

EXPLANATORY MEMORANDUM TO
THE MERCHANT SHIPPING AND FISHING VESSELS (ENTRY INTO ENCLOSED SPACES) REGULATIONS 2022

2022 No. 96

1. Introduction

- 1.1 This explanatory memorandum has been prepared by the Department for Transport and is laid before Parliament by Command of Her Majesty.
- 1.2 This memorandum contains information for the Joint Committee on Statutory Instruments.

2. Purpose of the instrument

- 2.1 The purpose of the instrument is to prevent seafarers being injured or killed by entry into enclosed spaces. It replaces and re-enacts certain provisions of the Merchant Shipping (Entry into Dangerous Spaces) Regulations 1988 (S.I. 1988/1638 - “the 1988 Regulations”); gives effect to the new regulation 7 of Chapter XI-1 of the International Convention for the Safety of Life at Sea 1974 (Cmnd 7874 - “the SOLAS Convention”), which is administered by the International Maritime Organization (“IMO”); and extends the requirements of that regulation and regulation 19 of Chapter III of SOLAS to ships to which the SOLAS Convention does not apply. It places duties on shipowners, masters, employers of seafarers and others to take measures to protect seafarers from the hazards of entering and/or working in enclosed spaces.

3. Matters of special interest to Parliament

Matters of special interest to the Joint Committee on Statutory Instruments

- 3.1 The Secondary Legislation Scrutiny Committee, in its 21st Report of Session 2017-19, included an exchange of correspondence between the Committee and the Department in relation to the implementation backlog of international maritime conventions. The Committee, in both its 17th Report of Session 2019-21 and 11th Report of Session 2021-22, included further correspondence from the Department which described steps it was taking to address the backlog. These Regulations are one of the statutory instruments which implement outstanding international obligations to which the Department referred in that correspondence. On 19th October 2021, Robert Courts MP appeared before the Committee to provide a further update on the backlog and to explain how it will be discharged by the Department, and the Committee reported on the outcome in its 17th Report of Session 2021-22.

4. Extent and Territorial Application

- 4.1 The territorial extent of this instrument is England and Wales, Scotland and Northern Ireland.
- 4.2 The territorial application of this instrument is England and Wales, Scotland and Northern Ireland. It applies to substantially all ships that are registered in the United Kingdom, wherever they may be and non-UK ships when in UK waters, including most classes of ships to which the SOLAS Convention does not apply. The only

exceptions are pleasure vessels (as defined in the instrument), vessels on which there is for the time being no master, crew or watchman, warships, naval auxiliaries and other ships engaged on government non-commercial service.

5. European Convention on Human Rights

- 5.1 As the instrument is subject to negative resolution procedure and does not amend primary legislation, no statement is required.

6. Legislative Context

- 6.1 Regulation 19 of Chapter III of the SOLAS Convention sets the requirements for emergency training and drills which must be undertaken by those working on all ships to which the SOLAS Convention applies. This includes provisions for abandon ship drills and fire drills. In January 2015 an amendment requiring regular drills for entry into enclosed spaces came into force.
- 6.2 Chapter XI-1 of the SOLAS Convention covers special measures to enhance maritime safety. Regulation 7 was added and came into force in July 2016 to require the carriage of atmosphere testing equipment on all ships to which the SOLAS Convention applies.
- 6.3 The SOLAS Convention applies to all ships engaged on international voyages except ships of war and troopships, cargo ships of less than 500 gross tonnage (“GT”), ships not propelled by mechanical means, wooden ships of primitive build, pleasure yachts not engaged in trade and fishing vessels (“SOLAS ships”).
- 6.4 The 1988 Regulations put in place measures to prevent injuries and fatalities in dangerous spaces on ships, as part of the United Kingdom’s implementation of the International Labour Organization (“ILO”)’s Merchant Shipping (Minimum Standards) Convention 1976 (ILO No. 147) (Cmnd 7163), which has been superseded by the Maritime Labour Convention (Cmnd 9364 - “MLC”), adopted on 23rd February 2006 by the General Conference of the ILO. The MLC was presented to Parliament in a White Paper (Cm 7049, published in March 2007) and ratified by the United Kingdom on 7th August 2013.
- 6.5 The MLC is referred to in the instrument in order to define the term “shipowner”. For this limited purpose, the reference to the MLC is ambulatory (regulation 4). Although the ambulatory reference provision provides for future amendments to the MLC to be incorporated automatically, proposed changes will nevertheless continue to be scrutinised in the ILO and the impact (if any) will be assessed before any amendment is due to come into force. United Kingdom industry and workers’ representatives will also be involved at the stage at which the United Kingdom negotiating strategy is being formulated and will be able to influence it. The United Kingdom may also object to an amendment and ensure that it does not come into force in relation to the United Kingdom and is therefore not incorporated into domestic law by way of ambulatory reference. An amendment will be publicised in advance of its in-force date by means of a Parliamentary Statement to both Houses of Parliament and by way of a Marine Guidance Note, which will be available from the Department’s Maritime & Coastguard Agency (“MCA”) of Spring Place, 105 Commercial Road, Southampton SO15 1EG (telephone 020 3817 2000 and email infoline@mcga.gov.uk).

