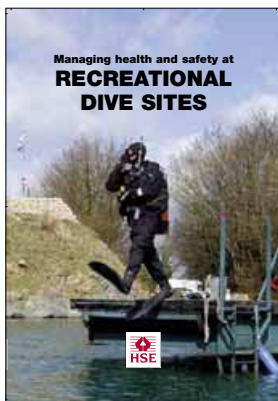


Managing health and safety at recreational dive sites



This is a free-to-download, web-friendly version of HSG240 (First edition, published 2003). This version has been adapted for online use from HSE's current printed version.

You can buy the book at www.hsebooks.co.uk and most good bookshops.

ISBN 978 0 7176 2218 5

Price £10.50

This publication provides guidance for anyone involved with the management of health and safety at recreational dive sites and is aimed primarily at site owners and operators. It describes the main risks at managed dive sites and recommends a series of steps that can safeguard the health and safety of employees, divers and other visitors to the site.

The guidance applies to any expanse of water, such as a quarry or a lake where access to divers is controlled as part of a business. The principles may also apply to dive centres and sites where access is controlled to sheltered inshore water, such as private beaches or harbours.

© *Crown copyright 2003*

First published 2003

ISBN 978 0 7176 2218 5

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without the prior written permission of the copyright owner.

Applications for reproduction should be made in writing to:
The Office of Public Sector Information, Information Policy Team,
Kew, Richmond, Surrey TW9 4DU or e-mail: licensing@opsi.gov.uk

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory 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 as illustrating good practice.

Contents

| | |
|--|--|
| Introduction | 4 |
| Controlling access to the site | 6 |
| Water hazards/features | 8 |
| First aid, rescue and emergency arrangements | 10 |
| Site facilities | 12 |
| Cylinder charging | 14 |
| Commercial diving operations | 15 |
| Appendix 1 | Relevant legislation 16 |
| Appendix 2 | Contacts 21 |
| Appendix 3 | References and further reading 24 |

Introduction

- 1 This booklet provides guidance for those who have any involvement with the management of health and safety at recreational dive sites; primarily site owners/operators. Its aim is to describe the main risks at managed dive sites and some of the steps that can safeguard the health and safety of employees, divers and other visitors to the site.
- 2 It is recognised that scuba diving, like many other adventure sports, carries an element of risk. This guidance does not attempt to deal with safe diving practices and the associated risks nor does it cover the regulations regarding offices, shops and other ancillary businesses such as restaurants, burger vans and sleeping accommodation.

Dive sites to which the guidance applies

- 3 This guidance applies to any expanse of water, such as a quarry or lake where access to divers is controlled as part of a business. The guidance is aimed primarily at inland sites used for recreational diving, but the principles may also apply to sites where access is controlled to sheltered inshore water such as private beaches or harbours. Some of the guidance will also apply to and be useful to dive centres and shops that do not have a dive facility. Although the guidance is primarily aimed at recreational diving activities, it is recognised that sites may be used for non-recreational purposes (for example trials of commercial diving equipment or training for operators of remotely operated vehicles).
- 4 The guidance does not apply to boat diving at sea.

How the guidance should be used

- 5 Where you see the word '**must**' in this guidance it means a legal obligation ie you are breaking the law if you do not comply. Terms such as '**should**' and, '**need to consider**' do not indicate a legal obligation, but do indicate good practice. There may be other legally acceptable ways of achieving the same objective. Other terms such as '**you may**', '**it is recommended**' give general pointers on the way an objective may be met.
- 6 There are references in this guidance to British, European or International Standards. You are not necessarily breaking the law if you do not conform to a relevant standard but you would be ignoring good advice. Where a relevant standard is more specific than this guidance or recommends a higher level of performance, you are advised to follow the standard.

Enforcement of health and safety law

- 7 Under the Health and Safety (Enforcement Authority) Regulations 1998,¹ the local authority is the enforcing authority for managed dive sites, unless the local authority is the owner/operator for the site. However there is an option for the local authority to assign responsibility for regulating health and safety to the Health and Safety Executive (HSE) if it chooses to do so. Historically this has been the case for some of the busier inland dive sites in the UK. Where there is doubt as to who is responsible for enforcing health and safety law, clarification can be sought from the HSE Diving Inspection Teams (see Appendix 2 for a list of addresses).

- 8 Local authority environmental health departments enforce health and safety in offices, shops and food outlets at all dive sites.

Further advice and guidance

- 9 Further advice on many of the subjects mentioned in the guidance is available in the publications listed in Appendix 3. Advice may also be obtained from the Scuba Industries Trade Association. HSE Diving Inspection Teams or your local authority environmental health department can also provide advice on interpretation of health and safety law. Alternatively, you can get advice by contacting the HSE Infoline (all contact details can be found in Appendix 2).

