Maritime & Coastguard Agency

**MARINE GUIDANCE NOTE**

# MGN 659 (M+F)

# The Merchant Shipping and Fishing Vessels (Entry into Enclosed Spaces) Regulations 2022

**Notice to all shipowners, fishing vessel owners, ship operators, managers and other employers of seafarers and masters, officers, skippers and other workers, paid crew and self-employed persons working on board merchant ships and fishing vessels, classification societies, certifying authorities, test houses and competent persons.**

*This notice should be read in conjunction with the Merchant Shipping and Fishing Vessels (Entry into Enclosed Spaces) Regulations 2022, The Code of Safe Working Practices for Merchant Seafarers (in particular Chapter 15 Entering Enclosed (Dangerous) Spaces), Codes of Practice for the Safety of Fishing Vessels and MGN 311 (F) Working and Protective Gear for Fishermen.*


**Summary**

The Merchant Shipping and Fishing Vessels (Entry into Enclosed Spaces) Regulations 2022[1] ("the 2022 Regulations") come into force for ships to which the Safety of Life at Sea (SOLAS) Convention 1974 applies, on the 14 May 2022 and for other ships, including fishing vessels, on the 14 May 2023 and revoke the Merchant Shipping (Entry into Dangerous Spaces) Regulations 1988[2] ("the 1988 Regulations").

This notice supports the interpretation of the 2022 Regulations. Quotation of the 2022 Regulations has been made at sections to which the guidance refers. However, this document is for guidance only and the full Statutory Instrument should be referred to, to ensure compliance.

This notice incorporates guidance published in International Maritime Organization (IMO) Resolution A/1050(27)[3] Entering Enclosed Spaces on Board Ships.

Information has been provided on risk assessments, procedures, drills, carriage of atmosphere testing equipment, and training of seafarers for their safety and awareness of the 2022 Regulations. It is recommended to refer to The Code of Safe Working Practices (COSWP) or the Codes of Practice for the Safety of Fishing Vessels as well as the 2022 Regulations to develop suitable procedures for enclosed space entry.

The Merchant Shipping (Maritime Labour Convention) (Health and Safety) (Amendment) Regulations 2014[4] and Merchant Shipping (Work in Fishing Convention) (Consequential Provisions) Regulations 2018[5], extend duties to protect all seafarers and fishermen, regardless of their employment status. In this notice, "shipowner" includes "fishing vessel owner" and "seafarer" includes "fishermen" and reference to "ship" means to any vessel to which the 2022 Regulations apply.


## 1. Introduction

1.1 The 2022 Regulations place duties on shipowners, masters, skippers, fishermen, employers of seafarers and others to take measures to protect seafarers and fishermen from the hazards of entering and or working in enclosed spaces.

[1] S.I. 2022/96
[2] S.I. 1988/1638
[3] IMO Resolution A/1050(27)
[4] S.I 2014/1616
[5] S.I 2018/1109

1.2 For vessels covered by the Safety of Life at Sea Convention 1974 ("the SOLAS Convention") the 2022 Regulations will come into force from 14 May 2022. The 2022 Regulations will also apply, from 14 May 2023, to ships not covered by the SOLAS convention ("non-SOLAS ships").

1.2.1 The 2022 Regulations implement an amendment to the SOLAS Convention:

- Chapter XI-1/7 on carriage of atmosphere testing equipment (which came into force 1 January 2016). This is implemented into UK law in regulation 9 of the 2022 Regulations and is also extended to most non-SOLAS ships.

1.2.2 The changes to SOLAS Chapter III/19 on emergency drills for entry into enclosed spaces were implemented by the Merchant Shipping (Life-Saving Appliances and Arrangements) Regulations 2020[6] ("the 2020 Regulations"). However, this now shall also apply to most non-SOLAS ships.

1.3 The application of the 2022 Regulations is to all ships, with some exceptions noted at section 5, Application. Exemptions will be available in due course from regulation 8 (drills) and regulation 9 (testing equipment), subject to the conditions that are set out in regulation 10.

1.4 The 2022 Regulations revoke the 1988 Regulations.

## 2. Background

2.1 In addition to implementing changes to the SOLAS Convention, these new regulations address industry concerns regarding the risks of enclosed space entry.

