#### Title:

The Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Chemical Agents) (Amendment) Regulations 2012 (the "Amendment Regulations")

IA No: DfT00124

#### Lead department or agency:

Maritime and Coastguard Agency (MCA)

Other departments or agencies:

## Impact Assessment (IA)

Date: 03/05/2012

Stage: Final

Source of intervention: EU

Type of measure: Secondary legislation

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**RPC:** GREEN

### **Summary: Intervention and Options**

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, Measure qualifies as One-Out?						
NA	NA	NA	No	Zero Net Cost					

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

Workers exposed to hazardous chemical agents at work can suffer adverse health effects due to potential lack of awareness of such exposure. Accordingly the EC set occupational exposure limit values for specific chemical agents. These were implemented for the maritime sector by the Merchant Shipping & Fishing Vessels (Health & Safety at Work) (Chemical Agents) Regulations 2010 (the "2010 Regulations"). A further Directive (2009/161/EU) has introduced additional occupational exposure limit values which require incorporation into the 2010 Regulations. An error in the 2010 Regulations has also been identified and requires correction. UK maritime law is therefore not fully harmonised with EU requirements.

#### What are the policy objectives and the intended effects?

The policy objectives are to:-

- (1) Protect workers on UK ships, and other ships when in UK waters, from exposure to hazardous chemical agents at work.
- (2) Comply with the UK's obligations in relation to implementation of EU Directive 2009/161/EU.
- (3) Correct the error identified in the 2010 Regulations by giving full effect to Directive 2000/39/EC

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

Do Nothing: To do nothing would leave the UK in breach of its EU obligations which, apart from the potential for infraction proceedings to be taken by the EC, could also leave the UK Government liable to pay compensation to all those affected by the failure to implement Directive 2009/161/EU. To do nothing is not therefore considered to be a viable option and is not covered further in this Impact Assessment.

Option 1: The preferred option is to introduce the Amendment Regulations to amend the 2010 Regulations to do the minimum possible to give effect to Directive 2009/161/EU in UK maritime law and at the same time correct the error identified in the 2010 Regulations in respect of implementation of Directive 2000/39/EC.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: 06/2013											
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 < 20 Small Medium Large Yes Yes Yes Yes											
What is the CO <sub>2</sub> equivalent change in greenhouse gas emissi (Million tonnes CO <sub>2</sub> equivalent)	Traded: NA	Non-t	raded:								

I have read the Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) that the benefits justify the costs.

Signed by the responsible Minister:	Mike Penning	Date:	05/08/2013
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# **Summary: Analysis & Evidence**

Policy Option 1

**Description:** Introduce the Amendment Regulations to amend the 2010 Regulations to a) do the minimum possible to give effect to Directive 2009/161/EU in UK maritime law and b) correct the error.

#### **FULL ECONOMIC ASSESSMENT**

Price Base	PV Base	Time Period	Net	Benefit (Present Val	ue (PV)) (£m)
Year NA	Year NA	Years NA	Low: NQ	High: NQ	Best Estimate: NQ

COSTS (£m)	<b>Total Tra</b> (Constant Price)	ansition Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	NQ		NQ	NQ
High	NQ	NA	NQ	NQ
Best Estimate	NQ		NQ	NQ

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

No monetised costs have been identified in this Impact Assessment.

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

(1) The Regulations require employers, when carrying out the required risk assessment to take into account the additional exposure limit values introduced by Directive 2009/161/EU. The MCA however considers that exposure to such chemical agents will not occur on the majority of ships and other vessels, and costs are accordingly considered likely to be insignificant. (2) Familiarisation costs are also considered to be insignificant as the system implementing the change is well established.

BENEFITS (£m)	<b>Total Tra</b> (Constant Price)	ansition Years	Average Annual (excl. Transition) (Constant Price)	<b>Total Benefit</b> (Present Value)
Low	NQ		NQ	NQ
High	NQ	NA	NQ	NQ
Best Estimate	NQ		NQ	NQ

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

No monetised benefits have been identified in this Impact Assessment.

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

Seafarers might benefit if they were potentially at risk of exposure to hazardous levels of one or more of the relevant chemical agents, but their exposure was kept below hazardous levels by virtue of the introduction of the Amendment Regulations. The MCA however considers it unlikely that such exposure will occur on board the majority of ships and other vessels. Benefits are therefore considered likely to be insignificant.