Controlling access to the site

- 10 There are various ways in which you can reduce risks to divers using the site and your employees.

Control of vehicles

- 11 Car parking should be controlled to reduce the risk to pedestrians. Traffic routes should be indicated and, where possible, you should endeavour to separate pedestrian walkways from road access. At dive sites, divers tend to congregate at the boots of their cars or vans – your risk assessment (see Appendix 1, paragraphs 5-9) should take this into account when considering the layout of parking areas. It is recommended that staff employed to direct vehicles are provided with high visibility clothing and that suitable lighting is provided for the winter months and/or evening operations.

Information for divers

- 12 As a minimum, you must provide information to all visitors of known hazards at the site, both above and below water. You may wish bring to their attention any particular rules that you have set for the site, and should inform them of action to be taken in the event of an emergency. This information could be in the form of an information leaflet handed out on arrival, or clearly visible posters etc.

Control of divers

- 13 Many divers visiting the site will not be at work, and will be diving for fun. They have chosen to take part in a sport knowing that there is some degree of risk. However, before you allow divers to dive you should take reasonable steps to ensure that they are not going to put themselves or others at unnecessary risk. Factors to consider that could influence the level of control may include:
- any history of unqualified or incompetent divers getting into difficulties diving the site;
 - whether members of staff or others are likely to be put at risk by rescuing unqualified or incompetent divers.
- 14 There are several ways you could control activities at your site. You may consider checking that the divers have a recognised training qualification issued by one of the recognised training agencies (BSAC, PADI, SAA, etc) (unless they are undergoing training and accompanied by a suitable instructor) and appear fit to dive (eg not obviously intoxicated). Alternatively you could have a set of site rules and a discipline code for those who do not follow them. Consider limiting access to deep areas or providing information to divers regarding the dangers of entering those areas.
- 15 At the end of each day, you should ensure that all divers have left the water. You could for example, check that there are no cars left on site or have a system for counting divers in and out of the premises. You should use whichever system is appropriate to your site.
- 16 As with any body of open water, it is recommended that the site is fenced off to protect against access to the site out of operating hours. It is also recommended that warning notices are displayed and suitable lifebuoys and lines are provided at the water's edge.

Shared dive sites

- 17 If the dive site is used for other activities, such as sailing, fishing or windsurfing, you should assess the risks to divers and also the risks posed by the divers to other users, and take steps to reduce those risks. For example, you may be able to agree separate zones for different users. You must provide members of the public with information regarding risks posed by other users.

Water hazards/features

Access and egress

- 18 Access points to the water should be suitably indicated and, where practical, access routes should be free from slipping and tripping hazards. Steps should be provided with handrails. Fencing should be provided to prevent falls at edges (for example if there are cliff faces at a quarry). You should consider filling in any fences if children are allowed onto site. Where divers have to jump to get into the water, the water should be sufficiently deep to prevent injury. Information should be provided to divers as necessary.
- 19 You should ensure that there are appropriate exit points for divers and suitable arrangements for recovering an unconscious diver.

Training platforms

- 20 Underwater training platforms may be provided to assist instructors in undertaking training at specified depths. Platforms should be properly constructed, designed to reduce the likelihood of entanglement, and should be routinely inspected to ensure continued structural integrity. Information should be provided to divers on where the platforms are located, and any risks associated with them. You should consider whether training areas should be separated from areas used by other divers.

Underwater hazards

- 21 Information should be given to all divers regarding underwater features, including water depths and any specific underwater hazards.
- 22 Hazards/information to consider may include:
 - adjacent activities;
 - boat movements;
 - confined (and possible trapping) spaces;
 - falling rocks;
 - thermoclines;
 - underwater ropes and entangling hazards (eg discarded fishing lines);
 - water intakes or discharges;
 - visibility.
- 23 If underwater features are added as attractions, you should ensure that reasonable steps are taken to reduce risks to divers, for example by removing sharp edges from 'wrecks' and blocking off or opening up areas of possible entrapment. You should consider carrying out regular underwater inspections of features to ensure they have not deteriorated to a dangerous state, or been vandalised to create new hazards. If you employ divers or dive yourself while at work, remember that the Diving at Work Regulations² will apply (see paragraphs 65-71).
- 24 Diving in cold water has resulted in many preventable incidents at freshwater dive sites due to regulators freezing and divers wearing inappropriate protection. You should provide sufficient warning to divers of temperatures likely to be encountered.

Water quality

- 25 It is recommended that you monitor the quality of water to ensure that there are no microbiological hazards.
- 26 Weil's disease (Leptospirosis) can be a hazard in any inland freshwater where there are rats. The disease can be transmitted by contact with infected rat's urine or watercourses contaminated with it and can be fatal. Early diagnosis and treatment with antibiotics is vital. Where indicated by your risk assessment (see Appendix 1, paragraphs 5-9) information should be provided to divers and staff of the symptoms to look out for. The pocketcard *Leptospirosis. Are you at risk?*³ provides further information and could be handed to staff and the public.
- 27 Where possible, rat populations should be controlled. Staff should use tools or wear protective gloves to move dead rats, and maintain a high standard of personal hygiene.