- 6.6 The 1988 Regulations made provision for securing and restricting entry to dangerous spaces. In addition, they required drills for emergencies in dangerous spaces to be carried out on tankers and gas carriers of 500 GT or more and (subject to some exceptions, including fishing vessels) other ships of 1000 GT or more. The 1988 Regulations also required atmosphere testing equipment to be carried on any ship (subject to the same exceptions) where seafarers might be required to enter a dangerous space. They therefore anticipated most of the requirements of regulation 19 of Chapter III and the new regulation 7 of Chapter XI-1 of the SOLAS Convention. However, the requirements prescribed by the 1988 Regulations were more limited in scope and did not apply to all SOLAS ships.
- 6.7 The Merchant Shipping (Life Saving Appliances and Arrangements) Regulations 2020 (S.I. 2020/501 – “the 2020 Regulations”) implemented the amended requirement of regulation 19 of Chapter III of the SOLAS Convention for rescue drills in relation to SOLAS ships. This instrument extends the same requirement to non-SOLAS ships, subject to certain exceptions. This instrument also implements the new regulation 7 of Chapter XI-1 of the SOLAS Convention on carriage of atmosphere testing equipment for SOLAS ships and, again, subject to certain exceptions, extends it to non-SOLAS ships.

7. Policy background

What is being done and why?

- 7.1 Entry into enclosed spaces is a sometimes necessary but dangerous work activity on board ships.
- 7.2 An enclosed space is defined in IMO resolution A.1050(27) on revised recommendations for entering enclosed spaces aboard ships, adopted on 30th November 2011, as “a space which has any of the following characteristics—
- (a) limited openings for entry and exit;
 - (b) inadequate ventilation; and
 - (c) is not designed for continuous work occupancy”.
- 7.3 By contrast, the 1988 Regulations adopted the term ‘dangerous space’, defined as: “any enclosed or confined space in which it is foreseeable that the atmosphere may at some stage contain toxic or flammable gases or vapours, or be deficient in oxygen, to the extent that it may endanger the life or health of any person entering that space.”.
- 7.4 This instrument adopts a modified version of the definition used in IMO resolution A.1050(27), which has been amended to provide greater clarity: “a space which is not designed for continuous worker occupancy and has either or both of the following characteristics—
- (a) limited openings for entry and exit;
 - (b) inadequate ventilation;”.
- 7.5 The Marine Accident Investigators’ International Forum (“MAIIF”) presented a paper to the IMO in July 2009. This paper determined the number of enclosed space incidents that had happened internationally since IMO resolution A.864(20) on recommendations for entering enclosed spaces aboard ships was adopted on 27th November 1997 (Resolution A.864(20) was revoked and superseded by Resolution A.1050(27)).

