GB Diving at Work Regulations 1997 Advice from PADI



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Introduction

The following advice has been provided by PADI in conjunction with Health and Safety Executive (HSE) and is aimed at clarifying the requirements of the Diving at Work Regulations 1997 (DWR97) and their implications for PADI members conducting training dives, guided dives or other "at work" diving projects in Great Britain. The Diving at Work Regulations 1997 came into force 1st April, 1998, and apply when at least one diver taking part is at work or is carrying out an undertaking.

An accompanying Approved Code of Practice (ACoP) for recreational diving projects provides advice and guidance on meeting the legal requirements of the DWR97 and PADI recommends that all diving contractors refer to this ACOP. The ACoP is regarded as best practice by HSE and diving projects may be measured against the ACoP in the event of an investigation by HSE or a legal authority.

The Recreational Diving Projects ACoP is available from the HSE website diving page www.hse.gov.uk/diving

Summary of Diving at Work Regulations 1997

The Diving Contractor is responsible for ensuring that the diving project is planned, managed and conducted in a safe way, and is responsible for the diving project plan. He must ensure that there is sufficient first aid provision (all divers at work should keep their first aid training up to date). He must appoint the Supervisor in writing (in some instances the Contractor will also be the Supervisor). The Supervisor is responsible for the safety of the diving operation, and should be on site and in direct control of the operation. He must also keep an operation log, and the Contractor must ensure these records are kept for at least two years.

Any diver at work in the diving team must have a certificate of medical fitness to dive issued by an HSE approved doctor (on an annual basis) and maintain a personal logbook. All members of the diving team, whether paid or not, should be aware of their individual responsibilities. This includes the students themselves, who must follow the directions of the Supervisor.

The minimum team size for the diving operation is three - one person at the surface and two in the water. The two divers in the water should be capable of rendering assistance to each other in an emergency, and therefore should be competent in rescue techniques (under specific circumstances, the second person could be a student undergoing training). The person on the surface does not have to be able to dive but should be familiar with the diving plan and arrangements to summon assistance in an emergency.

When diving in pools and tanks, the minimum team size can be two. The second person should be immediately available on the surface or in the water, in a position to render assistance (under specific circumstances, the second person could be a student undergoing training).

Diving Project Plan and Risk Assessment

A diving project plan and risk assessment must be prepared in advance of each diving project, and provided to the dive supervisor. PADI's recommendation is that a generic project plan is prepared for each course level you teach, and is supplemented by a site specific risk assessment and operation log that is completed on each dive.

The project plan should have the contractor's name, course level, reference to the appropriate sections in the PADI Instructor guide (e.g. Open Water Diver Course section), as well as the General Standards and Procedures section, plus any other general information pertinent to the course that you may want to add, and a general risk assessment. It should also note the separate diving operations within the project. For example, the PADI Open Water Diver Course could be broken down into 9 separate operations: Confined Water Modules 1 to 5, and 4 open water dives.

The Diving Project Plan should include:

- water conditions, including wave motion, movement, temperature, depth, visibility, weather, daylight and bottom type;
- pollution of the water or atmosphere;
- access to and from the water/boat/platform;
- the type of equipment and breathing mixture being used;
- the depth and planned duration;
- the task or training drill to be performed and the experience level of those participating, including those who are not at work;
- emergency procedures, including the location and proximity to emergency facilities and medical expertise.

This is not a complete list of all hazards and measures needed to control risks. An appraisal of the hazards at a specific dive site will identify the full extent of the safeguards needed to protect the safety of the dive team.

The dive supervisor is responsible for ensuring the site specific risk assessment is accurate and relevant on the day of the dive. which should be signed off and kept on file for two years. Keep a master copy of the project plan and individual operation log pages at the dive centre, so that the individual log pages can be copied and used by all the dive supervisors. Ensure the plan and risk assessment are reviewed regularly, so that they are up-to-date and applicable for each site you use.

