Title: Merchant Shipping (Ambulatory Reference) (Load Line) Regulations 2017 **IA No:** DfT00353 **RPC Reference No:** RPC16-3406(1) -DfT **Lead department or agency:** Maritime and Coastguard Agency **Other departments or agencies:** Department for Transport	**Impact Assessment (IA)** **Date:** 24/08/2016 **Stage:** Consultation **Source of intervention:** International **Type of measure:** Secondary legislation **Contact for enquiries:** Matt Giacomini matt.giacomini@mcga.gov.uk, Tel: 0203 81 72379
Summary: Intervention and Options	**RPC Opinion:** GREEN

Cost of Preferred (or more likely) Option				
Total Net Present Value	**Business Net Present Value**	**Net cost to business per year** (EANDCB in 2014 prices)	**One-In, Three-Out**	**Business Impact Target Status**
NQ	NQ	NQ	Not in scope	Non qualifying provision

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

UK transposition of the requirements contained in the International Load Line Convention (ILLC) and its Protocol (ILLP) is not up to date. The ILLC/ILLP cover standards on the hull strength, loading and stability of ships. The ILLC aims to correct market failures in the maritime sector with the intention of increasing safety and protecting the environment. Government intervention is required to ensure the UK meets its obligations as signatory to the Convention, provide legal certainty and maintain a level playing field for UK ship-owners/operators by enabling enforcement for non-compliance of non-UK ships in UK waters. Government intervention is required to implement future technical changes to the Convention in a timely manner, and reduce the administrative burden in doing so; particularly as transposition for international measures is subordinate to EU measures with associated infractions.

What are the policy objectives and the intended effects?

The objectives are to (i) take into account ILLC/ILLP amendments to loading, stability, door, and hatch securing and measurements, drainage and strength of materials used in construction of ships and depth in the water in the context of seasonal and geographic variants, and (ii) introduce ambulatory referencing. The intended effects are to (i) enhance watertight integrity, especially of doors and hatches exposed to the weather, and reduce the risk of sinking due to overloading, instability and insufficiency or failure of drainage structures resulting in the retention of water; (ii) the ambulatory referencing will reduce legal uncertainty and red tape for industry by referring them always to the most up to date international legislation.

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

Doing nothing is the baseline against which Options 1 and 2 are assessed. This is not a realistic option as the UK, as a signatory to ILLC/ILLP, has an obligation to implement any changes into UK law.

Option 1: Bring the UK in line with recent updates to international requirements. However, this would fail to recognise industry's concerns raised during the Red Tape Challenge about the delays in transpostion of international requirements.

Option 2: Bring the UK in line with recent updates to international requirements and introduce ambulatory referencing to refer UK industry to the most up to date international legislation in this area. This has the support of the UK shipping industry and is therefore the preferred option.

Will the policy be reviewed? It will be reviewed. **If applicable, set review date:** 04/2022

Does implementation go beyond minimum EU requirements?		No		
Are any of these organisations in scope?	**Micro** 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 Minister: ..... Date: .....

Summary: Analysis & Evidence

Policy Option 1

Description: Bring the UK in line with recent updates to international requirements.

FULL ECONOMIC ASSESSMENT

Price Base Year	PV Base Year	Time Period Years	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	**High:** Optional	**Best Estimate:** NQ

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

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

No monetised costs

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

The modifications imposed on ship design by the ILLC and the ILLP tend to be incremental in nature and as such are not likely to have a significant cost to industry to implement when creating design specifications for ships. Furthermore as the ILLC and ILLP are already in force internationally, shipowners will overwhelmingly have incurred any associated costs already in order for the ship to continue operating internationally.

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

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

N/A

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

A key benefit of the ILLC and ILLP is the reduction in risk of maritime incidents as a result of overloaded ships, there is potential for this to have the added benefit of reducing insurance premia. Under option 2 (Ambulatory Referencing) there would be resource savings to government as it would no longer have to transpose amendments into UK legislations. As shipowners would only have to consult one piece of legislation familiarisation costs to industry of future amendments will be lower.

Key assumptions/sensitivities/risks

N/A

Discount rate

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			Score for Business Impact Target (qualifying provisions only) £m:
Costs:	**Benefits:**	**Net:**	
NQ	NQ	NQ	

Evidence Base (for summary sheets)

1 Background

1.1 Shipping is an international industry and the regulatory framework must reflect this. The International Maritime Organization[1] (IMO) is the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine pollution by ships. The IMO has 171 Member States, 3 Associate Members and numerous Non-Governmental and Intergovernmental Organizations. Its main role is to create a regulatory framework for the shipping industry that is fair and effective, universally adopted and implemented.

1.2 The International Load Line Convention (ILLC) and its Protocol (ILLP) focus on measures which enhance hull strength, stability and watertight integrity, especially of doors and hatches exposed to the weather. It reduces the risk of sinking due to overloading, instability and insufficiency or failure of drainage structures resulting in the retention of water. The Convention includes complex formulae to be used by a ship surveyor when calculating whether a ship is safe, in particular how much is a safe amount of freeboard for the ship, and the pressures which hatch covers, etc., can withstand. These are not easily understood by the lay person but are pivotal to maritime safety, and it is important that these are agreed at an international level to minimise the risk of maritime disasters globally.

1.3 The extant international legislation dealing with load lines comprises three main elements:

- The International Convention on Load Lines, 1966;
- The Protocol of 1988 modifying the Convention; and
- Amendments to the Protocol adopted by Resolution MSC. 143(77);
- plus some additional IMO Resolutions[2]

1.4 It should also be noted that the United Kingdom has been a strong proponent of improved safety measures in the Convention including the strengthening of hatch covers (which is an aspect of Load Line Convention) especially after the recommendations from Lord Justice Colman's Report in 2000 of the Re-opened Formal Investigation into the loss of the MV DERBYSHIRE. The DERBYSHIRE (formerly named the LIVERPOOL BRIDGE) was the largest UK merchant ship ever lost at sea. It perished off Okinawa on 9 September 1980 with the loss of all 44 crew, and was one of an ill-fated type of cargo ship known as the Bulk Carrier. Indeed, its sister ship, the MV KOWLOON BRIDGE, was also lost when it broke up after grounding. Although not the only type of vessel the safety of which is heavily dependent on the provisions of international load line legislation, Bulk Carriers have been the subject of safety concerns over many years, and have been dubbed by many "coffin ships".

2 Problem under consideration and policy objectives

2.1 **Rationale for Intervention** – The ILLC aims to correct market failures in the maritime sector with the intention of increasing safety and protecting the environment.

2.2 **Load Line** – The current UK transposition position, to the extent it has been transposed, is contained in the following instruments:

- Merchant Shipping (Load Line) Regulations 1998;
- Merchant Shipping (Load Line) (Amendment) Regulations 2000;
- Civil Partnership Act 2004 (Amendments to Subordinate Legislation) Order 2005; and
- Merchant Shipping Notice 1752.

[1] Further information on the IMO is available from: http://www.imo.org/en/About/Pages/Default.aspx

[2] Resolution MSC.143(77) of 1 July 2004, Resolution MSC.172(79) of 9 Dec 2004, Resolution A.972(24) of 1 Dec 2005, Resolution MSC.270(85) of 4 Dec 2008, Resolution MSC.223(82) of 8 Dec 2006, Resolution MSC.345(91) of 30 Nov 2012, MSC Corrigendum Annex B, Annex II, Resolution MSC.356(92) of 21 Jun 2013, Resolution A.1038(28) of 4 Dec 2013, Resolution MSC.375(93) of 22 May 2014

Several Resolutions, one of which is a complete re-write of the technical aspects of the Annexes, have still to be transposed.