- 7.6 The MAIIF investigation found that there had been at least 101 enclosed space incidents internationally resulting in 93 deaths and 96 injuries, up to 2009. Of the 93 deaths, 16 related to vessels involved in the fishing industry, for which there is currently no regulation regarding entry into enclosed spaces.
- 7.7 A more recent report on safe handling of solid bulk cargoes presented to the IMO Sub-committee on Carriage of Cargoes & Containers in June 2018 by the International Bulk Terminals Association (“IBTA”) outlined statistics restricted to cargo operations in bulk terminals. The IBTA report found that, between 1991 and 2018, there had been 106 deaths with many seriously injured in 71 accidents. 88 fatalities were due to asphyxiation, whilst the remaining 18 were due to explosions. Almost 93% of the fatalities in this report were in hold access ways and ladders. There was a lot of variation in ship size, with no one size dominating. More incidents took place in port than at sea.
- 7.8 A response by the Marine Accident Investigation Branch (“MAIB”) to a Freedom of Information Act request in June 2019 reported that, between January 2009 and May 2019, across both UK vessels and non-UK vessels in UK ports, there were a total of six recorded fatalities from entry into enclosed spaces. This included one onboard a UK fishing vessel.
- 7.9 The MAIB investigated an enclosed space fatality on the fishing vessel Sunbeam which occurred in August 2018. In response to the incident the MAIB issued a safety bulletin to the industry, highlighting the dangers and offering best practice advice.
- 7.10 The full report on the Sunbeam accident was published by the MAIB in December 2020. It identified the need to amend the legislation. The incident on Sunbeam, and other data, shows that there is a risk of multiple fatalities caused by crew members who find a casualty in an enclosed space, entering that space to try to undertake a rescue, without taking the proper precautions and using the correct equipment, and then falling victim to the same hazard. Ensuring adequate training, provision of atmosphere testing equipment and regular drills would save lives.

Explanations

What did any law do before the changes to be made by this instrument?

- 7.11 The 1988 Regulations apply to UK ships and non-UK ships when in UK waters but do not apply to fishing vessels, pleasure craft, offshore installations within 500m of their workstation or ships in which there is for the time being no master, crew or watchman.
- 7.12 The 1988 Regulations include provisions concerning:
- securing entrances to dangerous spaces (regulation 4);
 - maintaining onboard procedures for entering dangerous spaces (regulation 5);
 - carrying out drills on tankers and gas carriers of 500GT or more and on other ships of 1000GT or more (regulation 6); and
 - the carriage and maintenance of atmosphere testing equipment on board (regulation 7).

Why is it being changed?

- 7.13 The 1988 Regulations are being revoked, partly re-enacted and replaced in order to implement the requirements of the new regulation 7 of Chapter XI-1 of the SOLAS

Convention concerning carriage of atmosphere testing equipment in relation to SOLAS ships and to extend them to non-SOLAS ships; and to extend the requirements of the amended regulation 19 of Chapter III of the SOLAS Convention concerning rescue drills to non-SOLAS ships. The new Regulations are intended to reduce injuries and loss of life at sea due to enclosed space entry.

- 7.14 The application of this instrument to non-SOLAS ships addresses calls from industry to address this risk.
- 7.15 The application of regulation 7 (entry into enclosed spaces) of this instrument to fishing vessels is in response to the MAIB recommendation as a result of the Sunbeam incident, as well as the data compiled by the MAIIF.
- 7.16 The adoption of the IMO's term 'enclosed space' rather than 'dangerous space', and a definition reflecting the IMO definition will ensure that there is consistency across industry and aids in clarifying what the regulations apply to.

What will it now do?

