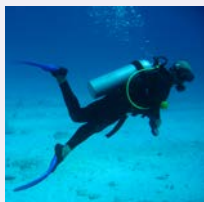


University Health & Safety Arrangements : Chapter 33



Diving at work

Key word(s) : Scientific and archaeological diving; scuba diving;
Diving in UK territorial waters; diving overseas

Target audience : Staff and students contemplating diving activities as part of their research, work or study; staff validating dive risk assessments

Note:

“Senior Managers” are responsible for health and safety within their specified areas or as a consequence of their activities, and for any additional activities as agreed and delegated to them (eg where they accept responsibility for day-to-day safety arrangements for staff who have other line managers, for reasons of geographical or other convenience). They may be Heads of School, Directors of Institutes, Directors and Heads of Service in non-academic areas, the University Librarian, the Directors of the Manchester Museum and the Whitworth Art Gallery, and their equivalents.

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Introduction

1. Diving for research or study at the University of Manchester is an infrequent but high risk activity. Diving in the UK and UK territorial waters is regulated by the Health & Safety Executive, and their Approved Codes of Practice^{1 2} (ACOPs) should be consulted and implemented in full. Any proposed departures from the relevant ACOP should be subject to a risk assessment that is validated in writing by an experienced dive instructor based at the University or nominated by the University.
2. The most appropriate ACOP for University activities is likely to be L107 *Scientific and archaeological diving projects*³ although ACOP L106 *Media Diving Projects*⁴ and ACOP L105 *Recreational Diving Projects*⁵ may be of some relevance.
3. These legal requirements do not apply directly to dive operations overseas. However, the University expects the same principles to be applied as far as is reasonably practicable; in many cases, diligent preparation and training in the UK will enable diving operations to be carried out safely in countries where the regulatory framework and its enforcement are not as robust. Departures from the ACOP requirements should be highlighted and justified in the risk assessment.

Definitions and Scope

4. This chapter does **not** cover:
 - surface swimming, snorkelling or diving where breathing is not aided by pressurised air or other gas mixture
 - Dive projects that require decompression (except dives involving a “normal” 3 minute safety stop at 5m depth)
 - Diving activities where rebreathers are used
 - Diving carried out by staff or students for recreational purposes not connected in any way with their work or study
5. For the purposes of this chapter, diving is defined in the same way as in the Diving at Work Regulations 1997⁶. A diving project can be comprised of more than one diving operation, involving one or more divers. The project duration

¹ NB the Diving ACOPS were revised in 2014

² <http://www.hse.gov.uk/diving/acop.htm>

³ <http://www.hse.gov.uk/pubns/books/l107.htm>

⁴ <http://www.hse.gov.uk/pubns/books/l106.htm>

⁵ <http://www.hse.gov.uk/pubns/books/l105.htm>

⁶ <http://www.legislation.gov.uk/ukxi/1997/2776/contents/made>

commences when the first diver enters the water and finishes when the last diver has left the water.

6. In rare cases, diving may take place at geographical locations where lower atmospheric pressure (eg in lakes at high altitude) or surface cover or obstructions (eg under ice) make the activity particularly high risk. Such dive activities will always require a site and activity specific risk assessment, validated by a dive instructor experienced in such conditions, and signed off by a senior manager (eg Head of School).

Responsibilities

7. The Head of School (or other senior manager) should make arrangements in their schools to ensure that any diving activities are notified to the University's nominated diving safety officer⁷ at least 3 months prior to the activity commencing and that a comprehensive risk assessment is carried out and validated by the nominated diving safety officer. They should also arrange for any particularly high risk diving activities to be both validated by the nominated diving safety officer and counter-signed by the HOS.
8. The person carrying out the dive (or, in the case of a student, their supervisor or tutor) should ensure that a risk assessment is completed and sent to the nominated diving safety officer together with copies or other evidence of the diver's training and certification card, record of dive experience (log book), current certificate of medical fitness to dive, and the Diving Project Plan. If no diving has been undertaken in the past 6 months, preparation for the activity should include a "tune up" dive with an instructor, which should be recorded in the diver's log book.
9. ACOP L107 provides guidance on the contents of a dive risk assessment, decompression procedures, supervision, dive teams, dive equipment and its maintenance, and other relevant matters.
10. Individual divers are responsible for obtaining a valid certificate of medical fitness to dive issued by a medical examiner of divers. A searchable approved list of diving medical examiners is on HSE's webpages.⁸ The diver's certificate has to be renewed annually, and must be current for the duration of the planned dive activity. The diver must also inform the dive supervisor or contractor of any known medical condition, use of drugs or alcohol or other medication, or feelings of being unwell. Failure to do so may put themselves and others at risk.

⁷ Dr David Barker, Head of Compliance & Risk

⁸ <http://www.hse.gov.uk/diving/medical-requirements.htm>

11. A member of staff acting as a diving operations contractor (organiser) or supervisor of diving activity should prepare a record of the diving operation. Details to be included are listed in Appendix 1.

Risk assessment

12. There are many factors to consider in a diving risk assessment but the key is to understand depth, duration, experience and training, and medical fitness. The risk assessment should ensure that the equipment used or provided is appropriate for the conditions of dive and the individuals concerned, well maintained, and that each individual diver is competent or under direct supervision. The risk assessment must include arrangements and resources immediately to hand for dealing with emergencies.
13. Travel to and from dive destinations should be planned so that air travel does not take place with 24 hours of a dive. Travel to high altitude (low atmospheric pressure) should also be avoided.
14. The risk assessment should include the full range of non-diving related risks, such as transporting and manually handling diving equipment and cylinders; hazards from boat traffic, local marine life that might be poisonous or dangerous (jellyfish, sharks). An example risk assessment is at <http://www.healthandsafety.manchester.ac.uk/toolkits/ra/example-ras/>⁹.

⁹ Risk assessment provided courtesy of Faculty of Life Sciences

Appendix 1 – details to be included in dive records

HSE approves the following required particulars to be included in the diving operation record for the class of scientific and archaeological diving projects:

1. The name of the diving contractor.
2. The dates on which and the period during which the diving operation was carried on.
3. The name or other designation of the craft or work site in connection with which the diving operation was carried on and the location of that craft or work site.
4. The name of the diving supervisor and the period for which he is acting in that capacity in respect of that diving operation.
5. The names of the other persons engaged in the diving operation including those operating any diving plant or equipment and their respective duties.
6. The arrangements for emergency support.
7. The requirements for first aid personnel and equipment.
8. The procedures followed in the course of the diving operation including details of the decompression schedule used.
9. The maximum depth reached in the course of the operation for each diver.
10. For each diver, in respect of each dive he makes, the time he leaves the surface, his bottom time (that is the period from the time he leave the surface until he starts to ascend) and the time he reaches the surface.
11. The type of breathing apparatus and mixture used.
12. The nature of the diving operation.
13. Any decompression sickness, other illness, discomfort or injury suffered by any of the divers.
14. Particulars of any emergency which occurred during the diving operation and any action taken.
15. Confirmation that all equipment used has been checked immediately prior to the dive conforms with the maintenance schedule.
16. Any defects that are discovered in any plant or equipment used in the diving operations.
17. Particulars of any environmental factors affecting the diving operation.
18. Any other factors relevant to the safety or health of persons engaged in the operation.

Document control box	
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