2.3 **Regulatory approach** – Current practice on implementation is to use a mixture of primary and secondary legislation with technical provisions included either in the instrument, relegated to separate government publications, or occasionally incorporated by direct reference to the international text. The choice between these options has been dictated by the available powers or by what seemed most expedient at the time. Consequently there is an absence of any coherent regulatory framework to guide users (such as a framework mirroring the international agreements), and this, combined with a mix of international and domestic obligations in the same instrument results in a position that is confusing to both industry regulators alike.

2.4 Using current procedures and practice to implement regular changes to international agreements is time consuming and resource intensive. The UK currently has a backlog of some 40 separate items of maritime regulation. Without changes to current resourcing or practice, this backlog is unlikely ever to be eliminated and, indeed, can be expected to grow. There is a pressing need for Government intervention to provide for an alternative, simplified, approach to help speed up implementation and / or reduce the resources required.

2.5 Failure to implement UK obligations under these international agreements could result in ships being challenged during port state control checks in foreign ports, leading to expensive delays and inconvenience for UK flagged ships trading internationally, and to global criticism and the UKs loss of status as a leading maritime nation. The growing gap between the international agreements and UK domestic implementation has serious implications for enforcement because there is no legal authority to require compliance.

2.6 There is a danger that the UK's failure to comply with its obligations will be identified through the mandatory IMO Member State Audit Scheme which entered into force at the start of 2016. Implications of such a finding are explored within section 3.4.

3 Policy Objectives

3.1 The policy objectives are divided into two distinct areas: transposition of outstanding amendments to the International Load Line Convention/Protocol into UK law; and the introduction of ambulatory referencing.

3.2 **Transposition of outstanding amendments to the ILLC/ILLP into UK law**

3.3 The existing regulations will be recast to cover, in addition to those aspects of the Convention/Protocol which have already been transposed, the outstanding varied and detailed amendments to the Convention/Protocol as identified in section 6.

3.4 The outstanding elements for transposition fulfil a variety of functions, including incremental technical design changes in the interests of safety, such as the strengthening of certain components, clarification of provisions and alternative methods of compliance. These improve the seaworthiness of a ship and reduce the likelihood of a ship becoming unstable.

3.5 **Introduce Ambulatory Referencing and reduce legal uncertainty**

3.6 It is intended that the new Regulations will require ships to comply with ILLC/ILLP in its up to date form, this will ensure that the UK is always up to date with the transposition of ILLC/ILLP.

3.7 Ambulatory Referencing transposes international provisions without gold plating or adding any additional obligations.

3.8 Supporting documentation will be provided by the Maritime and Coastguard Agency (MCA) to add legal prescription and additional guidance, as required e.g.: where the Convention states that a requirement is "to the satisfaction of the administration", the MCA will specify what is required to meet this obligation.

3.9 During the Red Tape Challenge industry raised its concern over the lengthy delays between amendments to international Conventions coming into force globally and being transposed into UK law. These delays lead to legal uncertainty and disparity between national and international legislation.

Specifically the UK Chamber of Shipping's[3] response to the Red Tape Challenge was:

"The UK shipping industry was very pleased to contribute to the Government's recent Red Tape Challenge initiative and proposed a number of basic principles which might help ensure 'better regulation' into the future.

One of these involved the direct read-across through 'ambulatory references' of international conventions which have been accepted by Government into UK law without their provisions having to be rewritten in the national context.

This would in particular help with keeping the national law up to date when amendments were agreed, of course again subject to their acceptance by Government.

The international convention text would clearly remain subject to the same scrutiny as at present and could be supplemented by guidance in the UK as to interpretation as necessary.

We believe that such a practice in the UK would substantially reduce the regulatory and legal process surrounding the adoption in this country of international regulations, which are an essential part of international shipping and without which the UK merchant fleet would not be able to operate."

3.10 In response, DfT sought regulatory reform through the Deregulatory Act 2015. The Act introduced an additional power which allows for ambulatory referencing to be made to international instruments. Ambulatory Reference means a reference in legislation to an international instrument as modified from time to time (and not simply to the version of the instrument that exists at the time the secondary legislation is made).

3.11 It is worthwhile noting that whilst the UK Chamber of Shipping advocates 'ambulatory references', this does not negate the Government's principle of consultation. Amendments to international Conventions are developed and agreed at the IMO, where in addition to Member States, industry is well represented. Industry is therefore heavily involved with policy development and also in helping to shape the UK's negotiating position. Working in partnership UK officials and industry actively contributes to negotiations on new initiatives to ensure they are appropriate and proportionate measures to improve safety.

3.12 **Level Playing Field** – UK ships are liable for detention in a non-UK port if they are not in compliance with the latest requirements of ILLC/ILLP. Although this is considered unlikely as most UK owners and operators comply as a matter of course with ILLC/ILLP requirements in order to continue their global operations. Whilst the cost of rectifying a detention to enable the ship to sail may be low, the opportunity cost can be high. If the ILLC/ILLP is not transposed into UK law the UK will be unable to take enforcement action against non-compliant ships.

3.13 **UK Reputation and status on the white list** – The UK, as a signatory to the ILLC/ILLP Convention, has an obligation to implement any changes. Any failure to implement amendments are noted as part of the mandatory IMO audit scheme, there are currently over 40 items of international maritime legislation which has not yet been transposed. A poor audit performance increases the possibility of the UK losing its "low risk status", this would increase the frequency of inspections for UK flagged vessels in foreign ports and hence increase cost to UK industry.

3.14 **Compliance with the Flag State Directive**[4]
Recital 3 of the Directive, which is theoretically non-binding, requires the implementation of IMO Conventions into Member States' law. Article 4(1) of the same Directive requires Member States to take all the measures it deems appropriate to ensure that the ship in question complies with the applicable international rules and regulations. Reading both recital and article in conjunction, the requirement can be deduced as implementation of IMO Conventions into domestic law.

3.15 The European Commission will take a keen interest in the IMO Member State Audit Scheme, a non-compliance for implementing IMO Conventions in their up to date form will be indicative of the

[3] The UK Chamber of Shipping is a trade association and considered to be voice for the UK shipping industry. It has around 150 members from across the maritime sector. Further information on the Chamber is available from: https://www.ukchamberofshipping.com/about-us/

[4] Directive 2009/21/EC of the European Parliament and of the Council of 23 April 2009 on compliance with flag state requirements.

UK failing to meet obligations under the Directive. The Commission would then be able to commence infraction proceedings against the UK.

4 Description of options and issues considered

4.1 **Do nothing**

The "Do nothing" option is that the international amendments are not transposed into UK law. The UK, as a signatory to the ILLC/ILLP, has an obligation to implement any changes to the ILLC/ILLP in UK law. Without timely implementation:

- there is a lack of legal certainty for operators due to differing international and domestic requirements;
- the playing field is not level for UK operators; and
- the UK's reputation is at risk

4.2 Further details on each of these rationale for intervention are contained under section 3 of this IA. The 'Do Nothing' is the baseline against which Options 1 and 2 are assessed.