#### Key assumptions/sensitivities/risks

Discount rate (%)

NA

(1) Due to the limitations of the available evidence base, it has not been possible to monetise any of the costs and benefits of the Amendment Regulations that have been identified. (2) For the purpose of this Impact Assessment, it is assumed that the likelihood of exposure of workers to chemical agents listed in Directive 2009/161/EU is likely to be insignificant. This view is borne out by results of consultation where only 2 responses were received neither of which offered any comments.

#### **BUSINESS ASSESSMENT (Option 1)**

Direct impact on bus	iness (Equivalent Annua	al) £m:	In scope of OIOO?	Measure qualifies as
Costs: NA	Benefits: NA	Net: NA	No	NA

# **Evidence Base (for summary sheets)**

In this impact assessment, the following definitions apply throughout:

- "Indicative Occupational Exposure Limit Values" (IOELV) are indications of the safe levels of workplace exposure, established by the EU, at which ill-health effects for workers are unlikely to occur for specific chemical agents.
- "National Occupational Exposure Limit Values" (NOELV) mean the occupational exposure limits for specific chemical agents established by Member States which take account of the "Indicative Occupational Exposure Limit Value" established for that substance by the EU but which may be more stringent than the EU limit.
- An "Occupational Exposure Limit Value" (OELV) means, unless otherwise specified, the limit of the time-weighted average of the concentration of a chemical agent in the air within the breathing zone of a worker in relation to a specified reference period.

#### 1. TITLE OF PROPOSAL

The 'Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Chemical Agents) (Amendment) Regulations 2012' ("the Amendment Regulations")

#### 2. BACKGROUND

Workers exposed to hazardous chemical agents at work are potentially at risk of suffering adverse effects to their health because of lack of awareness of the risks by both employer and workers alike, or as a result of poor health and safety practices which could lead to hazardous levels of exposure. To address these risks, the European Commission, with the agreement of member states, introduced a series of Directives intended to protect workers from hazardous levels of exposure to chemical agents that have been identified as being hazardous to health by introducing "Indicative Occupational Exposure Limit Values" (IOELV) based on advice from the European Commission's Scientific Committee on Occupational Exposure Limits (SCOEL), a body of experts drawn from throughout the European Union, including the UK. Identification of such hazardous chemical agents is an on-going process and Member States are accordingly required to implement such Directives by establishing national limits in law, taking into account the IOELVs set out in the Directive.

The first of these, EC Directive 98/24/EC imposed both occupational and biological exposure limit values and health surveillance measures in respect of lead and its ionic compounds; and prohibition of the production, manufacture or use at work of four other chemical agents. Directive 2000/39/EC introduced a first list of IOELVs for a range of chemical agents. Subsequently Directive 2006/15/EC introduced a second list of IOELVs and also made changes to existing IOELVs.

The 'Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Chemical Agents) Regulations 2010' ("the 2010 Regulations") were made on the 11 February 2010, and were intended to implement these three EC Directives in UK maritime law.

The merchant shipping legislation supplements shore-based legislation, implemented by the Health and Safety Executive (HSE), which applies to workers in Great Britain and on the UK Continental Shelf. The merchant shipping legislation provides the same protection for workers on UK flagged ships worldwide, and on non-UK ships when they are in UK waters.

As indicated earlier the identification of hazardous chemical agents, and the establishing of IOELVs for them is an on-going process and a further Directive (Directive 2009/161/EU) has been introduced, which again supplements Directive 98/24/EC by establishing IOELVs for an additional 18 substances, each having been subject to a six-month consultation period at EU level, together with amended limit values for Phenol which replace those established by Directive 2000/39/EC. The implementation date for this Directive was 18 December 2011 but for operational reasons it has not proved possible to meet this deadline.

#### 3. PROBLEM UNDER CONSIDERATION

The problem under consideration is the risk of workers in the maritime sectors potentially being exposed to hazardous levels of chemical agents at work and suffering adverse effects to their health and safety as a consequence.

