BSAC
Diving for divers

British Sub-Aqua Club

Risk Assessment

Guidelines for Swimming Pools

July 2004

Risk Assessment – Swimming Pools

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Introduction

For some swimming pool venues, it is necessary to submit a RISK ASSESSMENT of diver training activities as part of the application to hire the facility.

The purpose of the Risk Assessment Plan is to show the operators of the facility that the branch is aware of the potential hazards on site and have contingency plans to implement in the event that these hazards occur.

The writing of a Risk Assessment does not require any specialist knowledge or qualifications. Recreational divers are already in the habit of assessing hazards associated with the sport and venues that are used.

The format of this Risk Assessment document is more in line with an industry standard and will be more readily recognised by operators of facilities.

For subsequent applications where you have already submitted a full risk assessment generic plan there is no need to re-submit a further full plan. This previously submitted plan only needs to be reviewed and updated. In your application, inform the facility operators of any amendments that need to be applied to the risk assessment plan that is already on file.

How to use the guidelines

This document has been prepared by the British Sub Aqua Club to give guidance to members on how to perform risk assessments appropriate to their diver training and diving activities for all swimming pool venues.

This document gives a brief explanation of the risk assessment process, provides some example risk assessments and includes a sample blank risk assessment form.

Existing Practices

Risk assessment is in fact already inherent in the way in which BSAC Branches go about organising their training. For example, the BSAC Instructor Manual includes many considerations (for training in a swimming pool) that are designed to assess and control risk. A risk assessment is nothing more than a structured way in which to address these activities so that they are performed most efficiently and safely.

The risk assessment process is therefore a model, which Branches can utilise as part of their normal diving training and diving organisational activities. This document gives a brief explanation of the risk assessment process, provides some example risk assessments and includes a sample blank risk assessment form. The examples are not an exhaustive list but should be used as a basis for producing a more concise list for the final document.

Reference Documents

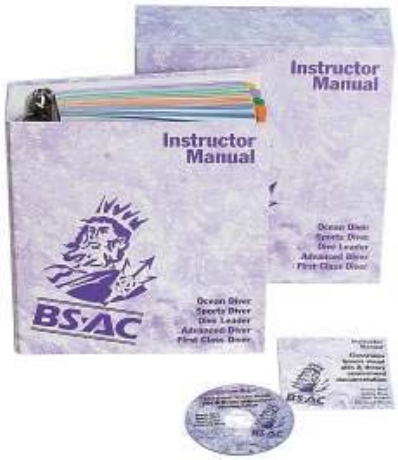
'Safe Diving' Booklet 2002

This booklet is an alphabetical guide to safe practices of sports diving as recommended by the British Sub-Aqua Club (BSAC), the governing body of the sport of sub-aqua diving and snorkelling in the UK.

The ideas expressed within reflect the current thinking of the National Diving Committee (NDC) and the advice on which it is acting.

It also contains the Diver's Code of Conduct and lists the current policies of the BSAC.

Available from BSAC HQ or **www.bsac.org/techserv/sdp.htm**



Instructor Manual 2002

Also published by the BSAC, this manual takes into account the consideration of risks inherent in diver training, which has been a feature of the development of the BSAC's recommended syllabus of training and its associated implementation.

This includes risk control criteria such as training progression, maximum group sizes, appropriate instructor qualifications etc.

Available from the BSAC Mailshop or www.bsac.org/shop/training.htm

Information Leaflets

5 Steps to Risk Assessment HSE leaflet INDG163 (rev 1).
Aimed to help employers and self-employed people to assess risks in the workplace.
HSE Books, PO Box 1999, Sudbury, Suffolk, CO10 2WA. Tel: 01787 881165
Fax: 01787 313995
Website: www.hsebooks.co.uk

Risk Assessment – Swimming Pools

What is Risk Assessment?

Risk Assessment is nothing more than a structured method to the identification of significant hazards associated with diving and diver training activities. The process addresses these activities so that they can be performed more safely.

Risk assessment is a common sense approach process and consists of five simple steps that:

- identifying significant hazards;
- who or what is likely to be affected;
- the risks associated;
- the measures taken to control the risks and finally, recording what has been done.

Conducting a Risk Assessment

A risk assessment is an assessment of the hazards that may exist when conducting diving and diver training activities. Its purpose is to evaluate whether sufficient precautions have been put in place to prevent harm befalling any of the persons taking part in those activities.

The risk assessment should, however, be **reviewed on each occasion and throughout the day** to ensure that the risks identified are still valid.

Any changes should be noted, signed and dated to show the changing situation has been assessed, that no further risks have arisen and that the appropriate controls are in place.

Definitions

In any risk assessment guidance, there are standard terms used. The following is a list of the more commonly used terms:

'hazard' – anything with the potential to cause harm

'risk' – the likelihood that harm from the hazard will be realised

Many risks may be ***'generic'***, with common factors while others are more ***'specific'*** that require individual consideration depending upon the diving activity or location.

Creating a Risk Assessment Document

The risk assessment document shown in App.1-1 is simply an example and includes two columns that show how the risk evaluation has been assessed. These columns do not need to be included in the final version.

In each case a hazard is identified, an assessment as to who is at risk has been made followed by a risk evaluation based on the severity and frequency of that hazard.