2.2 Entry into enclosed spaces is a dangerous but necessary work activity onboard ships and fishing vessels. If entry into an enclosed space can be avoided, it should be. If entry is essential, compliance with the regulations and following industry best practice will ensure protection of those entering the space. Entry into enclosed spaces is particularly dangerous as it can lead to multiple fatalities and incidents due to seafarers who find a casualty in an enclosed space, enter that space to effect a rescue and then fall victim to the same hazard. The incident on board the ***EERV Viking Islay***[7], alongside other incidents, demonstrates the need for increased awareness of the dangers and necessary precautions, and regulations to support this.

2.3 Following the incident involving entry into enclosed spaces on the fishing vessel ***Sunbeam***[8], the Marine Accident Investigation Branch (MAIB) recommended that fishing vessels are included in any enclosed space regulations. See Annex B for brief summaries of these incidents.

## 3. What is an enclosed space?

3.1 *Regulation 3 Interpretation*

*"enclosed space" means 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; and*
*(b) inadequate ventilation*

3.1.1 This definition more closely reflects the meaning of an enclosed space used in IMO Resolution A.1050(27), than the former term, *dangerous space,* which was used in the 1988 Regulations. The term dangerous space is no longer used, to help distinguish enclosed spaces from other dangerous areas onboard ships.

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[6] S.I. 2020/501
[7] RRV VIKING ISLAY
[8] FV SUNBEAM

3.2 Identifying an enclosed space

3.2.1 Enclosed spaces can become hazardous for a number of reasons and as outlined in IMO A.1050(27). In enclosed spaces, the environment can develop an oxygen-deficient, oxygen-enriched, flammable and/or toxic atmosphere, all of which are hazardous to human health.

3.2.2 Limited openings may increase the risk of a harmful atmosphere developing and may also create a hazard on entry whilst seafarers are wearing the appropriate personal protective equipment. It should be considered whether there is ease of access within the spaces and a potential route for casualty extraction if there was an emergency rescue situation.

3.2.3 An area with inadequate ventilation, which might not generally be considered an enclosed space, can still develop a harmful atmosphere under various conditions. See COSWP Chapter 14 Permit to Work Systems, Annex 14.1 Permits to Work and Chapter 15 Entering Enclosed (Dangerous) Spaces, which highlights the importance of adequate ventilation.

3.2.4 Conditions such as poor ventilation and limited access to enter or exit a space heighten the risk of a hazardous environment, which can lead to asphyxiation or loss of consciousness in a matter of minutes. Toxic and flammable gases can accumulate, and low levels of oxygen can occur at varying levels within a space.

3.3 Below is a non-exhaustive list of enclosed spaces. Potentially, any space on board a ship or fishing vessel within the definition can be or become an enclosed space.

3.3.1 Examples of such spaces are:

- cargo spaces
- double bottoms
- fuel tanks
- ballast tanks
- cargo pump rooms
- cargo compressor rooms
- cofferdams
- chain lockers
- void spaces
- duct keels
- inter-barrier spaces
- sewage tanks
- refrigerated sea water (RSW) and vivier tanks
- engine crankcases
- engine scavenge air receivers
- $CO_2$ rooms
- battery lockers
- bait stores
- fish rooms
- net stores
- enclosed lifeboats
- slop tanks
- bilges
- ballast water treatment rooms
- boilers
- adjacent connected spaces, e.g. cargo space, access ways, forecastle spaces, windlass switch rooms and bosun's workshops / stores. (See also point 3.7 and 7.3.4)

3.4 Awareness of potential risks is necessary for all spaces on board ship. If in any doubt, any such space should be regarded as enclosed and appropriate action taken.

3.4.1 An enclosed space may not necessarily be enclosed on all sides, e.g., a ship hold may have open tops but the nature of the cargo makes the atmosphere in the lower hold toxic. Such places are not usually considered to be enclosed spaces, but the atmosphere may become toxic because of a change in the condition inside or in the degree of enclosure or confinement, which may occur intermittently, e.g. in diving bells or saturation chambers. Personnel should also exercise caution before entering any space on board a ship that has not been opened for some time.

3.5 It is also important to consider that the atmosphere of spaces can change, and that any atmosphere can potentially become hazardous. Any spaces that are or may become

connected to an enclosed (or previously enclosed) space, can cause that space to become unsafe too.

3.5.1 As an example, when a tank is opened, the atmosphere in the space where the person opening the tank is standing could become unsafe. Breathing apparatus may be appropriate before opening an enclosed space, to protect against any potential gases that may migrate from the enclosed space. Work activity and leaks can also create harmful atmospheres. This includes leaks of refrigerant gas, water ingress, oxygen-depleting work (e.g. burning, welding), pressure and ventilation failure and vapours from cleaning chemicals and paints.