The 2010 Regulations included a range of measures intended to protect seafarers from the potential risks resulting from exposure to hazardous chemical agents at work. However, UK merchant shipping legislation is not yet in accordance with the latest Directive, 2009/161/EU, as referred to above. Consequently, there is currently the potential that workers in the shipping and fishing sectors could be exposed to atmospheric concentrations of certain chemical agents above the limits contained in Directive 2009/161/EU, potentially risking adverse effects to their health and safety. It should be noted however, that there is no evidence that seafarers on UK ships are at significant risk of hazardous levels of exposure to these chemical agents. This is discussed further in Section 7.

In addition, Member States are required by Treaty commitments to set legally binding national limits for all 19 substances, taking into account the IOELV.

Furthermore, the 2010 Regulations were intended to implement the previous three EC Directives in UK law, but recent legal advice indicates that, due to a technical error, whilst Directive 2000/39/EC was mentioned in the 2010 Regulations, it was not effectively implemented by them. The result of this is that the 63 IOELVs contained in Directive 2000/39/EC have not been legally established as UK NOELVs for UK ships.

In practice, this should not have any significant effect on industry, or the health and safety of workers as a Marine Guidance Note<sup>1</sup> issued by the Maritime and Coastguard Agency (MCA) in support of the 2010 Regulations, refers to the NOELVs contained in the HSE publication 'Workplace Exposure Limits (as amended)'<sup>2</sup> which includes the NOELVs for the chemical agents contained in Directive 2000/39/EC. When undertaking risk assessments in accordance with the 2010 regulations employers will therefore be aware of the NOELVs from all three Directives. However, to meet its Treaty obligations, and avoid the potential risk of infraction proceedings for failure to fully implement it, the UK must give full legal effect to Directive 2000/39/EC in respect of UK ships and non-UK ships when in UK waters.

#### 4. RATIONALE FOR INTERVENTION

The rationale for Government intervention is that, without government intervention, there is a risk, in the context of health and safety, that some ship operators might not take adequate precautions to mitigate the risks of workers being exposed to chemical agents at work. There are two potential reasons for this. Firstly, some operators, especially smaller firms, may not have adequate information on potential risks resulting from exposure to different substances or there may be costs which do not fall on the operator such as the cost of medical treatment. This is likely to be the most common situation. However, there is potentially a secondary issue where less scrupulous operators do not take appropriate detailed measures to safeguard workers on their ships because there is no legal requirement to do so. Such unscrupulous operators are, however, likely to be very few and far between.

New legislation was needed to adequately implement Directive 2009/161/EU to accord with EU requirements. Failure to do so could result in infraction proceedings against the UK being initiated by the EC with the potential for a substantial fine. Failure to implement the Directive on time could also result in the UK Government becoming liable, under the Francovich principle, to pay compensation to all those affected by its failure to implement this Directive.<sup>3</sup>

In addition, as noted above, new legislation was also needed to correct the 2010 Regulations in so far as they do not, as had previously been thought, implement Directive 2000/39/EC. This could potentially result in infraction proceedings, on the grounds of non-implementation, were the situation not rectified. The Amendment Regulations correct this omission.

<sup>2</sup> Health and Safety Executive, EH40/2005, Available at <a href="http://www.hse.gov.uk/coshh/table1.pdf">http://www.hse.gov.uk/coshh/table1.pdf</a>.

<sup>&</sup>lt;sup>1</sup> MGN 409, Available at <a href="http://www.dft.gov.uk/mca/mgn">http://www.dft.gov.uk/mca/mgn</a> 409 - chemical agents.pdf.

<sup>&</sup>lt;sup>3</sup> In this context the "Francovich principle" results from the case of Andrea Francovich and Others v. Italian Republic, which established a general principle (the "Francovich principle") of state responsibility for compliance with EC law in a case in the field of employment rights.

#### 5. POLICY OBJECTIVE

The policy objectives of the Amendment Regulations are to:

- Further protect seafarers from the risk of being exposed to hazardous levels of chemical agents at work;
- Comply with the UK's European legislative obligations in relation to implementation of Directive 2009/161/EU, thus avoiding the risk of infraction proceedings being taken against the UK and the potential for action to be taken against the UK by other parties under the Francovich principle; and
- Correct the error identified in the 2010 Regulations by implementing Directive 2000/39/EC.