First aid, rescue and emergency arrangements

First aid for employees

- 28 You should carry out an assessment of first aid needs of staff and decide on the level of first aid facilities and personnel needed. Information on the assessment can be found in the HSE approved code of practice (ACOP) and guidance *First aid at work*.⁴
- 29 As a guide, if the dive site only has low risk workplaces (eg a dive shop and an office), then you should appoint at least one person to take charge of the first aid arrangements, including looking after first aid equipment and calling the emergency services. There should always be an appointed person on site when people are at work. You are strongly advised to consider the need for first aid training (normally a four hour course) for appointed people.
- 30 If the dive site has higher risk work areas, such as service repair workshops or cylinder charging station, then you may need at least one first-aider who has an HSE-approved first aid qualification. Again, there should always be a person available with this qualification on site when people are at work.
- 31 The minimum level of first aid equipment is a suitably stocked (based on your assessment) and properly identified first aid container.

First aid and rescue for divers at work

- 32 Where you employ divers you have specific duties under the Diving at Work Regulations² and the associated ACOPs⁵⁻⁹ (see paragraphs 65-71).
- 33 Under the recreational ACOP⁷ the diving contractor has a responsibility to ensure that suitable and sufficient people are available at the dive site to provide first aid. The risk assessment should identify the first aid equipment needed and which divers are trained to use it.
- 34 Those identified in the dive team as being qualified to give first aid should be able to:
- recognise symptoms of decompression illness and provide appropriate first aid treatment before and during transfer to a decompression facility;
 - administer oxygen to an unconscious patient;
 - perform resuscitation using the techniques of artificial ventilation and external cardiac compression;
 - recognise the symptoms of shock and provide appropriate first aid treatment;
 - administer appropriate first aid treatment for burns, bleeding and broken bones.
- 35 For each diving project the risk assessment should include a suitable casualty evacuation plan. This should include the emergency recovery of a casualty from the water and transportation to a hyperbaric chamber or specialist treatment centre. The details of the emergency arrangements

should be recorded in the diving project plan. The initial stages of these arrangements should be tested periodically to ensure that they are effective.

- 36 A suitable first aid kit and oxygen administration set should be provided at the site of the dive.
- 37 If the work is in support of a civil engineering project then there are further requirements set out in the inland/inshore ACOP.⁶
- 38 Where others are using the dive site and diving at work they should provide their own first aid and emergency oxygen, unless they have agreed with you (and recorded) that they can use your facilities.

First aid and rescue for members of the public

- 39 You are not obliged by health and safety law to provide first aid for members of the public. Many dive sites do, however, and HSE strongly recommends that you include the public in your assessment of first aid needs.
- 40 Similarly you are not required to provide a rescue service for the public, however many existing sites have good established rescue and emergency arrangements that have been successfully implemented to save lives.
- 41 If you provide a rescue boat, staff should be trained in boat handling and there should be a means of preventing unauthorised staff or members of the public from operating it. You may decide to designate a jetty, or some other suitable area for evacuating casualties, for sole use of the rescue boat.
- 42 Propellers on rescue boats should be fitted with propeller guards to reduce the risk to divers (or consider using jet drives to remove the risk).
- 43 It is recommended that your emergency rescue and casualty evacuation arrangements are tested periodically to ensure that they are effective.

Incident reporting

- 44 If there is an accident or 'near miss' at the dive site, then it may need to be reported to the enforcing authority (see paragraphs 7-8). Details on the legal requirements can be found in Appendix 1.

Site facilities

Staff facilities

- 45 All workplaces (for example shops, offices, cylinder filling stations etc) should be ventilated, kept at a reasonable temperature (not lower than 16°C for non-physical work), adequately lit and kept clean. Floors and traffic routes should be even and free from slipping and tripping hazards (for example, by gritting during very cold periods) and staircases should be provided with upper and lower handrails.
- 46 Employees on site must be provided with adequate toilet and associated washing facilities (which should include hot and cold or warm running water, soap and towels or equivalent) and a supply of drinking water. If changing and showering facilities are needed for staff, they should be heated and showers designed to prevent scalding. All welfare facilities should be kept clean.
- 47 Further information on the requirements for staff welfare facilities can be found in the Workplace (Health Safety and Welfare) Regulations 1992 ACOP and guidance.¹⁰

Divers' facilities

- 48 There is no legal requirement to provide welfare facilities for divers. If you do provide them, similar standards should be applied as for staff.
- 49 If you provide divers with sleeping accommodation, you should seek advice from your local environmental health department and fire safety office.

