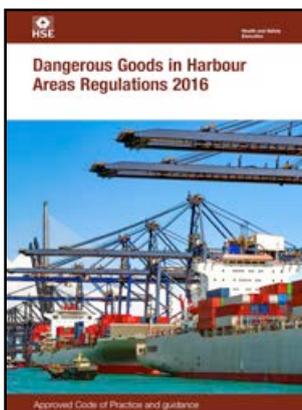


# Dangerous Goods in Harbour Areas Regulations 2016

## Approved Code of Practice and guidance



**L155 Published 2016**

This Approved Code of Practice (ACOP) and guidance provides practical advice on how to comply with the Dangerous Goods in Harbour Areas Regulations 2016 (DGHAR). These regulations contain specific measures to reduce the risk of a serious incident occurring when dangerous goods pass through harbours and harbour areas. They contain a set of safety provisions for dutyholders aimed at safeguarding ports against major accidents involving dangerous goods by coordinating activities between ship and shore.

This book is for anyone involved in activities in ports, harbours, jetties, docks and wharves that handle dangerous goods. 'Dangerous goods' means goods meeting the criteria for classification as dangerous in the International Maritime Dangerous Goods (IMDG) Code.

The Dangerous Goods in Harbour Areas Regulations replace the Dangerous Substances in Harbour Areas Regulations 1987 (DSHAR). Redundant, superseded and duplicated provisions of the existing legislation have been removed and the remaining sections have been updated and simplified in a new, shorter set of regulations.

This ACOP supersedes both the earlier ACOP *Dangerous substances in harbour areas* (COP18) and the guidance document *A guide to the Dangerous Substances in Harbour Areas Regulations 1987* (HS(R)27).

© *Crown copyright 2016*

First published 2016

ISBN 978 0 7176 6655 3

You may reuse this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view the licence visit [www.nationalarchives.gov.uk/doc/open-government-licence/](http://www.nationalarchives.gov.uk/doc/open-government-licence/), write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email [psi@nationalarchives.gsi.gov.uk](mailto:psi@nationalarchives.gsi.gov.uk).

Some images and illustrations may not be owned by the Crown so cannot be reproduced without permission of the copyright owner. Enquiries should be sent to [copyright@hse.gsi.gov.uk](mailto:copyright@hse.gsi.gov.uk).

### **Approved Code of Practice**

This Code has been approved by the Health and Safety Executive, with the consent of the Secretary of State. It gives practical advice on how to comply with the law. If you follow the advice you will be doing enough to comply with the law in respect of those specific matters on which the Code gives advice. You may use alternative methods to those set out in the Code in order to comply with the law.

However, the Code has a special legal status. If you are prosecuted for breach of health and safety law, and it is proved that you did not follow the relevant provisions of the Code, you will need to show that you have complied with the law in some other way or a Court will find you at fault.

### **Guidance**

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory, unless specifically stated, and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance.

## Contents

<b>Introduction</b>	<b>5</b>
<b>The Regulations</b>	<b>9</b>
Regulation 1	Citation and commencement 9
Regulation 2	Interpretation 9
Regulation 3	Meaning of 'dangerous goods' 13
Regulation 4	Meaning of 'operator' 15
Regulation 5	Application of the regulations 15
Regulation 6	Notice of entry of dangerous goods 18
Regulation 7	Harbour master's powers 21
Regulation 8	Flags and lights to be displayed by vessels 22
Regulation 9	Vessels to keep a safe distance from moored or anchored vessels displaying the flag or light required by regulation 8 23
Regulation 10	Preparation of emergency plans by harbour authorities 24
Regulation 11	Emergency arrangements at berths 37
Regulation 12	Untoward incidents 37
Regulation 13	Parking of road vehicles containing dangerous goods 38
Regulation 14	Application 39
Regulation 15	Requirement for an explosives licence 41
Regulation 16	Applications for explosives licences 41
Regulation 17	Consideration of licence applications 41
Regulation 18	Harbour areas ceasing to be nuclear harbour areas 42
Regulation 19	Harbour areas becoming nuclear harbour areas 42
Regulation 20	Security of explosives 43
Regulation 21	Vessels and vehicles loaded with explosives to be taken out of harbour areas 46
Regulation 22	Passenger prohibition on harbour craft carrying explosives 47
Regulation 23	Deteriorated explosives 48
Regulation 24	Record keeping 48
Regulation 25	Byelaws 49
Regulations 26–27	Enforcement 50
Regulation 28	Exemptions 51
Regulations 29–32	Transitionals 52
Regulations 33–34	Revocations and modifications 52

<b>Regulation 35</b>	<b>Review 52</b>
<b>The Schedules 54</b>	
<b>Schedule 1</b>	<b>List of specified dangerous goods 54</b>
<b>Schedule 2</b>	<b>Flag indicating that a vessel is carrying dangerous goods 54</b>
<b>Schedule 3</b>	<b>Explosives licensing 55</b>
<b>Schedule 4</b>	<b>Provisions relating to byelaws 56</b>
<b>Appendix 1</b>	<b>Notice of Approval 58</b>
<b>Appendix 2</b>	<b>Additional guidance on responsibilities of incident controller, main controller and emergency control centre (regulation 10 of DGHAR on emergency plans) 59</b>
<b>Appendix 3</b>	<b>Additional guidance on explosives aspects of emergency plans 61</b>
<b>References and further reading 64</b>	
<b>Further information 67</b>	

## Introduction

### About this book

1 This publication sets out what you have to do to comply with the Dangerous Goods in Harbour Areas Regulations 2016 (DGHAR). It provides practical advice on how you can comply with the requirements of the regulations.

2 The book has been developed by the Health and Safety Executive (HSE) in consultation with Port Skills and Safety (PSS), Unite the Union, Nautilus International and others to help employers, employees and the self-employed comply with the law.

### Who needs to read this?

3 This book is for anyone involved in activities in ports, harbours, jetties, docks and wharves that handle dangerous goods. 'Dangerous goods' means goods meeting the criteria for classification as dangerous in the International Maritime Dangerous Goods (IMDG) Code.<sup>1</sup>

4 Specific duties under DGHAR are given to harbour authorities (both statutory and non-statutory), harbour masters and masters and agents of vessels. The guidance will be of particular relevance to you if you play one of these roles. You should also read it if you are involved in loading or unloading explosives on the coast or in territorial waters of Great Britain.

5 If you bring dangerous goods into harbour areas from inland, for example if you work for a haulage or rail company or drive a goods vehicle, you are advised to read the guidance on **regulation 6 Notice of entry of dangerous goods** (paragraphs 57–74). Other sections of the guidance will be less relevant to you.

### Contents and scope of this guidance

6 This guidance provides practical advice on how to comply with duties under DGHAR. It also provides more general information, including explanations of the requirements of the law and references to further sources of information.

7 In addition to complying with DGHAR, employees, employers and others also must comply with other duties and regulations. These include general duties under the Health and Safety at Work etc Act 1974 (the HSW Act)<sup>2</sup> as well as other regulations made under it. Examples of regulations that place duties on those working with dangerous goods in harbours include:

- (a) the Management of Health and Safety at Work Regulations 1999 (the Management Regulations);<sup>3</sup>
- (b) the Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR);<sup>4</sup>
- (c) the Control of Substances Hazardous to Health Regulations 2002 (COSHH);<sup>5</sup>

- (d) the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (CDG 2009);<sup>6</sup>
- (e) the Control of Major Accident Hazards Regulations 2015 (COMAH).<sup>7</sup>

8 Some health and safety regulations, for example the Management Regulations, DSEAR, COSHH and COMAH, do not apply to activities on ships under the control of a ship's master. However, in many cases equivalent duties exist in regulations made under the Merchant Shipping Act 1995.<sup>8</sup> In addition, the Port Marine Safety Code<sup>9</sup> establishes a national standard for every aspect of port marine safety and aims to enhance safety for those who use or work in ports, their ships, passengers and the environment. The code applies to all harbour authorities in the UK that have statutory powers and duties, though it is also strongly recommended for marine facilities that fall outside statutory harbour authorities.

9 Other regulations are also relevant to managing the safe handling and carriage of dangerous goods in harbours. These include fire safety, environmental and civil contingencies legislation.

## Summary of changes

10 DGHAR took effect on 1 October 2016, replacing the Dangerous Substances in Harbour Areas Regulations 1987 (DSHAR). The main changes are:

- (a) several sections from DSHAR have been revoked and are not included in DGHAR because they are duplicated or superseded by more recent legislation. The new regulations have been redesigned to provide more targeted measures to reduce the risks and consequences of serious incidents in harbour areas;
- (b) the sections that have been kept have been reviewed and updated to align with recent developments in legislation and in technology and work practices in and around ports;
- (c) the regulations have been renamed the 'Dangerous Goods in Harbour Areas Regulations' to reflect the fact that 'dangerous goods' is now a more widely-used term to cover the range of goods and substances that the regulations apply to.

11 In addition, the previous Approved Code of Practice (ACOP) *Dangerous substances in harbour areas* (COP18) and the guidance document *A guide to the Dangerous Substances in Harbour Areas Regulations 1987* (HS(R)27) have been withdrawn. This ACOP supersedes both COP18 and HS(R)27.

## Involving workers

12. Workplaces where employees are involved in taking decisions about health and safety are safer and healthier. Collaboration with your employees helps you to manage health and safety in a practical way by:

- (a) helping you spot workplace risks;
- (b) making sure health and safety controls are practical;
- (c) increasing the level of commitment to working in a safe and healthy way.

13 Employers must consult employees in good time on health and safety matters. In workplaces where a trade union is recognised, this will be through union health and safety representatives. In non-unionised workplaces, consult either directly or through other elected representatives.

14 Consultation involves employers both giving information to employees and listening to them, taking account of what they say before making health and safety decisions. See the HSE leaflet *Consulting employees on health and safety: A brief guide to the law*<sup>10</sup> and our web pages on 'Consulting and involving your workers' for more information. Issues you should consult employees on include:

- (a) risks arising from their work;
- (b) proposals to manage and/or control these risks;
- (c) the best ways of providing information and training.

## Purpose of DGHAR

15 The purpose of DGHAR is to put in place certain specific measures to reduce the risk of a serious incident occurring when dangerous goods pass through harbours and harbour areas. DGHAR also contains measures to mitigate the consequences of such an incident if it does occur.

16 The main provisions of DGHAR are:

- (a) a duty on anyone bringing dangerous goods into a harbour to **pre-notify** the arrival of the goods to the harbour master and/or berth operator (**regulation 6**);
- (b) powers to the harbour master to **regulate the movement** of dangerous goods within the harbour area when they create risks to health and safety (**regulation 7**);
- (c) a duty on the master of a vessel carrying defined quantities of specified dangerous goods to display appropriate **flags and lights**, and associated provisions to regulate the movement of other vessels in the vicinity (**regulations 8–9**);
- (d) a duty on harbour authorities to produce **emergency plans** to deal with potential consequences of an emergency involving dangerous goods in the harbour area (**regulation 10**);
- (e) a duty on berth operators to provide certain information on **emergency arrangements** to masters of vessels (**regulation 11**);
- (f) a duty on masters of vessels and berth operators to report any **untoward incidents** – that is incidents involving or threatening loss of containment of dangerous goods – to the harbour master (**regulation 12**);
- (g) a requirement for harbour authorities to provide a **designated parking area** for road vehicles carrying dangerous goods (**regulation 13**);
- (h) a requirement for harbour areas where **explosives** are to be brought in or handled to be licensed by HSE or, in certain cases, the Office for Nuclear Regulation (ONR). This also applies to any loading or unloading of explosives on the coast of Great Britain or in territorial waters (**regulations 14–19**);
- (i) associated **safety and security** requirements for explosives in harbour areas (**regulations 20–24**);
- (j) powers for statutory harbour authorities to make **byelaws**, provisions for enforcement, and exemptions from the regulations (**regulations 25–35**).

17 The guidance below gives more detailed advice on how to comply with each of these duties.

## About ACOPs

18 Approved Codes of Practice are approved by the HSE Board with the consent of the Secretary of State (see Appendix 1 Notice of Approval for details).

19 The ACOP describes preferred or recommended methods that can be used (or standards to be met) to comply with the regulations and the duties imposed by the HSW Act. The accompanying guidance also provides advice on achieving compliance, or it may give information of a general nature, including explanation of the requirements of the law, more specific technical information or references to further sources of information.

20 The legal status of ACOP and guidance text is given on the copyright page.

### **Presentation**

21 The ACOP text is set out in **bold** and the accompanying guidance in normal type, the text of the regulations is in *italics*. Coloured borders also indicate each section clearly. Some regulations are preceded by a short summary of the main duties imposed by that regulation. This text has no 'status' (such as ACOP/guidance) and is for information only. Its purpose is to help the reader navigate the document.

## The Regulations

### Regulation 1 Citation and commencement

**Summary:** DGHAR is now in force.

#### Regulation 1

*These Regulations may be cited as the Dangerous Goods in Harbour Areas Regulations 2016 and come into force on 1st October 2016.*

### Regulation 2 Interpretation

**Summary:** This section gives the exact meanings of the terms used in DGHAR.

#### Regulation 2

*(1) In these Regulations –*

*“the 1987 Regulations” means the Dangerous Substances in Harbour Areas Regulations 1987;*

*“appropriate authority” means –*

- (a) in relation to a harbour which is, or forms part of, an ONR regulated site, the Office for Nuclear Regulation,*
- (b) otherwise, the Health and Safety Executive;*

*“berth” means a dock, jetty, quay, wharf or similar structure (whether floating or not) or a buoy berth at which a vessel may tie up, and –*

- (a) includes any plant or premises, other than a vessel, used for purposes ancillary or incidental to the handling of dangerous goods within the harbour area; but*
- (b) does not include a monobuoy;*

*“Class” has the same meaning as in the IMDG Code;*

*“Compatibility Group” has the same meaning as in the IMDG Code;*

*“dangerous goods” is defined in regulation 3;*

*“Division” has the same meaning as in the IMDG Code;*

*“dumb craft” means a vessel not possessing mechanical means of propulsion and includes a dumb barge and a dracone;*

*“explosive” means goods of Class 1 in the IMDG Code;*

**Regulation 2**

*“explosives licence” means a licence issued by the Health and Safety Executive or the Office for Nuclear Regulation under Part 5 of these Regulations;*

*“freight container” means a container as defined in regulation 2(1) of the Freight Containers (Safety Convention) Regulations 1984 other than a container within the definition of “portable tank” in those Regulations;*

*“handling” in relation to dangerous goods includes loading, unloading and transferring the goods and cleaning, purging, gas-freeing and ballasting any tank on a vessel which contains dangerous goods or their vapour;*

*“harbour area” means any harbour, natural or artificial, and any port, haven, estuary, tidal or other river or inland waterway navigated by seagoing vessels, including –*

- (a) all areas of water within the jurisdiction of a statutory harbour authority;*
- (b) any land, within the jurisdiction of or occupied by a statutory harbour authority, used in connection with the loading or unloading of a vessel;*
- (c) any berth where the handling of any dangerous goods takes place;*
- (d) any monobuoy connected to one or more storage facilities in a harbour area and its monobuoy area;*
- (e) any land adjacent to the harbour area used wholly or mainly for the normal activities of a harbour,*

*but excluding areas of water which are in the jurisdiction of another statutory harbour authority where those areas of water are used primarily by vessels using berths or land within the harbour area of that other statutory authority;*

*“harbour authority” means –*

- (a) a statutory harbour authority; or*
- (b) where there is no provision for a statutory harbour authority in respect of a harbour area, a person –*
  - (i) who is, or claims to be, the proprietor of that harbour area, or*
  - (ii) who has the duty or power to improve, manage, maintain or regulate that harbour area;*

*“harbour craft” means a self-propelled craft which is used wholly or mainly within a harbour area;*

*“harbour master” means the harbour master, dock master or other officer appointed by the harbour authority, or any person having authority to act in such capacity;*

*“headquarters” means those headquarters or organisations designated under the International Headquarters and Defence Organisations Act 1964;*

*“IMDG Code” means the 2014 edition of the International Maritime Dangerous Goods Code as amended by Amendment no. 37-14 and as revised or reissued from time to time;*

*“loading” and “unloading” means the acts of loading and unloading a vessel and includes any acts of ullaging, sounding or sampling carried out in connection with those acts and the handling of dangerous goods ancillary to such acts;*

*“master” includes any person, other than a marine pilot, having charge of a vessel;*

**Regulation**

**2**

*“monobuoy” means a mooring buoy at which dangerous goods may be loaded onto or unloaded from a vessel and which is connected to one or more storage facilities in a harbour area and includes any pipeline connecting to it;*

*“monobuoy area” means the area of water surrounding a monobuoy where loading or unloading of dangerous goods takes place but does not extend to the area of water surrounding the pipeline or pipelines connected to it;*

*“ONR regulated site” means a site which is –*

- (a) a GB nuclear site (within the meaning given in section 68 of the Energy Act 2013);*
- (b) an authorised defence site (within the meaning given in regulation 2(1) of the Health and Safety (Enforcing Authority) Regulations 1998); or*
- (c) a new nuclear build site (within the meaning given in regulation 2A of those Regulations);*

*“operator” is defined in regulation 4;*

*“portable tank” means a portable tank with a capacity of 450 litres or more, or a tank as defined in ADR 2015 (the European Agreement Concerning the International Carriage of Dangerous Goods by Road) as revised or reissued from time to time;*

*“receptacle” includes any form of packaging used for the transport of dangerous goods, but does not include a freight container, a portable tank or a vehicle;*

*“statutory harbour authority” has the same meaning as “harbour authority” has in the Harbours Act 1964;*

*“vessel” means any vessel, propelled or not, and includes a dumb craft, hovercraft, a hydrofoil vessel, anything constructed or adapted to carry persons or goods by water and a flying boat or seaplane on the water;*

*“visiting forces” means visiting forces within the meaning of Part 1 of the Visiting Forces Act 1952.*

*(2) Any duty imposed upon a master of a vessel shall, in relation to a dumb craft, be imposed –*

- (a) while the dumb craft is being towed, upon the master of the towing vessel;*
- (b) at any other time, upon the operator of the dumb craft.*

*(3) Any reference in these Regulations to the quantity of any explosive shall be construed as a reference to the net mass of explosive substance.*

**Guidance**

**2**

22 Additional explanation of some of the definitions is given below.

23 **Berth** The definition of a harbour area, the main area where DGHAR applies, includes berths. ‘Berth’ includes the land adjacent to the berth itself, which is used for loading and unloading. It includes wharves and jetties as well as any buildings and plant, such as transit sheds, offices and storage tanks that are within the boundaries of the berth and are used in connection with the loading or unloading of dangerous goods. This will include plant repair shops. In the case of marine terminals, the berth includes any land or buildings within the boundaries of the terminal.