4.3 **Option 1: Bring UK law in line with recent updates to ILLC/ILLP requirements by transposing them into UK law via traditional statutory instruments and without including an Ambulatory Reference provision for future amendments**

4.4 This Option would implement outstanding amendments to the Load Line Convention by transposition into secondary legislation, i.e. without Ambulatory Reference. It would therefore be very likely to take longer than Option 2, and would fail to address industry's concerns expressed at the time of the Red Tape Challenge. This would only be a temporary fix, and by the time it is implemented new amendments are likely to have been published so the UK will still be behind and it will be necessary to go through the whole process again. In other words, the UK would always be playing "catch-up". This Option would therefore lack effectiveness and be resource intensive, continuing the merry-go-round of spending public money on implementing legislation inefficiently.

4.5 Option 1 is therefore not considered a viable Option.

4.6 **Option 2: Bring UK law in line with recent updates to ILLC/ILLP requirements and introduce ambulatory referencing to refer UK industry to the most up to date international Load Line legislation.**

4.7 This option would incorporate the outstanding international amendments into UK law and introduce ambulatory referencing by which future amendments would be introduced more efficiently, and at lower cost to the taxpayer. The outstanding amendments, among other things, enhance watertight integrity, especially of doors and hatches exposed to the weather, and reduce the risk of sinking due to overloading, instability and insufficiency or failure of drainage structures resulting in the retention of water.

4.8 This option will introduce ambulatory referencing to ILLC/ILLP which will directly fulfil the main request of industry from the Red Tape Challenge, which was to address the delay in transposition of international requirements. This option also:

- provides the legal certainty sought by industry as domestic legislation will no-longer be out of step with international requirements;
- reduces the administrative burden for industry, as it can focus on the ILLC/ILLP text in technical areas, rather than also having to refer to national implementing legislation;
- meets the industry desire for copy-out text, and reduce debates on whether a provision has been "gold-plated"; and
- provides a level playing field between UK ships calling at foreign ports and foreign flagged ships calling at UK ports

4.9 This option has the support of the UK shipping industry and is therefore **the preferred option**.

5 Ambulatory Reference

5.1 **ILLC/ILLP Project**

Under ambulatory referencing, future amendments to the ILLC/ILLP agreed internationally will automatically come into force. This IA explores published changes which have come into force internationally since the Load Line Regulations were last amended.

5.2 The ILLC/ILLP is long established and deals with a single issue (load lines). Amendments to the Convention/ Protocol in recent years have largely focused on editorial changes with little real impact on business (as can be seen in Annex A).

5.3 There have only been 10 amending Resolutions, one with a Corrigendum (correction), in the last 28 years (i.e. since the Protocol was added in 1988). These mostly provide further clarity, make marginal technical changes, or redefine geographical operational areas. Even those which do make "real" changes to equipment standards do not have significant cost attached (see Annex A).

5.4 **Consideration of future amendments**

There are currently no future changes planned in the IMO work programme which spans the next two years. Additionally, there are currently no further changes beyond two years in the pipeline. It is fully expected that any further changes which do occur will be minor, as those over the last 28 years have been. Any future amendments will nevertheless go through scrutiny by the UK government and industry, as they progress through the IMO process. In addition, any amendments that are introduced will be reviewed again at five-yearly intervals through the PIR process.

5.5 All the subject matter in contained in the ILLC/ILLP Annex which is subject to Ambulatory Reference is technical in nature. Subsequent technical amendments, during the international negotiation process, will continue to be subject to:

- consideration of high level impacts against a checklist; and
- stakeholder engagement involving representatives of the UK shipping industry.

5.6 The Post Implementation Reviews (PIR) undertaken will evaluate whether the policy has achieved its goal and is still valid, and also evaluate the costs and benefits of all the technical amendments enacted since the previous review (or Impact Assessment). This will be validated by the Regulatory Policy Committee (RPC).

5.7 If any amendment is found to be undesirable, the Secretary of State will have the power to prevent such an amendment coming into force in the UK, or revoke it if already in force. However, the likelihood of this is thought to be remote because the amendments will have been agreed with UK government and industry, as well as internationally, before coming into force.

6 Costs and benefits of each policy option

6.1 **Introduction**

This impact assessment (IA) assesses the additional costs and benefits of the recast Regulations compared with the 'Do Nothing' scenario, appraised over a ten-year period.

6.2 For the purposes of this consultation IA, the costs and benefits for each Option during the appraisal have not been possible to monetise.

6.3 The International Load Line Convention imposes largely minor changes at a highly technical level. The full implications of these changes require expert technical knowledge. Upon discussion with a major Classification Society and Maritime and Coastguard Agency surveyors it is anticipated that the changes are broadly cost neutral, the results of this discussion can be found in Annex A. We intend to use this consultation process to gain a greater understanding of the costs and benefits for the final impact assessment.

6.4 As with the MS (Safety of Navigation) impact assessment, it is expected that the proposals will lead to a benefit from a reduction in time spent to familiarise with both international and national legislation. At present ship operators need to be sure that where provisions of international

conventions have been framed differently in UK law, it is given the same interpretation that it has internationally (in the Convention). The introduction of an ambulatory reference means that ship operators can focus on the convention text in technical areas rather than also having to refer to national implementing legislation; which presents a benefit to industry. The benefit from reduced time costs of familiarisation will be monetised following consultation with industry on the scale of the savings. Relying on the international text will also mean that shipowners and other interested parties will be in possession of the text with which they have to comply much sooner – normally 3 to 5 years sooner – than they would be able to have the official UK transposition. ***Consultees are requested to provide estimates of cost savings resulting from having to refer only to the technical standards in the international text rather than also referring to UK text transposing the standards, and to comment generally on this approach.***

6.5 **The Business Impact Target and One-in-Three-Out:** The measure is a Non-qualifying-regulatory-provision (NQRP) and therefore the EANDCB will not score against the Business Impact Target (BIT).

6.6 ***Option 1: Bring UK law in line with recent updates to ILLC/ILLP requirements by transposing them into UK law in the "traditional" way of writing new Statutory Instruments reproducing the obligations.***

6.7 **Costs**

Although the amendments to the ILLC and ILLP have already been implemented by shipowners, and any associated costs have already been incurred in order to continue operating internationally, this section seeks to identify the changes which have international force. For the purposes of this Impact Assessment, it is necessary for costs to be assessed against the pre-transposition baseline, i.e., prior to their incorporation into UK law, although they have already come into force internationally, and have therefore actually been incurred. Many of the changes are, in any case, clarifications of existing standards or editorial changes to improve clumsy wording. Due to the fact that most of the amendments are incremental, and all are technical – with implications which have long histories and complicated effects - the main areas of change are summarised in the Annex A. As no actual figures are available, these changes have been allocated indicative cost categories, i.e., ball park levels of cost, to give some idea of the order of cost that they would have incurred.

6.8 The cost categories have been verified by experts in the field, from both government and industry, who concluded the amendments are cost neutral, in that no amendment would have given rise to significant cost, and some might have resulted in non-quantifiable savings. Also, the various amendments have been issued over a period which spans nearly 30 years. ***Do you agree with the cost categories identified in the table in Annex A? If not, please provide alternative evaluations.***

6.9 **Benefits**

The main benefit of the amendments to the ILLC and ILLP is to reduce the risk of maritime incidents, as a result of overloaded ships. As the amendments involve a large number of technical amendments and are a regulatory 'stamp of approval' of existing best practice, it is difficult to quantify the consequential reduced risk.

6.10 There may also be a reduction in insurance premia as a result of following more stringent load line regulation. However, when this has been investigated for previous impact assessments, it has been difficult to link specific regulatory interventions with a change in insurance premia.