The Risk Assessment must be prepared before undertaking a diving project and provided by the dive supervisor. Each risk assessment should be site specific, as different dive sites will have differing conditions, requirements and hazards that the dive team should be aware of and be prepared for.

The five steps of risk assessment:

Look for the hazard: (Hazard: Anything that can cause harm) e.g. obstacles at the dive site above or below water, faulty or inadequate equipment, inappropriate diving conditions.

Who may be harmed: Instructor, certified assistants and student divers.

Evaluate the risk: (Risk: The chance, high, medium or low that somebody will be harmed by the hazard). Your aim is to minimise the risk by employing the appropriate dive and control actions as outlined in your operation log and risk assessment. **Record findings**: You must record your findings at each visit to each site by using your operation log and risk assessment.

Review assessment: Periodically review your risk assessment to see if any of the hazards have changed and new precautions need to be added to your assessment

There is nothing mysterious about conducting a risk assessment. It's something we do everyday of our lives as we go about living. Crossing the street, driving our cars, etc., we are subconsciously evaluating the conditions around us and the risks those conditions may present.

As professional diving instructors we are required to conduct such an assessment with our students and our own safety in mind. No doubt you are already doing this every time you carry out a pre-dive site evaluation. You will also be aware that the site conditions, be they swimming pool, lake, quarry or sea, are constantly changing. Because they do not remain static it is necessary to carry out a dive site specific risk assessment.

Diving Operations Record (Dive Log)

The dive supervisor is responsible for completing the operation log and site specific risk assessment, which should be signed off and kept on file for two years. Keep a master copy of the project plan and individual operation log pages at the dive centre, so that the individual log pages can be copied and used by all the dive supervisors. Ensure the plan and risk assessment are reviewed regularly, so that they are up-to-date and applicable for each site you use.

Each diving operation record should include the following:

- Date
- Location of the diving operation (pool, open water, shore, boat etc), including the name of any vessel from which diving is taking place
- A description of the diving operation (OW Dive 1, AOW Navigation etc)
- Breathing apparatus and breathing mixture used by each diver in the diving operation
- The Supervisor's name and qualification
- Student / divers' names and qualifications
- Time in and time out
- Maximum depth and bottom time
- How no-decompression limits are being calculated computer or tables
- · A record that equipment has been checked prior to the dive
- A record that divers using their own equipment have confirmed that it has been serviced in accordance with the manufacturer's recommendations (Para 70 of ACOP)
- Emergency support arrangements including the standby diver and surface support staff names
- A note that all divers a fit and well to dive
- A record that the dive briefing has been conducted, and responsibilities explained
- Any other factors likely to affect the safety or health of any persons engaged in the diving operation
- Signature of the supervisor completing the record

First Aid Training and Competencies

The diving contractor is responsible for ensuring that enough people in the diving project are trained and competent in first-aid.

Those identified in the dive team as being qualified to give first aid should be able to:

- recognise symptoms of DCI and provide appropriate first-aid treatment prior to and during transfer to a decompression facility;
- recognise symptoms of Immersion Pulmonary Oedema (IPO) and provide appropriate emergency response and first-aid treatment;
- administer oxygen to an unconscious patient;
- perform resuscitation using the techniques of artificial ventilation (AC) and external cardiac compression (ECC);
- recognise the symptoms of shock and provide appropriate first-aid treatment;
- administer appropriate first-aid treatment for burns, bleeding and broken bones.

The risk assessment should take into account the type of diving taking place, the size of the team and the distance of the dive site from the emergency services. It may be sensible to have more than one person in the team qualified in first aid in case that person becomes injured. Those who are qualified should not hold other important duties which could conflict with the need to administer first aid in an emergency.

Both the Emergency First Response and the Emergency First Response Instructor qualifications (or an equivalent first-aid certification) along with an appropriate diving qualification can fulfil this function. Competency in the administration of oxygen is also required.