Guidance

2

24 **Dumb craft** A 'dumb craft' is a vessel which has no form of mechanical motive power built in and includes vessels that have to be towed or pushed by a powered vessel such as a tug. It includes a powered vessel whose motive power has been removed but not a powered vessel that has broken down.

25 Regulation 2(2) explains how duties on masters of vessels apply to dumb craft. Because dumb craft spend a long time moored with no one in attendance, regulation 2(2) places the duty on the operator of the dumb craft to comply with any duties imposed on the master of the craft by DGHAR. When, however, the dumb craft is being towed (which includes, by definition, being pushed), such duties are imposed on the master of the towing vessel.

26 **Harbour area** 'Harbour area' is defined in broad terms and includes those parts of rivers and other inland waterways within the harbour area that are capable of being navigated by seagoing ships. DGHAR applies to vessels operating in these waters whether or not they are themselves seagoing ships.

27 DGHAR does not apply to inland waterways that are not navigated by seagoing ships, such as narrowboat canals. Dangerous goods are not carried on these waterways in any significant quantities and there is no legislation that applies specifically to their carriage. They are, however, subject to the general provisions of the HSW Act and other general regulations such as the Management Regulations. In addition, if a vessel enters a harbour area from an inland waterway, it is then covered by the regulations and, for example, must notify the harbour master of any dangerous goods being carried under regulation 6.

28 The definition of a harbour area goes beyond the definition of a harbour in the Harbours Act 1964 and includes adjacent land used wholly or mainly for harbour activities. This may include buildings on the land.

29 Harbour areas may include areas of water outside the port itself if they are within the jurisdiction of the statutory harbour authority. The limits of these areas are defined in local legislation applying to the harbour area.

30 Certain areas of water may be under the statutory jurisdiction of two statutory harbour authorities, because the jurisdiction of one harbour authority overlaps the areas of water under the jurisdiction of another either partly or wholly. An example is illustrated in Figure 1.

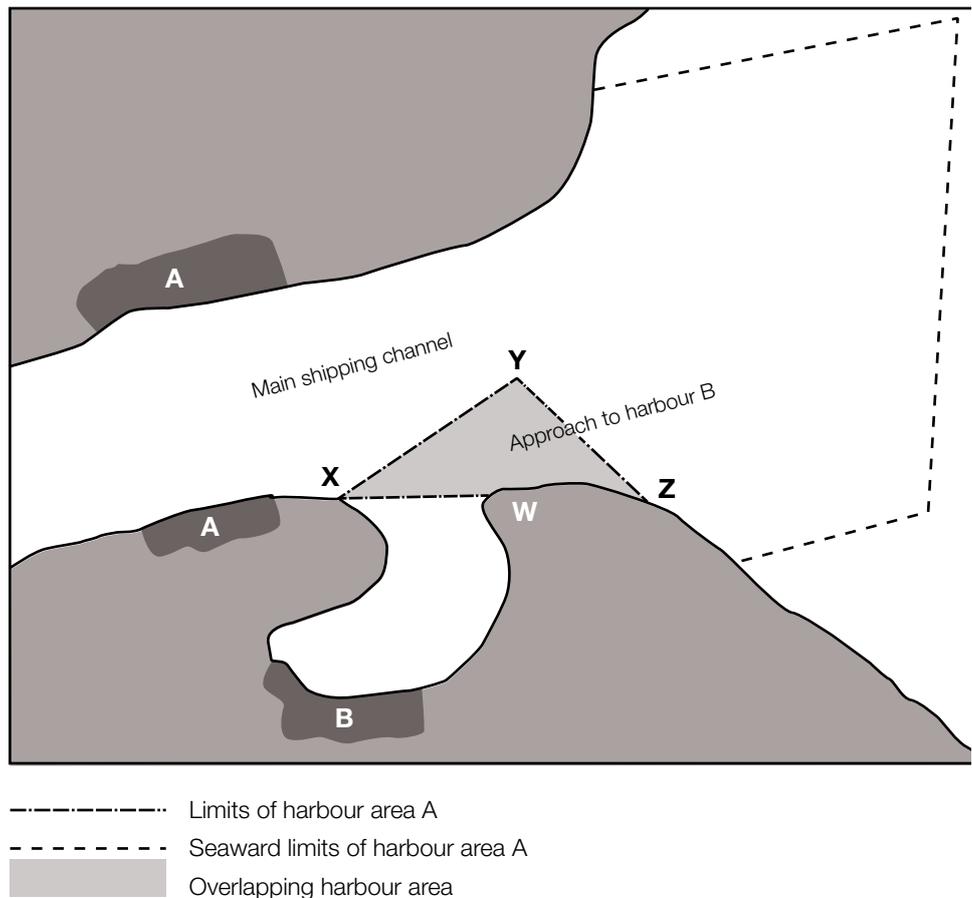
31 In Figure 1 the area of water bounded by WXYZ lies within the limits of both harbour authorities, A and B. To avoid the possible confusion which could arise if both authorities enforced DGHAR over the same area of water, for the purposes of these regulations the overlapping area of water would be held to be part of harbour B if it is used primarily as the approaches to harbour B. Harbour authorities with overlapping jurisdictions are advised to agree in writing the division of enforcement responsibilities between them, for example via a memorandum of understanding.

32 **Harbour authority** 'Harbour authority' means either the statutory harbour authority or, where there is no statutory harbour authority, the proprietor or any other person or group of people who are generally considered to be in charge of the harbour. This may include individuals, local authorities and commercial companies.

33 **Harbour craft** 'Harbour craft' refers to a vessel such as a tug, launch or similar craft, used within a harbour.

34 **Statutory harbour authority** Section 57 of the Harbours Act 1964 defines 'harbour authority' as *'any person in whom are vested under that Act, by another*

Guidance 2



**Figure 1** Example of overlapping harbour areas

*Act, by an order or other instrument (except a provisional order) made under another Act, or by a provisional order, powers or duties of improving, maintaining or managing a harbour’.*

35 The terms ‘net explosive content’ and ‘net explosive quantity’ are commonly used in the industry to refer to the weight of the explosive contained within an article (ie less packaging, casings etc but including explosives in fuses and propelling charges etc). Although these terms are commonly understood to refer to mass there is scope for differing interpretations of ‘content’ and ‘quantity’ in that these could be taken to refer to volume. The term ‘net mass of explosive substance’ is used for the sole reason of avoiding any scope for confusion or misinterpretation.

### Regulation 3 Meaning of ‘dangerous goods’

**Summary:** This regulation gives the exact meaning of the term ‘dangerous goods’. Use this to check whether DGHAR applies to specific goods.

Regulation 3

*“Dangerous goods” means goods or cargoes, whether packaged or in bulk, which meet the criteria in the IMDG Code for classification as dangerous goods.*

Guidance 3

36 Regulation 3 defines the meaning of the term ‘dangerous goods’ as one that would be classified as dangerous under the criteria set out in the IMDG Code.

Guidance

3

37 It is important to distinguish the meaning of 'dangerous goods' in DGHAR from the definition in the IMDG Code. The definition in the IMDG Code refers only to packaged goods. However, in these regulations the definition of 'dangerous goods' includes both packaged goods and certain goods shipped in bulk.

38 The regulations apply to bulk cargoes when they possess one of the health and safety hazards covered in the IMDG Code (whether or not they meet the definition of 'dangerous goods' in the IMDG Code). This applies to bulk cargoes as follows:

### Bulk liquids

39 Bulk liquids listed in Chapter 17 of in the International Bulk Chemicals (IBC) Code<sup>11</sup> will be generally in scope of the regulations if they present a hazard to human health or safety that is covered in the IMDG Code, such as flammability or acute toxicity. However, some liquids are listed in the IBC Code solely by virtue of presenting a pollution hazard to the marine environment, or by presenting hazards to human health not covered in the IMDG Code (such as carcinogenicity). These are not covered under DGHAR.

### Bulk gases

40 Liquefied gases covered under the International Gas Carriers (IGC) Code<sup>12</sup> will be in scope of the regulations as they will meet the criteria in the IMDG Code for Class 2 (Gases).

### Bulk solids

41 Bulk solids listed in the International Maritime Solid Bulk Cargoes (IMSBC) Code<sup>13</sup> will be in scope of DGHAR when they meet the criteria in the IMDG Code for one of the hazard classes relating to human health or safety. Cargoes that are solely classified by virtue of being marine pollutants are not in scope of DGHAR. Under the IMSBC Code, information on the UN Class of the cargo must be given to the ship's master by the shipper.

42 Some bulk solids are listed in the IMSBC Code because they present health and safety hazards that are not covered under the IMDG Code. Examples include 'materials hazardous in bulk' such as timber or woodchip, which can deplete oxygen and present a risk of asphyxiation to workers who enter holds containing such cargoes. These cargoes are not within scope of DGHAR. However, the risks they give rise to are covered under other health and safety regulations, such as the Confined Spaces Regulations 1997<sup>14</sup> and the Control of Substances Hazardous to Health Regulations 2002, together with parallel regulations made under the Merchant Shipping Act.

### Oils

43 Oils listed in Annex I of the International Convention for the Prevention of Pollution from Ships (MARPOL)<sup>15</sup> may be in scope of DGHAR where they present hazards that are covered under the IMDG Code such as flammability or acute toxicity. This will depend on the specific properties of the oil and whether they meet the IMDG criteria (eg for flammability this depends on the flashpoint of the oil). Some oils are covered under the Dangerous Goods List in section 3.2 of the IMDG Code, where the hazard classification is given.

44 Oils in Annex I of MARPOL are not in scope of DGHAR when the only hazard they present is as a marine pollutant, or a health hazard not covered under the IMDG Code such as carcinogenicity.

45 For any cargo, whether packaged or in bulk, empty vessels, tanks and portable tanks should still be treated as containing dangerous goods as long as they still contain any liquid or vapour residues from a dangerous cargo. This is particularly important where the goods are flammable liquids or flammable liquefied gases and there could be a risk of explosion.

## Regulation 4 Meaning of ‘operator’

**Summary:** This regulation defines the meaning of the term ‘operator’. Most importantly, transport operators are responsible for notifying the entry of dangerous goods into harbours under regulation 6.

### Regulation 4

“Operator” means –

- (a) *in relation to a road vehicle, a person who holds, or is required to hold by law, a licence for the use of that vehicle for the carriage of goods on a road; or, where no such licence is required, the keeper of the vehicle;*
- (b) *in relation to any other mode of transport or a berth, the person who has operational control of it for the time being.*

### Guidance 4

46 The definition of ‘operator’ defines who is responsible for giving prior notice of the entry of dangerous goods into harbour areas under regulation 6. In relation to road transport, it will be the person or company who is required to hold a licence to operate the vehicle under legislation on goods vehicles. Where a licence is not required under such legislation, for example for small goods vehicles or an operator based outside Great Britain, the operator is the keeper of the vehicle.

## Regulation 5 Application of the regulations

**Summary:** This regulation explains the locations and dangerous goods to which DGHAR applies. There are also a number of exemptions. Use this to check if the regulations apply in a given location or situation.

### Regulation 5

(1) *These Regulations apply in Great Britain to –*

- (a) *every harbour area;*
- (b) *premises or activities in any part of a harbour area in the territorial waters to which sections 1 to 59 of the 1974 Act apply under Articles 6 (but only to the extent it relates to monobuoys) and 11 of the Health and Safety at Work etc. Act (Application outside Great Britain) Order 2013 but not, except as provided in regulation 14, elsewhere.*

(2) *These Regulations apply to or in relation to dangerous goods except –*

- (a) *dangerous goods of Class 4.2 meeting the definition of dangerous goods solely by virtue of being at risk of oxidative self-heating when stored over a long period of time;*
- (b) *goods meeting the definition of dangerous solely by virtue of being marine pollutants;*
- (c) *dangerous goods carried under limited quantity or excepted quantity provisions in the IMDG Code;*
- (d) *dangerous goods taken in sample form for testing by an enforcement officer;*

**Regulation 5**

- (e) *dangerous goods being used solely in connection with the propulsion of a vessel or any other mode of transport and which are not loaded or carried as cargo;*
  - (f) *dangerous goods, other than explosives, which are brought into a harbour area from inland and which are not loaded onto a vessel as cargo;*
  - (g) *dangerous goods when carried –*
    - (i) *by a vessel as part of the equipment or stores of that vessel;*
    - (ii) *by a vehicle or in a freight container or by any other mode of transport as part of the equipment of that vehicle, vessel, freight container or any other mode of transport;*
    - (iii) *for safety purposes;*
    - (iv) *by a vessel as a result of the use of a fumigant;*
  - (h) *dangerous goods, other than explosives, when carried by a harbour craft in the course of harbour engineering operations; and*
  - (i) *any nuclear explosive device or any part of a nuclear explosive device.*
- (3) *These Regulations do not affect –*
- (a) *any action of Her Majesty’s Commissioners for Revenue and Customs or any requirement for the approval of, authority from, clearance by or notification to them or the necessity to comply with any order or conditions imposed by them;*
  - (b) *any action taken by a person in relation to a direction given under Schedule 3A to the Merchant Shipping Act 1995, or any action taken under paragraphs 1–4 of that Schedule.*

**Guidance 5**

47 The boundary of Great Britain extends to those areas of the shoreline exposed at low tide (except that it continues in a straight line across river estuaries etc). Some statutory harbours extend beyond these limits into territorial waters. In these areas, DGHAR only applies to premises and activities that are listed in Articles 6 (only in relation to monobuoys) and 11 of the Health and Safety at Work etc Act (Application outside Great Britain) Order 2013. The premises and activities of most relevance to these regulations are:

- (a) pipelines (but only those that connect monobuoys to storage facilities within a harbour);
- (b) the loading, unloading, fuelling and provisioning of a vessel.

48 DGHAR does not apply outside territorial waters and, within territorial waters, not to offshore installations or wells. The regulations do not apply anywhere outside a harbour area except for regulations 15 to 17, which deal with explosives licences.

49 Marine pollutants of Class 9 which do not present any risk to health and safety are excluded from the definition of dangerous goods. This is because DGHAR uses powers to make regulations contained in the HSW Act. These powers do not allow regulations to be made for the protection of the environment. Marine pollutants are, however, classified as dangerous for carriage under merchant shipping dangerous goods regulations.

50 Dangerous goods in Class 4.2 (Self-heating substances), whose only dangerous property is that – when stored or carried in bulk – they are at risk of oxidative self-heating over a long period of time (ie several days or weeks), are excluded from the definition of dangerous goods. Such goods are unlikely to present a risk when brought into the port by land, since they will be carried for journeys too short and in quantities too small for heating effects to take place. When brought in from the sea, risks from such goods are covered under merchant shipping regulations. Therefore, they are also exempted from DGHAR when this is the only hazard that they present.

Guidance

5

51 Examples of goods that would fall under this exemption are:

- (a) rubber scrap and rubber shoddy, in powdered or granulated form (UN 1345);
- (b) copra (UN 1363);
- (c) cotton waste, oily (UN 1364);
- (d) cotton, wet (UN 1365);
- (e) fibres, animal or vegetable, burnt, wet or damp (UN 1372);
- (f) fibres or fabrics, animal or vegetable, with animal or vegetable oil (UN 1373);
- (g) fish meal (unstabilised) (UN 1374);
- (h) iron oxide, spent, or iron sponge, spent (obtained from coal gas purification) (UN 1376);
- (i) paper, treated with unsaturated oils, incompletely dried (includes carbon paper) (UN 1379);
- (j) seed cakes (seed expellers) containing more than 1.5% oil and not more than 11% moisture (UN 1386);
- (k) wool waste, wet (UN 1387);
- (l) rags, oily (UN 1356);
- (m) textile waste, wet (UN 1357);
- (n) seed cakes, containing not more than 1.5% oil and not more than 11% moisture (UN 2217).

52 The IMDG Code allows certain dangerous goods to be shipped with reduced packaging and labelling requirements when they are being transported in 'limited' or 'excepted' quantities. This is allowed when the goods are being transported in inner and outer packaging whose volume does not exceed thresholds given in the code for each UN number. The reduced provisions reflect the fact that goods shipped in limited or excepted quantities present a lower level of risk. Because of the lower risk, dangerous goods shipped in limited and exempted quantities are exempt from DGHAR.

53 Dangerous goods, other than explosives, entering a harbour from inland are exempt from DGHAR unless they are intended to be loaded on board a ship as cargo. This is because the use and storage of substances and dangerous goods within the harbour area is already regulated under other health and safety regulations. Some examples of dangerous goods that would be exempt from the regulations under this provision are:

- (a) fuel carried by road tanker that is to be used solely as fuel for a ship in the harbour area;
- (b) any dangerous goods solely intended to be used within the harbour area, eg for engineering works;
- (c) dangerous goods to be stored in the harbour area but not loaded onto a ship.

54 Explosives are not included within this exemption because the presence of explosives entering a harbour area from inland could affect the ability of a harbour authority to comply with the conditions of an explosives licence granted under regulation 17, even if they are not loaded on board a ship as cargo. Explosives entering a harbour area from inland are therefore covered under DGHAR whether or not they are to be loaded on board a ship as cargo.

55 Safety provisions for vessels such as flares required under the International Convention for the Safety of Life at Sea (SOLAS) 1974 are exempt from DGHAR under 5(2)(g)(iii), so are not required to be treated as dangerous goods for the purposes of the regulations.