- 7.17 This instrument sets out the additional requirements concerning carriage of atmosphere testing equipment and undertaking regular drills on enclosed space entry.
- 7.18 The 1988 Regulations do not apply to fishing vessels. After consultation with industry, it was decided to apply only regulation 7 (entry into enclosed spaces) of this instrument to fishing vessels, in order to mitigate the risks of enclosed spaces, while allowing greater flexibility as to how to achieve this safety benefit, given the different patterns of operation of such vessels.
- 7.19 This instrument will ensure that on non-SOLAS ships to which the new requirements will apply (except fishing vessels and ships classified as Classes IV, V and IX(A), including IX(A)(T), for the purposes of the 2020 Regulations), drills are carried out at regular intervals, which will decrease the likelihood of seafarers entering into enclosed spaces without following the proper procedures. This will reduce the risk of injuries and fatalities. Ships classified as Classes IV, V and IX(A), including IX(A)(T), are excluded because they operate in areas that are not categorised as 'sea' for the purposes of most Merchant Shipping legislation (e.g. canals, tidal and non-tidal rivers, lakes and some estuarial waters).
- 7.20 This instrument also ensures that on SOLAS and non-SOLAS ships to which the new requirements will apply (except fishing vessels and ships classified as Classes IV, V and IX(A), including IX(A)(T), for the purposes of the 2020 Regulations), atmosphere testing equipment is carried onboard, so that entry into enclosed spaces can be appropriately risk assessed, and the dangers of entry properly understood.
- 7.21 This instrument also makes provision for the Secretary of State to grant exemptions from regulations 8 (drills) and 9 (testing equipment) in relation to non-SOLAS ships, subject to the satisfaction of certain conditions that are designed to minimise the risk to seafarers. The new Regulations come into force on a later date for non-SOLAS ships to allow time for the adoption of appropriate exemptions.

8. European Union Withdrawal and Future Relationship

- 8.1 This instrument does not relate to withdrawal from the European Union / trigger the statement requirements under the European Union (Withdrawal) Act.

9. Consolidation

9.1 No consolidation is necessary.

10. Consultation outcome

- 10.1 Informal discussion between the MCA and stakeholders at a seminar on entry into enclosed spaces in February 2016 supported implementation of the amendments to the SOLAS Convention. There was also support for the extension of safety regulations in this area to smaller vessels and to fishing vessels, provided that provision was made for exemptions where the safety management system applying on the vessel meant that no crew members would enter enclosed spaces on board.
- 10.2 A public consultation on the draft instrument was conducted by the MCA between 24th May 2021 and 19th July 2021. There were 19 responses from a range of organisations and individuals including merchant shipping trade associations, fishing federations and MCA surveyors.
- 10.3 The majority of consultation responses were supportive of this instrument, including the extension of the requirements to non-SOLAS ships. It was widely agreed that the risks to seafarers and the frequency of incidents and fatalities requires that regulations reflect the serious danger posed by enclosed spaces on the majority of vessels. The majority broadly agreed with the assessment of impact on industry.
- 10.4 The majority agreed with the provision of exemptions, as long as there are robust safety management systems / risk assessments carried out. Those from the fishing industry requested further engagement on the development of appropriate conditions on general exemptions for the industry.
- 10.5 The majority felt that only vessels which already have to comply with the 1988 Regulations were currently protected against the risks of entry into enclosed spaces. Only those that already have to carry atmosphere testing equipment do so, even though the dangers of enclosed spaces are well known within the industry. The majority felt that only vessels which have to comply with the 1988 Regulations send seafarers on enclosed space training. Responses estimating the proportion of companies sending seafarers on recognised enclosed spaces training ranged quite widely but were dependant on the type of vessel and mode of operation.
- 10.6 Responses from the fishing industry, which is currently unregulated for entry into enclosed spaces, did not see the need for further regulation, preferring to rely on the duties to protect the health and safety of workers as set out in the Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997 (S.I. 1997/2962).
- 10.7 The responses from the fishing industry also indicated that the impact to industry may be higher than anticipated. There were some concerns from the fishing industry that compliance with the regulations requiring carriage of atmosphere testing equipment and doing safety drills every two months would be too onerous on some fishing vessels, especially those of smaller size, and would not bring significant safety benefit, given the pattern of operation of such vessels. The cost of training for the fishing industry was generally felt to be more than estimated but no data to validate what the cost would be as some training is available and could be enhanced.
- 10.8 In response to the consultation responses and follow up discussions with the fishing industry, for fishing vessels only regulation 7 (entry into enclosed spaces) will apply,

allowing more flexibility for fishing vessels in mitigating the risks of entry into enclosed spaces, and thereby lessening the burden.