3.6 Any potential enclosed spaces on board ship should be identified during risk assessment and kept under review. It is recommended that an inventory is made of any enclosed spaces. See COSWP 15.1.6 Introduction, for further guidance.

3.7 Opening an enclosed space creates the potential for inadvertent entry by others and even putting only your head in or near the space could have fatal consequences. There is also the potential for the dangerous atmosphere to migrate into adjacent spaces when a space is opened. When considering what constitutes an accessible enclosed space, risk assessments should consider whether there is potential for entry into such spaces. See section 7.3 for more details. This would include, for example, where a tank hatch has been opened with the intention of conducting a visual inspection whilst remaining outside the space.

## 4. Training and awareness

4.1 All seafarers should have on-board training to help recognise the risks of enclosed spaces and to familiarise themselves with any applicable procedures. No entry into an enclosed space should be permitted until suitably qualified persons are present. The implications of this should be considered in particular when the competent person and/or authorised officer are shore-based personnel. See COSWP Chapter 15.2 Duties and responsibilities of a competent person and an authorised officer.

4.2 The shipowner or company should provide any necessary training, instruction and information to seafarers to allow the 2022 Regulations to be complied with. This should include:

- recognition of the circumstances and activities likely to lead to the presence of a dangerous atmosphere;
- the hazards associated with entry into enclosed spaces, and the precautions to be taken;
- the use and maintenance of equipment and clothing required for entry into enclosed spaces; and
- instruction and drills in rescue from enclosed spaces.

4.3 All seafarers whose duties *may* involve entry into enclosed spaces should attend a dedicated course for entry into enclosed spaces. See COSWP Chapter 15.12 Training, instruction and information.

4.4 Even on ships where normal procedures do not require seafarers to enter into enclosed spaces, it is important that everyone onboard has the appropriate awareness of the risks to understand that entry should not be attempted except in an emergency, and to understand the necessary precautions if entry does need to be undertaken.

## 5. Regulation 5 Application

5.1 *5.(1) Subject to paragraphs (2) and (5), these Regulations apply to—*

*(a) United Kingdom ships, wherever they may be; and*
*(b) other ships, while they are within United Kingdom waters.*

5.2 According to Regulation 8, drills must be participated in by seafarers whose responsibilities include entry into or rescue from enclosed spaces. If there are no seafarers with these responsibilities, drills will not be required. Emergency situations also need to be considered. If entry is ever going to be necessary, Regulation 8 must be followed.

5.3 According to Regulation 9, carriage of atmosphere testing is required on ships on which there is an accessible enclosed space, therefore if there is no such space, this will not be required.

5.4 Regulation 7, which requires safe systems of work, will apply to Fishing Vessels and ships classified as Classes IV, V and IX(A) from 14 May 2023. Whilst compliance with regulations 6 (entrances to enclosed spaces), 8 (drills) and 9 (carriage of atmosphere testing equipment) is not mandatory for these vessels, the regulations should be considered best practice for any ships with accessible enclosed spaces.

5.5 Where the 2022 Regulations do not apply to a work activity involving entry into an enclosed space, the Health and Safety Executive's Confined Spaces Regulations 1997[9] ("the 1997 Regulations") (or equivalent legislation in Northern Ireland) will do so[10] which outline the equivalent requirements for land-based workers. These do not apply to the master or seafarers of a sea-going ship, or to the employer of such persons in respect of the normal ship-board activities carried out solely by seafarers under the direction of the master. Shipowners using a third-party contractor for enclosed space entry should ensure that the employer is competent and appropriate procedures are in place and are being undertaken.

## 6. Regulation 6 Entrances to Enclosed Spaces

6.1 *6. The master of a ship must ensure that all entrances to unattended enclosed spaces on the vessel are either kept closed or otherwise secured against entry, except when entry is necessary.*

6.2 There should be safety signage advising of potential hazardous atmospheres, even in areas which are kept closed or locked and when procedures prohibit entry to the enclosed space.

6.3 Entrances could include doors, hatches or manholes. It is important to remember that an enclosed space can still be accessed, even if secured. In the case of the ***ERRV Viking Islay***, the space was secured but seafarers accessed the space. In this case, awareness of the risks and appropriate procedures for entry to enclosed spaces could have saved lives (See Annex B).