56 All dangerous goods entering a harbour area from the sea are covered by the regulations unless they fall within the exclusions in regulation 5.

## Regulation 6 Notice of entry of dangerous goods

**Summary:** Anyone bringing dangerous goods into a harbour area must pre-notify the harbour master, and where relevant the berth operator. Normally this is required 24 hours before entering the harbour but there are cases where this can differ. There are also a number of cases where notification is not needed.

### Regulation 6

(1) *The master, agent or operator, as relevant, of any vessel or vehicle, or any other mode of transport, must before bringing any dangerous goods into the harbour area, give notice to –*

- (a) *the harbour master of the harbour area;*
- (b) *the berth operator where the goods are to be brought to a berth; and*
- (c) *where relevant, the harbour master of any abutting or overlapping harbour area.*

(2) *The notice under paragraph (1) must be given not less than 24 hours and not more than 6 months before the dangerous goods are brought into the harbour area.*

(3) *Notwithstanding paragraph (2) –*

- (a) *the harbour master may, if operational limitations make it necessary, direct that a period of more than 24 hours, but less than 14 days notice, be given;*
- (b) *the harbour master, and where relevant the berth operator, may agree to accept less than 24 hours notice where either it is not reasonably practicable to give 24 hours notice or neither health nor safety risks are increased by a shorter period;*
- (c) *the master of a vessel carrying dangerous goods which is under the control of the Secretary of State, or under the control of a visiting force or headquarters, must give notice to the harbour master before entry into the harbour area, and with respect to the carriage of explosives is required to confirm that –*
  - (i) *the quantity of explosives is within the limit of any condition to which entry into or the carrying or handling within the harbour area of explosives will be subject; or*
  - (ii) *the explosives are subject to a scheme authorised by the Secretary of State for safe storage, carriage and handling.*

(4) *Notice under this regulation is to be given in writing or such form as the harbour master may agree and contain sufficient information to assist a proper evaluation of the risk created by the goods to the health and safety of any person.*

(5) *Notice is not required under this regulation in respect of –*

- (a) *dangerous goods, except where the dangerous goods are explosives, carried by a vessel which is to pass through the harbour area without unloading in that area, an overlapping area or an abutting harbour area;*
- (b) *a radioactive substance that is exempt from the requirements of the Carriage of Dangerous Goods and the Use of Transportable Pressure Equipment Regulations 2009;*
- (c) *a ferry operated entirely within Category A–D waters within the meaning of the Merchant Shipping (Categorisation of Waters) Regulations 1992;*
- (d) *dangerous substances in a pipeline;*
- (e) *dangerous goods carried by a foreign warship.*

**Regulation 6**

*(6) A harbour master may exempt any person from the requirements of this regulation where such an exemption is necessary for securing the health and safety of any person, and any such exemption may be granted subject to conditions and time limits and may be revoked at any time.*

*(7) A harbour master granting or revoking an exemption under this regulation must keep a record of the exemption, including any conditions and time limits.*

**Guidance 6**

57 In order to make arrangements for the safe reception and storage of goods being shipped through the port, harbour authorities and berth operators need information in advance on which dangerous goods are going to be brought into their harbour area and in what amounts. This regulation requires 24 hours as the normal minimum period of notice for entry of dangerous goods.

58 The harbour authority may require more than 24 hours' notice for operational reasons, for example because there is no one available to process notifications at holiday times or weekends. However, the harbour authority can only extend the time for operational reasons, and cannot require notice to be given more than 14 days in advance.

59 Sometimes it might not be reasonably practicable to give 24 hours' notice of the entry of dangerous goods. In that case a shorter notice period should be accepted. For example, a 24-hour notice period may not be feasible if:

- (a) dangerous goods are arriving on a short sea crossing. In this case notification should be made as soon as the vessel leaves the previous port;
- (b) dangerous goods are not loaded onto a cargo transport unit until shortly before a ferry is ready. In this case the notification should be made as soon as loading takes place.

60 In addition, some ports are able to accept dangerous goods at shorter notice without increasing the risks through the use of electronic notification systems for controlling and monitoring the movement and storage of cargoes. In these circumstances, the harbour authority and the berth operator together may accept a shorter notice period.

61 Notifications must go to the office of the harbour master and berth operator, but this does not necessarily mean an individual person must receive the notification in each case. For example, it could be accomplished via an electronic system to which the harbour master and berth operator have access. However, the harbour master, harbour authority and berth operators should agree who needs to receive the information and how it will be shared. It should be clear to all who need to know, including employees in the harbour area, where the information is available and how to access it.

62 Under regulation 6(4) notice should be in writing or any other form that the harbour master agrees. Some harbours have dedicated electronic systems for accepting notifications whereas in other cases it is more appropriate to use email. If you are bringing dangerous goods into a harbour area you should check the requirements of the harbour authority.

63 There may be occasions, for instance in an emergency, when the harbour master will need to exempt a master or operator from the notification requirements of this regulation. Regulation 6(6) allows this to happen when it is necessary on health or safety grounds. Exemptions may have conditions or time limits attached.

Guidance

6

64 Under regulation 6(7) the harbour master must make a record of any exemption as soon as reasonably practicable after it is issued. The record should include any condition or limits of time in the exemption.

### Information to be notified

65 The information notified to the harbour master under regulation 6(1) must be sufficient to enable the harbour master or harbour authority to make an assessment of the risk created by the goods to the health and safety of any person. The main information requirements are:

- (a) the UN number;
- (b) the proper shipping name (PSN) of the substance (for those attracting Special Provision 274 or 318 in the IMDG Code a technical name in brackets should follow the PSN). Trade names are not acceptable;
- (c) the classification of the substance under the IMDG Code;
- (d) the packing group (where applicable);
- (e) the number and type of packages (where applicable);
- (f) the quantity or weight;
- (g) the estimated time of arrival.

66 Other than (g), this information can be found on the Dangerous Goods Note accompanying the shipment of dangerous goods.

67 In the case of explosives, the harbour authority should also be informed of the Class, Division and Compatibility Group and net explosive mass. In the case of explosives entering a harbour from inland, the name of the vessel into which the explosives are to be loaded and the time of loading will also be needed.

68 The harbour master may request further information if it is needed to evaluate the risk presented by any dangerous goods being brought into the harbour area.

### Dangerous goods from the sea

69 For dangerous goods coming into the harbour area from the sea, the master should also provide:

- (a) the name and call sign of the vessel;
- (b) the IMO number of the vessel;
- (c) the overall length, draught and beam of the vessel;
- (d) the intended destination within the harbour area (if appropriate);
- (e) the estimated time of arrival at the intended destination or at the pilot station, as required by the harbour authority.

70 Dangerous goods notifications from the sea should include dangerous goods remaining on board vessels as well as those intended to be unloaded from the ship at the port.

71 Providing a ship's manifest or dangerous goods list would meet the requirements of this regulation provided it contains the information specified in paragraph 65.

72 The notification requirement in DGHAR exists in addition to other reporting requirements for dangerous and polluting goods under merchant shipping regulations. However, some harbour authorities operate single electronic systems that accept the information required under both sets of legislation.

Guidance

6

73 Masters or agents of vessels are advised to check the notification requirements with the harbour authority before entry to make sure that all relevant requirements are met.

74 The master of a ship under control of the Secretary of State for Defence, for example a Royal Fleet Auxiliary or Royal Maritime Auxiliary carrying explosives, must inform the harbour master if the ship is carrying dangerous goods (including explosives), though the 24 hours' notice period does not apply. However, the details given may differ, as necessary, from paragraphs 65 and 69 as long as the harbour master is given sufficient information for safety purposes. In the case of explosives, it is sufficient if the master informs the harbour master that the quantity of explosives is within the limits laid down in the explosives licence issued under Part 5 of DGHAR or any other controls. Alternatively, where relevant, it is sufficient for the master to inform the harbour master that any explosives are subject to a scheme authorised by the Secretary of State for safe storage, carriage or handling. This may be the case, for example, if a warship visits a civilian harbour and any explosives it is carrying are neither handled nor unloaded, and remain stored in the ship under applicable Ministry of Defence (MOD) safety procedures. Foreign warships are entirely exempt from this regulation.

## Regulation 7 Harbour master's powers

**Summary:** The harbour master has the power to direct or prohibit the movement of dangerous goods within the harbour area. This can happen when the condition of the dangerous goods causes a health or safety risk.  
Regulation 7

Regulation

7

*(1) Subject to paragraphs (2) and (6), in addition to any powers granted under byelaws made under regulation 25, a harbour master may give directions as set out in paragraph (4) to –*

- (a) a person having control of dangerous goods;*
- (b) a person having control of a freight container, receptacle or portable tank containing dangerous goods;*
- (c) the operator of a vehicle carrying dangerous goods;*
- (d) the master of a vessel carrying dangerous goods.*

*(2) A harbour master may give directions to those persons in paragraph (1) if, taking into account all relevant circumstances, the condition of the dangerous goods, or their containers, or matters related to the dangerous goods create a risk to the health and safety of any person in, or in the vicinity of, the harbour area.*

*(3) For the purpose of securing the safety of any person, where the harbour master has given directions under paragraph (1), the Secretary of State may give directions to require that harbour master to give such other directions under this regulation as may be specified by the Secretary of State.*

*(4) Directions given under this regulation may –*

- (a) regulate or prohibit entry into;*
- (b) require the removal from;*
- (c) regulate the handling, movement or position within,*

*the harbour area of the dangerous goods, freight container, receptacle, vehicle, vessel, portable tank or other mode of transport.*

**Regulation 7**

(5) Where the harbour master intends to give a direction requiring the dangerous goods to be removed by land from the harbour area, the harbour master must consult any police force through whose area the dangerous goods are to be moved.

(6) A person to whom directions are given under this regulation must comply with those directions.

(7) Paragraph (1) does not apply to any vessel under the control of the Secretary of State or a visiting force or headquarters or to any dangerous goods, freight container, portable tank or receptacle carried by such vessel.

(8) A harbour master is not under any duty to examine the condition of any dangerous goods, freight container, portable tank, receptacle, vehicle or vessel as a result of this regulation.

**Guidance 7**

75 Situations may arise when dangerous goods in or entering the harbour area create a risk to health and safety in the harbour. This could be because of the condition of the goods themselves, their container, or the vehicle or vessel carrying them. In such circumstances the harbour master may decide it is necessary to:

- (a) prevent the entry;
- (b) order the removal;
- (c) regulate the movement

of the vehicle, vessel or dangerous goods. The powers given to harbour masters by this regulation are in addition to any powers the harbour master may have under byelaws made under regulation 25.

76 This regulation does not give harbour masters the power to regulate or refuse entry to dangerous goods solely because of their dangerous properties. The powers are limited to dangerous goods that are causing concern because of their condition, or the condition of what they are contained or being transported in.

77 Directions given under this regulation do not have to be in writing. However, the harbour master is advised to keep a written record of such directions.

## **Regulation 8 Flags and lights to be displayed by vessels**

**Summary:** Vessels carrying certain quantities of specified dangerous goods must display a flag or light to warn other users.

**Regulation 8**

(1) Where a vessel is carrying any of the dangerous goods specified in Schedule 1, the master of that vessel shall ensure that it displays –

- (a) in the case of a vessel with a mast –
  - (i) during the day, a flag complying with the requirements of Parts 1 and 2 of Schedule 2, and
  - (ii) at times of restricted visibility or during the night, an all-round red light giving a clear, uniform and unbroken light visible in good night time conditions for a distance of at least 2 nautical miles;
- (b) in the case of a vessel without a mast –
  - (i) during the day, a flag complying with the requirements of Parts 1 and 3 of Schedule 2, and

**Regulation 8**

(ii) when moored or anchored during the night and during the day in restricted visibility, an all-round red light.

(2) Any flag or light required by paragraph (1) to be displayed shall be positioned so as to be as conspicuous as is reasonably practicable, and in the case of a light, so that it is above any other light being displayed by the vessel.

(3) Any dumb craft must have either its towing craft or, when moored, its accompanying craft display the appropriate flag or light as detailed in the paragraphs above.

(4) This regulation does not apply to a ferry operated entirely within Category A–D waters within the meaning of the Merchant Shipping (Categorisation of Waters) Regulations 1992.

## Regulation 9 Vessels to keep a safe distance from moored or anchored vessels displaying the flag or light required by regulation 8

**Summary:** Masters of vessels need appropriate permissions to moor or anchor alongside a vessel displaying a warning flag or light and must keep a safe distance from such vessels.

**Regulation 9**

(1) A master shall not bring a vessel alongside a moored or anchored vessel which is displaying a flag or signal required by regulation 8 without –

- (a) the permission of the berth operator and the master of the vessel if it is at berth;
- (b) the permission of the harbour master and the master of the vessel if it is elsewhere, and must otherwise keep a safe distance from that vessel.

(2) The permission in paragraph (1) may relate to a named vessel, to a class of vessels or to vessels generally.

**Guidance 8, 9**

78 Ships are required to display a red light while under way at night as well as when moored or anchored. Schedule 1 gives details of the type and quantity of dangerous substances which require a ship to display a flag or light.

79 Ships whose tanks have not been gas-freed or inerted after carrying any of those listed flammable liquids or liquefied gases in bulk are still covered by regulation 8(1).

80 Ships carrying flammable liquids in bulk may have dangerous concentrations of flammable vapour in the immediate vicinity, particularly during loading or unloading. Although precautions are taken on the ships, and the jetties to which they are moored, to minimise the likelihood of fire, other ships are likely to have sources of ignition on board which could ignite flammable vapours.

81 In addition, a ship passing close by can affect the stability of a moored ship, resulting in broken moorings or hoses, sometimes with disastrous effects. The requirement for the master to keep their ship at a safe distance from a moored or anchored ship is intended to reduce the risk of this type of incident and 'safe distance' should be interpreted accordingly. It does not require the passing ship to

**Guidance 8, 9**

be kept far enough away to avoid damage from an explosion on board the moored or anchored ship. Permission to moor alongside is required from both the master and harbour master (or berth operator if the ship is at a berth).

## Regulation 10 Preparation of emergency plans by harbour authorities

**Summary:** Harbour authorities must produce plans to deal with emergencies that could arise involving dangerous goods. The harbour authority must consult appropriate people on the plan and review it periodically.

**Regulation 10**

*(1) A harbour authority must have in place an effective emergency plan, before dangerous goods are permitted into the harbour area, for dealing with emergencies which may arise and which involve, affect or could affect dangerous goods that are brought into or are handled in the harbour area.*

*(2) In preparing the emergency plan the harbour authority must consult –*

- (a) the emergency services; and*
- (b) any other bodies which appear to it to be appropriate.*

*(3) Where the harbour authority's harbour area abuts the harbour area of another harbour authority the emergency plan must in addition be agreed by both harbour authorities.*

*(4) The harbour authority must review the emergency plan periodically, having consulted with the parties listed in paragraph (2), and where relevant paragraph (3).*

**Guidance 10**

### Introduction

82 The guidance below is aimed at harbour authorities and sets out some of the general principles that apply to emergency planning and response, together with some specific considerations that should be taken into account in emergency planning for harbour areas. Not all matters referred to in this section will be relevant to all harbour areas. However, as a harbour authority you should consider each part to determine which parts are needed to produce an effective emergency plan.

83 Further relevant guidance is in HSE's publication *Emergency planning for major accidents*<sup>16</sup> and in Port Skills and Safety's *Safety in ports (SIP) 016 – Guidance on emergency planning in ports*.<sup>17</sup> You may also wish to consult the guidance on emergency planning in Chapter 5 of the Cabinet Office's publication *Emergency preparedness*.<sup>18</sup>

### Coordination of plans

84 Several other pieces of legislation require emergency plans to be made alongside those that the harbour authority must make under DGHAR. These include:

- (a) the Control of Major Accident Hazard Regulations 2015;
- (b) the Civil Contingencies Act 2004 (CCA);<sup>19</sup>
- (c) the Management of Health and Safety at Work Regulations 1999.

85 Merchant shipping regulations also require ports, harbours and oil handling facilities to have oil pollution emergency plans.

**ACOP 10**

**86 Plans that you make under DGHAR should dovetail effectively with emergency plans required under other legislation to make sure they do not conflict if an emergency is triggered.**

**Guidance 10**

87 The key to effective coordination of plans is communication and cooperation between those responsible for developing plans and putting them into effect. This will include coordination with off-site responders such as local authorities and emergency services, as well as berth operators and others within the harbour area.

88 Further guidance is given below on interfaces with the legislation referred to above.

89 You can find further advice on cooperation and coordination between employers, employees and contractors in dock and harbour work in HSE's publication *Managing health and safety in dockwork*.<sup>20</sup>

**Link with Civil Contingencies Act 2004**

90 CCA creates a wider framework for emergency planning and dealing with civil contingencies. It requires 'category 1 responders' (including emergency services, local authorities, NHS bodies) to put in place emergency plans to deal with any emergencies. 'Category 2 responders', including harbour authorities, must cooperate and share information with category 1 responders.

91 As a harbour authority it is important that plans you draw up under DGHAR align with those produced by category 1 responders under CCA. In part this is because an emergency within the harbour area could develop beyond the confines of the harbour area and thereby trigger emergency plans under CCA. Therefore it is crucial that the plans align so that the actions required in case of such an incident are clear and consistent.

92 Under regulation 8 of DGHAR, harbour authorities must consult the emergency services when they prepare emergency plans. Because the emergency services are category 1 responders under CCA, this will help to ensure coordination between plans prepared under the two sets of legislation.

93 In addition, CCA requires wider cooperation and information sharing between category 1 and category 2 responders to help category 1 responders carry out their duties. In part this will take place through local resilience forums or, in Scotland, strategic coordination groups (LRFs or SCGs). If your harbour authority is a member of one or more LRFs or SCGs, you could also use these forums as a means to coordinate emergency planning with category 1 responders.

94 CCA uses a slightly different framework to this guidance, recognising six key stages:

- (a) anticipation;
- (b) assessment;
- (c) prevention;
- (d) preparedness;
- (e) response;
- (f) recovery.