Oxygen and First Aid Requirements

The Diving Contractor is responsible for ensuring that each diving project has suitable first aid and oxygen administration provision available at the dive site. It is important that the first aid and oxygen administration trained members of the dive team are able to access and use this equipment at any time during the diving project. Proximity of the equipment to the divers at work must be taken into account in the risk assessment and diving project plan. The Oxygen admin equipment must be able to deliver oxygen to an unconscious casualty – a demand valve will not be adequate.

Any dive team arriving at a dive site without its own designated first aid and oxygen equipment must have a written contract drawn up between themselves and the owners of any first aid and oxygen equipment which the dive team wishes to use for the purposes of the diving project. The owner of such equipment must at the same time ensure that once the written contract has been drawn up, their first aid and oxygen equipment is readily available.

Dive Teams

Regulation 6(3)(a) DWR97 states:

The diving contractor shall ensure that there are sufficient people with suitable competence to carry out safely and without risk to health both the diving project and any action (including the giving of first-aid) which may be necessary in the event of a reasonably foreseeable emergency connected with the diving project;

Recreational Diving Projects ACoP, paragraph 48 states:

"The two divers in the water should be capable of rendering assistance to each other in the event of an emergency under water. Under specific circumstances, one of these divers can be a student undergoing training, provided that he or she has been trained in rescue techniques, has been assessed as competent to carry out rescue techniques and has reached the minimum competency level required for this task set out by the appropriate recreational diving organisation."

PADI's recommendation on the minimum qualification level for this second person in the team is Rescue Diver. However, you, the instructor having carried out your risk assessment, may decide that a less qualified person may be appropriate for the particular operation. For example, you're teaching the Open Water Diver Course confined water sessions in a pool and may determine that your students are adequately prepared to render assistance to yourself in the event of a foreseeable emergency. In this example, you would have ensured that there was adequate surface support and that appropriate emergency procedures were in place at the pool.

Please remember, this second person in the team is not necessarily a PADI certified assistant. Therefore, unless they are a current or renewed Divernaster or higher, they should not be assigned any additional responsibilities with respect to your students (reference: PADI Instructor Manual, General Standards and Procedures section).

With specific reference to surface support personnel, when at a dive site do not assume that because the dive site has its own emergency personnel and procedures, these may be substituted for your own surface support co-ordinator. To comply with the regulations each dive operation must be able to account for its own dive teams.

Diving Plant - Alternate Air Sources

DWR97, Regulation 6(3)(b); Approved Code of Practice, paragraph 60:

"Minimum equipment to be provided for each diver should be in accordance with the requirements of the appropriate diving organisation and includes:

appropriate alternate breathing gas source / secondary life support system;"

For PADI divers at work, an alternate air source (octopus) available from another diver would be acceptable. The diver at work does not necessarily have to have a redundant air supply (e.g. pony bottle) to meet these regulations. The important point here is the guidance "in accordance with the requirements of the appropriate diving organisation". In other words, the emergency protocol that the diver has had training in

Additional information is available at https://www2.padi.com/mypadi/pros/training-essentials/regulations/

Daily Record of Diving (Personal Diving Log Books)

The Approved Code of Practice (ACoP) states on page 27;

- "(3) Every diver engaged in a diving project shall -
 - (a) maintain a daily record of his diving;
 - (b) keep that record in his possession for at least two years after the date of the last entry in it.

86. Diving logs should include as a minimum the particulars recommended by the appropriate recreational diving organisation's standards manual. They should be accurate and reflect the information contained in the diving operation record."

As a guide to what information should be included in this daily record of diving, we suggest that the information requested of the standard PADI log book be used. This information consists of; dive number, date of dive, location, maximum depth reached, bottom time, starting and ending pressure group(s), surface interval (if applicable), cumulative dive time and dive activity. Additional information may be needed in order for the daily record of diving to reflect the information contained in the diving operation record, for example, a list of names of the participants in the dive activity.