## 7. Regulation 7 Entry into Enclosed Spaces

7.1 Regulation 7 ensures that safe systems of work are in place for enclosed space entry and that these comply with Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997[11] ("the HSAW Regulations")).

7.2 On ships on which there is at least one accessible enclosed space, the shipowner (or other person referred to in regulation 4 of the HSAW Regulations) must ensure that:

- the system of work provided and maintained in accordance with regulation 5 (general duties) of the HSAW Regulations include systems for entry into and working in enclosed spaces
- assessments of risks of entry into and working in enclosed spaces are made in accordance with regulation 7 (risk assessment) of the HSAW Regulations

[9] S.I. 1997/1713

[10] The 1997 Regulations will apply when work activities are covered by the Health and Safety at Work etc. Act 1974 (HSWA) and its relevant statutory provisions, including docks, jetties, loading / cargo operations, ship repair, offshore installations, energy structures, wells and pipelines, aquaculture. This may also apply to foreign flag ships and those working on them in UK waters (inc. inland areas such as ports).

[11] S.I. 1997/2962

7.2.1 The master must ensure that the systems of work are observed on board the ship. No person may enter or remain in an enclosed space, unless acting in accordance with the systems of work.

7.3 Risk Assessment of an Enclosed Space

7.3.1 An authorised officer or competent person should follow company procedures to assess the risks of enclosed spaces. Based on the findings of the risk assessment appropriate control measures should be put in place to protect anyone who may enter an enclosed space. Company procedures or the ship's Safety Management System (SMS) should be referred to and a Permit to Work issued. For further information see COSWP Chapter 1 Managing Occupational Health and Safety Chapter 14 Permit to Work Systems, Annex 14.1 Permits to Work and Chapter 15.2 (Duties and responsibilities of a competent person and an authorised officer) and review of the flow chart at the end of Chapter 15, outlining steps prior to entering an enclosed space. Further information on risk assessment for fishing vessels can be found in Fishing Vessel Risk Assessment and Safety Management Systems[12].

7.3.2 Enclosed spaces may be dangerous on account of a number of factors. A risk assessment should not be limited only to entry into the enclosed space but also consider the environment and activity as a whole and any other potential safety hazards, including but not limited to low lighting and reduced visibility, trip hazards, low ceilings and narrow walkways. Any activity which may cause a change in atmosphere such as hot work and use of paints, glues and coatings poses a particular risk.

7.3.3 Consideration should be given to the ship design and layout as places frequently visited by seafarers can still develop a hazardous environment.

7.3.4 Spaces that are connected to or adjacent to enclosed spaces can become dangerous or cause the enclosed space to become dangerous, due to the migration of gases between the spaces. This is usually invisible to the human eye, therefore it is important to maintain awareness of this risk, and the fact that atmospheres can change over time.

7.3.5 On any ship carrying goods or materials, the nature of these and their ability to decay and/or release chemicals into the atmosphere should be considered. Codes and guidance relevant to the cargo should be considered, such as the International Maritime Solid Bulk Cargoes (IMSBC) Code, the Safety Data Sheets (SDS) (tanker) and International Maritime Dangerous Goods (IMDG) Code.

7.4 For further guidance on risk assessment see MGN 636 The Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997 and MGN 587(F) - International Labour Organisation Work in Fishing Convention (No. 188): Health and Safety as referred to within Fishing Vessel Codes of Practice.

## 8. Regulation 8 – Drills

8.1 *8.(1) The master of a ship must ensure that—*

*(a) seafarers whose responsibilities include entry into or rescue from enclosed spaces on board that ship participate in drills which comply with paragraph (2);*

*(b) the drills referred to in sub-paragraph (a) are recorded in the official log book.*

*(2) Drills must—*

*(a) be held on board the ship at intervals not exceeding two months;*

*(b) be planned and conducted in a safe manner, having regard to relevant guidance;*

*(c) include—*

*(i) the checking and use of—*

*(aa) personal protective equipment required for entry;*

[12] Fishing vessel risk assessments and safety management systems

*(bb) communication equipment and procedures;*
*(cc) the equipment prescribed by regulation 9 (testing equipment);*
*(dd) rescue equipment and procedures; and*

*(ii) instructions in first aid and resuscitation techniques.*

8.2 Whilst the 2022 Regulations apply to all ships[13] except fishing vessels and Class IV, V and IX(A) ships, the requirement for drills would also not apply on ships where there are no seafarers with responsibilities that include entry into enclosed spaces.