#### 6. DESCRIPTION OF POLICY OPTIONS CONSIDERED (INCLUDING DO NOTHING)

#### 6.1. Do nothing

EU Member States are required to implement EU Directives by legislative means or face the likelihood of infraction proceedings being initiated by the EU with the potential for ongoing fines until the situation is remedied. In addition, failure to implement the Directive could result in action being taken under the "Francovich Principle", against the UK Government, by any persons affected by the failure of the UK to implement this Directive.

The Amendment Regulations also correct an error identified in the 2010 Regulations resulting in Directive 2000/39/EC not being implemented by those Regulations, as had been thought. Failure to correct this error could also result in infraction proceedings and action under the Francovich Principle.

Given the above, it is considered that doing nothing is not a viable option.

# 6.2. Introduce the Amendment Regulations to implement only the minimum mandatory requirements of Directive 2009/161/EU in respect of chemical agents and also correct the omission in the 2010 Regulations relating to Directive 2000/39/EC (Option 1)

Option 1 is the only viable option. The Amendment Regulations amend the 2010 Regulations to:

- give effect to the minimum requirements of Directive 2009/161/EU by establishing UK National Occupational Exposure Limit values for the chemical agents listed in that Directive;
- require an employer, when undertaking the risk assessment required by the 'Merchant Shipping (Health and Safety at Work) Regulations 1997<sup>4</sup> and the 2010 Regulations to additionally have regard to the National Occupational Exposure Limit values for the substances listed in Directive 2009/161/EU as a result of the implementation of that Directive; and
- correct the omission in the 2010 Regulations thus fully implementing Directive 2000/39/EC.

#### 7. COSTS AND BENEFITS OF EACH OPTION (INCLUDING ADMINISTRATIVE BURDEN)

HSE's impact assessment for the implementation of this Directive explains that there are only a limited number of ways that exposure to substance hazards can be controlled, namely: elimination of the substance from the workplace, changing the physical form of the substance (e.g. fine powder converted to granules), dilution of the substance to lower the effect of concentrated exposure; extraction of the hazardous substance from the workplace atmosphere, for example ventilation hoods; containment of the hazardous substance; and use of personal protection, such as appropriate protective gloves and /or respiratory equipment.

The MCA considers that small changes in workplace exposure limits (WEL) as introduced by this Directive are unlikely to lead to a new control measure being necessary, as the same method of exposure control is likely to be already providing the necessary protection.

<sup>&</sup>lt;sup>4</sup> General Duties Regulations, SI 1997/2962

The MCA further considers that it is clear from HSE's overview of the substances covered and their uses that they are only likely to be present on ships in the context of cargo. Where dangerous goods are carried as bulk cargo on ships, specific international survey and inspection standards apply to ensure that the cargo spaces are fit for purpose. They would then need to follow international requirements when doing so. The International Convention on the Safety of Life at Sea (SOLAS)<sup>5</sup> lays down the international requirements for ships carrying dangerous goods and deals with the Class of dangerous goods that the vessel is permitted to carry and the Document of Compliance. The UK implements these requirements in 'The Merchant Shipping (Reporting Requirements for Ships Carrying Dangerous or Polluting Goods) Regulations 1995<sup>6</sup>.

All packaged dangerous goods are required to be packed and shipped in accordance with the International Maritime Dangerous Goods (IMDG) Code<sup>7</sup>, which lays down international requirements for the packaging of the products to reduce the likelihood of a leak. Also, the goods should be secured in accordance with international Guidelines for Packing of Cargo Transport Units (CTUs), such as containers<sup>8</sup>. The MCA considers that yachts and small craft will, because of their size, construction or use, never have on board any of the substances covered by Directive 2009/161/EU. It is also considered unlikely that the majority of merchant ships will have such agents on board except perhaps occasionally as cargo (or part of the cargo in the case of a container ship carrying multiple containers with varying contents).

In addition to the packing requirements, there is also the IMO Emergency Response Procedures for Ships Carrying Dangerous Goods ("EMS")<sup>9</sup>, which provides details to the Master of the ship on how to deal with an incident when carrying dangerous goods.

