



Association of Diving Contractors

Engaging Diving Contractors for Inland / Inshore Diving Projects

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This reference document is applicable for diving operations to a maximum water depth of 50m

The Association represents diving contractors who are involved with inland or inshore diving operations in the UK and Ireland

1. Introduction:

The following document is intended to summarise important elements that may be helpful to persons involved with hiring, organising or controlling diving operations conducted by specialist diving contractors.

Diving is a potentially hazardous activity in any environment.

Notwithstanding the above statement, when a good level of planning and preparation are applied and strict controls implemented to supplement the information and procedures set out at the planning stage, the risks can be mitigated and the majority of underwater activity can be completed safely, successfully and economically.

2. The legal Position - Diving at Work Regulations 1997

The Diving at Work Regulations 1997 (DWR) came into force in 1998 and is supported by five Approved Codes of Practice (ACOP's) covering:

Commercial Diving Projects Offshore

Commercial Diving Projects Inland / Inshore.

Scientific and Archaeological Diving Projects.

Media Diving Projects.

Recreational Diving Projects

Each of which gives advice on meeting the requirements of The Diving at Work Regulations 1997 (referred to as the Diving Regulations) for the appropriate diving project.

The ACOP for Inland / Inshore Diving Operations applies when the activity occurs;

(a) Inshore within United Kingdom territorial waters adjacent to Great Britain (generally 12 nautical miles from the low water mark).

(b) Inland in Great Britain including docks, harbours, rivers, culverts, canals, lakes, ponds and reservoirs.

For the purposes of this document all references will be based on the assumption that the works fall under the category of the Inland/Inshore ACOP.

3. The Regulations:

Regulation 4 states that; *“Every person who to any extent is responsible for, has control over or is engaged in a diving project or whose acts and omissions could adversely affect the health and safety of persons engaged in a such a project, shall take such measures as is reasonable for a person in his position to take to ensure that these regulations are complied with.”*

In a coastal or marine construction environment this could include the employer, a port or harbour master, vessel master, main contractor, designer, specialist service supplier or any operator instructed to use plant or equipment

in support of the diving or associated operation.

Whilst the level of responsibility will vary from person to person, all should retain an interest in the diving operation and will need maintain an element of liaison with the chosen diving contractor and their appointed personnel.

4. Insurances:

The provision of an in date Employers Liability Compulsory Insurance (ELCI) certificate, specifically including clear reference to the coverage of diving operations is a mandatory requirement and sight of a valid certificate should be expected at both the pricing stage and immediately prior to commencement of work on site.

Where the chosen diving contractor fails to provide a valid insurance cover and a claim results, the employer - the individual or client commissioning the works - is likely to find they and their insurers are liable for the deficiency.

5. Responsibilities:

The employer who requests the work must ensure that:

- (1) The appointed contractor is competent to carry out the proposed work.
- (2) The proposed work site is safe and any known hazards, underwater restrictions or associated operational information is made known to the diving contractor.
- (3) That other appropriate facilities or persons will be made available to the appointed diving supervisor should an emergency situation necessitate.

The competent diving contractor carrying out the works must ensure that:

- (1) A detailed diving project plan is prepared and all risks fully assessed.
- (2) Details of the plan are made known to anyone directly or indirectly involved in the diving operation or its support activities.
- (3) That an adequate number of personnel, diving and essential support are available, that sufficient plant and equipment is available and adequate arrangements for first aid or emergency medical support are in place.
- (4) That the immediate area of the dive site is safe to conduct diving operations and adequate arrangements for the access and recovery of the diver even in an emergency are in place.
- (5) That the supervisor or supervisors are appointed in writing and details of the appointment are available on site for inspection.
- (6) That accurate records are maintained and all other appropriate regulations are adhered to.

The appointed diving supervisor in addition to being confirmed in writing by the contractor and properly qualified to carry out the task must ensure that:

- (1) Everyone involved in or required to support the diving operation are fully briefed and aware of the diving plan and any emergency

arrangements that are applicable.