6.11 From the large list of amendments, the following amendments have been identified as having some cost savings to ship manufactures:

6.12 Regulation 3(9)(b)(iii) - This clarification of what constitutes a lower deck when designated as a freeboard deck could result in less stringent door/hatch strength requirements higher up in the vessel. There could be a slight cost reduction, although whether this was realised would depend on circumstances on a case by case basis.

6.13 Regulation 10(3)(c) – the flexibility to dispense with an inclining test in specified circumstances has the potential to save owners the cost of such a test, which can work out expensive with the hire of weights, cranes, surveyor time, etc.. Costs involved depends entirely on the vessel and the circumstances.

6.14 Regulation 18(2) – a slight relaxation that provides an equivalent level of safety, which allows that if internal doors in the companionway are weathertight, the external door need not be.

6.15 ***Option 2: Bring UK law in line with recent updates to ILLC/ILLP requirements and introduce ambulatory referencing to refer UK industry to the most up to date international Load Line legislation.***

6.16 **Costs**
The cost implications for Option 2 of implementing the outstanding amendments are the same as those described for Option 1.

6.17 **Benefits**
Option 2, due to the Ambulatory Reference element, would result in cost savings to government from implementing future amendments to the ILLC/ILLP. As these amendments would automatically apply, there would be a resource saving from not having to transpose the amendments into UK legislation, with the associated cost savings to government of policy officials', economists', lawyers' and MPs' time, and not having to produce additional legislation.

6.18 This option would also result in cost savings to industry as shipowners would only have to consult a single piece of legislation. Familiarisation costs resulting from future amendments to the ILLC/ILLP will therefore be lower as they will not read separate international and domestic requirements – although the UK government will provide guidance and clarification of the international text where necessary.

6.19 The risk of "gold plating" the original text would also be minimised, as it would be the original text which would be incorporated into UK law.

6.20 This Ambulatory Reference Option, by efficient implementation of Convention amendments, also supports the UK status not only as host to the International Maritime Organization (IMO) – which brings in revenue for the City of London and the UK generally, but also as a Category A member of the IMO Council, which is important to the UK's influence as a maritime nation.

6.21 Furthermore, this Option fulfils the specific request by the Chamber of Shipping, the UK's industry body, for the use of Ambulatory Reference.

6.22 The benefits brought about by Regulation 3(9)(b)(iii), Regulation 10(3)(c) and Regulation 18(2) are the same as for Option 1.

7 Rationale and evidence that justify the level of analysis used

7.1 The proposed Regulations would incorporate the outstanding amendments to the ILLC/ILLP dating back to 2004. Industry has been fully engaged with these amendments throughout their development at the IMO and have contributed to the UK negotiating position at the IMO. Industry voiced its concern regarding the perceived lengthy delay for the transposition of international requirements into domestic law and championed Ambulatory Referencing as the solution.

7.2 Industry has had to comply with the international amendments in order to operate internationally. There is therefore no additional cost for industry involved in the UK incorporating the amendments into domestic law, which is the UK's obligation under international law. However, we have still attempted to provide indicative estimates of the scale of the impacts of the proposal where feasible.

7.3 The incremental and technical nature of changes means that benefits, relating to safety, and costs are not quantifiable. Incidents resulting from Load Line related issues tend to be major (e.g. sinkings) and are rarely caused by a single failure.

7.4 The level of analysis undertaken is in line with the depth of available information. A major Classification Society has been asked for their views on the cost implications the amendments identified had, and these views have been incorporated into Annex A which lists the changes and places them in broad cost "categories".

8 Risks and assumptions

8.1 **Risks of doing nothing**
The risk of doing nothing is the damage to the UK's reputation as a world leader in the maritime

industry. This would have a negative effect on the UK's influence at the IMO and in the EU forum on maritime issues. Furthermore the UK would not be able to detain and/or prosecute any substandard non-UK ships operating in UK waters, especially if an incident occurred, as is currently the case.

8.2 **Risks of only bringing UK law in line with recent updates to international navigational requirements**
Whilst the recent updates will be implemented into UK law, this option only brings temporary relief to the backlog of international legislation to be implemented into UK law. Owing to finite policy/legal/analytical resources, any future amendments to ILLC/ILLP will join the aforementioned backlog. Therefore this option will not address industry's key demand during the RTC for the use of ambulatory referencing to expedite the implementation of amendments to international conventions.

8.3 **Risks of implementing all the options**
There are no risks involved in implementing the ILLC/ILLP measures; industry are fully aware of the changes and are in compliance in order to continue trading internationally without hindrance.

8.4 There is a low risk of adverse publicity in connection with introducing Ambulatory Reference, in that there may be suggestions that this is by-passing the parliamentary and public scrutiny process for new legislation. However, this should be easily refuted by referral to the new scrutiny process, which not only incorporates public scrutiny, but does so at an earlier stage, with the involvement of industry. The reason the risk is assessed as "low" is that industry as a whole have requested Ambulatory Reference to give them legal certainty – so few of their members are likely to challenge it - and members of the public are unlikely to challenge it as the new process incorporates public element of consultation for those relatively few members of the public who have an interest in the highly technical detail involved.

8.5 **Assumptions in relation to the monetary analysis**
The following assumptions have been made for the cost-benefit calculations:

- Operators have already complied with the latest revisions of the ILLC/ILLP, therefore the cost is considered neutral as it has already been incurred. This assumption is supported by PSC data and the fact that ships' operators will comply to mitigate the potential for delays at PSC which can be very costly due to the logistical implications.
- The trend for ships joining and leaving the UK flag continue as per the last 24 months.

8.6 ***Do you agree with the above assumptions? If not, please provide full reasoning and any applicable evidence.***

8.7 ***Do you agree with the assumption in Options 1 and 2 that costs have already been incurred?***

9 OI3O, EANDCB and Business Impact Target

9.1 The direct costs and benefits to business have been appraised in section 6. This measure is a non-qualifying regulatory provision and therefore not scored against the Business Impact Target. This is because the proposals are an international measure that will be implemented according to the minimal requirement.

10 Wider Impacts

10.1 The wider social, environmental and economic impacts of the proposed policy options have been considered, together with possible unintended consequences. Where we have identified potential impacts, they are described in the following paragraphs:

10.2 **Competition assessment**

The new measures apply equally to all ships of the appropriate size calling at UK ports. Issues would not arise in respect of competition as ILLC/ILLP applies equally to all international ships.

10.3 **Small and Micro Business Assessment (SaMBA)**

Based on an analysis of the companies owning UK registered vessels (as at 16 October 2015), it is concluded that the majority of these companies affected by the ILLC/ILLP amendments are large, multinational or subsidiaries of multinationals and would therefore fall outside of the scope of the small firms' impact test[5]. It is estimated that around 3% of ships (approximately 25 ships) on the UKSR are owned by companies which may employ less than 50 people. These smaller companies include the operators of tugs and local passenger ferries.

10.4 The proposed Regulations are targeted towards large ships, which in most cases be operated internationally. It is also anticipated that large ships are operated by large firms.

10.5 In any event, the ILLC/ILLP amendments are primarily concerned with loading, stability, drainage and watertight integrity on board ships, in order to protect lives and the environment. In the interests of safety, it is not possible to justify different requirements in these areas just because a company has fewer employees.

10.6 **Environmental & Carbon Impact**

None of the options would have any adverse environmental or carbon impact. In fact the amendments to ILLC/ILLP would only have the effect of improving the impact of the environment as they enhance ship safety with a view to reducing unwelcome incidents.

10.7 **Race, Disability and Gender Impact Assessment**

All options have been assessed for relevance but the measures proposed are not going to have any variation in impact on different groups; an Equalities Impact assessment is therefore not required.