8.3 Regulation 8 states that drills must be planned and conducted in a safe manner, having regard to relevant guidance. "Relevant guidance" means Chapter 15 of COSWP, which incorporates the recommendations for entering enclosed spaces aboard ships adopted by IMO Resolution A.1050(27).

8.4 Whilst compliance with this regulation is not mandatory for certain ship types, enclosed space safety and rescue drills are considered best practice for any ships with enclosed spaces.

8.4.1 Safety drills ensure that the correct equipment for enclosed space entry and rescue is on board and that seafarers are trained in its use. At least one crew member should be fully trained and competent to act as the enclosed space leader and on-board trainer, with breathing apparatus ready for use at the enclosed space entrance.

8.4.2 Further information on drills for fishing vessels can be found within MGN 570 (F) Fishing Vessels: Emergency Drills.[14]

8.5 Personal Protective Equipment (PPE)

8.5.1 Attention is drawn to various sections of COSWP which deal with PPE, some of which have been reproduced below for ease of reference. It is recommended to read these sections in full as useful reference to develop suitable procedures.

8.5.2 COSWP Chapter 8 Personal Protective Equipment outlines:

8.8.8 Respirators provide no protection against an oxygen-deficient atmosphere. They are designed to purify the air of specific contaminants and they do not supply any further air. They should never be used to provide protection in dangerous (enclosed) spaces such as tanks, cofferdams, double bottoms or other similar spaces against dangerous fumes, gases or vapours. Only breathing apparatus (self-contained or airline) is capable of giving protection in such circumstances.

8.8.9 Personal gas monitors should be carried when working in dangerous (enclosed) spaces. The type of monitor should be determined by a competent person within a safe system of work and will depend on the circumstances and knowledge of possible contaminants.

Additionally;

Monitors should be in good working order and calibrated and tested in accordance with the manufacturer's recommendations.

8.5.3 COSWP Chapter 15.6.5 Testing the atmosphere of the space states that:

Personal monitoring equipment is designed for personal use only, to provide a warning against oxygen deficiency, toxic gases and explosive atmospheres whilst the wearer is in the space. This equipment should not be used as a means of determining whether a dangerous (enclosed) space is safe prior to entry, unless the specific equipment has the necessary certified/approved additional capability to conduct remote readings (i.e. pumped capability).

[13] The requirement for enclosed spaces safety drills is due to the 2020 Regulations for ships to which those Regulations apply, and due to the 2022 Regulations for all others.

[14] Fishing vessel drills

8.5.4 COSWP Chapter 15.13.1 Breathing apparatus and resuscitation equipment states:

No one should enter a space where the atmosphere is unsafe or suspect without wearing breathing apparatus that is designed for the purpose and which they are trained to use, even to rescue another person.

8.6 It is important to note that an Emergency Escape Breathing Device (EEBD) or Emergency Lifesaving Apparatus (ELSA) is for escape purposes only and should NEVER be used as a substitute for Breathing Apparatus to enter an enclosed space.

## 9. Regulation 9 - Testing Equipment

9.1 *9. In respect of each ship on board which there is an accessible enclosed space, the shipowner and the employer must each ensure that—*

*(a) the ship carries appropriate portable atmosphere testing equipment that enables a seafarer to measure any concentration within that space of oxygen, flammable gases or vapours, hydrogen sulphide and carbon monoxide before any seafarer enters that space;*

*(b) the equipment referred to in sub-paragraph (a) is—*

*(i) maintained in good working order; and*

*(ii) where applicable, regularly serviced and calibrated according to the manufacturer's recommendations.*

9.2 IMO MSC.1/Circ.1477[15] provides guidelines for the selection of portable atmosphere testing equipment capable of testing and displaying concentrations of:

- Oxygen;
- Flammable gases or vapours (% of Lower Flammability Limit);
- Carbon Monoxide; and
- Hydrogen Sulphide

9.2.1 Additional atmosphere testing equipment should be provided where any other toxic gas is likely to be present in an enclosed space. A risk assessment should identify any gases that may be harmful that may occur in that space. Of notable risk are carbon dioxide, hydrofluorocarbons and ammonia, which are commonly used in refrigeration, and can be harmful if a leak occurs, particularly in an enclosed space.

9.2.2 Current safety limits for various hazardous substances are outlined within the Health and Safety Executive EH40[16] (see COSWP Chapter 15.6.13 Testing the atmosphere of the space, summary).