Recreational divers often use personal dive computers to log their dives and these records can be downloaded from the dive computer to form a digital personal diving log book. However, it should be considered that the diving computer is unlikely to automatically include all of the information required and additional not will need to be added to the downloaded record to ensure the necessary data is recorded. This information includes:

- Name of the diver
- Date to which entry relates
- Name and address of the diving contractor
- Name of the supervisor for that dive
- Location of the diving project, including the name of any vessel from which diving is taking place
- The maximum depth reached on each occasion
- The time the diver left the surface, the bottom time, and the time the diver reached the surface on each occasion
- Breathing apparatus and breathing mixture used by the diver
- Any decompression schedules followed by the diver on each occasion
- Any other factor relevant to the diver's health or safety

Indirect Verses Direct Supervision

With respect to the regulations both direct and indirect supervision require a similar minimum team size but different project plan and risk assessments. Direct supervision requires a minimum of two divers in the water with a third providing surface support. Indirect supervision requires the instructor and safety diver to be on the shore or boat ready to kit up and enter the water, with a third team member required in the event that they should enter the water.

It is important to understand that being ready to kit up and enter the water means being suited up (even if not fully done up) with the scuba unit and other equipment assembled and ready for use in the immediate vicinity. The safety diver should be in a similar state of readiness, so you are both ready to enter the water with minimum delay in the event of an emergency. Indirect supervision from a distance away, e.g. in a van in the car park, does not meet the requirements of the Diving at Work Regulations 1997 or PADI Standards.

When an instructor is providing indirect supervision from the shore or boat, it is the potential for that instructor to enter the water to provide assistance to the students that creates the 'diver at work' situation, hence the requirement for a full dive team. It is important that the different requirements of direct and indirect supervision are addressed in the project plan and risk assessment, as necessary, and that a full and clear briefing is given to all team members.

Planned Separation During Open Water Diver Courses

PADI Standards permit brief planned separation of the instructor and certified assistant during certain skills of the Open Water Diver course. In clear water where the team members can see each other at all times this planned separation does not present too much of a problem from a 'diver at work' perspective. It does, however, require careful consideration and planning in reduced visibility situations.

During the Controlled Emergency Swimming Ascent (CESA), Alternate Air Source Ascent (AASA) and Underwater Navigation exercises it is permissible for the instructor and certified assistant (safety diver) to become separated, but only if this separation has been accounted for and documented in the risk assessment and project plan.

During the CESA and AASA this separation would occur when the instructor ascends with a student leaving the certified assistant (safety diver) at the bottom of the line with the remaining students. Upon successful completion of the skill the instructor and student would descend to re-join the rest of the group.

It is vital that emergency procedures are documented in the risk assessment and project plan and thoroughly briefed, so that in the event that the instructor is unable to return to the group the safety diver knows when and how to abort the dive and initiate a safe ascent for all remaining divers, so as to provide assistance to the instructor if needed. This could be achieved by placing a time limit on the instructor rejoining the group and, if this time is exceeded, the dive is aborted and all participants surface. This is in line with PADI separation procedures, however, it would be the dive supervisor's responsibility to set a realistic maximum time in which the instructor is required to rejoin the group.

During the underwater navigation exercise one way of achieving planned separation may be that the certified assistant and remaining students remain stationary at a fixed point (e.g. CESA line or other buoyed position) while the instructor and students being assessed navigate a predetermined distance away from and back to the group, while using a surface marker buoy to indicate their position. Again it would be necessary for the dive supervisor to implement a realistic time limit for the instructor's return. It is not considered to be acceptable practice for two (or more) groups to swim off in different directions at the same time.

If the instructor and student did not return to the fixed position within the agreed time limit the certified assistant could once again carry out the predetermined emergency procedures and render assistance to the instructor as necessary.

It is recommended that the above points be addressed in your training procedures, risk assessments and dive team briefings at the soonest possible opportunity.