10.8 **Human Rights**

It is believed that the Minister would be able to make the following statement: "In my view the provisions are compatible with the Convention rights."

10.9 **Family Test**

It is considered that there are no significant impacts on families.

10.10 **Enforcement**

There are no new penalties being introduced by these new measures as the existing offences and penalties are sufficiently broad to cover all requirements which fall under ILLC/ILLP. In fact, it may be possible to reduce the number of offences as offences which can be linked to the possession of a valid certificate may be incorporated with the offence of sailing without such a certificate. Upon introduction of the recast Regulations, the MCA enforcement team could then prosecute those ships that do not comply.

[5] The following assumptions have been made when analysing companies owning UK registered ships:

i. Multinational / Multidisciplinary companies are unlikely to be smaller than a medium sized firm – otherwise they will not be able to conduct their operations

ii. Companies operating 6 small cargo/ 5 small passenger ships or more are unlikely to be smaller than a medium sized firm – otherwise it would not be able to comply with safe manning requirements and provide the shore based personnel infrastructure to deliver business needs. For example, based on a sample of the minimum number of crew required to comply with safe manning requirements for ships less than 50,000GT, it was found that on average:

Ship Type and Size	Min. no. of crew
Cargo Ship 150GT - 499GT	5
Cargo Ship 500GT - 2,999GT	10
Cargo Ship 3,000GT - 19,999GT	14
Cargo Ship 20,000GT - 49,999GT	17

Ship Type and Size	Min. no. of crew
Passenger Ship 150GT - 499GT	6
Passenger Ship 500GT - 2,999GT	10
Passenger Ship 3,000GT - 19,999GT	16
Passenger Ship 20,000GT - 49,999GT	31

11 Post-implementation Review Plan

1. **Review status:** Please classify with an 'x' and provide any explanations below.

	Sunset clause	X	Other review clause		Political commitment		Other reason		No plan to review

2. **Expected review date** (month and year, xx/xx):

0	4	/	2	2

Rationale for PIR approach:

Describe the rationale for the evidence that will be sought and the level of resources that will be used to collect it.

- **Will the level of evidence and resourcing be low, medium or high? (See Guidance for Conducting PIRs)**

The level of evidence and resourcing for this review will be low. The Regulations implement the International Load Line Convention 1966 and International Load Line Protocol 1988 (LLC/ILLP).

- **What forms of monitoring data will be collected?**

The review will include analysing data contained on the Ship Inspection and Surveys (SIAS) and THETIS databases to identify non-compliances with the requirements of ILLC/ILLP established through Port State Control inspections.

- **What evaluation approaches will be used? (e.g. impact, process, economic)**

The Maritime & Coastguard Agency (MCA) will check whether the shipping industry is complying with the new Regulations and, where possible, also whether they are having the desired effect on improving safety.

- **How will stakeholder views be collected? (e.g. feedback mechanisms, consultations, research)**

Officials from the MCA regularly host and/or attend meetings with stakeholders – their feedback on whether measures have had the desired effect or problems encountered is sought as part of ongoing stakeholder engagement.

Annex A – Full list of amendments

The cost categories below have been agreed with DfT Economists, MCA Surveyors and have been verified by a large Classifications Society:

Cost Classification	Meaning
A	There could have been significant costs which can be quantified.
B	There could have been significant costs which cannot be quantified.
C	Change was cost-neutral.
D	Change was cost saving which can be quantified.
E	Change was cost saving which cannot be quantified.

Convention/ Protocol/ Resolution reference	**Amending ILLC/ ILLP Regulation**	**Subject matter**	**Cost**	**Remarks**
Resolution MSC.143(77)	Protocol Annex B, Annex 1, Regulation 1(2)	Structural strength	C	This re-words text on structural strength, and assigns standards depending on the age of the ship, to reflect the state of the shipbuilding art at the time of build. Assessed as cost-neutral.
	Regulation 1(3)	2008 Intact Stability Code mandatory	C	Cost negligible, and the UK would have applied the Code anyway.
"	Regulation 2(5)	Flexibility of assignment of freeboard	C	International text which was removed was re-inserted.
"	Regulation 2(6)	Flexibility of assignment of freeboard	C	
"	Regulation 2(7)	Application of new standards only to newer ships	C	
"	Regulation 2(8)	Application of older standards only to older ships	C	
"	Regulation 2(9)	Alternative method of compliance for High Speed Craft (HSC)	C	
"	Regulation 2-1	Prescription regarding arrangements pertaining to delegation of work to Recognised Organisations (RO)	C	
"	Regulation 3(1)(d)	Clarification of method of keel measurement	C	Clarification only
"	Regulation 3(6)(a)	Clarification of method of moulded depth measurement	C	Clarification only
"	Regulation 3(7)(a)	Clarification of method of calculating block coefficient for a multi-hull craft	C	Clarification only
"	Regulation 3(9)(b)(iii)	Clarification (could possible constitute relaxation in certain circumstances) of what constitutes a lower deck when designated as a freeboard deck	C (or E)	Clarification – could possible constitute relaxation

“	Regulation 3(10)(a)	Clarification of the status of a raised quarterdeck	C	Clarification only. See new Regulation 3(10)(i) below
“	Regulation 3(10)(b)(iii)	Clarification of “enclosed superstructure”	C	Clarification only
“	Regulation 3(10)(e)	Clarification of “bridge”	C	Clarification only
“	Regulation 3(10)(f)	Clarification of “poop”	C	Clarification only
“	Regulation 3(10)(g)	Clarification of “forecastle”	C	Clarification only
“	Regulation 3(10)(h)	Clarification of “full superstructure”	C	Clarification only
“	Regulation 3(10)(i)	Clarification of “raised quarterdeck”	C	Clarification only
“	Regulation 3(11)	Clarification of “superstructure deck”	C	Clarification only
“	Regulation 3(14)	Definition of “Watertight”	C	Clarification only
“	Regulation 3(15)	Definition of “Well”	C	Clarification only
“	Regulation 3(16)	Definition of “2008 Intact Stability Code”	C	Clarification only
“	Regulation 3(17)	Definition of “Audit”	C	Clarification only
“	Regulation 3(18)	Definition of “Audit scheme”	C	Clarification only
“	Regulation 3(19)	Definition of “Code for Implementation”	C	Clarification only
“	Regulation 3(20)	Definition of “Audit standard”	C	Clarification only
“	Regulation 6(7)	Clarification of marking when “W” and “WNA” are the same.	C	Clarification about marking only.
“	Regulation 6(8)	Positioning of marking for other Conventions	C	Clarification only
“	Regulation 10(2)	Carriage of information	C	Cost is considered negligible.
“	Regulation 10(3)	Minor text adjustment “A ship” instead of “Every ship”	C	Improved wording only.
“	Regulation 10(3)(b)	May dispense with Inclining test	C	
“	Regulation 10(3)(c)	Relaxation of requirement for Inclining test in certain circumstances	E	There is a potential cost saving as Inclining tests can be time consuming and difficult, and therefore quite expensive.
“	Regulation 10(3)(d)	Stability information	C	
“	Regulation 10(3)(e)	Carriage of stability information	C	Numbering change only – text remains the same.
“	Regulation 10(4)	Updating information and possible re-inclining.	C	It seems obvious that if there are material changes which affect the stability information supplied to the Master that this should be updated, and if necessary the ship re-inclined. Although not previously spelt out in the ILLC/P prior to these changes, it was not new, as it was already a requirement of Chapter II-1/5 paragraph 4 of the International

