DfT Regulatory Triage Assessment

Title of regulatory proposal	Standards for Domestic Passenger Ships
DfT RTA number	DfTRTA00128
Lead DfT directorate/Agency	Maritime and Coastguard Agency
Expected date of implementation	01/07/2017
Origin	EU
Date	27/09/2016
Lead Policy	Stuart Hannam
Lead Economist	Nick Brighton
Departmental Triage Assessment	Low cost (fast track)

Rationale for intervention and intended effects

The problem under consideration is that, prior to 1998, there were no EU wide harmonised standards for Seagoing Domestic Passenger ships. There was growing concern within the EU about the safety of these vessels, particularly in the light of several high-profile incidents over the previous two decades. Directive 1998/18/EC aimed to address this situation by applying safety standards developed at the International Maritime Organization (IMO) for passenger ships engaged on international voyages, adopted under the auspices of the International Convention for the Safety Of Life At Sea (SOLAS) appropriately scaled to make them proportionate for ships operating in various categories of domestic waters. This Directive was amended 3 times by way of amending directives to update the standards such that they were in line with changes made to SOLAS.

Directive 2009/45/EC consolidated and superseded the requirements of 1998/18/EC and its amendments in a recast form. This Directive has itself already been subject to amendments by 2010/36/EU which updated it in line with SOLAS.

The intended effect of the Directive is to maintain a robust, up to date and appropriate safety regime for seagoing domestic passenger ships across the EU, in order to achieve the following outcomes:-

- to ensure that passengers can expect and rely on an appropriate level of safety no matter where in the EU they are traveling; and,
- to ensure through regulations, surveys and certification that the single market principles of the EU are complied with and that freedom of movement of ships and trade is facilitated.

Directive 2016/844, which is under consideration within this RTA again amends 2009/45/EC to update that directive in line with recent changes to SOLAS. The changes within this amending Directive are mostly of a technical nature although some limited operational requirements (such as safety drills) are also included.

In order to achieve proportionality in the application of the safety requirements the Directive defines four sea areas of operation for the passenger ships: A, B, C and D. Each of these areas present a varying level of risk and corresponding proportionate safety standards. Sea Area A is the sea area which is furthest from land, thus presenting the greatest safety risks, and so attracts the application of the full international standards. Sea area D is the closest to land and generally presents the lowest level of risks, and therefore less onerous adaptations

of international requirements are applied. In between areas A and D, areas B and C represent intermediate standards to be applied.

During the implementation of Directive 1998/18/EC, the UK secured an equivalency agreement whereby UK domestic passenger ships constructed before 1 July 1998 could continue being certificated and operated under existing UK domestic legislation. Such ships that took advantage of this arrangement were therefore unaffected by the 1998 directive or its amendments.

UK ships which do not fully comply with the updated technical requirements, including those that continue to be certified in accordance with the UK equivalency arrangement, may not be allowed to operate in the waters of other EU member states and as such would be put at a potential commercial disadvantage. As far as the MCA is aware however, the number of UK operators wishing to do so has been negligible.

Viable policy options (including alternatives to regulation)

Do Nothing

A do nothing option would mean that amendments introduced by Directive 2016/844 are not transposed by UK regulation. This would result in confusion for those to which the Directive applies as to which standards they need to comply with.

Operators of ships not built and operated to the latest standards may be prevented from operating on domestic routes of other Member States thus preventing their full engagement in the Single Market. Without updated harmonised safety standards the Directive would be out of line with SOLAS and so fair competition amongst operators could not be ensured.

For the above reasons the do nothing option is considered as inappropriate. This option would cause confusion, prevent UK operators having the option to take advantage of the single market and would likely result in infraction proceedings being instigated by the European Commission against the UK.

Option 1 – Transpose the requirements of 2016/844 into UK law without going beyond the minimum requirements (The preferred option)

Under this option only the mandatory provisions of the Directive will be implemented. That would mean that ships affected by these regulatory amendments would be seagoing domestic passenger ships of classes A, B, C and D and High Speed Craft.

Under this option, "Existing" UK domestic passenger ships (those built before 1 July 1998) holding certain UK certificates would be able to continue to use the UK equivalency arrangement. This arrangement allows certain specified ships to operate in compliance with national safety regulations and restrictions without having to comply with the Directive implementing Regulations. This arrangement is pre-existing and would apply by default.

Option 2 – Introduce the proposed Regulations to transpose Directive 2016/844 and extend the applicability to all vessels under the scope of the Directive including those currently covered under the equivalency arrangement.

Option 2 would mean following the same process as option 1 whilst in addition extending the scope of the Regulations to cover all UK registered seagoing domestic Passenger ships within the scope of the Directive, in effect removing the UK equivalency arrangement.