These measures are all designed to ensure that seafarers are not exposed to hazardous substances carried as cargo. The risk of exposure is therefore already greatly reduced and it is considered likely that operators will already be aware of potential risks and will already have appropriate safety measures in place.

There are no statistics relating specifically to injuries or diseases to seafarers as a result of exposure to hazardous Chemical Agents at work as there is currently no requirement for any occupational diseases to be notified to MCA, although such a requirement would be introduced as part of the implementation by the UK of the International Labour Organization (ILO) Maritime Labour Convention (MLC) 2006. However, the Marine Accident Investigation Branch (MAIB) record of reports of escapes of harmful substances (which could include harmful substances other than chemicals), shown in Table 1, shows a strong downward trend in the number of reported incidents over the period 1994 to 2010 (Table 1).

Table 1: Number of reported escapes of harmful substances. UK commercial shipping

Table II Hallber of Topolica cool																	
	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	68	'09	'10
	24	26	20	15	27	15	4	11	-	-	4	2	1	2	1	-	-

Source: MAIB

Analysis of the most recent UK injury statistics available shows that escapes of harmful substances have not led to any seafarer fatalities and there is nothing to suggest that any such escapes had any significant non-fatal injury effect on seafarers on the vessels concerned. This would tend to support the assumption that seafarers are unlikely to be exposed to the chemical agents listed in Directive 2009/161/EU whilst on board.

In view of the limitations of the available evidence base, consultees were invited to submit any additional evidence on the risks and assumptions. However no such evidence was received and indeed only two responses were received in total neither of which offered any comments

Finally, this is one of a number of "daughter directives" on occupational health and safety based on the principles established in the Framework Directive 89/391/EC. The Framework Directive required employers to conduct risk assessments to identify risks to the health and safety of workers arising from their undertaking and to establish appropriate measures to ensure the health and safety of workers as far as reasonably practicable. Many of the daughter directives focus on specific risk areas, such as

<sup>&</sup>lt;sup>5</sup>Regulation II-2/54.1 and II-2/19.1. It is understood that SOLAS is not available electronically and has to be purchased from the International Maritime Organization (IMO)

<sup>&</sup>lt;sup>6</sup> Available at <a href="http://www.legislation.gov.uk/uksi/1995/2498/contents/made">http://www.legislation.gov.uk/uksi/1995/2498/contents/made</a>.

<sup>&</sup>lt;sup>7</sup> Not available electronically - Has to be purchased from IMO.

<sup>&</sup>lt;sup>8</sup> MSC Circular 787, IMO, Contained in supplement to IMDG Code – Has to be purchased from IMO.

<sup>&</sup>lt;sup>9</sup> Contained in supplement to IMDG Code – Has to be purchased from IMO

exposure to hazardous substances, and so provide additional information to employers on how they can mitigate risk, but the MCA considers that the additional costs and benefits for compliance are in most cases marginal. The framework directive was implemented for UK ships in the Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997, and the daughter directives have been implemented progressively since then.

Therefore, while there is the potential for some costs and benefits to result from the Amendment Regulations (Option 1), the costs and benefits of the Amendment Regulations are considered to be minimal. However, given the limitations of the available evidence base which are explained below, it has not been possible to monetise these costs and benefits in this impact assessment. A full qualitative description of each of the potential costs and benefits identified is thus provided below.

Here also consultees were invited to submit additional evidence on the costs and benefits of the Amendment Regulations (Option 1) but here again no evidence was received.

#### 7.1. Key Assumptions

The key assumption that has been made in this impact assessment is that that the likelihood of workers being exposed on ships to the chemical agents listed in Directive 2009/161/EU is insignificant. This view is supported by the fact that consultation resulted in no evidence being produced regarding the likelihood of seafarers being exposed to the chemical agents listed in Directive 2009/161/EU.

This view is also supported by the Substance Overview produced by HSE in support of the Impact Assessment for their proposals for giving effect to Directive 2009/161/EU. The HSE's Substance Overview, contained in their Impact Assessment, indicates that the substances, referred to in Directive 2009/161/EU, are basically used as intermediaries, solvents etc in the manufacture of other products e.g. man-made materials, paints etc. The manufacturing of such products will not be undertaken on ships although it is possible that the final products so produced could be used on ships. However as the final products would vary from those contained in Directive 2009/161/EU, and indeed may well be harmless to workers, they would fall outside the scope of this Directive.