				Convention on Safety of Life at Sea (SOLAS).
“	Regulation 11	Changed wording but no material difference.	C	Words “to the satisfaction of the administration” replaced by “acceptable level of strength”.
“	Regulation 12(2)	Doors opening outwards	C	Already common practice and in any case no extra cost.
“	Regulation 12(4)	Conditions relating to the fitting of portable sills	C	Formalises existing practice.
“	Regulation 13	Position of hatches, door vents. Position 2. Application of position, para 1.	C	Clarification only.
“	Regulation 13	Position of hatches, door vents. Position 2. Application of position, para 1.	C	Clarification only.
“	Regulation 14(1)	Cargo and other hatchways	C	
“	Regulation 14-1(1)	Hatch coaming heights and securings	C	Rationalisation of text.
“	Regulation 15 (General)	Portable hatch covers and tarpaulins	C	Reinstates old text.
“	Regulation 15(3)	Strength of hatch covers	C	There was a change to the method for calculating the strength of hatch covers, the net effect was zero. (Loads were increase but so were permissible deflections.)
“	Regulation 15(4)	Strength of portable beams	C	Additional strength required for portable beams. Costs were probably insignificant, and in any case were already Class requirements (see Reg 15(3) above).
“	Regulation 15(5)	Assumed loads on hatchways	C	Assumed loads on hatchways may be reduced by less than before. Costs would have been insignificant, and in any case were already Class requirements (see Reg 15(3) above).
“	Regulation 15(6)	Pontoon covers	C	Additional strength required for pontoon covers.
“	Regulation 15(7)	Strength of pontoon covers not made of mild steel	C	
“	Regulations 16(2), (3)-(5)	Hatch cover design loads	C	Loading on hatch covers increased largely as a result of the loss of the Bulk Carrier DERBYSHIRE.
“	Regulations 16(6)-(7)	Securing and weathertightness- horizontal loads	C	Horizontal loading on hatch covers increased largely as a result of the loss of the Bulk Carrier DERBYSHIRE.
“	Regulation 17(2)	Inclusion of double doors for some ships	C	
“	Regulation 17(3)	Fiddly/ funnel etc., coaming height.	C	Possible minor cost but not significant.

“	Regulation 17(4)	Reduced heights may be permitted by the administration where heights in Regulation 17(3) are not practicable.	C	Flexibility in respect of Regulation 17(3) above.
“	Regulation 17(5)	Fiddley weathertightness requirement	C	Text moved but not changed.
“	Regulation 18(2)	Openings	C or E	Editorial changes.
“	Regulation 18(3)	Openings atop a deckhouse on a raised Quarterdeck	C	
“	Regulation 18(5)-(7)	Height of sills	C	
“	Regulation 19(1) (middle text)	Minimum height ventilator coamings	C	
“	Regulation 19(4)	Weathertight closings to ventilator openings	C	
“	Regulation 19(5)	Editorial change	C	“Positions” replaced by “locations”.
“	Regulation 20(2)	Editorial change	C	
“	Regulation 20(3)	Air pipes auto closing valves	C	Formalises existing practice.
“	Regulation 20(4)	PV valves	C	Relaxation.
“	Regulation 21(1) middle text “Unless otherwise granted by the Administration, these opening shall open outwards” (2) last bit plus all of (3)-(5)	Cargo ports and other similar openings	C	Already common practice.
“	Regulation 21(2) “referred to in paragraph (1)” “least 230 mm above”	Cargo ports and other similar openings – lower edge	C	Additional safety margin of 230mm added. Could conceivably result in additional marginal cost but this is considered unlikely.
“	Regulation 21(3)	Where relaxation is used, additional compensatory features must be included	C	This is optional and only required when relaxation is used. So would only be carried out if benefit outweighed cost.
“	Regulation 21(4)	Fitting of second door is one option for r21(4) above	C	This is optional and only required when relaxation is used. So would only be carried out if benefit outweighed cost.
“	Regulation 21(5)	Doors and their securings	C	This is optional and only required when relaxation is used. So would only be carried out if benefit outweighed cost.
“	Regulation 22(1)(b)-(f)	Alternative valve arrangements are acceptable	C	Flexibilities in respect of valve configurations to prevent water ingress back through discharges.
“	Regulation 22(4)	Reference to earlier paragraph updated and	C	Effect is the same.

		imperial measurements in brackets removed.		
“	Regulation 22(7)	Thickness of scupper and discharge pipes	C	
“	Regulation 22-1	Garbage chutes	C	
“	Regulation 22-2	Spurling pipes and cable lockers	C	Were possibly insignificant costs.
“	Regulation 23	Side scuttles, windows, skylights	C	
“	Regulation 24	Freeing ports	C	Was some cost, but considered marginal and mitigated by the increasing modern trend to not fit bulwarks on modern ships, but instead just to have guardrails which do not trap water but allow effective drainage.
“	Regulation 25	Guard rail design	C	Formalising existing practice.
“	Regulation 25-1	Protection of crew	C	Formalising existing good practice.
“	Regulation 26	Protection of machinery casings.	C	Clarification.
“	Regulation 27	Condition of Equilibrium - hatch covers, closing devices for vents and air pipes	C	Clarification.
“	Regulation 29	Superstructure length	C	Clarification.
“	Regulation 30	Block coefficient	C	Clarification.
“	Regulation 32-1	Freeboard deck recesses	C	Clarification
“	Regulation 34	Length of superstructure	C	Clarification and confirmation of best practice in relation to the measurement of a superstructure
“	Regulation 35	Effective length of superstructure	C	Clarification relation to the measurement of a superstructure
“	Regulation 36	Trunks	C	Implications of a trunk when calculating freeboard
“	Regulation 37	Deduction for superstructures and trunks	C	Change which reflects the change in ship design trends over the years.
“	Regulation 38	Sheer	C	Change accommodates arrangements previously not catered for.
“	Regulation 39	Minimum bow height	C	Change raised the minimum bow height, which is calculated from a formula, as a result of lessons learned from the loss of the catastrophic loss of the Bulk Carrier DERBYSHIRE. However, the Classification Society consulted have not seen any evidence of significant cost impact.
Resolution MSC.172(79)	Protocol Annex III	Load Line Certificate	C	Certificate design change to include survey date.

“	Protocol Annex III	Load Line Exemption Certificate	C	Certificate design change to include survey date.
Resolution MSC.270(85)	Protocol Annex B, Annex I, Chapter I, Regulation I	Intact Stability (IS) Code	C	IS Code made mandatory. Cost negligible, and the UK would have applied the Code anyway.
“	Protocol Annex B, Annex I, Chapter I, Regulation 3	Definition of IS Code	C	
Resolution 223(82)	Protocol Annex B, Annex I, Chapter I, Regulation 22(4)	Editorial reference relating to valves	C	
“	Protocol Annex B, Annex I, Chapter III, Regulation 39(1)	Moulded depth	C	Clarification of determination of moulded depth.
Resolution MSC.345(91)	Protocol Annex B, Annex I, Chapter III, Regulation 27(11)	(iv) Derivation of intact loading conditions (v) Treatment of ballast water in loading calculations (vi) Alternative treatments for free surface effects	C	(iv) Clarification only. (v) Clarification only. (vi) Clarification only.
“	Protocol Annex B, Annex I, Chapter III, Regulation 27(13)	Condition of Equilibrium	C	Clarification only.
Resolution MSC.329(90)	Protocol Annex B, Annex III, Regulation 47	Boundary changes of Southern Winter Seasonal Zone	C	
MSC Corrigendum – Annex B, Annex II	Protocol Annex B, Annex III, Regulation 47	Boundary changes of Southern Winter Seasonal Zone	C	Correction to Resolution 329(90) only.
Resolution MSC.356(92)	Protocol Annex I, Chapter I, General, Regulation 2-1	High Speed Craft (HSC) compliance	C	Confirmation that HSC built to HSC Code deemed compliant.
Resolution A.1083(28)	Protocol Annex I, Chapter I, General, Regulation 3	Audit, code of implementation	C	Addition of definitions only.
“	Protocol Annex IV, Regulation 53 & 54	Application, verification of compliance	C	New Annex IV
Resolution MSC.375(93)	Protocol Annex I, Chapter I, General, Regulation 3	Audit, code of implementation	C	Addition of definitions only.
“	Protocol Annex IV, Regulation 53 & 54	Application, verification of compliance	C	New Annex IV. Incorporates elements of the IMO Audit. Cost is insignificant and is out of scope as it relates to policy development and state compliance with international conventions.