- (2) That all information, local conditions, weather, tide, current or similar used in assessing the risks on the site remain valid during the period of the dive.
- (3) That adequate records are kept and persons involved in the support of or working close to the dive site are fully apprised of progress as the operation progresses.

6. Team Size:

The correct selection of the number of personnel in a diving team necessary to complete a specified task goes some way to ensuring the safe conclusion of any diving operation.

Whilst Regulation 6 and the ACOP indicate the minimum team size to be four, Supervisor, diver, stand-by diver and tender, the Diving Project Plan in addition to detailing the scope of the task and associated risks, should address the requirement for diving team numbers and justify the team size necessary for a particular task.

Basic underwater tasks in controlled circumstances can be safely completed using a four man diving team, however as both the complexity in terms of tools, equipment use and depth of the dive increase so to is the likely need for additional members of the dive team.

7. Equipment:

All commercial diving work should be carried using equipment that is routinely maintained and certificated as part of planned maintenance system and suitable for the work in hand.

Whilst DWR 1997 does not specifically exclude the use of Self Contained Underwater Breathing Apparatus (SCUBA), the need to provide communications between the diver and the surface as well as the requirements for an independent air supply reserve tend to reduce the scope for use of SCUBA and actively encourages the diving contractor to adopt a Surface Supplied Diving Equipment (SSDE) spread.

In addition to the benefits of having a larger reserve of air provided from the surface, SSDE provides the working diver with modern lightweight air helmets which can afford a high degree of head protection whilst working in the water.

The proposed use of SCUBA equipment in most commercial diving environments, other than in benign conditions such as a swimming pools or tanks should be very carefully monitored. Should a contractor propose the use of SCUBA as his intended primary equipment, an employer should seek guidance from an independent specialist before sanctioning the diving operation.

8. Diving Project Plan: (DPP)

Consistent with other H&S legislation the DPP is intended to "... so far as reasonably practical," identify the hazards and risks existing on or at a site and detail how these will be controlled.

In addition the DPP will look specifically at the range of support equipment that will be necessary to cover all foreseeable eventualities on the dive site.

The DPP should make clear reference to the working methods that will be used and detail the control measures that will be implemented for dealing with water flows, underwater currents, low visibility, weather conditions, vessel movements, use of tools as well as specifying any special precautions that may be required to ensure liaison between the dive team and others vessels operating in the area.

In particular, the need to address the method of recovering the diver after completing the work or in an emergency situation when he may be unconscious. Entry tends to be quite simple but having completed an element of work the ability to climb a vertical ladder may be seriously impaired and some other form of controlled recovery may be necessary.

The DPP will be used to brief the divers and any other persons involved in the diving operation and a copy of the plan should be available to any interested party.

Checklists are commonly used as part of a DPP to ensure all aspects of the duties of the employer, contractor, diving supervisor and divers have not been omitted. A sample checklist has been appended to this document for use by employers checking that all aspects of the planning have been completed.

9. Emergency Arrangements:

As with all project planning regimes, ensuring arrangements exist to deal with all foreseeable emergency occurrences is important.

In addition to the need to provide a safe work environment, provide adequate launch and recovery facilities the diving contractor must ensure that adequate arrangements exist for the emergency recompression of divers.

Where no in water decompression is planned and the water depth does not exceed 10m arrangements to have a suitable recompression facility accessible within a maximum travelling time of 6 hours exist,

For dive operations between 10 and 50m where no in water decompression or planned in water decompression not exceeding 20 minutes this requirement is reduced to having a suitable recompression facility within a maximum travelling time of 2 hours.

Where diving is planned to require more than 20 minutes in water decompression or either of the two requirements outlined above cannot be

complied with a suitable recompression facility will be required on the site.

It is worth stressing that for most shore based diving operations the DPP and risk assessment is likely to require access to a chamber in either 2 or 6 hours.