95 It is not obligatory that emergency planning under DGHAR follows this structure. However, the Cabinet Office's guidance on emergency planning under CCA in *Emergency preparedness* contains useful information which could help you produce plans under DGHAR. Chapter 2 of *Emergency preparedness* also contains

**Guidance 10**

further guidance on coordination between category 1 and category 2 responders under CCA.

**Link with COMAH Regulations**

96 COMAH requires establishments where certain quantities of defined dangerous substances are present to prepare internal emergency plans to deal with the on-site consequences of a major accident. They must consult with designated category 1 responders and provide information to the local authority so that it can prepare an external emergency plan.

97 Some harbours or harbour areas may contain sites subject to COMAH. In this case you must liaise with people producing internal and external emergency plans for the COMAH establishments so that the plans are not incompatible in the event of a major emergency affecting both the establishment and the harbour area. For these COMAH sites the operator of the establishment is responsible for the internal emergency plan and the local authority is responsible for the external emergency plan. If there is a COMAH site close outside the boundary of your harbour area, you should also liaise with the operator to make sure your plans are consistent.

98 If the whole of the harbour area is, or falls within, a COMAH establishment, a separate emergency plan need not be prepared under DGHAR. One effective plan could, and should, satisfy both legal requirements. However, there may be cases where a harbour area contains one or more establishments within it that fall within scope of COMAH, but also contains other areas which are not part of a COMAH establishment. For example, a harbour area could cover an area containing several wharves and storage facilities, some of which fall within scope of COMAH and some not. In this case, the harbour authority must still prepare an overarching emergency plan as the emergency onsite plans required for the COMAH establishments would not cover the whole of the harbour area.

**Link with the Management of Health and Safety at Work Regulations 1999**

99 The Management Regulations require employers to put procedures in place to deal with serious and imminent danger (regulation 8(1)(a)). This duty could apply both to harbour authorities themselves and to berth or wharf operators or other employers operating within the boundaries of a harbour authority.

100 The duty in DGHAR to produce an emergency plan has wider scope than the duty in the Management Regulations. This is because it covers any possible emergencies within the harbour area, including those relating to ships and their movements, whereas the Management Regulations do not cover normal shipboard activities under the control of a ship's master. However, as a harbour authority you could meet your duties for emergency planning under both sets of regulations by producing a single effective emergency plan.

101 Berth operators and other employers within the harbour area may be required to produce their own plans under the Management Regulations. You should therefore consult with other employers within the harbour area to make sure that the plans are aligned.

**ACOP**

**10**

**Contents and scope of plans**

**102 The plan should:**

- (a) cover any reasonably foreseeable type of emergency concerned with the handling, carrying or storage of dangerous goods in the harbour area;
- (b) be designed to minimise the consequences of an emergency to people inside and outside the harbour area;
- (c) make advance arrangements for effective operational control and for the provision of facilities for use in an emergency.

**103 The written details should be simple to read and understand. The plan should be notified to those responsible for putting it into effect.**

**104 The plan should cover all parts of the harbour area which could be affected by an incident involving dangerous substances, unless these parts are already covered by emergency plans under other health and safety regulations. The geographical scope of the plan should be stated.**

**Guidance**

**10**

105 In producing your emergency plan you should consider three factors:

- (a) the hazard: the size and nature of the event foreseen;
- (b) the risk: the probability that it could occur;
- (c) the consequences: the effect on people and the environment.

106 Emergency planning for a full range of possible incidents is just one aspect of planning for safety and it cannot be considered in isolation. As a first step in preparing an emergency plan, you should carry out a risk assessment of the activities in your harbour area to make sure that all that is reasonably practicable has been done to avoid or reduce danger. You should:

- (a) ensure that the movement of vessels in and out of the harbour or harbour area is carried out safely and that the risks of collision or grounding are minimised;
- (b) ensure that proper work routines and preventive maintenance procedures are set up on berths handling dangerous goods;
- (c) assess what could still happen to give rise to an emergency. Further precautions to make the movement and handling of dangerous goods as safe as reasonably practicable may become apparent;
- (d) assess what dangers could arise to people both within and outside the harbour or harbour area as a result of these foreseeable emergencies. Then assess how these could be mitigated by pre-planned remedial and rescue measures using, when necessary, the combined resources of the harbour authority, port users concerned, the emergency services and the local authority.

107 When the emergency plan is formulated it should be based on the specific needs of each particular harbour area for dealing with the potential emergencies that have been identified.

108 The emergency plan will vary according to circumstances and should take account of:

- (a) the size, complexity and location of the harbour or harbour area;
- (b) the nature of the dangerous goods handled;
- (c) the number of people employed;
- (d) the possible presence of passengers and other members of the public;
- (e) the availability of resources.

**Guidance** 10 109 The degree of planning required will vary from case to case and should be proportional to the probability and consequences of an accident occurring.

**ACOP** 10 **Participants and consultation**  
**110 The plan should establish the responsibilities of the participants according to the nature and magnitude of the emergency.**

**Guidance** 10 111 Regulation 10(2) requires the plan to be prepared in consultation with the appropriate emergency services.

**ACOP** 10 **112 You should also consult other people and organisations likely to be involved in operating the plan, for example:**

- (a) port users (including petroleum and chemical companies and shipping interests);
- (b) berth operators;
- (c) workers' representatives;
- (d) the relevant port health authority or authorities;
- (e) the relevant fire and rescue authorities;
- (f) the local authority emergency planning officer;
- (g) the local authority pollution officer;
- (h) the relevant water authority or authorities.

**113 If your harbour area covers more than one administrative area (eg more than one local authority) make sure you consult the appropriate bodies in each relevant area.**

**Guidance** 10 114 Many incidents will lead to the need to dispose of controlled or special wastes. Therefore, you should involve the waste disposal authority in whose area the harbour is situated at the planning stage.

115 You may also need to bring the following government departments and agencies into discussions on the plan:

- (a) Health and Safety Executive;
- (b) Department for Transport, or its counterparts in Scottish and Welsh governments;
- (c) HM Revenue and Customs;
- (d) armed services;
- (e) Ministry of Defence;
- (f) Home Office;
- (g) Department of Health, Public Health England or the health departments in Scottish and Welsh governments;
- (h) Department for Environment, Food and Rural Affairs and the Environment Agency or, in Scotland, the Scottish Environment Protection Agency and, in Wales, Natural Resources Wales;
- (i) Maritime and Coastguard Agency.

It may be appropriate for contact to be made at a local level.

116 The extent to which different organisations will participate will vary according to the nature of the incident.

**ACOP** 10 **Key personnel**  
**117 Nominated key personnel should be given specific responsibilities in emergency procedures.**

**ACOP** 10

**118 You should appoint a main controller for the coordination of activities and liaison with the local authority emergency planning officer.**

**119 In all incidents, an incident controller should also be nominated to take charge at the scene of the incident.**

**Guidance** 10

120 In the initial stages of an emergency the incident controller may be called upon to act as the main controller and to take decisions involving the operation of other parts of the harbour or harbour area. For that reason they should have a thorough knowledge of the current overall situation in the harbour or harbour area. They will probably be a member of the harbour authority staff, such as the individual having overall control of the harbour or harbour area at the time of the incident. You should consider providing continuous cover by appointing a responsible person to be incident controller for each shift.

121 The main controller has overall responsibility for directing operations from the emergency control centre, and will probably be the harbour master. It is possible that for smaller harbours the main controller and incident controller are the same person.

122 Deputies should always be appointed to act in case the main or incident controller is absent or incapacitated. All appointments should be in writing.

123 Other key personnel, such as those representing shipping interests, other port users and berth operators should advise the main controller and implement decisions. These key people should report to the emergency control centre. A task force of essential workers should be available to undertake emergency work such as:

- (a) shutting down loading, unloading and handling operations and making them safe;
- (b) initiating firefighting arrangements prior to the arrival of the emergency services;
- (c) ensuring an emergency boat is suitably deployed;
- (d) movement of equipment to or from the scene of the incident;
- (e) provision of first aid;
- (f) acting as runners or marshals, and staffing assembly and communication centres.

124 The incident controller or a deputy, an emergency team, and nominated key personnel for immediate tasks should always be available. Arrangements should be in place to call out other key personnel who may not be present in the harbour area at the time of the incident. You should also make arrangements to make sure that staffing levels will be adequate to cope with an emergency.

125 A checklist of duties of the incident controller and main controller is given in Appendix 2.

**ACOP** 10

**Emergency control centre**

**126 As harbour authority you should establish an emergency control centre. This should be used to coordinate the operations for which you are responsible and to coordinate your activities with other participants in the emergency plan. The emergency control centre should be located where it is unlikely to be affected by the emergency.**

**Guidance 10**

127 Each organisation participating in the emergency plan should report to the emergency control centre on arrival at the incident.

128 Operations to deal with the emergency are directed and coordinated from the emergency control centre. It will be attended by the main controller, key personnel, and the senior officers of the fire and police services. The centre should be equipped to receive and transmit information and directions from and to the incident controller, areas of the harbour and outside. There should be equipment for logging the development of the incident to assist the controllers in determining any necessary action.

129 The emergency control centre should be located, designed and equipped to remain operational throughout an emergency. At large harbours or harbour areas, or where toxic releases might be anticipated, you should consider setting up two control centres to make sure that one will be available for use if the other one is disabled.

130 A checklist covering what an emergency control centre should contain is at Appendix 2.

**ACOP 10**

**Communications**

**131 The plan should have clearly defined arrangements for warning and alert. It should also set out how all those with responsibilities in the plan will communicate with each other, and with any off-site emergency services and authorities who may have roles to fulfil.**

**132 You should make arrangements to ensure efficient communication between the emergency control centre, units of the emergency services, ships, firefighting vessels etc. The system to be used in any given situation should be specified and agreed by all participants.**

**133 You should provide a suitable means for raising the alarm and ensure that there are means of rapid communication with the emergency services. You should also provide suitable arrangements for communicating with all people on the port in the event of an emergency and also, where appropriate, with the neighbouring public outside the port.**

**134 You should also make suitable arrangements to provide masters of vessels carrying dangerous goods in the harbour area with advance information on emergency arrangements, including how to raise the alarm in an emergency. In the event of any incident there should be arrangements in place for immediate communication with the harbour master to decide whether to initiate the emergency plan.**

**Guidance 10**

135 Regulation 11 also requires the berth operator to inform the master of any vessel entering the berth of the means of emergency communication and escape.

**ACOP 10**

**Initiation**

**136 A clear and logical decision-making system should be in place to ensure that as soon as an event has occurred, the appropriate plan is initiated immediately.**

**Guidance 10**

137 The operating procedures or standing instructions for each part of the harbour or harbour area should clearly indicate the action to be taken in the event of an incident. It may help the incident controller, who has to initiate the plan, to have

**Guidance 10**

predetermined levels of response laid down to match the severity of the incident. These responses should include the procedure for raising the alarm and measures to contain or control the incident, eg closing-off the berth and first-aid firefighting. Anyone should be able to raise the alarm so that action can be taken as early as possible to control an incident and prevent it developing into a major emergency.

138 In small harbour areas, or ones which handle only small amounts of dangerous goods, a simple alarm system should suffice so that the person discovering the incident can warn others of the danger and summon assistance. There should be an adequate number of points from which the alarm can be raised either directly, by activating an audible warning, or indirectly, via a signal or message to a permanently staffed location. The alarm should alert the incident controller, who should assess the situation and implement appropriate emergency procedures.

139 In large harbour areas or ones which handle, for example, flammable liquid dangerous goods in bulk, a staged warning system may be more appropriate. The person discovering the incident should warn all those in the vicinity, who should either evacuate or take other immediate action depending on the predetermined plan. The incident controller should be alerted to decide the next action.

140 Automatic alarms may be appropriate in some harbours and harbour areas.

141 When the general emergency alarm has been given, key personnel should report to the emergency control centre or other designated locations. Everyone else should report to appropriate predetermined locations, for example their normal place of work, an assembly point or toxic refuge, to await further instructions. Separate alarms may be necessary for different types of emergency, such as fire, or escape of toxic materials, as different procedures may be required. However, you should avoid a multiplicity of alarms as it could cause confusion.

142 You should organise prearranged rendezvous points to allow for collecting equipment, picking up emergency crews and as a discharge point for casualties. The rendezvous points should be accessible at all times and clearly indicated. When the plan is put into operation, the rendezvous points should be notified to all concerned.

143 There should be a reliable system for informing the emergency services as soon as the alarm is raised. The details of the communication arrangements should be agreed locally.

144 If the incident is likely to affect people or the environment outside the harbour or harbour area the main controller should advise the emergency services and the local authority as quickly as possible of the nature and size of the incident. This may be necessary in any case if the alarm is audible outside the harbour.

### **Action at the site of the incident**

145 The plan should include immediate actions to control and contain the incident and to prevent adjacent berths, materials or vessels etc from becoming involved. Sufficient resources and back-up facilities need to be allocated for this. The plan should also include procedures for:

- (a) the evacuation of non-essential personnel to predetermined assembly points in a safe place. This may be in the open or in a building, depending on the hazard involved;
- (b) accounting for employees, visitors and contractors, particularly those in the affected area;

**Guidance 10**

- (c) access to records so that relatives of any casualties can be informed;
- (d) public relations and giving information to news media;
- (e) first aid and other medical services to be readily available in an emergency;
- (f) notification of adjoining sites;
- (g) rehabilitation of the affected areas.

**Control of ships' movements**

146 Depending on the nature of the incident you may decide it is necessary to control, or possibly prohibit, the movement of ships in the harbour. Regulation 7 gives the harbour master power to give directions regulating the entry of ships carrying dangerous goods which might create a risk to health or safety. The harbour master is responsible for determining shipping movements in relation to the emergency so should be kept informed of the situation.

147 It may be necessary to beach a ship in an emergency, and you should consider designating appropriate beaching areas.

**ACOP 10**

**Access to incidents**

**148 The emergency plan should include appropriate arrangements to ensure adequate access to incidents. There should be an unobstructed route to shore-side berths for emergency service vehicles.**

**Guidance 10**

149 Restrictions on the parking of vehicles and on the movement of vehicles on jetties may be required.

150 Alternative routes may be necessary, so that if one access route is closed, for example because of toxic emissions or an explosion, another one is available. Also take into account the possible need to evacuate personnel in the vicinity of an incident.

151 In the event of an incident, the harbour master should make arrangements with the police to control essential routes to provide ready access to the harbour area for emergency service vehicles.

152 Firefighting vessels may be needed to combat emergencies on a vessel away from the shore. Small craft may be required for transporting people, equipment and other supplies to the incident, or for rescuing or evacuating people from the vessel.

**Availability of technical information**

153 During an incident information is often needed on the identity and properties of the goods involved. For example, information may be required on the effect of igniting a substance and its vapour, or on the effects of an escape. It might also be necessary to have information on appropriate methods of fighting fire, and on any measures necessary if someone inhales or ingests the substance, or is exposed to it via their skin.

154 Masters of vessels are required by the Safety of Life at Sea Convention to keep a list of dangerous goods carried on board. They will usually also have appropriate parts of the IMO emergency schedules for the goods in question. A competent person should be available with information on vessel stability in case the fire services find it necessary to discharge large quantities of water into the vessel in the event of a fire.

155 In drawing up the emergency plan you should consider what other information is likely to be required in an emergency and how to make preliminary arrangements

**Guidance 10**

for the information to be readily available. Organisations participating in the plan will be able to provide much of the information needed. The Chemsafe scheme is a further source of information and assistance when such an incident is beyond the resources available locally.

**Explosives**

156 Where explosives are being carried or handled in a harbour area, emergency plans should include actions to be taken in case of deteriorated explosives (see regulation 23). It is advisable to seek specialist advice from a competent person on the precautions that are necessary.

157 You should also consider making advance arrangements for real-time specialist advice to be available if such an incident occurs.

158 Additional advice on preparing emergency plans for explosives is given at Appendix 3.

**ACOP 10**

**Training**

**159 As harbour authority you should make sure that everyone employed in the harbour or harbour area is adequately trained on the action to be taken in cases of emergency (or are trained without undue delay in the case of new employees). Arrangements should also be made for dealing with other people such as visitors and contractors who may also be in the harbour area.**

**Guidance 10**

160 People needed to carry out the emergency plan should be competent to carry out their assigned tasks and should have been thoroughly trained. They should be given the correct personal protection and other equipment, and you should make arrangements for them to be adequately supervised. The training should ensure that people not involved in dealing with the emergency leave the vicinity of the incident and go to a place of safety.

161 Where other employers, such as berth operators or stevedores, are working in the harbour area they have a duty under the Management Regulations to provide information and training to their employees on health and safety matters. However, as harbour authority you should make sure that this training includes the actions required under the emergency plan.

162 In identifying training needs don't forget the needs of people with disabilities and vulnerable workers.

**ACOP 10**

**Testing the emergency plan**

**163 You should test the plan periodically. This may be done either by means of full-scale live exercises or by other equally effective means.**

**Guidance 10**

164 Other effective means may include tabletop exercises, supported by the testing of other components (which may be done at separate times), including the communication arrangements. A tabletop exercise should demonstrate that the constituent parts of the plan, including the emergency response arrangements of any different organisations, will work together. The testing of other components should demonstrate whether the plan can be put into effect successfully. The testing of some of the components should be done live, ie it should involve deployment of some personnel and resources as if they were responding to a real emergency.

**Guidance 10**

165 If your plan is integrated with other emergency plans (eg those required under CCA or COMAH) there may be considerable benefits to be gained from testing the plans (or parts of the plans) at the same time, as well as potential financial savings from avoiding duplication. Testing both plans together will demonstrate how well they fit with each other.

166 Emergency plans should be tested when first devised and rehearsed at suitable intervals. The scenario tested should vary to examine the range of emergency responses required for foreseeable incidents. The frequency of exercises should be proportionate to the probability and consequences of an incident occurring.