Annex B – Ambulatory Reference

Definition of ambulatory reference

An ambulatory reference for the purposes of this Impact Assessment is a reference in domestic legislation to an international instrument which is interpreted as a reference to the international instrument as modified from time to time (and not simply the version of the instrument that exists at the time the domestic legislation is made).

What does an ambulatory reference achieve?

Once an ambulatory reference to an international Convention, or part of an international Convention, is introduced into a Statutory Instrument (SI), new amendments to the Convention (or the referenced part of the Convention, if only part of it is referenced) will automatically become UK law. No additional SIs/ amendments to existing SIs will be required to bring such amendments into force.

Enabling Power to make Ambulatory Reference

On 26 March 2015, the Deregulation Act 2015 received Royal Assent. The Act introduced a new power to make ambulatory references to international instruments under a new section 306A of the Merchant Shipping Act 1995 (MSA 95). This power will only be used for "technical", and therefore non-controversial, aspects of the Convention.

What assurances are in place to prevent undesirable amendments to international Conventions automatically coming into force?

1. A new SI must be created to introduce an ambulatory reference to an international Convention. The suitability of the international Convention will be assessed (taking into consideration the nature of amendments and the likelihood of whether they will be controversial) prior to the use of ambulatory reference being approved.
2. There is the facility for the Secretary of State (SoS) to block measures coming into force with which the UK does not agree. This facility will be available for exceptional circumstances, however, this "opt-out" it is not expected to be used frequently, if at all, because:
   - any UK arguments deemed necessary to shape the amendments will have been applied in the international negotiation stage;
   - the amendments, being of a technical nature, are not expected to be politically controversial;
   - the amendments, once agreed, will in any case be binding on the international community and therefore it will be necessary for UK ships wishing to operate internationally without hindrance to comply anyway

Regulatory process supported by the Better Regulation Executive for Ambulatory Reference measures

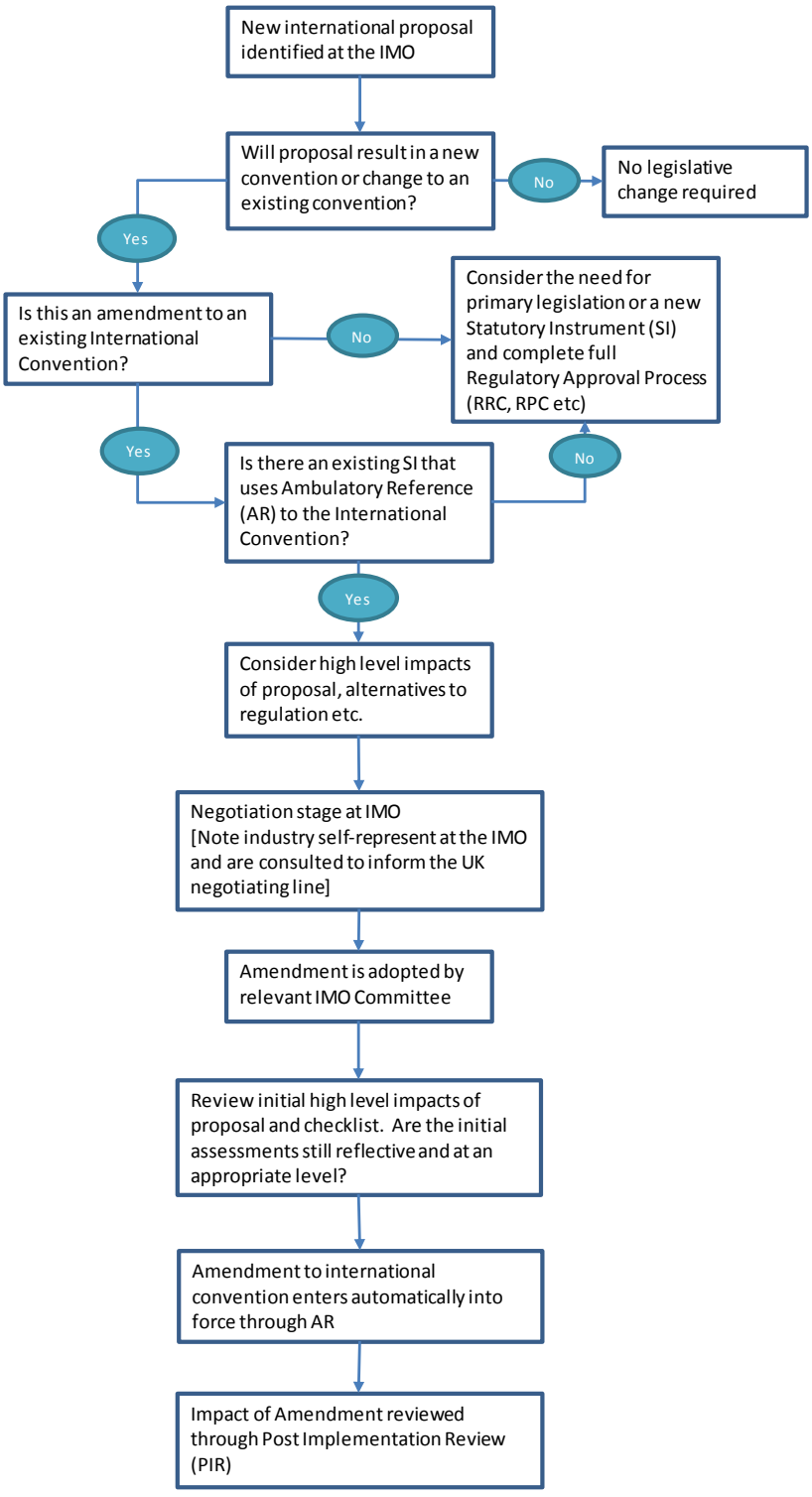
A flow diagram of the agreed scrutiny process is depicted overleaf, in essence the process will require:

- an ambulatory reference provision to be included in secondary legislation which will follow the full Parliamentary and Regulatory processes;
- subsequent technical amendments during the international negotiation process, will continue to be subject to:
  - consideration of high level impacts
  - stakeholder engagement
- full Post Implementation Review to be undertaken to evaluate whether the policy has achieved its goal and is still valid, and also evaluate the costs and benefits of all the technical amendments enacted since the previous review (or impact assessment)

The proposed approach streamlines the traditional regulatory process and directs it where the greatest influence can be achieved, at negotiation stage. The principles of Better Regulation are still captured:

- Alternatives to Regulation – prior to work commencing on any proposal at the IMO, a case for action must be demonstrated against the following criteria: practicality, feasibility and proportionality; costs and benefits to industry, including legislative and administrative burdens; and alternatives to regulation.