Equipment hire

- 50 If you hire out equipment you should ensure that it is serviced regularly and checked following each use (eg divers may have adjusted regulators during the hire period or completely emptied cylinders allowing water ingress). You should keep records of servicing for all equipment (see paragraphs 54-56).
- 51 If you hire out equipment you should provide adequate information (see paragraph 52). The law does not prevent you from hiring equipment to anybody (even if they are not qualified), but it is recommended that you carry out suitable checks and advise against unqualified use. You should also point out the instructions.

Equipment sales

- 52 If you sell diving equipment then suitable information should be provided. Divers should receive instructions on assembly (in English), adequate information about the use of the equipment for which it is designed and tested (eg maximum depth) and conditions necessary to ensure it is safe. Information should be provided on user maintenance (including service intervals) and correct storage. These requirements also apply to equipment hire and second hand equipment.
- 53 As with equipment hire, the law does not prevent you from selling equipment to anybody (even if they are not qualified), but again it is recommended that you advise against unqualified use and that you point out the instructions.

Equipment servicing

- 54 Equipment should be maintained on schemes based on the manufacturers' recommendations and be in accordance with current international, European or national standards (eg BS 4001-1¹¹). If you provide servicing for members of the public, you should ensure that servicing personnel are competent to service the equipment, and have the right service manuals' tools and spare parts to carry out the servicing correctly.
- 55 First and second stages of regulators from different manufacturers should not be combined unless the manufacturers indicate that this is acceptable. It is recommended that a note of any checks carried out with manufacturers is kept with the service record.
- 56 Cylinders should be inspected and tested in accordance with BS EN 1802¹² or BS EN 1968¹³ as appropriate.

Cylinder charging

Charging facilities

- 57 Charging facilities (pressurised cylinders and all associated pipe work) must have a written scheme of examination, prepared by a competent person (usually an engineer from an insurance company). The facilities must be inspected in accordance with that scheme. Stand-alone compressors may be sold with a written scheme, however if you add equipment to this a new examination scheme will need to be prepared. You should keep records of examinations.
- 58 Operators must be provided with instructions on safe operation of the system, and action to be taken in the event of an emergency. Members of the public should be kept away from the filling area. Staff should be trained to visually examine cylinders before filling, to ensure there are no obvious defects, to check the maximum pressure and that the correct stamps and markings are present. Information on the checks required and correct stamps and markings can be found in BS EN 1920,¹⁴ BS EN 1089-2,¹⁵ BS EN 1089-3,¹⁶ and BS ISO 13769.¹⁷
- 59 Suitable storage should be provided to prevent cylinders from falling over, and you should consider how cylinders are moved to reduce risks of manual handling injuries. Further information can be found in the HSE leaflet *The safe use of gas cylinders*.¹⁸
- 60 Air charging facilities should be designed to keep noise to a minimum. If the plant is still noisy (as a rough guide, noise is likely to be at hazardous levels where people have to shout or have difficulty being heard by someone about 2 m away), then you will need to carry out a noise assessment. The assessment must be recorded, and you may have to provide employees with hearing protection.
- 61 Further information on charging facilities and information on charging of gases other than air can be found in SITA publications.^{19,20}

Air purity

- 62 Air intakes should be checked to ensure that they are adequately ventilated and that there is no external contamination.
- 63 It is recommended that air purity tests be carried out every three months (for light use, up to six months may be acceptable). This is particularly important for Nitrox facilities.
- 64 Air purity tests should be carried out to BS EN 12021.²¹ The key measurements are those of:
- lubricants;
 - oxygen;
 - carbon dioxide;
 - carbon monoxide; and
 - water vapour.

Test certificates should be kept available for inspection.

Commercial diving operations

- 65 If commercial diving operations (such as training or underwater inspections) take place at the dive site then the Diving at Work Regulations 1997² (DWR) will apply and you will have duties under the Regulations. There are five ACOPs⁵⁻⁹ that give practical advice on how to comply with DWR. Information on the Regulations is available in the free HSE leaflet *Are you involved in a diving project?*²²
- 66 If there are any divers at work on your site, as a minimum you should:
- highlight any known hazards or features of the site which could affect the safety of the divers (such as those listed in paragraphs 18-27);
 - ensure that any equipment or activities under your control do not affect the safety of the divers.

Client duties

- 67 If you have divers carry out work underwater (such as inspecting underwater training platforms, or installing underwater features), you have additional duties which include:
- appointing a diving contractor who is competent to undertake the duties;
 - ensuring that the site is safe to use;
 - identifying known hazards;
 - providing support in the event of an emergency.