167 Rehearsals or exercises are important for all personnel likely to be involved in an incident because:

- (a) they familiarise on-site personnel with their roles, equipment and the details of the plan;
- (b) they allow the professional emergency services to test their parts of the plan and the coordination of the different organisations; they also familiarise them with the special hazards;
- (c) they prove the current accuracy of details of the plan, eg telephone numbers etc, and the availability of special equipment such as fire and rescue equipment, breathing apparatus etc;
- (d) they give experience to and build confidence in team members. In the initial shock and confusion of a real incident the ability to fall back on established initial actions will be invaluable.

168 Harbour authorities should make sure that the emergency procedures for their harbour or harbour area are tested regularly and that all employees receive initial and refresher training. Exercises should be arranged to test each part of the emergency plan in each part of the harbour or harbour area, or each berth, stage by stage, starting with the first immediate action. Emergency isolation and shutdown should be rehearsed. Where appropriate, this may be by simulation. Familiarisation visits by the emergency services, especially the fire and rescue service, should be encouraged. Where emergency services are identified as having a role to play in the emergency response, it may be appropriate for them to attend many of the tests but not necessarily all.

169 The complete plan for the harbour area should also be tested. Many organisations now use tabletop exercises to test emergency plans: these are cost-effective because they do not interrupt the day-to-day running of the harbour, and also because many events can be considered in one exercise. Nevertheless, they are theoretical in nature and should be complemented by control post exercises designed to test communications with key personnel working from the locations they would use in an emergency.

170 Exercises should be carefully prepared, the results analysed and the lessons shared. Full-scale practices at suitable intervals are recommended to give the maximum possible confidence to all concerned.

**Review**

171 The plan must be reviewed periodically to ensure that it still covers all the incidents likely to occur in the harbour or harbour area.

**ACOP 10**

**172 A review should be undertaken at least once every three years or when there has been a significant change in the operation of the harbour which**

**ACOP 10**

**might affect the operation of the plan. Whenever the plan has been used in a real-life incident it should be reviewed as soon as possible afterwards and any deficiencies rectified.**

**Guidance 10**

173 At regular intervals, and following a major change in the amount or type of dangerous goods in the harbour area or in the personnel structure, you should reassess the emergency plan and alter or update it as necessary. The review should also take into account any other changes in the activities carried out in the harbour area, advances in technical knowledge, and any changes in the emergency services relevant to the operation of the plan. You should make everybody involved aware of the revision and make revised instructions and plans available.

174 The plan should also be reviewed after each rehearsal or practice to take account of any shortcomings highlighted by the exercise.

**Assessing the adequacy of the emergency plan**

175 You may find the objectives in paragraphs 176–185 useful in assessing the adequacy of your emergency plan.

176 The plan should cover the full range of incidents that can realistically be anticipated. The incidents considered should range from small events – which can be dealt with by harbour personnel without outside help – to major incidents. Harbour authorities should be able to justify the proposals in their emergency plans, including the following points:

- (a) the events considered, and why they were included or excluded;
- (b) the typical causes of these events;
- (c) the timescale involved;
- (d) the size of lesser events if the emergency is contained;
- (e) the likelihood of events, so far as it can be assessed.

177 The consequences of the various incidents considered should have been adequately assessed. For example, each incident should be assessed in terms of the quantities of hazardous materials that could be released, the rate of release, the effects of thermal radiation from fires, the effects of toxic gases etc.

178 There should be enough resources in terms of personnel and equipment on the site to carry out the emergency plan in conjunction with the public emergency services. For example, is there sufficient water for cooling and, if this water is applied via hoses, will there be sufficient people who are able to operate them?

179 The timescales should have been assessed correctly. The time element is of great significance but is often overlooked. For example, time will elapse between the start of the incident and the arrival of the fire and rescue service, who will then need further time to deploy their officers and equipment. In such circumstances, the harbour authority's or berth operator's resources should seek to contain the incident until the fire and rescue services take over. Some toxic releases may take place very quickly. For example, a one-tonne chlorine drum releasing liquid full flow through an open valve will be empty in about 10 minutes. If the possibility of such a release is identified, the remedial action must be appropriately prompt.

180 There should be a logical sequence of actions for each person given a role in the plan. A person should not be assigned so many duties that some are omitted by default due to the pressures of the incident, or be required to be in more than one place at a time. Where a person has a number of tasks to perform the order or priority should be clearly laid down.

Guidance 10

181 Key personnel, in particular the nominated incident controllers, should have been consulted in the preparation of the plan.

182 There should be 24-hour cover to take account of absences due to sickness and holidays, minimum shift staffing, operator-only periods, silent hours, shutdown periods, only security personnel being present, unstaffed sites etc.

183 There should be satisfactory cooperation with the local emergency services and county or regional emergency planning officers.

184 All appropriate emergency services and other organisations who might become involved should have been consulted and their roles defined in and included in the plan. These should include, as necessary:

- (a) ambulance services;
- (b) berth operators;
- (c) coastguards;
- (d) electricity boards;
- (e) fire authorities;
- (f) gas regions;
- (g) government organisations;
- (h) health authorities;
- (i) local authorities;
- (j) local transport undertaking;
- (k) major port users;
- (l) police;
- (m) railways;
- (n) river purification boards;
- (o) social services;
- (p) water authorities;
- (q) waste disposal authorities.

185 You may also find the following checklist helpful to make sure that all relevant aspects have been included.

- (a) **Organisation:** command structure, coordination arrangements, warning systems, implementation procedures, emergency control centres.
- (b) **Personnel:** names and appointments of main controller, incident controller, deputies, key person.
- (c) **Communications:** identification of personnel involved, communication centre, call signs, network, lists of key telephone numbers, transport by land and water.
- (d) **Specialised emergency equipment:** details of availability and location of heavy lifting gear, bulldozers, specified firefighting equipment, fire boats, containment booms, product recovery pumps.
- (e) **Specialised knowledge:** details of specialist boat firms and persons whom it may be necessary to call, such as people or firms with specialised chemical knowledge, laboratories.
- (f) **Voluntary organisations:** details of organisers, telephone numbers, resources.
- (g) **Chemical information:** details of the hazardous substances stored in the harbour area and a summary of the risks associated with them.
- (h) **Meteorological information:** arrangements for obtaining details of weather conditions prevailing at the time and for weather forecasts.
- (i) **Humanitarian arrangements:** transport, evacuation centres, emergency feeding, treatment of injured, first aid, ambulances, temporary mortuaries.
- (j) **Public information:** arrangements for giving information, dealing with the media, press office, informing relatives.

**Guidance 10**

- (k) **Assessment:** arrangements for collecting information on the causes of the emergency, appointment of an investigator reviewing the efficiency and effectiveness of all aspects of the emergency planning.

## Regulation 11 Emergency arrangements at berths

**Summary:** Operators of berths where dangerous goods are handled must inform the master of any vessel entering the berth of the emergency arrangements.

**Regulation 11**

*When dangerous goods are being handled or carried at a berth, and at any other time when there are risks from dangerous goods, the berth operator must, in a timely manner, inform the master of any vessel entering a berth of the means of emergency communication and escape.*

**Guidance 11**

186 The requirements of this regulation supplement regulations 3 and 8 of the Management Regulations and, where appropriate, Part 4 of COMAH 2015. These regulations effectively require all employers to prepare emergency plans to deal with accidents occurring in their workplace (although in the Management Regulations these are referred to as ‘procedures for serious and imminent danger’). Berth operators should refer to the relevant parts of these regulations for details of these requirements. This regulation adds a supplementary duty to communicate these arrangements to the master of a vessel due to use the berth.

## Regulation 12 Untoward incidents

**Summary:** ‘Untoward incidents’ must be reported to the harbour master and dealt with appropriately. Untoward incidents are leaks or escapes of dangerous goods (or threats thereof) that could cause a serious health and safety risk.

**Regulation 12**

*(1) The master of a vessel carrying dangerous goods must immediately inform the harbour master, or if the vessel is at a berth, the berth operator and the harbour master, of any untoward incident which occurs or has occurred on the vessel.*

*(2) The berth operator must immediately inform the harbour master, and the master of any vessel at the berth, of any untoward incident which occurs on the berth.*

*(3) Where an untoward incident occurs during the operation of handling dangerous goods, the person in control of the operation must stop the operation as soon as it is safe to do so and must immediately report the incident to the harbour master, the berth operator and the master of any vessel that may be affected by the incident and, where appropriate, the emergency services.*

*(4) Where an operation has been stopped in accordance with paragraph (3), it shall not be resumed until it is safe to do so in the opinion of the harbour master.*

*(5) In this regulation an “untoward incident” means an incident involving or threatening the containment of dangerous goods inside a harbour area, which might create in the harbour area a serious risk to the health and safety of any person or a risk to the safety of a vessel.*

**Guidance 12**

187 This regulation relates to all incidents involving a loss of containment, or the threat of a loss of containment, if they create a risk in the harbour or harbour area.

188 The most likely time for an incident to occur is when loading or unloading is taking place. This regulation requires such untoward incidents to be reported and dealt with to prevent the incident escalating into a major emergency, if possible. Incidents should be reported immediately, and it is important that suitable communication arrangements are in place to enable this to happen (see paragraphs 131–134 on communications in emergency plans).

## Regulation 13 Parking of road vehicles carrying dangerous goods

**Summary:** Where practicable, berth operators or harbour authorities must designate a suitable parking area for road vehicles carrying dangerous goods. Drivers of vehicles carrying dangerous goods must park in the designated area.

**Regulation 13**

*(1) Every berth operator is required, so far as is reasonably practicable, to designate a suitable parking area for road vehicles carrying dangerous goods that use the berth.*

*(2) If the berth operator is unable to designate a suitable parking area for such vehicles –*

- (a) the berth operator must notify the harbour authority, and*
- (b) the harbour authority must, so far as is reasonably practicable, designate the parking area.*

*(3) The driver of any vehicle which is carrying dangerous goods must not –*

- (a) where a parking area has been designated by the berth operator or the harbour authority, leave the vehicle unattended except in that area;*
- (b) park the vehicle at a place or in a manner that may create a risk to the health or safety of any person.*

**ACOP 13**

**189 Designated parking areas should allow for suitable segregation, where vehicles carrying incompatible dangerous goods have to be parked in the same area. Consider the need for vehicles to be kept away from office blocks, warehouses, or parking areas used by other vehicles, eg cars waiting to board a ferry. Also consider the possibility of vandalism or unattended vehicles.**

**Guidance 13**

190 If the parking area is to be used by vehicles carrying goods that present a risk of fire or explosion, consider appropriate fire precautions to prevent such events and to limit their effects.

191 Further advice on suitable segregation of dangerous goods is in IMO Circular MSC1216 *Revised recommendations on safe transport of dangerous cargoes and related activities in port areas*<sup>21</sup> and in HSE’s guidance document *Chemical warehousing: The storage of packaged dangerous substances*.<sup>22</sup>

## Regulation 14 Application

**Summary:** Use this regulation to check where the explosives licensing requirements in regulations 14–17 apply. They apply more widely than the rest of the regulations, though there also are some additional exemptions.

### Regulation 14

(1) Subject to paragraph (2), regulations 15 to 19, in addition to their application in every harbour area under regulation 5, apply to –

- (a) the loading on board or the unloading from a vessel (other than a vessel which is an offshore installation within the meaning of regulation 3 of the Offshore Installations and Pipeline Works (Management and Administration) Regulations 1995) of any explosive on any part of the coast of Great Britain or in any tidal water; and
- (b) the loading on board or unloading from a vessel of any explosive within territorial waters to which sections 1 to 59 and 80 to 82 of the 1974 Act are applied by article 11 of the Health and Safety at Work etc. Act 1974 (Application Outside Great Britain) Order 2013.

(2) Regulations 15 to 19 do not apply to –

- (a) explosives –
  - (i) in Division 1.4 of the IMDG Code; or
  - (ii) in any other division of the IMDG Code (except explosives in Compatibility Group L), where the total quantity of explosive does not exceed 10 kilograms;
- (b) explosives that are to be used immediately by a vessel at sea;
- (c) explosives of less than 1 tonne in quantity intended for immediate use in the harbour area, if –
  - (i) the harbour master has given written consent; and
  - (ii) any conditions for carriage and use in that consent are complied with;
- (d) a berth which forms part of a site which is –
  - (i) licensed under the Explosives Regulations 2014 in cases where, in relation to the application for that licence, the assent of the local authority is required under regulation 13 of those Regulations;
  - (ii) exempt from the requirement for assent of the local authority in accordance with regulation 13(4) paragraphs (f) and (g) of those Regulations;
  - (iii) deemed to be licensed by virtue of regulation 82(1) of those Regulations in cases where, in relation to that deemed licence, the assent of the local authority would have been required under regulation 13(3) of those Regulations had the licence been applied for under those Regulations;
- (e) explosives under the control of the Secretary of State for Defence, or a visiting force or headquarters, complying with a scheme approved by that Secretary of State which –
  - (i) provides for safe storage, carriage and handling; and
  - (ii) prescribes separation distances or separation distances in combination with other safety measures as necessary;
- (f) explosives carried by a foreign warship;
- (g) explosives carried by a vessel passing through a harbour area or adjacent area without mooring, anchoring or handling;
- (h) the handling of explosives from a vessel which is an offshore installation under the Offshore Installations and Pipeline Works (Administration and Management) Regulations 1995; and

**Regulation 14**

- (i) *explosives being carried by a vessel into an unlicensed harbour area in an emergency situation, including life-threatening weather conditions, provided –*
- (i) *the explosives are undamaged and in a safe condition;*
  - (ii) *the explosives are not handled while the vessel is in the harbour area; and*
  - (iii) *the vessel leaves the harbour area as soon as practicable.*

**Guidance 14**

192 Because of the inherent danger of most explosives, their handling between land and sea is generally only permitted in a harbour area if it has been licensed. To avoid the possibility that explosives loaded or unloaded outside a harbour might escape the licensing controls, regulations 15–17 also apply to the loading or unloading of any explosives into or from a ship on the coast of Great Britain, in any tidal water, or within territorial waters. An explosives licence is not required for offshore installations.

193 The exceptions in regulation 14(2) relate either to explosives that do not present a significant risk because of their inherent nature, or the amount present, or because the conditions under which they are handled do not warrant a licence. The exceptions in regulation 5(2) also continue to apply here.

194 A DGHAR licence is also not required in certain cases where the site is licensed for manufacture or storage of explosives under the Explosives Regulations 2014 (ER2014). This applies in three scenarios:

- (a) where local authority assent was required for the licence. Where an ER2014 licence is in place but local authority assent was not required (eg for ammonium nitrate blasting intermediate) a DGHAR licence is still required;
- (b) where the site is exempt from a licence under regulations 13(4)(f) and (g) of ER2014. This applies where a site was previously exempt from ER2014 because it was under the control of the Secretary of State for Defence or visiting forces, and it is then transferred to civilian control and no new health or safety issues arise. In this situation, no DGHAR licence is required;
- (c) where a licence was granted under the Manufacture and Storage of Explosives Regulations 2005<sup>23</sup> and is deemed still to apply under ER2014. This exemption only applies where local authority assent would have been required under ER2014.

195 Firework displays in a harbour area are not specifically exempted from the requirements of DGHAR but would normally be out of scope of licensing requirements due to other applicable exemptions. For example, if fireworks are being launched from a barge, they would be exempt due to regulation 12(2)(b) covering explosives to be used immediately by a vessel at sea. The exemption at 12(2)(c) for explosives for immediate use in the harbour area may also apply, provided the explosives are of less than 1 tonne in quantity and the harbour master has given written consent.

196 Regulations 20–24 apply to all explosives in harbour areas irrespective of whether an explosives licence is required or not.

## Regulation 15 Requirement for an explosives licence

**Summary:** Carrying or handling explosives in a harbour area is prohibited unless a licence is in place that permits it. A licence is also required to load or unload explosives from the coast of Great Britain or in territorial waters. HSE normally issues the licence but for harbour areas regulated by ONR, ONR licenses the harbour area.

### Regulation 15

*No person is to carry or handle explosives within a harbour area, or load or unload any explosive in circumstances to which this regulation applies by virtue of regulation 14(1), unless the appropriate authority has issued a licence permitting such activity and there is full compliance with any conditions of that licence.*

## Regulation 16 Applications for explosives licences

**Summary:** This regulation states who can make an application for an explosives licence and where to make it

### Regulation 16

*(1) An application to the appropriate authority for an explosives licence or for any variation to an existing explosives licence is to be made by –*

- (a) a harbour authority,*
- (b) a berth operator, subject to the berth operator giving notice of such intention to the harbour authority; or*
- (c) a person having an interest in the activities for which a licence is required under regulation 15,*

*in accordance with the procedure specified in Schedule 3.*

*(2) The appropriate authority may grant, transfer, renew, vary, revoke or cancel an explosives licence.*

## Regulation 17 Consideration of licence applications

**Summary:** HSE and ONR have the power to issue and vary licences and provisional licences.

### Regulation 17

*(1) The appropriate authority must take account of any comments or objections received by it in response to a licence application and may reject the application or may grant the licence or variation subject to such conditions as it considers appropriate, with or without time limit and subject to variation or revocation in writing at any time.*

*(2) The appropriate authority may grant a provisional explosives licence or vary an existing licence in cases of urgency and any such provisional licence or variation may have effect for a period not exceeding 6 months from the date on which it was granted unless revoked in writing by the appropriate authority before its date of expiry.*

### Guidance 17

197 An explosives licence will be needed unless the exceptions listed in regulation 14 apply. The licence will specify any conditions or restrictions that apply in a particular harbour, including limits on the quantities of explosive that may be

**Guidance** 17

handled. A licence could permit handling of explosives within a harbour area as a whole or could restrict handling to a specific berth or berths within the harbour area.

198 Explosives may not be loaded or unloaded from a vessel in territorial water anywhere outside a harbour unless the operation is licensed, unless it is at an offshore installation, or covered by the exclusions in regulation 14(2). Any conditions laid down in the licence must be complied with.

199 Explosives licences are issued by HSE in most cases, though where the site is regulated by ONR, ONR will license the site. In a harbour, the harbour authority or a berth operator may apply for a licence. The procedure is set out in Schedule 3.