- Consultation – industry is represented at the IMO through non-governmental organisations, which are heavily involved in early stage policy development, contributing to working and drafting groups where policy is designed, as well as participating in plenary where policy is examined. Industry representatives are invited to meetings hosted by the MCA prior to IMO sessions to assist with the development of the UK's negotiating position.
- Assessment of Impact – a high level consideration of impact is undertaken at proposal stage to inform the UK's negotiation position. Post Implementation Reviews will be used to assess the robustness of the original assessment and will be timed to ensure they can feed into negotiations for future rounds of amendments.



How does Ambulatory Reference support Economic Growth?

The UK's ability to implement international agreements efficiently and effectively is important to the commercial shipping sector for a number of reasons:

- timely implementation means that UK ships plying internationally can properly be issued with certificates that confirm compliance with relevant international rules. Recent experience with the Maritime Labour Convention has highlighted a risk that current implementation practice could result in the UK delaying ratification of major agreements, potentially restricting the participation of UK shipping in international trade;

- the uniform implementation of international rules in all contracting states is vital in order to achieve a level playing field for UK ships that trade internationally. The UK must be capable of certifying its own ships to the relevant standards; failure to do so makes it much more likely that a UK ship will be detained in a non-UK port for non-compliance. We must also be able to enforce those same standards against non-UK ships in UK ports, to ensure that compliant UK ships are not disadvantaged;

- current implementation practice has created a complicated and disjointed regulatory regime that diverges significantly from the international structure. This creates administrative burden for industry, because of the needless duplication of effort needed to ascertain the domestic legal position, and because of the unnecessary complexity of the domestic regime;

- a transparent, accessible and up-to-date legal regime is a vital component of a quality flag. Improving the way we implement international law will reflect the UK's ambition to make its flag a more attractive place to do business, as well as protecting our reputation as a world-class maritime administration, both with industry and the international institutions (such as the EU and the IMO) with responsibility for maritime policy;

- when discussing technical matters with overseas clients or shipyards and designers, it helps to have a common source of reference. Those working within the UK regime will be familiar with the UK's implementation, but those in other states will have no knowledge of it;

- when an owner wishes to change flag to the UK, the ship will have been constructed to the international requirements. Differences in UK law (occasionally deliberate gold-plating, but mostly differences in legislative drafting styles and delays in implementing amendments) make assessing a ship's compliance unnecessarily complicated, and may create additional hurdles capable of discouraging owners from transferring to the UK.

Annex C – Glossary of Terms

Amidships - Amidships is at the middle of the length (L). *Taken/adapted from definition in International Load Line Convention*

Block coefficient - is given by

The block coefficient (C_b) is given by:

$$C_b = \frac{\Delta}{L \cdot B \cdot d_1}$$

Where Δ is the volume of the moulded displacement of the ship, excluding appendages, in a ship with a metal shell, and is the volume of displacement to the outer surface of the hull in a ship with a shell of any other material, both taken at a moulded draught of d1; and where d1 is 85% of the least moulded depth. *Taken/adapted from definition in International Load Line Convention*

Breadth - Unless expressly provided otherwise, the breadth (B) is the maximum breadth of the ship, measured amidships to the moulded line of the frame in a ship with a metal shell and to the outer surface of the hull in a ship with a shell of any other material. *Taken/adapted from definition in International Load Line Convention*

Bridge - a superstructure which does not extend to either the forward or after perpendicular. *Taken/adapted from definition in International Load Line Convention*

Bulwark - a wall that is part of a ship's sides and that is above the ship's upper deck. *Merriam-Webster*

Depth for freeboard - is the moulded depth amidships, plus the freeboard deck thickness at side. *Taken/adapted from definition in International Load Line Convention*

Fiddley - The vertical space above a vessel's engine room extending into its stack, usually covered by an iron grating. Also applied to the framework around the opening itself. *Lexbook.net*

Forecastle - a superstructure which extends from the forward perpendicular aft to a point which is forward of the after perpendicular. The forecastle may originate from a point forward of the forward perpendicular. *Taken/adapted from definition in Annex 1, Regulation 3(8) of the International Load Line Convention*

Freeboard - the freeboard assigned is the distance measured vertically downwards amidships from the upper edge of the deck line to the upper edge of the related load line. *Taken/adapted from definition in International Load Line Convention*

Freeboard Deck - Deck from which freeboards are calculated, usually the uppermost deck completely exposed to the sea (weather deck).

Freeing port - An opening in the rail (bulwarks) along the deck to allow water to drain. *MiMi Boating website: http://en.mimi.hu/boating/freeing_port.html*

Load Line Length - 96% of total length on a waterline at 85% of the least moulded depth measured from the top of the keel, or length from fore-side of stem to the axis of the rudder stock on that waterline. *Taken/adapted from definition in International Load Line Convention*

Load line mark - a ring 300 mm in outside diameter and 25 mm wide which is intersected by a horizontal line 450 mm in length and 25 mm in breadth, the upper edge of which passes through the centre of the ring. The centre of the ring is placed amidships and at a distance equal to the assigned

summer freeboard measured vertically below the upper edge of the deck line. *Taken/adapted from definition in International Load Line Convention*

Moulded depth - is the vertical distance measured from the top of the keel to the top of the freeboard deck beam at side. *Taken/adapted from definition in International Load Line Convention*

Perpendiculars - The forward and after perpendiculars shall be taken at the forward and after ends of the length (L). The forward perpendicular shall coincide with the foreside of the stem on the waterline on which the length is measured. *Taken/adapted from definition in International Load Line Convention*

Poop - a superstructure which extends from the after perpendicular forward to a point which is aft of the forward perpendicular. The poop may originate from a point aft of the aft perpendicular. *Taken/adapted from definition in International Load Line Convention*

Rake of Keel - is defined as the height the keel raises from the after perpendicular to the fore perpendicular *Shipping Encyclopedia.com* *http://www.shippingencyclopedia.com/term/rake-of-keel>* (i.e., sloping keel not parallel to the waterline).

Sea – does not include Category A, B, C or D waters **[or similar coastal areas of other states]**. Regulation 2(1) Merchant Shipping (Load Line) *Regulations 1998 (SI 1998/2241)*

Sheer - The upward curve of the deck of a ship toward the bow and stern with the lowest point at or near the waist when viewed from the side. *Age of Sail.net ageofsail.net*

Spurling pipe - a pipe or tube through which an anchor chain passes to the chain locker below the deck of a ship. *Merriam-Webster*

(Deck) Stringer - a strake of plating secured to the deck beams along the outer edge of a ship's deck in order to connect the beams to the side of the ship and to each other. *Merriam-Webster*

Superstructure - a decked structure on the freeboard deck, extending from side to side of the ship or with the side plating not being inboard of the shell plating more than 4% of the breadth (B). *Taken/adapted from definition in International Load Line Convention*

Verification of marks - the International Load Line Certificate must not be delivered to the ship until the officer or surveyor acting under the provisions of Article 13 of the International Load Line Convention has certified that the marks are correctly and permanently indicated on the ship's sides. *Taken/adapted from definition in International Load Line Convention*

Watertight - means capable of preventing the passage of water through the structure in either direction with a proper margin of resistance under the pressure due to the maximum head of water which it might have to sustain. *Taken/adapted from definition in International Load Line Convention*

Weathertight - means that in any sea conditions water will not penetrate into the ship. *Taken/adapted from definition in International Load Line Convention*