- 10.9 Further guidance will also be developed in collaboration with the Fishing Industry Steering Group to support this industry in protecting workers against the risks posed by entry in to enclosed spaces.
- 10.10 The majority of additional comments indicated areas where the practical implications of the new Regulations were unclear. These will form part of further guidance. Consideration of the exemptions process and training availability will be fully reviewed.
- 10.11 The consultation summary can be found at <https://www.gov.uk/government/consultations/consultation-on-entry-into-enclosed-space-regulations-on-ships>.

11. Guidance

- 11.1 The MCA publishes the Code of Safe Working Practices for Merchant Seafarers (“the Code”) which is a handbook for health and safety on board ships. Carriage of the Code is mandatory on all UK ships. Chapter 15 of the Code covers safe procedures for entry into enclosed spaces. The requirement for drills for emergencies in enclosed spaces was amended in 2015 to reflect the amendments to the SOLAS Convention.
- 11.2 A Marine Guidance Note explaining the requirements of this instrument will be published. The MCA plans to produce additional guidance in the form of leaflets and posters to support understanding of this hazard and how to mitigate risk. Particular attention will be given to guidance for the fishing industry.

12. Impact

- 12.1 There is no, or no significant, impact on charities or voluntary bodies. The impact on business is low, as set out in paragraph 12.3. For businesses operating SOLAS ships, there is no impact, as this instrument implements existing international regulatory standards.
- 12.2 There is no, or no significant, impact on the public sector.
- 12.3 A full Impact Assessment has not been prepared for this instrument because the costs of implementation are expected to be relatively low. Based upon available data and anecdotal evidence from MCA surveyors, ex-masters and industry professionals the Department has applied assumptions to arrive at an estimate for the costs of the proposals. Benefits in terms of lives saved and injuries avoided are uncertain and the Department has not attempted to estimate these as many factors can contribute to deaths and injuries at sea. The overall cost estimate for the preferred option is -£11m discounted over the 10-year appraisal period. The equivalent annual net direct cost to business is -£1.3m, well below the £5m annual threshold for a full impact assessment.

13. Regulating small business

- 13.1 The legislation applies to activities that are undertaken by small businesses.
- 13.2 To minimise the impact of the requirements on small businesses (employing up to 50 people), the approach taken is to make provision for exemptions from certain requirements where there is no requirement for crew to enter enclosed spaces, provided that measures are in place to ensure an equivalent level of safety measures.

13.3 With regard to fishing vessels and ships operating in areas that are not categorised as ‘sea’ (as described in paragraph 7.19), which are typically operated by small businesses, only regulation 7 (entry into enclosed spaces) applies, allowing more flexibility for these classes of vessels in mitigating the risks of entry into enclosed spaces, and thereby minimising the impact of the requirements.

14. Monitoring & review

14.1 The approach to monitoring of this legislation is through consultation with the UK’s National Maritime Occupational Health and Safety Committee, which represents both shipowners and seafarer unions, and the national Fishing Industry Safety Group. Through this consultation and discussion, the MCA will evaluate how this instrument changes working practices and whether safety benefits are seen. Consideration will also be given to statistics for injuries and accidents reported to the MAIB.

14.2 A statutory review clause is included in the instrument. In accordance with that clause, the Regulations will be reviewed, and a report of that review will be published no later than five years from the coming into force of the Regulations, and every five years thereafter.

15. Contact

15.1 Ann Hayward at the Maritime and Coastguard Agency Telephone: +44 (0) 203 81 72250 or email: ann.hayward@mcga.gov.uk can be contacted with any queries regarding the instrument.

15.2 Katy Ware, Director for United Kingdom Maritime Services, at the Maritime and Coastguard Agency can confirm that this Explanatory Memorandum meets the required standard.

15.3 Robert Courts MP, Parliamentary Under Secretary of State at the Department of Transport, can confirm that this Explanatory Memorandum meets the required standard.