to consider well notification and material changes to well notifications (see paragraphs 375383 to 376384)	This was not able to be estimated in this consultation stage IA. It is expected to be a small ongoing cost to industry as in some cases procedures are already informally in place.	Further information will be gathered through consultation as to the expected scale of this cost. If it is proportionate, further evidence will be gathered from industry to estimate costs.
Number of new CMAPPs to be prepared each year by owners/operators (see paragraph 343351)	It is estimated that the numbers used in this consultation stage IA represent a maximum figure and probably include a degree of double-counting. Revision would therefore likely lead to slightly reduced ongoing costs to industry.	Further work will be undertaken as part of the modelling of installations over time (see above) to identify and eliminate double-counting.
Costs to industry of changes in legislation to implement Article 38 (see paragraphs 467 to 471)	The costs of compliance with Article 38 have not been estimated in this consultation-stage IA. Monetisation of this for the final stage IA has the potential to show a large cost to industry.	Further investigation and evidence gathering with stakeholders during consultation.

10 Rationale and evidence that justify the level of analysis used in the IA (proportionality approach)

502. The methods used to collect evidence on the costs to industry for this consultation stage IA are described in Section 6. In summary, they have consisted of two phases of focus group meetings with industry representatives. These have allowed us to estimate costs of compliance with the onshore and offshore major hazard regulations as they currently stand and the costs necessary to achieve compliance with the proposed changes under the Directive. The close involvement of industry in this process has allowed us to better understand the measures industry would need to take to achieve compliance and the costs they would incur in doing so.
503. Further evidence on the costs to the CA to be recovered from industry has been gathered through questionnaires and discussions with representatives from the CA joint working group and inspectors/specialists from both HSE and DECC.
504. Considerable resource both in terms of the time of officials and of industry have gone into the analysis in this Impact Assessment. This is thought to be proportionate to the significant impact on industry and Government resulting from the Offshore Safety Directive. Where there are still gaps in the analysis, they are clearly highlighted in the text and in Table 13 and will be covered during consultation.

11 Direct costs and benefits to business calculations (following OITO methodology)

505. Option 2, the preferred option, has an estimated present value cost of between around £74.5 million and £220 million, with a best estimate of around £143 million. These costs would all be borne by industry, either directly or through cost recovery by the Offshore Competent Authority.
506. Nearly all of this cost is accounted for by measures to comply with the Offshore Safety Directive. However, the costs also include a present value cost to business of between around £0.56 million and £0.68 million with a best estimate of around £0.62 for brining underground coal gasification in scope of the onshore major hazard regulations under Directive 92/91.
507. No monetised benefits have been estimated.
508. The Equivalent Annual Net Cost to Business of Option 2 is estimated to be around £12.7 million in 2009 prices, in keeping with the OITO methodology. These costs are incurred through compliance with European Directives and so are out of scope of OITO. Where Directive measures are gold plated, this maintains a current standard and therefore does so at zero additional cost.

12 Wider impacts

509. Wider impacts have been considered and no impacts have been identified for:
- Statutory Equality Duties;
 - Competition

- Human Rights;
- Justice System;
- Rural Proofing, and
- Social Impacts
- Sustainable development

12.1 Competition

510. Companies will be required to provide evidence that they have financial liability arrangements in place to meet the costs associated with an oil pollution incident. The industry is already providing evidence in relation to exploration and appraisal well drilling and there has been no indication that this impacted negatively on smaller companies. The requirement will now be extended to production operations, but it is not considered that this will place a significant new burden on the industry as it is considered that they will already have such provision in place.

12.2 Small and Micro-businesses

511. European Directive requirements apply to all businesses, therefore small and micro businesses will need to comply with the new legislation that implements these requirements. However, it is important to note that major hazard risks are not proportionate to business size, and the potential for poorly managed risks leading to a major accident with catastrophic consequences is the same for small businesses as it is for large international companies. In the light of the Deepwater Horizon disaster (Gulf of Mexico 2013) and the subsequent close scrutiny of the UK offshore industry, it is crucial that all businesses operating offshore, regardless of size, are subject to the same regulatory regime to ensure that they continue to provide a high level of protection for the safety of the workforce and the marine environment.

512. There is one proposal in this Impact Assessment that is not derived from a European Directive, for new domestic requirements that relate to combustible gas storage and recovery. The small business assessment has highlighted that the majority of companies involved in this activity are not micro businesses, but there are one or two operators who may have fewer than 10 employees. However, the major hazard risks associated with onshore gas storage and recovery (e.g. hydrocarbon gas being released and ignited leading to an explosion) are not proportionate to the number of employees. These risks can result in death or injury to workers and the public, as well as damage to assets and the reputation of an emerging energy technology. In order to avoid the devastating impacts of such major accidents, it is important to apply the same approach to managing and controlling these risks to all businesses. The reality is that all businesses working in this sector (large or small) are currently voluntarily complying with the standards.