For most coastal or near shore diving operations the DPP is likely to demand the need for a recompression facility on site since the sea and weather conditions can change at very short notice which in turn could compromise the ability of the contractor to achieve either of the 2 or 6 hour requirements.

10. In Conclusion:

The Association of Diving Contractors Represents:

- * Diving contractors who are based and work in the UK or Ireland and who are involved in commercial diving operations conducted:
 - In docks, harbours, rivers, culverts, canals, reservoirs, lakes, ponds, mainly in support of civil engineering projects, but also including ship surveys and maintenance ;
 - Inshore in respect of salvage and other (mainly civil engineering related) operations.
 - Inshore in respect of fish farming activities so long as the diving contractor conducts its diving operations in accordance with safety standards and similar procedures to those used by Members in civil engineering projects.
- * Firms of engineering consultants who are registered as diving contractors.
- * Companies or organisations who supply support services to the industry including manufacturers of equipment; training establishments.
- * Client organisations who may not themselves be eligible to become an ADC Member or Associate Member but who wish to be kept apprised of safety and technical information.

The objectives of ADC are :

- * To cultivate and promote the art and science of commercial diving within the context of the activities of its members ;
- * To establish uniform safe standards ;
- * To encourage industry - wide observations of such standards ;
- * To encourage the enactment and enforcement of appropriate laws for the protection and regulation of the business of commercial diving ;
- * To do all such other things as seem to the membership or management committee of ADC to be in their interest.

Hiring of Diving Contractors – A Basic Checklist.

Project Name: Ref No:

<i>No:</i>	<i>Description</i>	<i>Checked (✓)</i>
1	Tender Enquiry Stage:	
1.1	Detailed enquiry issued.	<input type="checkbox"/>
1.2	All available site information proposed.	<input type="checkbox"/>
1.3	Compliant response / quotation received.	<input type="checkbox"/>
1.4	Proof of valid ELCI insurance provided.	<input type="checkbox"/>
1.5	Method statement supplied is appropriate to task.	<input type="checkbox"/>
1.6	Access, egress and emergency arrangements are adequate.	<input type="checkbox"/>
1.7	Safety management arrangements adequately explained.	<input type="checkbox"/>
1.8	Team size and equipment choice explained.	<input type="checkbox"/>

<i>No:</i>	<i>Description</i>	<i>Checked (✓)</i>
2	Prior to Commencement of Work on Site:	
2.1	Diving Plan Provided.	<input type="checkbox"/>
2.2	Method Statements, Risk Assessments issued are adequate for proposed work activity.	<input type="checkbox"/>
2.3	Tide, Weather and Shipping Activity known,	<input type="checkbox"/>
2.4	Access and Egress arrangements established and suitable for work site conditions.	<input type="checkbox"/>
2.5	All foreseeable hazards considered / controls implemented.	<input type="checkbox"/>
2.6	Copies of the in date ELCI certificate available on site.	<input type="checkbox"/>
2.7	Supervisor is appointed in writing by the contractor.	<input type="checkbox"/>
2.8	Diving Operation Records available on site.	<input type="checkbox"/>
2.9	Divers medical's and certification checked.	<input type="checkbox"/>
2.10	Permit to Work Required . Issue and check conditions.	<input type="checkbox"/>
2.11	Permit to Work - Activated?	<input type="checkbox"/>
2.12	Equipment Records, test certificates seen.	<input type="checkbox"/>
2.13	Dive team and support crew given a briefing.	<input type="checkbox"/>
2.14	Any new site information made known to Supervisor.	<input type="checkbox"/>
2.15	Proof of H&S Training / Paramedic / First Aid Training / Cert.	<input type="checkbox"/>

Prepared by: Date:

For further information on the hiring of Professional Diving Contractors contact the ADC Secretariat.

Notes / Reminders:

The Association of Diving Contractors

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