9.3 <u>Considerations</u>

- Tests should be taken at varying levels and locations within deep tanks or large spaces. Some gases and vapours are heavier than air and therefore settle at the bottom of an enclosed space, some are lighter than air and so collect at the top of the enclosed space
- Testing must be for all the gases as outlined within 9.2 above, not just oxygen content, and should also consider other relevant gases.
- Atmospheres can change and therefore regular testing should be undertaken throughout entry.
- Only testing can establish the air environment for what cannot be seen, tasted or smelt.
- Annex A to this guidance details instructions for the calibration of portable testing equipment.

[15] IMO MSC.1/Circ.1477

[16] HSE EH40

## More Information

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***Safer Lives, Safer Ships, Cleaner Seas***

**ANNEX A**

## Atmosphere Testing Equipment

## For Entry into Enclosed Spaces

Calibration of Portable Atmosphere Testing Equipment

Suitable means must be provided for the calibration of the equipment.

This covers only equipment carried for the purpose of pre-entry testing and does not include personal gas monitors.

Calibration

Upon activation, the instrument should perform a "self-test" which indicates that the instrument is functioning correctly. In addition, the manufacturers' instructions should have clearly defined calibration requirements. (MSC.1 Circ 1477).

Where the operation of the ship permits regular and frequent access (e.g. ferry services), the calibration equipment may be kept ashore.

Arrangements for calibration should be clear from the ship's safety management system. This should include the caveat that if, exceptionally, calibration is not possible in accordance with the manufacturer's instructions, no enclosed space entry should be undertaken on the basis of readings from the atmosphere testing equipment until that has been rectified.

Ships operating deep sea with infrequent or unpredictable access to shore-based facilities must carry the calibration equipment on board.

**ANNEX B**

**MAIB Report 19/2020 Sunbeam (FR487)**
**Fraserburgh, Scotland 14th August 2018**

Synopsis [page 7]

*"At about 1350 on 14 August 2018, a second engineer working on board the trawler, Sunbeam, was found collapsed inside a refrigerated salt water tank; although rescued from the tank, he could not be resuscitated. Sunbeam was in Fraserburgh and the evidence available strongly indicated that the second engineer had entered the tank to sweep away residual water. When he was found, three of his crewmates went into the tank to help him; they all suffered breathing difficulties and one also collapsed. Two other crew members then donned breathing apparatus and rescued their struggling crewmates; the second engineer could not be resuscitated."*

**MAIB Report 12/2008 ERRV Viking Islay**
**Amethyst gas field, 25 miles off the East Yorkshire coast, UK 23 September 2007**

Synopsis [page 9]

*"On 29 September 2007, three seamen on board the ERRV Viking Islay lost their lives as a consequence of entering an enclosed space. The ERRV Viking Islay was working in the North Sea conducting rig support operations when two of the vessel's seamen went forward with the intention of securing a rattling anchor chain within the chain locker. One of the seamen entered the chain locker and collapsed. It is probable that the other seaman, realising that help was urgently required, raised the alarm with the duty watchkeeping rating on the bridge before he, too, entered the chain locker in an attempt to help his companion. He also collapsed.*

*During the consequent rescue efforts, the first rescuer found he was unable to enter the chain locker wearing a BA, and he therefore donned an EEBD. He entered the space, but at some point the hood of the EEBD was removed, or became dislodged and this rating also collapsed.*

*All three seamen died as a result of an oxygen deficient atmosphere within the chain locker."*

**ANNEX C**

## Other Sources of Information

This list of 'other sources of information' has been compiled by the MCA, with support from industry. This provides a non-comprehensive list of suggested reading references and publication titles, with the sole purpose of providing further information. In providing this list, the MCA are not recommending the purchase of any publications, nor endorsing the guidance within (unless MCA involvement is specified within the resource).

Code of Safe Working Practices for Merchant Seafarers

The Code of Practice for the Safety of Small Fishing Vessels of less than 15m Length Overall

Code of Safe Working Practice for the Construction and Use of Fishing Vessels of 15m in Length overall to less than 24m (MSN 1872 Amendment 1)

The Code of Practice for the Construction and Safe Operation of Fishing Vessels of 24m Registered Length and Over (MSN 1873 Amendment 1 (F))

A Masters Guide to Enclosed Space Entry

Confined Space Safe Practice – IACS Recommendation No. 72

International Safety Guide for Oil Tankers and Terminals (ISGOTT)

ICS Learn

International Association of Classification Societies

P&I Clubs