It is quite possible that a ship may carry the substances referred to in Directive 2009/161/EU as cargo, however as previously indicated, the safety measures already in place under international dangerous cargo legislation reduce the risk of exposure to an insignificant level. In this context it should be noted that the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Chemical Agents) Regulations 2010, which the Amendment Regulations amend, provide for international dangerous cargo legislation to take priority where it contains more stringent provisions.

The safety procedures required under existing health and safety legislation for ships provide a framework for the implementation of these proposals, and any incremental costs are expected to be minimal.

#### 7.2. Changes due to the Amendment Regulations (Option 1)

The primary purpose of the Amendment Regulations is to adopt as UK "National Occupational Exposure Limit Values" for ships, the "Indicative Occupational Exposure Limit Values" for the substances listed in Directive 2009/161/EU and to require employers to have regard to those limit values, in addition to the limit values established by the 2010 Regulations, when undertaking the risk assessment they are required to undertake by the General Duties Regulations.

The secondary purpose of the Amendment Regulations is to correct an omission in the 2010 Regulations which, it has subsequently been established, do not implement Directive 2000/39/EC which established a first list of "Indicative Occupational Exposure Limit Values" for chemical agents.

<sup>&</sup>lt;sup>10</sup> HSE (2011) <u>Proposals to implement the third list of indicative Occupational Exposure Limit Values (Commission Directive 2009/161/EU).</u>

Available at http://consultations.hse.gov.uk/gf2.ti/f/14242/388101.1/pdf/-/CD234.pdf.

#### 7.3. Costs of the Amendment Regulations (Option 1)

It is possible that the Amendment Regulations might in a very few cases result in some additional costs to the owners and / or operators of some UK registered vessels, and non-UK registered vessels that operate in UK waters. These costs are discussed below. However, it should be noted that the costs to the owners and / or operators of these vessels would only represent a cost to the UK if they fall on UK entities (e.g. UK businesses or consumers). This is not necessarily the case for UK registered vessels as they are not necessarily UK owned and do not necessarily operate to and from UK ports. Responses to the consultation exercise have however not indicated that any additional costs will arise.

#### 7.3.1. Compliance costs for businesses

Some employers might incur additional costs as a result of the Amendment Regulations if it becomes necessary to undertake more detailed risk assessments to take account of the additional chemical agents covered by Directive 2009/161/EU. In addition, in the event that a risk assessment identifies the presence of any of these chemical agents, an employer might incur additional expenditure as a result of the need to put in place measures to protect seafarers from potential risks to their health as a result of any exposure to such an agent. However, no evidence is currently available on the level of costs that employers would incur if it becomes necessary to undertake more detailed risk assessments or put in place additional measures to protect seafarers, so it has not been possible to monetise these costs in this impact assessment. Furthermore, as noted above, the MCA consider that the likelihood of seafarers being exposed to such agents whilst working on a ship is insignificant as the agents are unlikely to be present on the vast majority of ships. Even where such agents are present they are likely to be present only as cargo and will therefore come within the scope of international dangerous cargo legislation and its more stringent provisions regarding carriage of cargo. For the majority of ships, however, where it is known they will neither carry hazardous chemical agents as cargo nor use them on board, the changes introduced by the Amendment Regulations would be of no effect and no change to the risk assessment would be required. There are currently over 13,000 UK vessels which would be subject to the Amendment Regulations, because they have employed seafarers on them<sup>11</sup>. This figure includes vessels of all types and sizes including large merchant ships, government ships, fishing vessels, yachts with paid crew down to very small craft such as water taxis and work boats. In MCA's view only some 150 merchant ships might potentially carry hazardous chemical agents on board at some time, but even then only as cargo, which would fall under international dangerous cargo requirements. The remaining vessels, some 99% of UK ships, are considered extremely unlikely to carry hazardous chemical agents at any time, whether as cargo or otherwise. Therefore, whilst it has not been possible to monetise these costs in this impact assessment, the MCA consider that these costs would be minimal. Responses to consultation bear this out.