Divers Tagging Along

As an instructor conducting training you may at some time be approached by a diver looking for a dive, and wanting to 'tag along' with you and your students, perhaps even offering to act as part of the dive team. They may be a family member or a friend from the dive club. They may be completely unknown to you or a good friend just wanting to get wet. Is this a big problem? Well it can be, especially if things start to go wrong.

At first glance the additional diver may not appear to add any additional risks to the dive, but do you know the abilities of this additional diver? Will they distract students or supervisory staff during the dive? Will they pose added problems in the event of buddy separation or equipment failure? Will they themselves be a hazard due to poor diving practices or limited ability?

Everything might be fine when it's going fine, but what happens when the heat gets turned up and the dive doesn't go to plan? That's where the presence of an additional diver who may not have been accounted for in the dive plan and not included in the risk assessment may hinder the actions of the members of the team.

The Diving at Work Regulations (1997) and specifically the Recreational Diving Projects Approved Code of Practice outline the requirements of the dive team and the risk assessments needed for the dive being undertaken. If a diver's presence is not noted in the project plan then they have not been taken into account in the risk assessment. Their presence may leave the Dive Supervisor or other team members increasingly exposed or liable in any HSE or other resulting investigation.

It is strongly recommended that any training dive is restricted only to those instructors, assistants and students who are required on the dive and that no additional divers be permitted to tag along, irrespective of the reason. All divers involved in the dive should be accounted for on the dive project plan, be included in the risk assessment and be properly briefed on the dive. Divers who are not listed in the dive plan should be excluded from the dive. This simple policy will help protect the members of the dive team from increased risk and liability.

It will mean that occasionally divers wanting a dive won't get one, but then any of their actions or resulting incidents when they do get a dive wont involve you or your fellow team members and wont leave you in a position having to defend your actions and decisions. And that's plain and simple good risk management.

The Use of Volunteers in Recreational at Work Diving Projects - Advice from HSE

The following guidance does not apply where all of the divers taking part are volunteers. At least one diver must be at work – then the following will apply:

The involvement of unpaid "volunteers" in recreational at work diving projects has been causing problems for both the recreational diving industry and HSE for some time. This is far from being a black and white issue and it has proved difficult to provide clear and unambiguous interpretation of the law in this area.

The Diving at Work Regulations 1997 (DWR97) Regulation 2 states that:

"diver" means a person at work who dives: and

"diving project" means any activity, made up of one or more diving operations, in which at least one person takes part or will take part as a diver...

HSE's interpretation and subsequent advice to industry has focused on whether an individual person taking part in a diving project is "at work" or "not at work". Broadly, the advice has been that a person who is receiving any kind of remuneration for their diving services falls into the category of being "at work". The term "favour or reward" has also been used to emphasise that a person does not have to receive monetary payment to be considered "at work" and that other benefits such as the provision of free air or the use of diving equipment need to be considered.

This approach has led to difficulties in establishing the status of unpaid volunteers who are effectively essential members of staff whose involvement is required to enable a diving at work project to go ahead in compliance with DWR97. Current legal advice is that consideration should be given to factors other than payment or direct benefits when considering the status of volunteers who dive as part of an "undertaking". These factors include:

- The possibility of profit/loss for the undertaking
- The provision of equipment, resources and facilities by the undertaking
- Insurance cover for the diving project
- The degree of direction or control over those taking part

A definition of "undertaking" with respect to recreational diving is:

Where a trade, business or profession is set up and has as one of its aims the provision of the service of diver training or guiding it is an "undertaking" within the intent of section 3 of the Health and Safety at Work etc. Act 1974 (HSWA).

In general terms, any person taking part in a diving project who is **either** being paid (or in receipt of favour or reward) **or** whose involvement in a diving project is required for that project to be carried out in accordance with DWR97 should be considered to be at work (and therefore a "diver" under DWR97 Reg 2). Consequently, the provisions of DWR97 - including the requirement for divers to be sufficiently competent and have a valid certificate of medical fitness to dive (issued by a medical examiner of divers who has been approved by HSE), would apply to such persons.