Contractor duties

- 68 If you employ divers (including recreational diving instructors) then under the Regulations you will normally be classed as the 'diving contractor'.
- 69 Your responsibilities will include:
- carrying out a risk assessment and ensuring a diving project plan is prepared;
 - ensuring the dive team is aware of the plan;
 - ensuring there are suitable and sufficient divers who are competent;
 - making adequate arrangements for first aid and medical treatment.
- 70 All divers at work must have a current HSE diving medical certificate and approved qualification.
- 71 There are more detailed responsibilities which are outlined in the relevant ACOP.⁵⁻⁹ If you follow the advice in the relevant ACOP then you will normally be complying with the law.

Appendix 1

Relevant legislation

Health and Safety at Work Act 1974

- 1 The Health and Safety at Work etc Act 1974²³ (HSW Act) places duties on employers, employees and self-employed people. It protects not only people at work, including those undertaking voluntary work, but also the general public who may be affected by work activities. Many of the requirements in this legislation are qualified with 'so far as is reasonably practicable'. This means that the degree of risk in a particular job or workplace needs to be balanced against the time, trouble, cost, benefit and physical difficulty of taking measures to avoid or reduce the risk. However, it should not be used as an excuse to avoid taking safety measures, and if unsure you should err on the side of caution.
- 2 The general requirements under the HSW Act are that equipment and plant are safe, the workplace is safe, there are safe systems of work and there is the provision of information, instruction, training and supervision needed to ensure safety. The main requirement on a dive site operator is the duty to ensure that employees and members of the public (eg divers) are not exposed to risks to their health and safety ('so far as is reasonably practicable').
- 3 A dive site which at any time has five or more employees, must have a written health and safety policy. This should be given to employees and displayed on the premises.

The health and safety policy should consist of:

- a policy statement stating the company's aim of providing a safe environment;
 - an explanation of how safety management is organised;
 - details of specific arrangements for health and safety.
- 4 If the company employs less than five people, there is no legal requirement to have a written safety policy, although the above points should still be considered and discussed with employees.

The Management of Health and Safety at Work Regulations 1999

- 5 The Management of Health and Safety at Work Regulations 1999²⁴ require employers to assess the risks which might exist in the workplace and might affect employees or non-employees (members of the public). They also require them to decide whether safety precautions are adequate, and if they are not, what other control might be needed. Self-employed people must also take similar steps. This would include:
 - identifying dangerous equipment, environments, chemicals or tasks and who might be affected by them;
 - making sure that hazardous tasks are carried out in a safe way;
 - training staff to carry out their work safely;
 - making sure that non-employees are properly informed so that they do not put themselves or others at risk;

- monitoring the way in which the site is managed and changing systems where this can improve safety standards.
- 6 Where there are five or more employees, the assessment must be recorded. The record should include the significant findings of the assessment and details of any employees identified as being especially at risk, and what measures are in place to control the risk. The level of detail should be broadly proportionate to the risk. Trivial risks can usually be ignored.
- 7 So that employers can carry out their responsibilities properly, the Regulations require that a competent person is appointed to assist them with their health and safety duties. This can be a member of staff or someone from outside the organisation.
- 8 Where employers share their workplace with another employer or self-employed person (some sites, for example, may share a lake with sailing or windsurfing schools), or have another employer's staff working at their premises, they have a duty to co-operate with each other and exchange information on health and safety.
- 9 The Regulations also require employers to have procedures in place to deal with serious and imminent danger. This may involve evacuation, for example in the event of a fire. Appropriate external contacts should be in place to make sure that there are effective provisions for first aid and emergency medical care and rescue work, for incidents and accidents which may require urgent action and/or medical attention beyond the capabilities of on-site personnel. This may mean making sure employees know the necessary telephone numbers.

Diving at Work Regulations 1997

- 10 The Diving at Work Regulations 1997² cover all dives when one or more divers are at work, whether employed or self-employed. The Regulations apply to everyone: from the client for whom the work is being done, to the diver undertaking the work. Everyone involved has a responsibility to take measures to ensure the health and safety of those taking part in the diving project. The main relevant requirements of the Regulations are summarised in paragraphs 65-71.

The Health and Safety (First-Aid) Regulations 1981

- 11 Under the Health and Safety (First-Aid) Regulations 1981²⁵ arrangements for first aid should be made at places where people work. The level of first aid needed depends upon a number of factors, including the number of employees and the type of work they are doing. The Regulations will apply to dive sites where there is a work activity. The main relevant requirements of the Regulations are summarised in paragraphs 28-31.
- 12 The requirements of the Regulations are separate to the first aid arrangements which may be needed for visiting members of the public, or are required under the Diving at Work Regulations 1997 (see paragraphs 32-43).

The Noise at Work Regulations 1989

- 13 The Noise at Work Regulations 1989²⁶ require employers to reduce the risk of damage to the hearing of workers from noise at work. The main requirements apply where noise exposure is likely to be at or above any of

three 'action levels'. The two main action levels are related to 'daily personal noise exposure' which depends on the noise level in the working area and how long people spend in it during the day. The 'first action level' is a daily personal noise exposure of 85 dB(A) and the 'second action level' is a daily personal noise exposure of 90 dB(A). There is also a 'peak action level' which depends on the maximum pressure reached by the sound wave. The Regulations set this at a pressure of 200 Pascals, though it is often quoted as 140 dB(A).