For reasons already stated at the beginning of Section 7, the MCA considers that correcting the 2010 Regulations to give effect to Directive 2000/39/EC would be likely to have no financial or other impact on either employers or seafarers as the Marine Guidance Note issued by MCA in support of the 2010 Regulations referred to Directive 2000/39/EC as though it had been fully implemented and employers are expected to have been operating on that basis.

#### 7.3.2. Familiarisation costs for businesses

Further costs could potentially be incurred due to the need for operators to familiarise themselves with the Regulations, and inform and train crews of their obligations under the Amendment Regulations. An amendment of the HSE publication *Workplace Exposure Limits* is normally launched with a press release, notifications to the trade press, and an announcement on the HSE website. UK companies affected by the changes are not expected to spend much time familiarising themselves with the WEL system which is well-established, especially given the minimal expected costs of the Directive. There may be a small cost as managers check that they are compliant with the revised WELs, but this is expected to be negligible. However, it should be noted that no evidence is currently available on this issue. Therefore, this cost has not been monetised for the purpose of this assessment as a) the time that it would take to familiarise and train employees, and b) the number of businesses that would need to do this, are not known as detailed information on what chemical agents, if any, are carried or used by ships, and if so whether such chemical agents fall under Directive 2009/161/EU is not provided to MCA. Again responses to consultation have not indicated that any costs will arise.

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<sup>&</sup>lt;sup>11</sup> MCA, UK Ship Register, 30/3/2010

#### 7.3.3. Enforcement costs

Enforcement of health and safety regulations is carried out as part of the MCA's normal survey regime. Accordingly additional inspections to enforce the Amendment Regulations will not be required, and as exposure to the chemicals listed is expected to be minimal no other enforcement action is expected to be necessary, therefore no change in annual enforcement costs is anticipated. In the unlikely event that additional visits/inspections are required where a ship is found not to comply with the Amendment Regulations, the cost of such visits/inspections are chargeable to the operator.

Consultees were invited to submit any additional evidence on the costs of introducing the Amendment Regulations (Option 1) but none was received.

#### 7.4. Benefits of the Amendment Regulations (Option 1)

There could be health benefits for any seafarers potentially at risk of exposure to any of the chemical agents listed in Directive 2009/161/EU resulting from the introduction of restrictions on exposure to those chemical agents. However, the MCA expect that any benefits are likely to be insignificant as it is not envisaged that seafarers will come into contact with any of the substances concerned whilst working on board, as covered in Section 7. In particular, where employers would not be required to take any additional action in order to comply with the new limits, it is not expected that there would be any health benefits. Given the limitations of the available evidence base (e.g. the number of seafarers that may benefit is unknown), it has not been possible to confirm this view or consequently monetise any benefits that might result from the Amendment Regulations (Option1).

Here again consultees were invited to submit any additional evidence on the benefits of introducing the Amendment Regulations (Option 1) but none was received.

#### 8. RISKS

#### **8.1. Risks**

As noted in section 5 of this impact assessment, failure to implement Directive 2009/161/EU in UK law or correct the error identified in the 2010 Regulations regarding non-implementation of Directive 2000/39/EC could potentially result in infraction proceedings by the EU and action under the "Francovich Principle" against the UK Government.

#### 9. SPECIFIC IMPACT TESTS

#### 9.1. Equalities Assessment

The Amendment Regulations would be applicable to all seafarers working on all UK vessels, both sea-going and non sea-going and wherever they are in the world, to which the Regulations apply irrespective of their age, ethnic origin, gender, nationality, race, sexual orientation or disability. The Amendment Regulations would also be applicable to non-UK ships when in UK waters.

#### 9.2. Competition Assessment

By introducing a set of minimum standards that apply to EC ships worldwide and to non-EC ships when in EC waters, EC health and safety Directives, such as Directive 2009/161/EU, should promote a more level competitive playing field internationally and reduce the ability of less scrupulous ship operators to gain a competitive advantage through poor treatment of seafarers especially in respect of matters relating to their health and safety.

When operating in EC waters, it is considered that compliance with EC health and safety requirements would be more likely to provide a competitive benefit than a disadvantage to operators of UK registered ships engaged in international voyages within the EU as they would be less likely to be delayed or detained in ports of other EC Member States for non-compliance with the relevant Directives.