200 Further guidance on applying for a licence together with the relevant form is available on the HSE website.

## Regulation 18 Harbour areas ceasing to be nuclear harbour areas

**Summary:** Explosives licences issued by ONR continue to be valid if HSE becomes the licensing authority for the harbour.

**Regulation** 18

*(1) Where this regulation applies any explosives licence issued by, or treated as issued by, the Office for Nuclear Regulation is to be treated, on and after the date on which it ceased to be a nuclear harbour area, as an explosives licence issued by the Health and Safety Executive.*

*(2) This regulation applies where –*

- (a) the harbour area in respect of which the licence was issued ceases to be nuclear harbour area; and*
- (b) the licence mentioned in sub-paragraph (a) remained in force (with or without variations) immediately before the date on which the harbour area ceased to be a nuclear harbour area.*

*(3) In this regulation “nuclear harbour area” means a harbour area which is, or forms part of an ONR regulated site.*

## Regulation 19 Harbour areas becoming nuclear harbour areas

**Summary:** Explosives licences issued by HSE continue to be valid if ONR becomes the licensing authority for the harbour.

**Regulation** 19

*(1) Where this regulation applies any explosives licence issued by, or treated as issued by, the Health and Safety Executive is to be treated, on and after the date on which it became a nuclear harbour area, as an explosives licence issued by the Office for Nuclear Regulation.*

*(2) This regulation applies where –*

**Regulation 19**

- (a) *the harbour area in respect of which the licence was issued becomes a nuclear harbour area; and*
  - (b) *the licence remained in force (with or without variations) immediately before the date on which the harbour area became a nuclear harbour area.*
- (3) *“nuclear harbour area” has the meaning given by regulation 18.*

**Guidance 18, 19**

201 These paragraphs are only relevant to harbours that are due to become, or stop being, a nuclear harbour area.

202 ‘Nuclear harbour area’ is defined as an ‘ONR-regulated site’ (ie one regulated by the Office for Nuclear Regulation). An ONR-regulated site is defined in regulation 2(1) as a site which is:

- (a) a GB nuclear site (within the meaning given in section 68 of the Energy Act 2013);
- (b) an authorised defence site (within the meaning given in regulation 2(1) of the Health and Safety (Enforcing Authority) Regulations 1998);
- (c) a new nuclear build site (within the meaning given in regulation 2A of those regulations).

203 Nuclear harbour areas include those that are within a licensed nuclear site boundary, harbour areas that are within the boundary of a nuclear site under construction, and those harbour areas that form part of a defence site for which ONR has health and safety responsibilities.

204 If a site becomes a nuclear harbour area, any explosives licences for the site that were issued by HSE are transferred to ONR’s responsibility and continue to be valid.

205 A nuclear harbour ceases to be categorised as such when the site licence is withdrawn or surrendered by ONR (in the case of GB nuclear sites and construction sites), or when the site ceases to be ‘authorised’ (an equivalent to licensing) by the MOD (in the case of authorised defence sites).

206 If a site ceases to be a nuclear harbour area, any ONR explosives licences for the site also continue to be valid when they are transferred to HSE’s responsibility.

## **Regulation 20 Security of explosives**

**Summary:** Berth operators and harbour authorities and others in charge of explosives must take effective measures to safeguard explosives against damage, theft, loss and wrongful use.

**Regulation 20**

(1) *Where explosives are handled or carried at a berth, the berth operator shall ensure that all appropriate precautions are taken against the damage, loss, theft or wrongful use of the explosives at the berth.*

(2) *In harbour areas, or parts thereof, for which a berth operator is not responsible under paragraph (1) the harbour authority must ensure that all appropriate precautions are taken against the damage, loss, theft or wrongful use of the explosives being carried or handled.*

(3) *Any person having custody of explosives in a harbour area, however temporary, must –*

**Regulation 20**

- (a) ensure adequate precautions are taken against the damage, loss, theft or wrongful use of the explosives;
- (b) comply with any instructions given by the berth operator or harbour authority; and
- (c) co-operate with the berth operator or harbour authority in the execution of duties under this regulation.

(4) Where there is a transfer of custody of explosives within the harbour area the transferor and transferee must both retain a record of the transfer.

(5) Where explosives are dropped overboard or lost the person who previously had custody of them must –

- (a) report the incident to the harbour master; and either –
  - (i) to the berth operator, if the incident took place at a berth; or
  - (ii) to the harbour authority; and
- (b) take all steps as are reasonably practicable to recover those explosives.

**Guidance 20**

207 Explosives have the potential to be misused and that misuse can cause both harm to people, damage or destruction to property and infrastructure, and disruption to the activity of the port and its surrounding environment.

208 In addition, inadequate controls can result in unauthorised people having access to places where explosives are handled, manufactured, stored, kept or used, which can increase the likelihood of a fire or explosion occurring through inappropriate actions or behaviours.

209 Robust security controls must be in place before operations involving explosives start and they should remain in place and be effective for as long as the operations continue.

210 Appropriate security controls require active management if they are to remain effective.

211 Arrangements should be in place to manage the security of explosives. These arrangements should address the responsibilities for:

- (a) identifying;
- (b) implementing;
- (c) maintaining;

the security controls.

212 Under regulation 20 of DGHAR, berth operators and harbour authorities must put in place appropriate measures to manage the security of explosives. Berth operators are responsible for security of explosives within their areas of responsibility (eg the berth or terminal that they manage), whereas the harbour authority is responsible for security of explosives in any land-based parts of the harbour area that no berth operator is responsible for. Harbour authorities and berth operators should liaise closely and the interface between their responsibilities should be carefully defined to make sure that all parts of the harbour are adequately covered.

**ACOP 20**

**213 Harbour authorities and berth operators should deliver the arrangements for managing the security of explosives by appointing a person, whose role and responsibilities include ensuring that the security measures are implemented, effective and maintained. This person will generally be known as known as an explosives security officer (ESO).**

<b>ACOP</b>	<b>20</b>	<p><b>214 Where ESOs are appointed, they should be at a suitable level of seniority within the organisation to exercise their authority and should receive appropriate training to enable them to carry out their responsibilities. As well as ensuring that precautions are taken against the loss or theft of explosives, ESOs should ensure that explosives are not used unlawfully in the harbour.</b></p>
<b>Guidance</b>	<b>20</b>	<p>215 Where the harbour authority is the berth operator, it is only necessary to appoint one ESO. However, it is important to note that the duty to manage the security of explosives remains with the harbour authority or berth operator even where an ESO is appointed.</p> <p>216 The ESO role may be allocated to a suitable member of staff with another role within the harbour, for example the port facility security officer, safety manager, assistant harbour master or port manager.</p>
<b>ACOP</b>	<b>20</b>	<p><b>217 Security arrangements should cover all explosives, regardless of the reason they are present in the harbour, or whether they need an explosives licence, or whether they are to be handled. They should include explosives of Division 1.4, explosives consignments that are to remain on board and explosives for use in harbour works.</b></p>
<b>Guidance</b>	<b>20</b>	<p>218 However, the level of precautions necessary may vary and will largely depend on whether or not the explosives are of a type considered attractive to terrorists and other criminals; that is explosives:</p> <ul style="list-style-type: none"> <li>(a) that require an explosives certificate under ER2014 for their acquisition and keeping; or</li> <li>(b) whose acquisition is regulated or prohibited by the Firearms Acts 1968 to 1997.</li> </ul> <p>219 Explosives that require a certificate or whose acquisition is regulated or prohibited by the Firearms Acts 1968 to 1997 will generally require a higher level of precautions than those that do not.</p>
<b>ACOP</b>	<b>20(3)</b>	<p><b>220 If any package containing explosives, or the sealing of any such package, appears to be damaged, the person in charge of the package should set it aside temporarily, under surveillance, for examination and repair or safe and secure disposal by a competent person.</b></p> <p><b>221 If any explosives are spilled or escape from the package in which they are contained, the person in immediate control of them should ensure that:</b></p> <ul style="list-style-type: none"> <li>(a) no further loading of the consignment is undertaken until an assessment has been made by a competent person as to whether it is safe to continue;</li> <li>(b) the occurrence is immediately reported to the harbour master;</li> <li>(c) after consulting a competent person, suitable arrangements are made for their recovery;</li> <li>(d) any deficiency in the amount recovered is immediately reported to the explosives security officer;</li> <li>(e) after consulting a competent person, safe and secure arrangements are made for repacking the goods, or in the case of goods which are not repacked, that the explosives security officer is consulted on secure arrangements for disposal of the goods.</li> </ul>
<b>Guidance</b>	<b>20(3)</b>	<p>222 In the case of military explosives, the term ‘competent person’ may mean the authorised representative of the MOD or a representative of the manufacturer of the</p>

**Guidance 20(3)**

explosives. In the case of other explosives the term could include the consignee, consignor, the manufacturer or a contractor specialising in explosives ordnance disposal. It is recommended that the competent person is identified at the time the notice of entry is received.

**ACOP 20(3)**

**223 Normally explosives are carried within cargo transport units. However, where explosives are carried directly in ships' compartments, the master of a vessel should ensure that:**

- (a) a responsible person is present at all times when compartments containing explosives are open. In the case of military explosives, the term responsible person means the authorised representative of the MOD;
- (b) only authorised people are permitted access to spaces in which such explosives are stowed;
- (c) magazines and hatches of compartments containing explosives are always secured against unauthorised entry once loading is completed, or when loading or unloading is stopped;
- (d) all explosives are tallied into and out of the vessel;
- (e) packages containing explosives are not opened on board the vessel except as may be necessary in the case of damaged packages.

**Guidance 20(3)**

224 Customs officials have powers to enter and inspect ships in which explosives may be being stored. Customs officials are advised to liaise with the master of the vessel or harbour authority, as relevant, to make sure that suitable and sufficient safety precautions are in place during any such inspection.

**ACOP 20(4)**

**225 The record should give details of the number of packages of explosives to be individually handled, together with details of their contents. Records of transfers should be retained for one month. Although there is no requirement in the regulations physically to check each package, in order to comply with regulation 20(3), if at the time of such transfer of responsibility a package shows signs of having been damaged or tampered with, the person receiving the explosives should ensure that:**

- (a) the matter is reported immediately to the harbour master and, where one is appointed, the explosives security officer;
- (b) any package from which it appears that explosives may be missing is temporarily set aside, under surveillance, for examination.

**Guidance 20(4)**

226 Where any package has been damaged or tampered with, or in the case of any deficiency in the amount recovered from a spillage or escape from a package, or if the spillage needs to be disposed of, the police should be notified as necessary to comply with the requirements of regulation 37 of ER2014.

## **Regulation 21 Vessels and vehicles loaded with explosives to be taken out of harbour areas**

**Summary:** Vehicles loaded with explosives must be taken out of harbour areas as soon as reasonably practicable.

**Regulation 21**

*Following the loading of a vessel or a vehicle with explosives, the master of the vessel or the person in charge of the vehicle must remove the vessel or vehicle from the harbour area as soon as is reasonably practicable unless –*

**Regulation 21**

- (a) *the harbour master and berth operator agree that the vessel or vehicle may remain within the harbour area; or*
- (b) *it is less safe for the vessel or vehicle to be outside of the harbour area, in which case the vessel or vehicle is to remain within the harbour area until it is safe for the vehicle or vessel to leave the vicinity.*

**Guidance 21**

227 Vehicles loaded with explosives should not normally be parked at harbours and must leave the harbour area as soon as reasonably practicable. Hauliers and freight forwarders should pre-arrange the timing of journeys as far as possible to avoid situations where vehicles containing explosives need to remain in the harbour area.

228 The loading and unloading of explosives should normally be planned according to the 'last on, first off' principle whereby they are the last items to be loaded onto a ship and the first items to be removed. This serves to reduce the time they remain in any one place for reasons of both security and safety. However, there may be cases where it would be safer not to apply this principle. For example, on some vessels it could be safer for vehicles containing explosives to be stored away from passenger accommodation even if this means that these vehicles are not the last on or first off the vessel.

229 There could be limited circumstances when it is not reasonably practicable for the vehicle to depart immediately after loading and it would be safer for the vehicle to remain in the harbour area for a limited period of time. For example, this could be the case if there is known to be a road blockage outside the harbour area meaning that it would not be safe for a vehicle containing explosives to exit onto the public highway.

230 In such a case, vehicles should be parked in the designated parking area required under regulation 13. Where there is an explosives licence, parking should be in accordance with any terms of the licence and any further guidance issued with the licence. See also the guidance on regulation 20 which requires the harbour authority or berth operator to take precautions to secure explosives against theft.

231 If the storage time for any explosives is likely to exceed 24 hours, arrangements must be made for the explosives to be transferred to a place licensed under ER2014 for that purpose.

## **Regulation 22 Passenger prohibition on harbour craft carrying explosives**

**Summary:** Harbour craft carrying explosives must not carry passengers at the same time, with certain exceptions.

**Regulation 22**

(1) *Harbour craft carrying explosives must not carry passengers at the same time.*

(2) *Paragraph (1) does not apply –*

- (a) *where the only explosives carried are –*
  - (i) *explosives in Division 1.4, Compatibility Group S; or*
  - (ii) *ships' pyrotechnic signals, totalling less than 1 kilogram of explosives, which are being carried to another vessel ; or*
- (b) *where the only passengers are those –*

**Regulation 22**

- (i) *carried in connection with the harbour works for which the explosives are carried; or*
- (ii) *who are to handle the explosives being carried.*

## Regulation 23 Deteriorated explosives

**Summary:** Anyone with custody of explosives must report any deterioration or change in the explosives to the harbour master or berth operator, who must agree suitable precautions for their handling.

**Regulation 23**

*Where explosives have deteriorated or have undergone any change resulting in an increased risk to handling or carriage in the harbour area, the person having custody of those explosives must –*

- (a) *notify the harbour master and, where the explosives are at a berth, the berth operator of the deterioration or change; and*
- (b) *where any additional safety requirements are imposed by the harbour master, and where appropriate, the berth operator, comply with those requirements before moving or handling the explosives.*

**Guidance 23**

232 This regulation does not place a duty on anyone to inspect packages or containers to determine whether explosives have deteriorated. However, a situation may arise where it becomes clear, or is suspected, that explosives are in a deteriorated condition. For example, a ship may report that a package containing explosives has been damaged, or it may become clear that water has entered a container containing explosives.

233 The possibility that deteriorated explosives could be reported should be considered in emergency plans in harbour areas where explosives are handled (see paragraphs 156–158). A report of deteriorated explosives should trigger actions that are included in the plan.

## Regulation 24 Record keeping

**Summary:** The harbour authority must keep records of all explosives handled, loaded or unloaded in its harbour area for three years. For explosives loaded or unloaded outside a harbour area, the licensee should keep the records.

**Regulation 24**

*(1) A harbour authority must keep a record of the handling of all explosives within its harbour area, together with import, export, and where relevant, transit details, for a period of three years.*

*(2) The berth operator must co-operate with the harbour authority in the compilation of the record.*

*(3) Where regulation 14(1) applies, the licensee must keep a record, for 3 years, of all explosives, loaded or unloaded there, and record whether the explosives were exports, imports or in transit cargoes.*

*(4) This regulation does not apply to category 1, 2 and 3 fireworks as defined in the Pyrotechnic Articles (Safety) Regulations 2015.*

**Guidance 24**

234 Regulation 24(1) requires the harbour authority to keep a record of all explosives handled within the harbour area and retain these records for three years. Regulation 24(3) applies a similar requirement to the licensee in cases where the explosives are covered in regulation 14(1). This covers cases where explosives are loaded or unloaded outside a harbour area, in territorial waters or off the coast of Great Britain or in tidal waters.

235 Records of explosives should normally include:

- (a) the UN number of the explosives;
- (b) the proper shipping name;
- (c) the hazard classification code;
- (d) the manufacturer;
- (e) the consignor of the explosives;
- (f) the intended recipient;
- (g) the quantity of explosives.

236 Retaining a copy of the shipping document accompanying the explosives would suffice to meet this duty.

## Regulation 25 Byelaws

**Summary:** Statutory harbour authorities can make byelaws concerning entry, carriage, handling and storage of dangerous goods in their harbour area.

**Regulation 25**

*(1) A statutory harbour authority which is either –*

- (a) a local authority; or*
- (b) a public authority,*

*may, subject to the provisions in Schedule 4, make byelaws in respect of its harbour area prohibiting the entry or regulating the entry, carriage, handling or storage of dangerous goods.*

*(2) Byelaws must not conflict with these Regulations or with any other statutory provision.*

*(3) Byelaws are limited to matters relating to the harbour area.*

*(4) Byelaws may contain provisions for enforcement.*

**Guidance 25**

237 Because national regulations may not cover all of the circumstances involving dangerous goods that a harbour authority may wish to control, this regulation empowers a statutory harbour authority to make byelaws to prohibit the entry of dangerous goods or to regulate their entry, carriage, handling and storage.

238 Byelaws should not duplicate or conflict with these or any other regulations. Schedule 4 sets out the procedure to be followed by a harbour authority in making byelaws.

239 Regulations under the HSW Act can only give the power to 'local or public authorities' to make byelaws. There is no definition of public authority in the act so assessments of whether a harbour authority is a public authority will need to be taken on a case-by-case basis. In case of any doubt, harbour authorities are advised to contact the Department for Transport prior to making an application to

confirm byelaws (see paragraphs 250–254 on Schedule 4).

## Regulations 26–27 Enforcement

**Summary:** These regulations set out how the regulations are enforced. Some parts of the regulations are enforced by HSE and others by statutory harbour authorities. If you exercise due diligence to avoid committing an offence under DGHAR, this is a defence in any proceedings under the regulations.

