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Requirements for the training of scientific divers - Part 2: Advanced scientific divers (ISO/DIS 8804-2:2023)

Anforderungen an die Ausbildung von Wissenschaftlichen Tauchern - Teil 2: Fortgeschrittener Wissenschaftlicher Taucher (ISO/DIS 8804-2:2023)

Exigences concernant la formation des plongeurs scientifiques - Partie 2: Plongeurs scientifiques confirmés (ISO/DIS 8804-2:2023)

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Requirements for the training of scientific divers — Part 2: Advanced scientific divers

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 228, *Tourism and related services*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This three-part standard is aimed primarily at scientists and academics training to become scientific divers (at three levels of competency) and will set minimum requirements for the training of scientific divers at the three levels reflected in the names of the three parts. It will be beneficial, both to organizations involved in training scientific divers and the scientific diving community as a whole.

This document is considered the minimum competency standard for recognition as a scientific diver. It is intended to provide guidance regarding agreed-upon minimum training requirements, thereby easing barriers to cross-program co-operation and reciprocity through common acknowledgment of the basic 'skill set' for scientific divers.

Many organisations will have additional requirements for qualification of scientific divers. These supplementary requirements may include, but are not limited to, a greater number of training dives, additional training, enhanced fitness qualifications and requirements for maintenance of active diver status.

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Requirements for the training of scientific divers —

Part 2: Advanced scientific divers

1 Scope

This document specifies minimum requirements for the training of advanced scientific divers to undertake advanced scientific diving.

This document specifies evaluation criteria for these competencies.

This document specifies the requirements under which training is provided, in addition to the general requirements for recreational diving service provision in accordance with ISO 24803.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/DIS 8804-1, *Requirements for the training of Scientific Divers — Part 1: Scientific Diver*

ISO/DIS 8804-3, *Requirements for the training of Scientific Divers — Part 3: Scientific Diving Project Leader*

ISO 21416, *Recreational diving services — Requirements and guidance on environmentally sustainable practices in recreational diving*

ISO 24801-2, *Recreational diving services — Requirements for the training of recreational scuba divers — Part 2: Level 2 — Autonomous diver*

ISO 24801-3, *Recreational diving services — Requirements for the training of recreational scuba divers — Part 3: Level 3 — Dive leader*

ISO 24802-2, *Recreational diving services — Requirements for the training of scuba instructors — Part 2: Level 2*

ISO 24803, *Recreational diving services — Requirements for recreational diving providers*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

scientific diving

diving performed as a part of a scientific, research, or educational activity

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3.2

scientific diver

diver competent in scientific methodology undertaking *scientific diving* (3.1)

4 Competencies

Advanced scientific divers shall be trained such that when evaluated in accordance with [Clause 11](#) they are deemed to have sufficient knowledge, skill and experience with regard to diving as well as underwater scientific methodologies and protocols to participate in advanced scientific diving activities which involve:

- planning scientific dives;
- leading scientific dives under the oversight of a Project Leader in accordance with ISO 8804-3;
- coordinate the team with other teams;
- repetitive diving;
- challenging environmental conditions.

Advanced scientific divers trained in accordance with this document are competent to participate in scientific diving activities within the limits of their diving qualification.

5 Prerequisites for training

5.1 General

The training provider shall ensure that the trainee fulfils the following prerequisites to take part in the training course envisaged.

5.2 Minors and vulnerable persons

In the case of training provision to minors or vulnerable persons, training providers shall be aware of the additional responsibilities this entails. The training provider shall implement policies and procedures designed to provide reasonable protection and precautions against abuse occurring during the service provider's activities.

Documented parental or legal guardian consent shall be obtained when the applicant is a minor.

NOTE The age of a minor will be defined by local legislation.

5.3 Health requirements

Documented evidence shall be obtained that the trainee has been medically screened as suitable for scientific diving.

Trainees shall be advised of the importance of appropriate regular medical examinations.

NOTE See bibliography for an example of a medical questionnaire and accompanying guidance to physicians.

5.4 Diving competencies

The training programme shall ensure that trainees possess diving competencies in accordance with ISO 24801-2. The training programme shall ensure that trainees possess competencies in diver rescue in accordance with ISO 24801-3, subclauses 9.3, 9.4 and 9.5.

In cases where trainees already hold qualifications in accordance with ISO 24801-2 and ISO 24801-3, subclauses 9.3, 9.4 and 9.5 these competencies shall be reviewed by assessing the trainees. Where gaps