513. This robust regulatory approach also provides assurance to industry that all businesses, regardless of size, are operating to the same required standard. It could be argued, therefore, that this regime creates a level playing field and enables smaller businesses to compete with larger companies. If the

requirements were not applied to smaller businesses, they might find it harder to tender for contracts and would actually be placed at a competitive disadvantage.

12.3 Environmental impacts

514. We have considered the criteria for wider environmental impacts and not consider that there is anything that needs to be addressed other than the environmental impacts that are addressed in the main body of the IA and in the benefits section.

12.4 Health and Well Being

515. We have considered the criteria for wider health and wellbeing impacts and do not consider that there is anything that needs to be addressed other than the health and safety impacts that are addressed in the main body of the IA and in the benefits section

13 Summary and preferred option with description of implementation plan

516. The Directive requires member states to establish a new offshore CA. The preferred option (Option 2) is to extend DECC and HSE's existing arrangements and establish a partnership CA that will oversee industry compliance with the Directive and deliver the CA functions specified in the Directive.

517. The implementation plan is to maintain as much as possible of the current offshore safety and environmental regulatory regimes and minimise burdens on industry. Many of the Directive requirements are already met by domestic legislation or existing arrangements and these will be extended or amended to incorporate new requirements. The majority of requirements will be implemented via new Offshore Installations (Safety Case) Regulations 2015 (SCR 2015) which will replace the SCR 2005. The remaining requirements will be implemented via the Offshore Petroleum Activities (Offshore Safety Directive) Regulations 2015 that will amend the Merchant Shipping (Oil Pollution Preparedness, Response Co-operation Convention) Regulations 1998. Where is it considered proportionate to maintain a pre-existing standard higher than required by the Directive, this has been retained.

518. Option 2 imposes a ten-year present value cost on society of between around £74.5 million and £200 million, with a best estimate of around £143 million. All of this cost would be borne by industry, either directly or through cost recovery by the Offshore Competent Authority. This gives an Equivalent Annual Net Cost to Business of around £12.7 million in 2009 prices. As these measures implement European Directives, they are out of scope of OITO.

Annex: Glossary of Acronyms

BSOR	Borehole Sites and Operations Regulations 1995
CA	Competent Authority
CMAPP	Corporate Major Accident Prevention Policy
COMAH	Control of Major Accident Hazards Regulation 1999
DECC	Department for Energy and Climate Change
DECC OGED	Department for Energy and Climate Change Offshore Oil and Gas Environment and Decommissioning
Defra	Department for Environment, Food and Rural Affairs
DCR	Offshore Installations and Wells (Design and Construction, etc) Regulations 1996
DfT	Department for Transport
ECE	Environment-Critical Element
ELD	Environmental Liability Directive
EMS	Environmental Management System
EO	Executive Officer
EUOAG	European Union Offshore Oil and Gas Authorities Group
FEC	Full Economic Cost
HASWA	Health and Safety at Work etc Act 1974
HEO	Higher Executive Officer
HSE	Health and Safety Executive
HSE ED	Health and Safety Executive Energy Division
IA	Impact Assessment
ICP	Independent Competent Person (or well verifier)
IERP	Internal Emergency Response Plan
MAR	The Offshore Installations and Pipeline Works (Management and Administration) Regulations 1995
MCA	Maritime and Coastguard Agency
MoU	Memorandum of Understanding
MSFD	Marine Strategy Framework Directive
NPI	Non-Production Installation
NPV	Net Present Value
ONR	Office for Nuclear Regulation
OPEP	Oil Pollution Emergency Plan
OPRC	Merchant Shipping (Oil Pollution Preparedness, Response Co-operation Convention) Regulations 1998
OSPAR	Offshore Petroleum Activities (Offshore Safety Directive) Regulations
PFEER	The Offshore Installations (Prevention of Fire and Explosion, Emergency Response) Regulations 1995
PI	Production Installation
RIDDOR	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013
SCE	Safety-Critical Element
SCR	Offshore Installations (Safety Case) Regulations
SECE	Safety- and Environmental-Critical Element
SEO	Senior Executive Officer
SEMS	Safety and Environmental Management System
SMS	Safety Management System
SoS	Secretary of State
UCG	Underground Coal Gasification
UKCS	United Kingdom Continental Shelf