The effect of option 2 would be to bring existing ships currently certified under the UK equivalency arrangement into certification under the Directive. This would almost certainly impose further costs on operators currently certified under the equivalency arrangement.

Initial assessment of business impact

Assumptions regarding requirements for existing ships:

- Out of 75 UK domestic seagoing passenger ships identified only 36 are expected to be bound by some or all of the provisions in the Directive, as all others either fall in scope of international regulations or fall under the UK equivalency arrangement.
- It is anticipated that the amending Regulations would be introduced on the transposition date of 1 July 2017 in order to comply with the requirements of Article 2 of Directive 2016/844. For the purposes of this RTA it has been assumed that the amendments will enter force on 1 July 2017 and that requirements will not be enforced before the date stated in the Directive i.e. new ships constructed after July 2018 for some of the structural changes.
- Due to the requirements applicable to "existing" ships already operating being limited to equipment provision and drills it is assumed that these modifications are required to be made to the ship whilst it is operating thereby avoiding any additional costs that would otherwise arise from the need to use docking facilities or the hire of temporary vessels to continue the service.
- It has been assumed that operators of ships that meet the terms of exemption from the Directive under the current UK equivalency arrangement would not need to comply with the updated standards introduced.
- It appears that there are currently no Class A seagoing domestic passenger ships or High Speed Craft with domestic and not international certification. This is because these vessels are required to comply in full with international requirements, namely SOLAS or the High Speed Craft Code and therefore gaining international certification offers greater flexibility in operations. It has therefore been assumed that these vessels will not be impacted by this amending directive.
- Some existing seagoing domestic passenger ships may already be in full compliance with the technical updates introduced by this amending directive. In the absence of specific information as to the level of compliance with the amendments our assumption is that ships are not currently in compliance with the new standards and would therefore incur applicable compliance costs.

Costs for existing ships

The amending Directive requires existing ships to purchase and maintain several pieces of safety equipment, as well as undertake regular drills. The cost of purchasing such equipment has been monetised in this section. The costs that have been monetised are for 'FSS Compliant Breathing Apparatus', 'Radios' and 'On Load Release Mechanisms'. The majority of these costs are likely to be transitional (one off), apart from associated servicing costs.

Forecasting the number ships joining per year has been undertaken over the period from 1960 to 2016. The total number of ships joining over the period has then been divided by the 57 years to obtain an estimate of 0.63 ships joining per year.

Firefighting breathing Apparatus

Fire System Safety (FSS) Code compliant breathing apparatus units cost roughly £540 per ship. How many sets each ship has to carry is based on various factors including the Class of Ship, layout and length of passenger space. Ships greater than 24m in length (all class B ships) and ships greater than 40 metres (a single class C ship in our model) must carry a minimum 2 fire breathing apparatus sets. Ships of length greater than 60m are

required to carry a minimum of 4 sets per ship. These set numbers may however increase due to the design of the ship.

The highest cost year is in 2019 with a total of almost £42,000. This is because 2019 is the transitional year when the directive comes into force in regards to the carriage of FSS compliant breathing Apparatus. The 10 year forecast total cost of £72,092 for fire breathing apparatus has used the assumption that the directive will apply to every new ship that joins using the forecasted join rate of 0.63 ships per year. In reality the cost figure is likely to be lower because not every new ship that joins the register is likely to be greater than 24m (some ships in our sample where smaller than 24m in length), and therefore will not need to carry fire breathing apparatus. Where the sets forecasted is not an integer (i.e. 1.26), the number has been rounded up to make full sets, which will again lead to an overestimate in the apparatus and cost forecast. In reality the requirement to carry FSS compliant breathing apparatus will be absorbed into the overall cost of new ship equipment.

Radios

The estimate for explosion proof radio costs includes the cost of their chargers; these are £868 and £62 respectively. The forecasted radio costs are based upon the assumption that 2 radios are needed per fire team (with 2 crew members to each fire team), where one radio will be used by the fire team with the other one being with the controller for communication back to the control room. Hence only ships that require fire teams need to purchase radios; we have therefore used the same input of ship data as for the fire breathing apparatus estimate. One charger is needed for each individual radio also.

Again it is unlikely that every ship that joins the register in the future will have fire teams and therefore radios, however this has been modelled as a worst case and highest cost scenario.

The highest cost year is in 2017 due to it being the transitional cost year for Radios, with an estimate of £63,269.