Consultees were also invited to offer any additional evidence on the potential for the Amendment Regulations to impact on competition but again nothing was received.

#### 9.3. Small Firms Impact Test

It is appropriate that the working conditions for all workers should be underpinned by common minimum health and safety standards regardless of the size of the company for which they work. Any costs arising from these proposals may have the greatest impact on small firms or micro businesses with a small turnover. As EC Health and Safety Directives set minimum requirements for the protection of the health and safety of workers, they do not normally make concessions in those requirements. Wherever possible the UK makes use of any flexibility in a Directive whether in relation to a smaller vessel or a large one. It is however considered that smaller vessels and perhaps small companies also are less likely to be affected by the requirements of Directive 2009/161/EU by virtue of the fact that they are in the main less likely to carry substances that might potentially fall within the scope of the Directive and the Amendment Regulations as large cargo vessels are likely to be part of larger firms due to the size of the organisation necessary to operate and support a large cargo vessel. During the public consultation exercise on the draft regulations, consultees included representatives of small, medium and large businesses. However, no comments on this aspect were received.

#### 9.4 Greenhouse Gas Impact Test

No greenhouse gas impacts have been identified in relation to the Amendment Regulations.

#### 9.5 Wider Environmental Issues

There are no wider environmental issues arising from the Amendment Regulations.

#### 9.6. Health and Well-Being Impact Test

Directive 2009/161/EU introduces "Indicative Occupational Exposure Limit Values" (IOELVs) for a further 18 chemical agents, additional to those introduced by EC Directive 98/24/EC supplemented by Directives 2000/39/EC and 2006/15/EC and implemented by the 2010 Regulations. It also amends the IOELV for Phenol that was established by Directive 2000/39/EC. These IOELVs would be established as "National Occupational Exposure Limit Values" (NOELVs) by virtue of the Amendment Regulations. It is not however considered that the establishment of NOELVs for these further 18 chemical agents, and the amendment of the previously established NOELV for Phenol, would have any significant effect on the health and wellbeing of seafarers as it is not considered that seafarers come into contact with these agents during the course of their work at sea. The lack of any response from consultees on this point would support this view.

#### 9.7. Human Rights

There are no Human Rights compatibility issues arising from the Amendment Regulations.

#### 9.8. Justice System

The Amendment Regulations contain no provisions relating to enforcement or offences and penalties. Such provisions were established by the 2010 Regulations and are not being changed.

#### 9.9 Sustainable Development

There are no sustainable development issues arising from the Amendment Regulations.

#### 10. ONE IN, ONE OUT

As this is an EU measure, it is out of scope of One In, One Out (OIOO).

#### 11. SUMMARY AND PREFERRED OPTION

Introducing the Amendment Regulations (Option 1) is the only viable policy option. It would implement in UK legislation the minimum changes required to give effect to the provisions of Directive 2009/161/EU to ensure that seafarers on UK ships have a safe and healthy place in which to work in regards to exposure to hazardous chemicals. It would also bring UK legislation into line with Directive 2000/39/EC.

#### 12. IMPLEMENTATION PLAN

The Amendment Regulations would amend the 2010 Regulations, which give effect to one of some 20 EC Health and Safety Directives (The "Framework Directive" which sets out the basic health and safety framework for the protection of workers plus 19 "Daughter" Directives which lay down specific requirements in respect of particular substances or processes). However, the Amendment Regulations only introduce 18 new UK "National Occupational Exposure Limit Values" in addition to those covered by the 2010 Regulations and amend the current limits for Phenol. It is currently proposed that the Amendment Regulations will come into force by no later than July this year as the final implementation date for Directive 2009/161/EU was actually 18 December 2011. There is therefore a real risk of infraction if we do not get these Regulations in place at the earliest possible date.

In addition to the UK NOELVs to be added to those covered by the 2010 Regulations, the Amendment Regulations would also give effect to Directive 2000/39/EC which was not properly implemented by the 2010 Regulations. This change should not require any extra action, as the Marine Guidance Note which accompanied the 2010 Regulations covered the requirements of Directive 2000/39/EC as though it had been implemented correctly.