The final two columns record the controls that are normally put in place to avert this hazard followed by the actions to be taken in the event that the risk is not controlled.

Further Guidance

Lifeguards

In the publication **Managing Health & Safety in Swimming Pools**, jointly published by the Health & Safety Executive and the Local Authorities Enforcement Liaison Committee, recommends that **lifeguards require specialised skills to adequately supervise sub-aqua activities**.

Rescue Divers

To this end the BSAC recommends that lifeguard duties should be assigned to qualified members of the user group. The minimum qualification that gives a diver the necessary skills is the BSAC Sport Diver or BSAC Snorkel Diver with Snorkel Lifesaver Qualification minimum age 18 years. This grade includes diver rescue, AV and CPR skills. The BSAC provides additional skills training through the BSAC Lifesaver Award.

This award is NOT a time-limited qualification however the BSAC would strongly advise that refresher courses be advocated to holders of this award. Where those who hold the award and are also actively teaching Rescue skills as an Instructor this would be deemed adequate to maintain their own skill levels. BSAC members should note that where the Lifesaver Award or Snorkel Lifesaver Award is required for other qualifications (First Class Diver or Advanced Snorkel Instructor) there may be a requirement for the award to have been gained within a specified period.

Rescue Divers to Pool Users Ratios

Due to the nature of the sport, training ratios should take account of pool dimensions, configuration, pool user numbers and diversity of the activities. As guidance it is recommended that the ratio of rescue divers to pool users for scuba diving activities should be 1:15. For snorkelling activities or surface training the ratio could be increased to 1:30. Thus for a diver training session of 25 – 30 pool users, the recommended minimum number of duty diver rescuers should be 2.

The rescue diver should be in readiness to enter the water at any time during the session. This would entail having quick access to basic snorkelling gear and wearing suitable swimming gear while on duty. The Rescue Divers should also be familiar with local emergency evacuation procedures, or liaise with venue staff and lifeguards.

Instructor to Trainees Ratios

Scuba Diver Training is carried out in small groups both on the surface and underwater. The maximum ratio recommended by the BSAC to its instructors is *not more than 4 trainees to one Instructor* for underwater instruction. Trainees having problems can be taught individually if the need were to arise, in which case the ratio is 1:1.

Snorkel Diver Training can involve larger groups and is considered less of a risk than underwater training. To this end the ratio can be increased to *not more than 12 trainees to one Instructor.*

Appendix 1

Example Risk Assessments – swimming pools

These examples are included for illustrative purposes only. They should be adapted and expanded to suit circumstances and pool facilities.

Hazard	Who	Frequency *	Severity *	Risk evaluation	Controls	Immediate measures to deal with consequences if risk does occur
Heart attack	All	Rare	Fatal	Medium	Medical self-declaration / referral to Medical Referee.	CPR by Instructor. Emergency services activation plan.
Slipping on pool surrounds	All	Rare	Moderate injury	Low	No running in swimming pool area. Fins removed when walking on pool surrounds. Monitoring by Instructor.	Assistance / First Aid by Instructor.
Ear damage	All	Occasional	Moderate injury	Medium	Trainees receive specific instruction in 'ear clearing'. Divers or snorkellers do not dive when suffering from a cold.	Assistance from Instructor or buddy.
Mask Squeeze	Trainees	Rare	Minor injury	Low	Only mask which encloses both eyes and nose in the same airspace used. Trainees receive specific instruction in mask equalisation.	Assistance from Instructor or buddy.
Injury from falling cylinders	All divers	Rare	Moderate injury	Low	Trainees taught to always lay heavy equipment down. Monitoring by Instructor.	First Aid by Instructor.

Hazard	Who	Frequency *	Severity *	Risk evaluation	Controls	Immediate measures to deal with consequences if risk does occur
Rapid ascent	All divers	Occasional	Fatal	High	Progressive training. Correct weighting of all divers. Monitoring by Instructor. Instructor / trainee ratios in accordance with BSAC recommendations. Visual datum used for ascent exercises where appropriate.	Diving monitored by duty rescue divers able to provide or direct assistance. Oxygen Administration equipment and trained administrators on site.
Running out of air	All divers	Occasional	Fatal	High	All SCUBA sets fitted with cylinder pressure gauges. Monitoring by Instructor. Instructor / trainee ratios in accordance with BSAC recommendations.	All divers carry AAS.
Panic	Trainees	Rare	Moderate injury	Low	Monitoring by Instructor. Instructor/trainee ratios in accordance with BSAC recommendations.	Assistance from Instructor or buddy.
Drowning	All divers	Rare	Fatal	Medium	Monitoring by duty Rescue Divers Monitoring by instructors with trainees Training conducted in depths suitable to skill levels	Assistance from Instructor or buddy.

*** Note:** The grey columns are included to show how the Risk Evaluation was determined and would not normally be included in the Risk Assessment documentation.

Appendix 2

Risk Assessment Form

Branch ……. Location …….. Date…….

Hazard	Who	Risk evaluation	Controls	Immediate measures to deal with consequences if risk does occur

Hazard	Who	Risk evaluation	Controls	Immediate measures to deal with consequences if risk does occur

Assessed by:

Name…… **Position**…… **Date**……