### Regulation 26

*(1) Subject to section 18(1A) of the 1974 Act and paragraphs (2) and (3), the Health and Safety Executive is responsible for enforcing these Regulations.*

*(2) A statutory harbour authority is responsible for enforcing regulations 6, 7, 8, 9, 13(3) and 21 against persons other than itself.*

*(3) The Office for Nuclear Regulation is responsible for enforcing these Regulations in any harbour area which is, or forms part of, an authorised defence site or a new nuclear build site.*

*(4) In this regulation “authorised defence site” and “new nuclear build site” have the meanings given in the Health and Safety (Enforcing Authority) Regulations 1998.*

### Regulation 27

*The exercise of due diligence to avoid the commission of an offence is a defence in any proceedings under these Regulations or byelaws made under these Regulations.*

### Guidance 26, 27

240 DGHAR will be enforced by HSE (or, where relevant, ONR) and statutory harbour authorities. Regulation 26 sets out the parts and individual regulations to be enforced by each.

241 Statutory harbour authorities have the power to appoint inspectors to enforce the regulations listed in regulation 26. Inspectors’ powers will be limited to the jurisdiction of the statutory harbour authority that appointed them.

242 In harbour areas where there is no statutory harbour authority HSE (or ONR) will enforce all the regulations.

243 If the statutory harbour authority is itself engaged in any of the operations covered by DGHAR then any enforcement against the statutory harbour authority would be by HSE or ONR.

244 Failure to comply with DGHAR is an offence under section 33 of the HSW Act. On summary conviction, offences under section 33 are subject to a fine. On conviction on indictment, they are subject to an unlimited fine or, for certain offences, a term of imprisonment not exceeding two years, or both.

245 It should also be noted that, although the Office of Rail and Road (ORR) is not an enforcing authority under DGHAR, ORR has a more general enforcement role in respect of railway operations within harbours in certain circumstances. These circumstances are where the railway is part of a system which is operated outside the harbour for the purpose of carrying passengers or goods to or from the harbour, or where the railway is not connected to another railway outside the harbour but is for carrying the public. ORR’s role is specified in the Health and Safety (Enforcing Authority for Railways and Other Guided Transport Systems) Regulations 2006 (as amended).<sup>24</sup>

## Regulation 28 Exemptions

**Summary:** HSE and the Secretary of State for Defence can issue exemptions to DGHAR in justified cases.

### Regulation 28

*(1) Subject to paragraph (2), the Health and Safety Executive may, by a certificate in writing, exempt any person or class of persons, from any requirement or prohibition imposed by or under these Regulations, and any such exemption may be granted subject to conditions and to a time limit and may be revoked at any time by a certificate in writing.*

*(2) The Health and Safety Executive shall not grant any exemption unless, having regard to the circumstances of the case and in particular to –*

- (a) the conditions, if any, which it proposes to attach to the exemption; and*
- (b) any other requirements imposed by or under any enactment which apply to the case;*

*it is satisfied that neither the health or safety of persons, nor the security of any explosive, likely to be affected by the exemption will be prejudiced in consequence of it.*

*(3) The Secretary of State may, in the interests of national security, by a certificate in writing, exempt from all or any requirements or prohibitions imposed by these Regulations –*

- (a) Her Majesty's forces;*
- (b) visiting forces or headquarters;*
- (c) any person engaged in the carriage, keeping or supply of any military explosives, if that person is under the direct supervision of a representative of the Ministry of Defence,*

*and any such exemption may be granted subject to conditions and time limit and may be revoked by a certificate in writing at any time.*

*(4) In this regulation "military explosives" has the same meaning as in regulation 25(11)(a) of the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009.*

### Guidance 28

246 Applications for an exemption should be made to HSE, who will need to be satisfied that neither health and safety standards nor the security of explosives will in any way be prejudiced by exemption. These powers are used sparingly and only when there is a proven need.

247 Applications for exemptions should be addressed to HM Chief Inspector of Factories, except for applications relating to Part 3, which should be addressed to HM Chief Inspector of Explosives.

248 An application for an exemption certificate should state:

- (a) the regulation or paragraph from which exemption is requested;
- (b) the dangerous goods involved;
- (c) why exemption is considered to be necessary;
- (d) for how long exemption is required;
- (e) the site, operation etc to which the exemption applies;
- (f) what alternative steps are proposed to maintain the standards of safety which the regulation is intended to achieve.

**Guidance 28**

249 Regulation 28(3) is intended primarily to deal with periods of tension when it may be necessary, in the national interest, to relax one or more provisions of DGHAR. The MOD would normally consult HSE before giving an exemption.

## Regulations 29–32 Transitionals

**Summary:** These regulations ensure that arrangements made under DSHAR1987 will continue under DGHAR, where relevant.

**Regulation 29**

*An emergency plan prepared under regulation 26 of the 1987 Regulations continues to have effect as if it were in place as required under regulation 10(1) and subject to review under regulation 10(4) of these Regulations.*

**Regulation 30**

*An explosives licence granted under Part IX of the 1987 Regulations continues to have effect in accordance with any terms, conditions and limitations that applied to that grant.*

**Regulation 31**

*Byelaws having effect under the 1987 Regulations continue to have effect until revoked.*

**Regulation 32**

*Any extant exemption granted under regulation 46 of the 1987 Regulations continues to have effect until it is revoked or expires.*

## Regulations 33–34 Revocations and modifications

**Summary:** DGHAR revokes and replaces the Dangerous Substances in Harbour Areas Regulations 1987. A number of other regulations are modified to reflect the changes.

**Regulation 33**

*The 1987 Regulations are revoked.*

**Regulation 34**

*Schedule 5 (which makes consequential amendments) has effect.*

## Regulation 35 Review

**Summary:** DGHAR will be reviewed within five years of entry into force.

**Regulation 35**

*(1) Before the end of the review period, the Secretary of State must –*

- (a) carry out a review of these Regulations;*
- (b) set out the conclusions of the review in a report; and*
- (c) publish the report.*

*(2) The report must in particular –*

- (a) set out the objectives intended to be achieved by the regulatory system established by these Regulations;*
- (b) assess the extent to which those objectives are achieved; and*
- (c) assess whether those objectives remain appropriate and, if so, the extent to which they could be achieved with a system that imposes less regulation.*

**Regulation 35**

(3) *“Review period” means the period of five years beginning with the date on which these Regulations come into force.*

## The Schedules

### Schedule 1 List of specified dangerous goods

**Summary:** This schedule specifies the dangerous goods and quantities which trigger the requirement for flags and lights to be displayed under regulation 8.

#### Schedule

1

1. *The dangerous goods referred to in regulation 8(1) are:*

(a) *more than 10 kilograms of explosives in Division 1.1 or 250 kilograms in aggregate of explosives in Division 1.2, 1.3 and 1.5; when explosives in Division 1.1 are carried simultaneously in the vessel with explosives in Division 1.2, 1.3 or 1.5, the overall limit is 10 kilograms;*

(b) *more than 25 tonnes of sodium chlorate or potassium chlorate, or more than 500 tonnes of ammonium nitrate of Class 5.1;*

(c) *bulk liquefied gases of Class 2, including the remnants of such gases which remain after their discharge from a tank which has not subsequently been gas-freed or inerted;*

(d) *bulk liquids of Class 3, including the remnants of such liquids which remain after their discharge from a tank which has not subsequently been gas-freed or inerted;*

(e) *bulk liquids of Classes 4, 5, 6.1 and 8 of UN Packing Groups I and II in the UN list;*

(f) *bulk liquids of Class 6.1, UN Packing Group III in the UN list, if such liquids have a harmful inhalation risk.*

2. *In paragraph 1 –*

*“UN List” means the version of the UN list referred to in Chapter 3.2 of the IMDG Code as updated from time to time.*

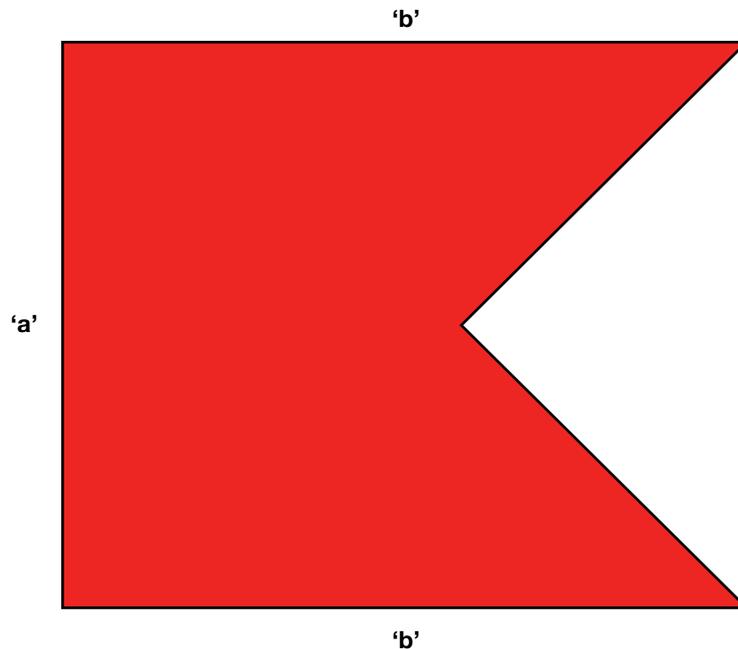
### Schedule 2 Flag indicating that a vessel is carrying dangerous goods

**Summary:** This schedule gives the specifications for flags required under regulation 8, when a vessel is carrying dangerous goods as specified in Schedule 1.

**Schedule 2**

**PART 1 Shape and colour of flag**

1. *The shape of the flag shall be as shown below.*



2. *The flag shall be red in colour.*

**PART 2 Material and size of flag on vessels with a mast**

1. *The flag shall be made of fabric.*

2. *The side of the flag marked "a" on the diagram shown in Part 1 of this Schedule shall not be less than 75 centimetres in length and the sides of the flag marked "b" on the said diagram shall have equal lengths of not less than 90 centimetres.*

**PART 3 Material and size of flag on vessels without a mast**

1. *The flag shall be made of metal.*

2. *The side of the flag marked "a" on the diagram shown in Part 1 of this Schedule shall not be less than 45 centimetres in length and the side of the flag marked "b" on the diagram shall have equal lengths of not less than 90 centimetres.*

**Schedule 3 Explosives licensing**

**Summary:** This schedule gives more detail on the process for applying for explosives licences and the public consultation procedure associated with licence applications.

**Schedule 3**

1. *An application for an explosives licence, or for the transfer, renewal or variation of an existing licence is to be made in writing to the appropriate authority and is to be accompanied by such information and plans as that authority may require.*

## Schedule

3

2. *On receipt of an application, the appropriate authority must prepare a draft licence and require the applicant to publish, in an approved form, a notice giving such details of the draft licence as the appropriate authority may require.*
3. *A notice published in accordance with paragraph 2 is to state that any responses to the application are to be sent to the appropriate authority within one month of the publication of the notice.*
4. *Within the time for responses the applicant must provide any interested person with such information about the application as the appropriate authority may determine.*
5. *After the time for responses has passed the appropriate authority may amend the draft licence and must require the applicant to publish a further notice in accordance with paragraphs 2 and 3 unless the effects of the changes are minimal.*
6. *An applicant for a licence who is a berth operator must send a copy of the licence to the harbour authority.*
7. *In respect of a transfer or a variation of the terms of an existing licence the requirements as to publication and consultation in paragraphs 2 and 3 do not apply where the appropriate authority is satisfied that the changes affect only the title or where the effects are minimal.*

## Schedule 4 Provisions relating to byelaws

**Summary:** Statutory harbour authorities wishing to make byelaws must apply to the Secretary of State to confirm them. This schedule outlines the procedure to be followed.

## Schedule

4

1. *In this Schedule, "byelaws" means byelaws made by a statutory harbour authority for all or any of the purposes set out in regulation 25(1).*
2. *Byelaws are to be made under the common seal of the statutory harbour authority.*
3. *Byelaws will not have effect until they are confirmed by the Secretary of State.*
4. *However, where a byelaw which prohibits or regulates the entry of dangerous goods into a harbour area has been made after consultation with any berth operator who will be affected by the proposed byelaw, it will come into force when application is made for its confirmation; where the Secretary of State refuses such confirmation the byelaw will cease to have effect or, if confirmed with modifications, it will have effect as modified.*
5. *At least one month before an application for confirmation of the byelaws is made, notice of the intention to apply for confirmation is to be given in one or more local newspapers circulating in the vicinity of the harbour area to which the byelaws are to apply.*
6. *For at least one month before application for confirmation is made, a copy of the byelaws is to be made available at all reasonable hours and open to public inspection without payment at the offices of the statutory harbour authority by whom the byelaws are made.*

## Schedule

4

7. *The Secretary of State may confirm, with or without modifications, or refuse to confirm, any byelaw submitted for confirmation, and subject to paragraph 2 above may fix the date on which the byelaw is to come into operation. If no date is fixed the byelaw shall come into operation one month from the date of its confirmation.*

8. *Where the Secretary of State proposes to confirm a byelaw with a modification which appears to the Secretary of State to be substantial, the Secretary of State must inform the statutory harbour authority and require it to take any steps the Secretary of State considers necessary for informing persons likely to be concerned with the modification. The Secretary of State must not confirm the byelaw until a 28 day period for consultation with informed persons and with the statutory harbour authority has passed.*

9. *The Secretary of State must consult the Health and Safety Executive, or where appropriate the Office for Nuclear Regulation, before confirming any byelaws.*

10. *A copy of the byelaws, when confirmed, is to be printed and deposited at the offices of the statutory harbour authority that made the byelaws and is to be open to public inspection without payment at all reasonable times.*

## Guidance Schedule 4

250 This schedule outlines the procedure to be followed where a statutory harbour authority decides to make byelaws under regulation 25(1). The procedure is based on the normal arrangements for confirming byelaws in modern harbour statutes. It is designed to make sure that those likely to be affected by the byelaws can comment before the byelaws are confirmed by the Secretary of State. To apply to the Secretary of State for confirmation of the byelaws, correspondence should be sent to the Secretary of State for Transport, Great Minster House, 33 Horseferry Road, London SW1P 4DR.

251 In the case of a byelaw to prohibit or regulate the entry of dangerous goods into a harbour or harbour area, the byelaw will come into force as soon as an application is made to confirm it, provided that the statutory harbour authority has consulted any berth operator who would be affected.

252 The applicant must give notice in local newspapers at least one month before making the application for confirmation, and a copy of the byelaw should be deposited in the offices of the statutory harbour authority before making the application to confirm it.

253 If the Secretary of State refuses to confirm the byelaw it will stop having effect. If it is confirmed with modifications it will, from that date, have effect in its modified form.

254 Schedule 5 to the regulations (Consequential Amendments) has been omitted. The full legal text can be viewed at [www.legislation.gov.uk](http://www.legislation.gov.uk)

## Appendix 1 Notice of Approval

By virtue of section 16(4) of the Health and Safety at Work etc Act, and with the consent of the Secretary of State for Work and Pensions, the Health and Safety Executive has on 9 March 2016 approved the Code of Practice *Dangerous Goods in Harbour Areas Regulations 2016. Approved Code of Practice and guidance* (2016, L155).

The Code of Practice gives practical guidance on The Dangerous Goods in Harbour Areas Regulations 2016.

By virtue of section 16(5) and with the consent of the Secretary of State for Work and Pensions under that paragraph, the Health and Safety Executive has withdrawn its approval of the Code of Practice *Dangerous substances in harbour areas. The Dangerous Substances in Harbour Areas Regulations 1987. Approved Code of Practice (COP18)* which shall cease to have effect on 1 October 2016.

This Code of Practice comes into effect on 1 October 2016.

Signed

Teresa Quinn  
Secretary to the Board of the Health and Safety Executive  
15 September 2016

## **Appendix 2 Additional guidance on responsibilities of incident controller, main controller and emergency control centre (regulation 10 of DGHAR on emergency plans)**

1 This appendix gives further guidance on the responsibilities of the incident controller and main controller in an emergency and guidance as to what an emergency control centre should contain.

### **Responsibilities of the incident controller**

2 The incident controller should assess the scale of the incident and decide whether a major emergency exists or is likely to develop. If this is the case the emergency plan should be immediately activated.

3 The incident controller should assume the duties of the main controller until the main controller arrives and should:

- (a) direct the shutting down and evacuation of other areas and berths likely to be affected;
- (b) ensure that the emergency services have been called;
- (c) ensure that key personnel have been summoned.

4 The main function of the incident controller is to direct operations at the scene of the incident, including:

- (a) rescue and firefighting operations, until the arrival of the fire brigade when control should be handed over to the senior fire officer;
- (b) the search for casualties;
- (c) making sure that non-essential workers are evacuated to assembly areas.

5 In addition the incident controller should:

- (a) set up a communications point with radio, telephone or messenger contact with the emergency control centre;
- (b) give advice and information to emergency services as required;
- (c) brief the main controller;
- (d) keep the main controller informed of developments.

### **Responsibilities of the main controller**

6 On being made aware of an incident, the main controller should immediately go to the emergency control centre and assume overall control from the incident controller.

7 If a major emergency exists or is likely to develop, the main controller should ensure that the emergency plan has been activated and that the emergency services have been called.

8 In addition, depending on circumstances, the main controller should:

- (a) make sure that key personnel are called out;
- (b) exercise direct operational control of those parts of the harbour area outside the affected area;

- (c) continually review and assess developments to determine the most probable course of events;
- (d) direct the closing of berths and their evacuation, in consultation with the incident controller and key personnel;
- (e) ensure that casualties are receiving adequate attention, arrange for additional help if required and make sure that relatives are informed;
- (f) liaise with chief officers of the fire and police services and, with HSE, provide advice on possible effects on areas outside the harbour area and make sure that personnel are accounted for;
- (g) control traffic movement on land and water within the harbour or harbour area in cooperation with the emergency services;
- (h) arrange for a log of the emergency to be maintained;
- (i) where the emergency is prolonged, arrange for the relief of personnel and the provision of catering facilities;
- (j) in the case of prolonged emergencies which involve risk to outside areas by windblown materials, contact the local meteorological office to receive early notification of impending changes in weather conditions;
- (k) issue authorised statements to the news media;
- (l) make sure that proper consideration is given to the preservation of evidence;
- (m) control rehabilitation of affected areas after the emergency.