However, there may be situations when an unpaid volunteer taking part in a recreational at work diving project would **not** be considered to be at work

themselves. Take, for example, a diving training course being run with at least the minimum number of staff required for the number of students and their abilities. If a suitably qualified diver (e.g. Divemaster) offered to join the dive either to "tag along" or to provide additional back up to the "at work" instructional staff (and they received no payment, favour or reward) they would not necessarily be considered to be diving at work.

However, the use of any volunteers by an undertaking places duties on that undertaking under Section 3 of the Health & Safety at Work Act. This requires that the undertaking be conducted in such a way as to ensure, so far as is reasonably practicable, that:

- the volunteer is not exposed to risks to their health and safety; and
- the actions or omissions of the volunteer when acting on behalf of the undertaking does not expose other persons to risks to their health and safety.

The most common question put to HSE on this issue is "Do I need an HSE medical?". As a rule of thumb, if a diver's involvement in a recreational at work diving project is required for that project to go ahead, then they need to have a medical certificate issued by an HSE Approved Medical Examiner of Divers.

A diving contractor using volunteers during a diving at work project should consider seeking legal advice.

Diving Incident Reporting

If you conduct diving projects under the GB Diving at Work Regulations 1997 (DWR97) as an employer or self-employed person, or are in control of work premises where diving projects are conducted, you also have duties under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013, known as RIDDOR. The reporting of accidents and ill health at work is a legal requirement.

The report is not only for accidents that involve persons at work but also accidents to members of the public caused by a work activity, e.g. students undertaking diving instruction or paying for a guided dive are "members of the public".

There are several categories under RIDDOR that require a report to be made and examples relating to diving are added below to illustrate their scope. They are:

- Death or specified injury. Any fatality to any person taking part in a diving project. Specified injuries are listed on HSE's website Reportable incidents RIDDOR HSE but could include hypothermia; hyperthermia; unconsciousness; requiring resuscitation; or a person at work requiring admittance to hospital for more than 24 hours; or a member of the public taken to hospital.
- Over-seven-day injury. A person at work or self-employed person carrying diving equipment and damages their back causing them to be off work for over seven days.
- Occupational diseases again these are listed on the HSE website as above.
 Currently (as at June 2022) decompression illness is not a notifiable occupation disease however the DCI may be the result of a notifiable dangerous occurrence.
- Dangerous occurrence. This could be: any incident in which the breathing apparatus malfunctions while in use, or during testing immediately prior to use in such a way that had the malfunction occurred while the breathing apparatus was in use it would have posed a danger to health and safety of the user; the trapping of a diver; any uncontrolled ascent or any omitted decompression which puts a diver at risk. The phrase "which puts a diver at risk" would include the potential for a fatality, major injury or reportable disease.

Who do you report to? Usually the best way to report is online at HOW to make a RIDDOR report - RIDDOR - HSE. It is also possible report fatal and specified incident by telephone – Incident Contact Centre on 0345 300 9923 (opening hours Monday to Friday 8.30 am to 5 pm).

Reports must be submitted within 10 days of the incident. In addition to these legal requirements, you also need to send in an Incident Report to PADI.

Non Recreational Diving

PADI members and divers may be interested in diving in other at work sectors in Great Britain, such as media diving, scientific diving or shellfish diving. This guide does not cover the specific legal requirements for diving in those sectors and you should check the FAQ section of the HSE website or contact HSE for further advice and guidance if necessary at diving@hse.gov.uk

Health & Safety Executive Resources

If you conduct diving projects under the GB Diving at Work Regulations 1997 as an employer or self employed person, visit the HSE diving web page www.hse.gov.uk/diving. The website has a wide range of resources for diving but as a minimum you should be familiar with:

Diving at Work Regulations 1997
Approved code of practice: Recreational diving projects
Regulations, Diving operations record
Medical requirements for diving at work

We also recommend you sign up for the RSS feed to receive updates direct to your inbox.

For PADI training questions please contact training.emea@padi.com