'On Load Release Mechanisms'

Currently out of the 36 ships modelled only 6 of them carry lifeboats, with five of the ships carrying 3 lifeboats and the other one carrying 2 lifeboats. All these ships are Class B vessels. It is assumed that every Class B ship that joins the register in the future will carry 3 lifeboats (using the figure of 0.44 ships joining per year, as this is the additional number of class B ships that theoretically join the register each year). This is highly unlikely given the current trend and will therefore give a high a future cost estimate.

For the main estimate the cost of the 'On load Release Mechanisms' has used the 'high estimate' of £28,537, using an exchange rate of £0.85 to the Euro (XE rate, 30/08/2016). The estimates used in this RTA assume a worst case scenario because lifeboats installed on applicable newbuild ships will have to be fitted with SOLAS-compliant on load release mechanisms as part of the supply.

2017 again sees the highest cost incurred due to this being the transitional year when the mechanism standards are applied, with an estimated cost of £171,222.

Quantifiable Cost Summary Table

	Cost for existing ship (per unit)	Fire breathing Apparatus	Radio (including Charger)	Release Mech (High £)	Total
	Price	£538	£930	£28,537	
Year					
2017			£63,269	£171,222	£234,491
2018			£1,665	£12,516	£14,181
2019		£41,988	£1,665	£12,516	£56,169

2020		£3,763	£1,665	£12,516	£17,944
2021		£3,763	£1,665	£12,516	£17,944
2022		£3,763	£1,665	£12,516	£17,944
2023		£3,763	£1,665	£12,516	£17,944
2024		£3,763	£1,665	£12,516	£17,944
2025		£3,763	£1,665	£12,516	£17,944
2026		£3,763	£1,665	£12,516	£17,944
2027		£3,763	£1,665	£12,516	£17,944
				10 year total	**£448,396**

Costs that have not been monetised relate to the following new or changed requirements:-

'Steering Trials - These involve procedures for testing of ships' main and auxiliary steering gear which will allow the steering gear to be tested at a draught less than the full draught and the results extrapolated to the full draught condition. These are in fact considered a relaxation of the corresponding previous requirements. It is not envisaged that this change will have any significant impact on domestic passenger ships and as such will not have an associated cost

'MoB (Man overboard) Drills - Ships must have a plan identifying the procedure and equipment for recovering a person from the water, in line with the guidance for international passenger ships.

'Enclosed space drills' – These comprise procedures and equipment required to rescue one or more persons from an "enclosed place" on the ship (where applicable), such as a ballast tank or double-bottom space.

'Records' – Under this requirement, all drills performed on the ship are to be recorded in an agreed format, and reasons logged for any drills not being performed. This requirement is covered under safety management requirements and is not expected to increase operating costs.

Whilst both MoB and Enclosed space drill requirements are expected to incur a cost, given the frequency of these drills, it is not believed that the cost will be more than several hundred pounds per ship per annum. Furthermore, such drills are already required under the Domestic Safety Management (DSM) and International Safety Management (ISM) Code requirements. Indeed, we believe that many of these drills are conducted as part of standard industry good practise. However these assumptions will be reviewed at consultation.

Additional costs to ships constructed on or after 1 January 2018

New ships have to comply with the requirements for existing ships due to the applicability to new and existing ships. Many of the requirements in the amending directive are applicable to new ships constructed on or after 1 January 2018. These are mainly of a structural nature and therefore the costs of compliance will be incorporated into the overall cost of designing and building the ship rather than having to retrofit equipment or modify the ship to meet the requirements.

Any costs related to the requirements on ships constructed on or after 1 January 2018 will therefore arise at the design and construction stage. Such costs are impossible to quantify due to factors affecting the overall cost of the construction of the ship. For example the cost quoted by a shipyard and the timing of the building are subject to external commercial considerations such as the availability of services, materials and the shipyard capacity Therefore, the costs of having a ship built depend to a large extent on market forces prevalent at any given time.

In summary these requirements cover the following aspects with estimated indicative costings:

'Ventilation Systems' – These requirements call for automatic smoke and fire dampers in certain situations, and filters for laundry exhaust ducts. The resultant costs will depend on the size and configuration the ship and its existing ventilation system but indicative increases are: up to 1000% for replacing manual dampers with

automatic ones, and 10% for laundry filters. These latter will only occur on larger ships. Consultation with industry has shown that the only change in requirement which will incur costs will be the requirements for smoke dampers which in the scope of the ventilation system will have a medium cost and the requirements for filters on ducts serving the laundry which will have a low cost. It is not believed that the other requirements will have associated cost increases.