- 14 If people have to shout or have difficulty being understood by someone about 2 m away, there might be a noise problem. In this case the employer is required to ensure that a competent person makes a noise assessment. The noise assessment should identify the daily noise exposure of all employees who might be at risk of hearing damage. The employer can then draw up an informed action plan to reduce this risk.

The Manual Handling Operations Regulations 1992²⁷

- 15 Employers must:
- avoid the need for hazardous manual handling if reasonably practicable;
 - assess the risk of injury from any hazardous manual handling which cannot be avoided;
 - reduce the risk of injury accordingly.
- 16 Employees must:
- follow safe systems of work laid down by their employers;
 - use mechanical aids provided by their employers properly;
 - remember to use the training provided on lifting.

The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995

- 17 The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995²⁸ (RIDDOR) make requirements for fatalities, certain types of injury and other incidents to be reported to the enforcing authority. (All incidents can be reported to the Incident Contact Centre who will forward the report to the relevant authority – see Appendix 2.) The purpose of making the report is to allow the enforcing authority to make an investigation of the incident if it thinks this is necessary. Where the Diving at Work Regulations² apply, the person who is responsible for making the report is the diving contractor. In most other cases it will be the dive site operator.
- 18 Reportable injuries to members of the public include deaths, and any injuries which cause a person to be taken from the site of the accident to a hospital. These must be reported immediately (eg by phone) and confirmed in writing using Form F2508 (available online at www.hse.gov.uk/incident/index.htm) within ten days.
- 19 Reportable injuries to those at work also include major injuries (which are listed in the Regulations and which have to be reported immediately), injuries which result in someone being unable to do their normal work for more than three days (reported in writing) and reportable diseases. Reportable diseases include:

- decompression illness;
 - barotrauma resulting in lung or other organ damage;
 - dysbaric osteonecrosis;
 - leptospirosis.
- 20 In addition there are certain specified dangerous occurrences that have to be reported immediately and in writing. The most relevant to dive sites being:
- any incident in which breathing apparatus malfunctions while in use, or immediately before use, where the failure would have resulted in danger to the user;
 - the failure of any life support equipment which puts a diver at risk;
 - trapping of a diver;
 - any uncontrolled ascent or any omitted decompression which puts a diver at risk (ie has the potential for a fatality, major injury or reportable disease);
 - the failure of a pressurised cylinder, where the failure has the potential to cause death (eg bursting or violent release of cylinder valve).
- 21 To be reportable, these dangerous occurrences must arise 'out of or in connection with work'. Examples of reportable dangerous occurrences would include failure of hired diving equipment or an uncontrolled ascent of a student under training.
- 22 You should keep a record of all reportable accidents and dangerous occurrences. The record should include the date and time of the incident, the name and occupation of any person affected, details of any injuries, the place where the incident happened and a brief description of the circumstances. You should also keep a record of any cases of a reportable disease. The records should be kept for three years.
- 23 Further information can be found in *A Guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995*.²⁹

Pressure Systems Safety Regulations 2000³⁰

- 24 These Regulations will apply to most cylinder charging facilities including all attached pipe work, hoses and pressure gauges. The Regulations do not apply to cylinders.
- 25 The Regulations require you to:
- know the safe operation of the system;
 - ensure there is a set of operating instructions for all of the equipment and for the control of the whole system including emergencies;
 - ensure that appropriate employees have access to these instructions, and are properly trained in the operation and use of the equipment;
 - ensure that all equipment is properly maintained;
 - have a written scheme of examination for all of the equipment that specifies the nature and frequency of examinations;
 - have the system examined in accordance with the written scheme by a competent person.
- 26 Further information on the Regulations is available in *Safety of pressure systems. Pressure Systems Safety Regulations 2000. Approved Code of Practice*.³¹

Employers' Liability (Compulsory Insurance) Act 1969³²

- 27 If you employ anyone then you must have employers' liability insurance. This insurance will enable you to meet any cost of compensation should an employee be injured or become ill as a result of a work activity. You must display a copy of the Certificate of Employers' Liability Insurance where your employees can easily read it. Copies of certificates should be kept for 40 years.
- 28 Further information can be found in the HSE leaflet *Employers' Liability (Compulsory Insurance) Act 1969 – A guide for employers*.³³