### **Contents of emergency control centre**

- 9 Each emergency control centre should contain:
- (a) an adequate number of external telephones. At least one of these should be ex-directory or capable of use for outgoing calls only. This will avoid a situation where outgoing calls cannot be made because the telephone switchboard is overloaded with incoming calls from anxious relatives, the press etc;
  - (b) an adequate number of internal telephones;
  - (c) radio equipment;
  - (d) a plan or plans of the harbour area to show:
    - (i) areas where there are large inventories of hazardous materials, including tanks, drum storage or compressed gas cylinders;
    - (ii) locations of radioactive substances;
    - (iii) locations of safety equipment;
    - (iv) the fire-water system and additional sources of water;
    - (v) locations of stocks of other fire-extinguishing materials;
    - (vi) land entrances and road system; this should be updated during the emergency to indicate any road that is impassable;
    - (vii) assembly points, casualty treatment centres;
    - (viii) location of the harbour in relation to the surrounding community;
  - (e) additional plans which may be marked up during the emergency to show:
    - (i) areas affected or endangered;
    - (ii) deployment of emergency vehicles and personnel;
    - (iii) areas where particular problems arise, eg fractured pipelines;
    - (iv) areas evacuated;
    - (v) other relevant information;
  - (f) office equipment to record messages received and sent by any means;
  - (g) nominal roll of employees, or means of access to this information;
  - (h) list of key personnel, addresses and telephone numbers;
  - (i) sources of external specialist advice and information, such as the national arrangements for dealing with incidents involving spillage or spreading of radioactive substances.

## Appendix 3 Additional guidance on explosives aspects of emergency plans

### Introduction

1 This appendix is aimed at harbour authorities who have to prepare emergency plans covering the handling of explosives at places licensed under DGHAR. However, it may also assist berth operators, the emergency services and others who could be involved with such emergencies.

### Types of explosive

2 Explosives are allocated to Class 1 under the United Nations classification scheme for dangerous goods. Class 1 is subdivided into six divisions:

Division 1.1: substances and articles which have a mass explosion hazard;

Division 1.2: substances and articles which have a projection hazard but not a mass explosion hazard;

Division 1.3: substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard, or both, but not a mass explosion hazard;

Division 1.4: substances and articles which present no significant hazard;

Division 1.5: very insensitive substances which have a mass explosion hazard. For emergency planning purposes they should be treated as Division 1.1 explosives;

Division 1.6: extremely insensitive articles which do not have a mass explosion hazard.

### Explosives incidents

3 The emergency plan should cover all foreseeable incidents identified from the risk assessment required by the Management of Health and Safety at Work Regulations 1999. Incidents involving explosives are likely to fall into one of two categories:

- (a) those where the explosives initiate without warning, eg when a load is dropped from a considerable height;
- (b) those where the explosives initiate after becoming involved in another event, such as an adjacent fire.

### Emergency arrangements

4 If an explosion occurs without warning, there is little that can be done to prevent injuries. The emergency plan needs to concentrate on the safe rescue of casualties, the evacuation of the uninjured and on any action which will prevent the incident spreading to other explosives, dangerous goods or property. The sudden nature of such incidents underlines the importance of only handling explosives at the places designated in the explosives licence, keeping to the limits specified and minimising the number of people involved.

5 If explosives are not imminently threatened by another event, it may be possible to prevent them becoming involved, eg by spraying them with water. However, if they are threatened, or have already become involved, the action required will depend on the types and quantities of explosives present. You must

obtain this information before explosives are allowed into the harbour or harbour area. If there is any doubt about the type of explosives they should be treated as Division 1.1.

### Division 1.1 and 1.5 explosives

6 The main hazard from Division 1.1 and 1.5 explosives is an explosion affecting virtually the entire load almost instantaneously. The resulting blast will shatter anything close by and severely damage buildings in the surrounding area. The flash and firebrands thrown out may start secondary fires. Apart from those at most risk close to the explosion, people will generally be better off in the open and not in buildings or under structures which might collapse on them.

7 With these types of explosives, rapid evacuation is the primary course of action. The relevant schedule to the explosives licence can be used as a guide to the minimum evacuation distance offering protection. Based on the maximum quantity of explosives liable to be present, everyone should be evacuated to at least the distance shown in the column headed 'Distance to other explosives or persons in the open'. Remember that this distance is the **absolute minimum**.

8 If time allows, evacuation should continue to as far away as practicable or to the safeguarding distance SD2 given in the schedule. Buildings should be cleared of people to at least the distance shown in the column headed 'Distance to a passenger vessel' and, if possible, the safeguarding distance SD2. As projectiles are a possibility, assembly points should be on the far sides of buildings to shield people from any explosion. However, the assembly point should not be immediately outside a building because of the risk of flying glass and other debris.

### Division 1.2 explosives

9 The main hazard from Division 1.2 explosives is missiles; some fast, some lobbed and including firebrands, possibly whole or part sub-munitions, packaging etc. Some may explode on impact. The fragment throw will not necessarily depend on the quantity of explosives involved. There could be secondary fires.

10 Incidents involving Division 1.2 explosives are characterised by sporadic explosions of individual articles over a prolonged period, possibly several hours. The best protection from this type of explosive is shelter, but it is essential that people stay well clear of windows. People in the open should be evacuated as far as possible, at least 400 m and more if possible. As a guide, the limit of fragment throw may be 1250 m from 5 tonnes (net explosives quantity) and 2000 m from 16 tonnes.

### Division 1.3 explosives

11 The main hazard from Division 1.3 explosives will generally be intense radiant heat. The explosives are liable to burst into flames, probably violently, without warning. There could be flying firebrands, as well as flame jetting, a minor blast hazard and a minor fragment hazard. The best protection is a combination of distance and shelter. If it is not possible to evacuate people to the distance shown in the column headed 'Distance to other explosives or persons in the open' for Division 1.3 explosives in the relevant licence schedule, they should be advised to seek shelter behind buildings wherever possible.

### **Division 1.4 explosives**

12 Division 1.4 explosives, if initiated, give rise to a serious, but localised fire. The normal emergency procedures for fires should be adequate for this type of incident.

### **Division 1.6 explosives**

13 The main hazard from Division 1.6 articles is likely to depend on the design, intended use and how they have initiated. Division 1.6 articles would be expected to present the hazards associated with the initiation of a single item rather or a limited portion of a load rather than the hazard presented by the entire load either initiating in a single event or progressively over a period of time.

14 Because of the type of articles that might be classified as Division 1.6 the predominant hazard might be blast, fragments or intense radiant heat, or a combination of those effects, and the consignor of the goods should be able to advise on which hazard is likely to predominate.

15 At the time of this ACOP going to print, no explosives have been classified as Division 1.6 in the UK.

### **Evacuation**

16 Emergency plans should specify when and how evacuation is organised. They should consider any particularly vulnerable populations nearby, such as schools, hospitals and accommodation for the elderly and infirm. Staged evacuation may be necessary, but where this is likely to be slow or impracticable, alternative measures may be needed. For instance, if a hospital cannot be evacuated, it may be necessary to issue advice to close all curtains and blinds, and to move patients away from windows.

### **Access**

17 It is essential to maintain adequate means of escape and access for emergency services whenever explosives are present. While the most likely site of an incident is a licensed berth, an accident could occur to a vehicle, train or vessel going to or from the berth. The emergency plan needs to cover all such foreseeable incidents.

### **Emergency information**

18 If an incident occurs the emergency plan must be implemented quickly and the emergency services informed of all hazards without delay. The berth operator must notify the master of an explosives ship of the emergency arrangements at the berth in a timely manner, ie before any risk could be presented to the berth in the event of an incident. The master should be given written details of the signals to be used in an emergency and how to call the emergency services. Arrangements may be needed to cope with language difficulties.

19 The berth operator should ensure that information is immediately available to the emergency services on the type, quantity and location of all explosives at a berth. Similar information should also be available on any other dangerous goods present.

## References and further reading

### References

- 1 International Maritime Dangerous Goods (IMDG) Code 2014 edition  
[www.imo.org/en/Publications/IMDGCode](http://www.imo.org/en/Publications/IMDGCode)
- 2 *Health and Safety at Work etc Act 1974 (c37)* The Stationery Office  
ISBN 978 0 10 543774 1 [www.legislation.gov.uk](http://www.legislation.gov.uk)
- 3 *Management of Health and Safety at Work Regulations 1999* SI 1999/3242  
[www.legislation.gov.uk](http://www.legislation.gov.uk)
- 4 *Dangerous substances and explosive atmospheres. Dangerous Substances and Explosive Atmospheres Regulations 2002. Approved Code of Practice and guidance* L138 (Second edition) HSE 2013 [www.hse.gov.uk/pubns/books/l138.htm](http://www.hse.gov.uk/pubns/books/l138.htm)
- 5 *Control of substances hazardous to health (COSHH). The Control of Substances Hazardous to Health Regulations 2002 (as amended). Approved Code of Practice and guidance* L5 (Sixth edition) HSE 2013  
[www.hse.gov.uk/pubns/books/l5.htm](http://www.hse.gov.uk/pubns/books/l5.htm)
- 6 *Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009* SI 2009/1348 [www.legislation.gov.uk](http://www.legislation.gov.uk)
- 7 *The Control of Major Accident Hazards Regulations 2015. Guidance on Regulations* L111 (Third edition) HSE 2015 [www.hse.gov.uk/pubns/books/l111.htm](http://www.hse.gov.uk/pubns/books/l111.htm)
- 8 *Merchant Shipping Act 1995* UKPGA 1995/21 [www.legislation.gov.uk](http://www.legislation.gov.uk)
- 9 *Port Marine Safety Code 2012*  
[www.gov.uk/government/publications/port-marine-safety-code](http://www.gov.uk/government/publications/port-marine-safety-code)
- 10 *Consulting employees on health and safety: A brief guide to the law* Leaflet INDG232(rev2) HSE 2013 [www.hse.gov.uk/pubns/indg232.htm](http://www.hse.gov.uk/pubns/indg232.htm)
- 11 *International Bulk Chemicals (IBC) Code* [www.imo.org/en/OurWork/Safety/Cargoes/CargoesInBulk/Pages/IBC-Code.aspx](http://www.imo.org/en/OurWork/Safety/Cargoes/CargoesInBulk/Pages/IBC-Code.aspx)
- 12 *International Gas Carriers Code*  
[www.imo.org/en/OurWork/Safety/Cargoes/CargoesInBulk/Pages/IGC-Code.aspx](http://www.imo.org/en/OurWork/Safety/Cargoes/CargoesInBulk/Pages/IGC-Code.aspx)
- 13 *International Maritime Solid Bulk Cargoes Code (IMSBC)*  
[www.imo.org/en/OurWork/Safety/Cargoes/CargoesInBulk/Pages/default.aspx](http://www.imo.org/en/OurWork/Safety/Cargoes/CargoesInBulk/Pages/default.aspx)
- 14 *Safe work in confined spaces. Confined Spaces Regulations 1997. Approved Code of Practice, Regulations and guidance* L101 (Third edition) HSE 2014  
[www.hse.gov.uk/pubns/books/l101.htm](http://www.hse.gov.uk/pubns/books/l101.htm)

15 *International Convention for the Prevention of Pollution from Ships (MARPOL)*  
[www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-\(MARPOL\).aspx](http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx)

16 *Emergency planning for major accidents: Control of Major Accident Hazards Regulations 1999* HSG191 HSE 1999 [www.hse.gov.uk/pubns/books/hsg191.htm](http://www.hse.gov.uk/pubns/books/hsg191.htm)

17 *Safety in ports: Guidance on emergency planning in ports* SIP016 Health and Safety in Ports 2014 [www.portskillsandsafety.co.uk/publications/safety\\_in\\_ports\\_sip\\_guidance\\_suite\\_all\\_18\\_documents](http://www.portskillsandsafety.co.uk/publications/safety_in_ports_sip_guidance_suite_all_18_documents)

18 *Emergency preparedness* Cabinet Office 2011  
[www.gov.uk/government/publications/emergency-preparedness](http://www.gov.uk/government/publications/emergency-preparedness)

19 *Civil Contingencies Act 2004* UKPGA 2004/36 [www.legislation.gov.uk](http://www.legislation.gov.uk)

20 *Managing health and safety in dockwork* HSG177 HSE 2002  
[www.hse.gov.uk/pubns/books/hsg177.htm](http://www.hse.gov.uk/pubns/books/hsg177.htm)

21 *Revised recommendations on safe transport of dangerous cargoes and related activities in port areas* IMO Circular MSC1216  
[www.imo.org/blast/blastDataHelper.asp?data\\_id=18089&filename=1216.pdf](http://www.imo.org/blast/blastDataHelper.asp?data_id=18089&filename=1216.pdf)

22 *Chemical warehousing: The storage of packaged dangerous substances* HSG71 (Fourth edition) HSE 2009 [www.hse.gov.uk/pubns/books/hsg71.htm](http://www.hse.gov.uk/pubns/books/hsg71.htm)

23 *Manufacture and Storage of Explosives Regulations 2005* SI 2005/1082  
[www.legislation.gov.uk](http://www.legislation.gov.uk)

24 *Health and Safety (Enforcing Authority for Railways and Other Guided Transport Systems) Regulations 2006 (as amended)* SI 2006/557  
[www.legislation.gov.uk](http://www.legislation.gov.uk)

## Further reading

### **HSE publications**

*Consulting employees on health and safety: A brief guide to the law* Leaflet INDG232 (rev2) HSE Books 2013 [www.hse.gov.uk/pubns/indg232.htm](http://www.hse.gov.uk/pubns/indg232.htm)

### **Other publications**

*European Agreement concerning the International Carriage of Dangerous Goods by Road* ADR2015 [www.unece.org/trans/danger/publi/adr/adr\\_e.html](http://www.unece.org/trans/danger/publi/adr/adr_e.html)

*The Firearms Regulations 2015* Circular 016/2015  
[www.gov.uk/government/collections/home-office-circulars-2015](http://www.gov.uk/government/collections/home-office-circulars-2015)

### **Legislation**

*Dangerous Goods in Harbour Areas Regulations 2016* SI 2016/721  
[www.legislation.gov.uk](http://www.legislation.gov.uk)

*Dangerous Substances in Harbour Areas Regulations 1987* SI 1987/37  
[www.legislation.gov.uk](http://www.legislation.gov.uk)

*Energy Act 2013* PGA 2013/32 [www.legislation.gov.uk](http://www.legislation.gov.uk)

*Explosives Regulations 2014* SI 2014/1638 [www.legislation.gov.uk](http://www.legislation.gov.uk)

*Freight Containers (Safety Convention) Regulations 1984* SI 1984/1890  
[www.legislation.gov.uk](http://www.legislation.gov.uk)

*Harbours Act 1964* PGA 1964/40 [www.legislation.gov.uk](http://www.legislation.gov.uk)

*Health and Safety at Work etc Act (Application outside Great Britain) Order 2013*  
SI 2013/240 [www.legislation.gov.uk](http://www.legislation.gov.uk)

*Health and Safety (Enforcing Authority) Regulations 1998* SI 1998/494  
[www.legislation.gov.uk](http://www.legislation.gov.uk)

*International Headquarters and Defence Organisations Act 1964* PGA 1964/5  
[www.legislation.gov.uk](http://www.legislation.gov.uk)

*Manufacture and Storage of Explosives Regulations 2005* SI 2005/1082  
[www.legislation.gov.uk](http://www.legislation.gov.uk)

*Merchant Shipping (Categorisation of Waters) Regulations 1992* SI 1992/2356  
[www.legislation.gov.uk](http://www.legislation.gov.uk)

*Merchant Shipping Dangerous Goods Regulations 1997* SI 1997/2367  
[www.legislation.gov.uk](http://www.legislation.gov.uk)

*Offshore Installations and Pipeline Works (Management and Administration)  
Regulations 1995* SI 1995/738 [www.legislation.gov.uk](http://www.legislation.gov.uk)

*Pyrotechnic Articles (Safety) Regulations 2015* SI 2015 1553 [www.legislation.gov.uk](http://www.legislation.gov.uk)

*Visiting Forces Act 1952* PGA 1952/c67 [www.legislation.gov.uk](http://www.legislation.gov.uk)

### **Useful web links**

For up-to-date links to legislation and guidance see HSE's DGHAR web page at  
[www.hse.gov.uk/ports/dangerous-goods.htm](http://www.hse.gov.uk/ports/dangerous-goods.htm)

Chemsafe – An industry-led mutual aid scheme <http://the-ncec.com/chemsafe/>

Consulting and involving your workers [www.hse.gov.uk/involvement/](http://www.hse.gov.uk/involvement/)

International Maritime Organisation – List of conventions. Includes links to  
International Convention for the Safety of Life at Sea (SOLAS) and International  
Convention for the Prevention of Pollution from Ships (MARPOL) [www.imo.org/en/  
About/Conventions/ListOfConventions/Pages/Default.aspx](http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/Default.aspx)

Office of Rail and Road (ORR) <http://orr.gov.uk/>

United Nations classification scheme for dangerous goods  
[www.dft.gov.uk/vca/dangerousgoods/dangerous-goods-packaging.asp](http://www.dft.gov.uk/vca/dangerousgoods/dangerous-goods-packaging.asp)

Government website on transport security  
[www.gov.uk/government/policies/transport-security](http://www.gov.uk/government/policies/transport-security)

## Further information

For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit [www.hse.gov.uk/](http://www.hse.gov.uk/). You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.

British Standards can be obtained in PDF or hard copy formats from BSI:  
<http://shop.bsigroup.com> or by contacting BSI Customer Services for hard copies only Tel: 0845 086 9001 email: [cservices@bsigroup.com](mailto:cservices@bsigroup.com).

The Stationery Office publications are available from The Stationery Office, PO Box 29, Norwich NR3 1GN Tel: 0870 600 5522 Fax: 0870 600 5533 email: [customer.services@tso.co.uk](mailto:customer.services@tso.co.uk) Website: [www.tsoshop.co.uk](http://www.tsoshop.co.uk). (They are also available from bookshops.) Statutory Instruments can be viewed free of charge at [www.legislation.gov.uk](http://www.legislation.gov.uk) where you can also search for changes to legislation.