'Noise Code requirements' – This requirement introduces the requirement for all new ships over 1600gt to comply with the IMO Noise Code This applies limits for the noise exposure of crew in working and living spaces on board the ship and is applicable to crew accommodation and working areas only. Whilst this code may require the increase on sound insulation and changes to design on new ships it is expected, due to the requirement to comply with current UK legislation to have a low overall cost impact on the construction of a new ship.

'Fire insulation amendments' – This requirement uplifts the required fire protection of bulkheads and deck heads between certain compartments such as stairways and special category spaces. In effect the requirements increase the amount of time the bulkhead must prevent a temperature rise of 140^{o}C above the original temperature. As this is an uplift in required fire protection and fire protection would have been installed on previous ships the uplift is deemed to be a low cost when considered as part of the whole ship construction cost.

'Machinery work shop escapes' – This requirement requires all new ships to have a second means of escape from workshops located within the machinery space. This is considered to be a low cost as the extra escape can be incorporated during the ship design stage before construction commences.

'Fixed Firefighting systems'- This amendment introduces the requirement for fixed firefighting systems to protect the hazard areas on all internal combustion machinery. Previously the requirement to fit firefighting systems was limited to main propulsion and power generation internal combustion machinery only. This will potentially introduce some additional firefighting systems e.g. hydraulic power packs / IC driven fire pumps etc. However the overall cost impact is considered to be low given that the amount of vessels fitted with such units in applicable spaces.

'Fire Detection systems' - This addition introduces requirements for fire detection systems be extended to cover unmanned machinery spaces and spaces where some automation is controlled from a control room. Whist this requirement would mean the installation of a fire detection system in unmanned machinery spaces of new ships the cost is seen to be small when considered as part of the overall costs of the ship as an extension to existing fire detection requirements.

Savings for ships under 24m in length

Line throwing apparatus is no longer required for newbuild ships under 24m in length. This represents an indicative saving of £460 per installation for any ships.

Total cost

From the quantifiable costs imposed by the directive we have estimated an expected cost of £234,491 in its most expensive year. This is the worst case scenario as described above with 'On Load Release Mechanisms' being modelled at their most expensive capacity. The cost over the 10 year appraisal period is not expected to be greater than £450,000.

The non-monetised costs are not expected to be larger than (£500,000), because many of these are either negligible or only applicable to ships constructed on or after 1 January 2018. Furthermore they will be incorporated in the design and construction processes so isolating and identifying such costs separate to the cost of the whole ship would not be feasible.

Benefits of option 1:

Option 1 presents benefits both to the operators of seagoing domestic passenger ships and also to the passengers travelling on those ships.

Transposing Directive 2016/844 would mean that UK seagoing domestic passenger ships within the scope of the Directive would need to meet the latest safety standards. If the Directive were not to be transposed then UK ships would not be in compliance with its technical standards and as such would not be able to operate in the waters of other EU member states.

It is also believed that continuing to comply with up to date standards will stimulate competition for the construction, charter and purchase of ships throughout the EU and European Economic Area (EEA) as common safety standards apply across all Member States. The UK will also be fulfilling its commitment as an EU Member State by transposing and applying Directive standards and as such would not be at risk of infraction proceedings for failing to transpose.

Directive 2016/844 introduces updated safety standards in line with international developments adopted at the International Maritime Organization (IMO) following discussion amongst its Members. This ensures that passengers on Seagoing Domestic Voyages are protected by ship standards based on international requirements thus ensuring a high level of safety.

Benefits of Option 2

Option 2 would, as stated extend the provision of the Directive to ships currently covered under the UK Equivalency arrangement. This would mean that the benefits associated with option 1 would also apply under this option.

Under this option there is the potential for business benefit to the operators of ships currently covered by the UK equivalency arrangement. As these ships would be in compliance with and issued with Directive certificates they would be able to operate in the domestic waters of other Member States. However, given the average size of the vessels covered under the Equivalency, it is doubtful that many of these operators would choose to take their vessels and operate from ports and in the waters of other Member States.

One-in, Three-out / Business Impact Target

The proposal is of European origin and the preferred option is to transpose the Directive without any gold-plating. As a result, the proposal is considered out of scope of One-in, Three-out and does not score against the Business Impact Target.

Rationale for Triage rating

Low cost – Under the assumptions used, it is estimated that the Directive will incur a cost of well under £1m per annum, even when using worst case estimates. Furthermore the Directive will also cost well under £1m in total over the 10 year appraisal period.

Confirmation that the proposed measure is suitable for Fast Track		
Policy sign-off:	Signature	Katy Ware
	Date	19/12/2016
Economist sign-off:	Signature	Jonathan Saks
	Date	07/12/2016
Better Regulation Unit sign-off:	Signature	Chris Simon
	Date	21/12/2016