Appendix 2

Contacts

Health and Safety Executive Diving Inspection Teams

Northern team

HSE Offshore Safety Division
Lord Cullen House
Fraser Place
Aberdeen AB25 3UB

Tel: 01224 252598
Fax: 01224 252577

Central team

HSE Offshore Safety Division
122a Thorpe Road
Norwich
Norfolk NR1 1RN

Tel: 01603 828013
Fax: 01603 828050

Southern team

HSE Offshore Safety Division
Ballard House
West Hoe Road
Plymouth PL1 3BL

Tel: 01752 668481
Fax: 01752 226024



The Stationery Office

Regulations are available from:

The Stationery Office (formerly HMSO)
The Publications Centre
PO Box 276
London SW8 5DT
Tel: 0870 600 5522
Fax: 0870 600 5533
Website: www.hmsso.gov.uk

HSE Infoline

For information about health and safety:

HSE Information Services
Caerphilly Business Park
Caerphilly CF83 3GG
Tel: 08701 545 500
Fax: 02920 859 260
Email: hseinformationservices@natbrit.com

Incident Contact Centre

The Incident Contact Centre allows RIDDOR reports to be made to one single point, irrespective of where in England, Wales or Scotland a company is located. Reports can be sent to:

Incident Contact Centre
Caerphilly Business Park
Caerphilly CF83 3GG
Tel: 0845 300 9923 (local rate)
Fax: 0845 300 9924
Website: www.riddor.gov.uk

British Standards

British Standards are available from the British Standards Institution:

BSI
389 Chiswick High Road
London W4 4AL
Tel: 020 8996 9000
Fax: 020 8996 7001
Website: www.bsi-global.com

Scuba Industries Trade Association (SITA)

SITA provides support to scuba diving industry manufacturers, distributors, retailers, training organisations, registered dive schools, dive boat charter operators, journals, travel organisations and recognised approved marine charities.

SITA is accepted as the governing body for the scuba diving industry.

SITA includes two independent technical divisions: the Inspectorate of Diving Equipment Servicing and Testing (IDEST) and the Association of Scuba Service Engineers and Technicians (ASSET).

Scuba Industries Trade Association
29 Ravenswood Avenue
West Wickham
Kent BR4 0PN
Tel: 020 8777 6740
Fax: 020 8777 3349
Website: www.sita.org.uk

Appendix 3

References and further reading

- 1 *The Health and Safety (Enforcing Authority) Regulations 1998* SI 1998/494
The Stationery Office 1998 ISBN 0 11 065642 3
- 2 *The Diving at Work Regulations 1997* SI 1997/2776 The Stationery Office
1997 ISBN 0 11 065170 7
- 3 *Leptospirosis. Are you at risk?* Pocket card INDG84
HSE Books 1990 (single copy free or priced packs of 20
ISBN 0 7176 2546 X)
- 4 *First aid at work The Health and Safety (First-Aid) Regulations 1981.
Approved Code of Practice and guidance* L74 HSE Books 1997
ISBN 0 7176 1050 0
- 5 *Commercial diving projects offshore. Diving at Work Regulations 1997.
Approved Code of Practice L103* HSE Books 1998 ISBN 0 7176 1494 8
- 6 *Commercial diving projects inland/inshore. Diving at Work Regulations 1997.
Approved Code of Practice L104* HSE Books 1998 ISBN 0 7176 1495 6
- 7 *Recreational diving projects. Diving at Work Regulations 1997. Approved
Code of Practice L105* HSE Books 1998 ISBN 0 7176 1496 4
- 8 *Media diving projects. Diving at Work Regulations 1997. Approved Code of
Practice L106* HSE Books 1998 ISBN 0 7176 1497 2
- 9 *Scientific and archaeological diving projects. Diving at Work Regulations
1997. Approved Code of Practice L107* HSE Books 1998
ISBN 0 7176 1498 0
- 10 *Workplace health, safety and welfare. Approved Code of Practice and
guidance* L24 HSE Books 1992 ISBN 0 7176 0413 6
- 11 *Care and maintenance of underwater breathing apparatus – Part 1:
Recommendations for the compressed air open circuit type* BS 4001-1:1998
British Standards Institute
- 12 *Transportable gas cylinders – Periodic inspection and testing of seamless
aluminium alloy gas cylinders* BS EN 1802:2002 British Standards Institute
- 13 *Transportable gas cylinders – Periodic inspection and testing of seamless
steel gas cylinders* BS EN 1968:2002 British Standards Institute
- 14 *Transportable gas cylinders – Cylinders for compressed gases (excluding
acetylene) – Inspection at time of filling* BS EN 1920:2000
British Standards Institute
- 15 *Transportable gas cylinders – Gas cylinder identification (excluding LPG) –
Part 2 Precautionary labels* BS EN 1089-2:2002 British Standards Institute
- 16 *Transportable gas cylinders – Cylinder identification – Part 3 Colour coding*
BS EN 1089-3:1997 British Standards Institute

- 17 *Gas cylinders – Stamp marking* BS ISO 13769:2002
British Standards Institute
- 18 *The safe use of gas cylinders* Leaflet INDG308(rev1) HSE Books 2002 (single copy free or priced packs of 10 ISBN 0 7176 2332 7)
- 19 *Installed air charging facilities for retail outlets and filling stations* Scuba Industries Trade Association available online at www.sita.org.uk or by post
- 20 *Guidance for designers, manufacturers, importers and suppliers of diving equipment used with gases other than air* Scuba Industries Trade Association
- 21 *Respiratory protective devices – Compressed air for breathing apparatus* BS EN 12021:1999 British Standards Institute
- 22 *Are you involved in a diving project?* Leaflet INDG266 HSE Books 1998 (single copy free or priced packs of 10 ISBN 0 7176 1529 4)
- 23 *Health and Safety at Work etc Act 1974 Ch37* The Stationery Office ISBN 0 10 543774 3
- 24 *The Management of Health and Safety at Work Regulations 1999* SI 1999/3242 The Stationery Office ISBN 0 11 085625 2
- 25 *The Health and Safety (First-Aid) Regulations 1981* SI 1981/917 The Stationery Office
- 26 *The Noise at Work Regulations 1989* SI 1989/1790 The Stationery Office ISBN 0 11 097790 4
- 27 *The Manual Handling Operations Regulations 1992* SI 1992/2793 The Stationery Office ISBN 0 11 025920 3
- 28 *The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995* SI 1995/3163 The Stationery Office ISBN 0 11 053751 3
- 29 *A guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995* L73 (Second edition) HSE Books 1999 ISBN 0 7176 2431 5
- 30 *The Pressure Systems Safety Regulations 2000* SI 2000/128 The Stationery Office ISBN 0 11 085836 0
- 31 *Safety of pressure systems. The Pressure Systems Safety Regulations 2000 Approved Code of Practice* L122 HSE Books 2000 ISBN 0 7176 1767 X
- 32 *Employers' Liability (Compulsory Insurance) Act 1969 Ch 57* The Stationery office
- 33 *Employers' Liability (Compulsory Insurance) Act 1969. A guide for employers* Leaflet HSE40 HSE Books 2002 (single copy free)

Further reading

Management of health and safety at work. Management of Health and Safety at Work Regulations 1999. Approved Code of Practice and guidance L21 (second edition) HSE Books 2000 ISBN 0 7176 2488 9

Five steps to risk assessment Leaflet INDG163(rev1) HSE Books 1998 (single copy free or priced packs of 10 ISBN 0 7176 1565 0)

Stating your business: Guidance on preparing a health and safety policy document for small firms Leaflet INDG324 HSE Books 2000 (single copy free or priced packs of 5 ISBN 0 7176 1799 8)

Noise at work – Advice for employers Leaflet INDG362 HSE Books (single copy free or priced packs of 10 ISBN 0 7176 2539 7)

Manual handling. Manual Handling Operations Regulations 1992. Guidance on Regulations L23 (Second edition) HSE Books 1998 ISBN 0 7176 2415 3

Safe use of work equipment. Provision and Use of Work Equipment Regulations 1998. Approved Code of Practice and guidance L22 (Second edition) HSE Books 1998 ISBN 0 7176 1626 6

Control of substances hazardous to health. Control of Substances Hazardous to Health Regulations 2002. Approved Code of Practice and guidance L5 (Fourth edition) HSE Books 2002 ISBN 0 7176 2534 6

Pressure systems – Safety and you INDG261(rev1) HSE Books 2001 (single copy free or priced packs of 15 ISBN 0 7176 1562 6)

Written schemes of examination. Pressure Systems Safety Regulations 2000 Leaflet INDG178(rev1) HSE 2002 (single copy free or priced packs of 15 ISBN 0 7176 2269 X)

Recreational diving projects risk assessment guidance for dive professionals Scuba Industries Trade Association available online at www.sita.org.uk

Further information

For information about health and safety ring HSE's Infoline Tel: 0845 345 0055
Fax: 0845 408 9566 Textphone: 0845 408 9577 e-mail: hse.infoline@natbrit.com or
write to HSE Information Services, Caerphilly Business Park, Caerphilly CF83 3GG.

HSE priced and free publications can be viewed online or ordered from
www.hse.gov.uk or contact HSE Books, PO Box 1999, Sudbury, Suffolk
CO10 2WA Tel: 01787 881165 Fax: 01787 313995. HSE priced publications
are also available from bookshops.

British Standards can be obtained in PDF or hard copy formats from the BSI online
shop: www.bsigroup.com/Shop or by contacting BSI Customer Services for hard
copies only Tel: 020 8996 9001 e-mail: 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
e-mail: customer.services@tso.co.uk Website: www.tso.co.uk (They are also
available from bookshops.) Statutory Instruments can be viewed free of charge
at www.opsi.gov.uk.