

Department of the Interior Departmental Manual

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Series: Safety Management

Part 485: Safety and Occupational Health Program

Chapter 27: Underwater Diving Safety

Originating Office: Office of Managing Risk and Public Safety

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27.1 Purpose and Scope.

A. This chapter specifies the minimum requirements for an underwater diving safety program. The purpose of these standards is to ensure that all underwater diving (hereafter referred to as diving) under the auspices of the Department is conducted in a manner that will maximize protection of divers from accidental injury and/or illness.

B. These standards are intended to encourage and facilitate diving program reciprocity among the bureaus and other governmental agencies and academia through a sharing of diving expertise and resources. It will provide for bureau-specific approaches to diving, tailored to address their unique program mission, research, and resource management requirements. This Chapter also establishes minimum diving, safety, training, equipment, and medical requirements.

C. Diving is defined as any activity taking place underwater using self-contained underwater breathing apparatus (SCUBA), surface-supplied air, mixed gases, enriched air (such as nitrox), or a rebreathing apparatus.

D. The requirements contained in this Chapter are applicable to all diving activities performed by Departmental employees. Bureaus are responsible for ensuring that contracted diving services are conducted in accordance with applicable local, State, and Federal regulations.

27.2 References.

A. 29 CFR 1910, Subpart T, Commercial Diving Operations, and Appendix B, Guidelines for Scientific Diving.

B. American National Standards Institute (ANSI) Z86.3, Minimum Course Content for Safe SCUBA Diving Instruction.

C. 29 CFR 1910.20, Access to Employee Exposure and Medical Records.

D. Department of the Interior Occupational Medicine Program Handbook.

27.3 Requirements.

A. Bureau Programs.

(1) Each bureau is to ensure that its diving policy is wholly consistent with

Occupational Safety and Health Administration (OSHA) requirements specified in 29 CFR 1910, Subpart T (Commercial Diving Operations), as amended, and Appendix B (Guidelines for Scientific Diving) to that standard.

(2) Each bureau engaged in diving activities will establish and maintain an active diving safety program. The program shall include provisions for the establishment of a bureau-level Diving Control Board (Board). The Board will meet or exceed the requirements in 29 CFR 1910, Subpart T, Appendix 1 (see 27.2.A of this Chapter) and must provide administrative oversight of the bureau diving safety program to ensure compliance with OSHA, Departmental and bureau requirements.

(3) Each bureau which conducts or participates in diving activities included in exemptions authorized under 29 CFR 1910.401(a)(2) will ensure that such activities are conducted in strict accordance with these exemptions. For diving activities conducted under the OSHA exemptions, each bureau will develop appropriate operational safety requirements to ensure that equivalent or greater safety precautions are instituted (see 27.3.E(1) and 1.F of this Chapter). These measures shall be reviewed and approved by the bureau Board.

B. Minimum Diver Requirements. Each diver must:

(1) Complete a course and be certified by a nationally recognized dive program/agency. The training, as a minimum, will meet the requirements of 27.2.B of this Chapter. Bureaus will establish additional training requirements as necessary to ensure that divers are qualified to safely perform their mission.

(2) Take a drug test administered in accordance with 370 DM 792.9 and .10 for which a negative drug test is received prior to appointment. Once employed, the diver will be subject to the Department's random drug testing program.

(3) Undergo a periodic diving medical examination to determine individual's fitness to dive. Guidance on medical examinations for underwater divers can be found in the Department of the Interior Occupational Medicine Program Handbook.

(4) Complete a cardiopulmonary resuscitation (CPR) course, comparable to American Red Cross or American Heart Association Adult CPR, and a nationally recognized first aid course, such as the American Red Cross Multi-Media. Certifications must be current at the time of dive. Further emergency medical service training in diving-related subjects and oxygen administration is recommended.

(5) Make a minimum of 12 logged dives in a 12-month period with at least one dive in a six-month period. The minimum requirements for a dive are use of an underwater breathing system by the diver and at least a 10-minute surface interval since the previous dive. Consecutive no-decompression dives with less than a 10-minute surface interval will be considered as a single dive.

(6) Complete a minimum of 40 hours of diving-related training over any three-year period.

(7) Complete an annual test of diver physical fitness as defined by bureau requirements.

C. Equipment Inspection. All diving equipment used by a diver must be

professionally inspected on an annual basis according to OSHA, industry, and/or manufacturers' standards.

D. Recordkeeping.

(1) All divers will maintain a personal dive log of each dive performed (record of dive). Bureaus will ensure that accurate dive logs are maintained and tabulated on an annual basis.

(2) A log of all equipment modification, repairs, tests, calibration, and maintenance will be maintained.

(3) Underwater diving safety records identified above will be retained as required by 29 CFR 1910.440(b) (see Appendix 1 of this Chapter). Diver records will be maintained in accordance with the requirements of 27.2.C of this Chapter.

E. Diving Safety Manual.

(1) Each bureau will develop and maintain a safe practices manual which includes, as a minimum, the following: procedures covering all diving operations specific to the program; procedures for emergency management, including recompression and evacuation; identification and use of appropriate dive tables; criteria for diver training and certification; and aviation flight restrictions following dive operations. The manual will also include appropriate operational safety requirements covering, at a minimum, dive team composition, required equipment, use of hand-held tools and equipment, and pre- and post-dive procedures.

(2) Bureau programs will include provisions for establishment of a bureau Board to provide oversight to ensure a mission-related Diving Safety Program is maintained.

(3) The bureau Board, with the majority of its members being active divers, shall have the authority to approve and monitor diving projects; review and revise the bureau safe practices manual; ensure compliance with the manual; certify the depths to which a diver has been trained; take disciplinary action for unsafe practices; and ensure adherence to the buddy system (a diver is accompanied by and is in continuous contact with another diver in the water) for SCUBA diving.

(4) Bureau programs will include provisions for conducting appropriate dive planning, together with preparation of written diving plans prior to initiating specific diving operations. Diving plans will include an activity hazard analysis for each diving assignment/operation.

F. Specialty and Technical Diving. Any bureau with divers engaged in specialty and technical diving, including, but not limited to, decompression diving, closed circuit diving, mixed gas diving, surface-supplied diving, high altitude diving or cave diving, must establish operational procedures specific to the specialty or technical diving covered. These procedures will be incorporated in the Diving Safety Manual (see 27.3.E of this Chapter) and will include specific safety and training requirements needed to comply with OSHA (for nonexempted diving activities), community, and/or manufacturers' standards.

G. Diving Safety Work Group. A Departmental standing Diving Safety Work Group will be established to serve as a forum for peer group discussion of diving safety issues and will meet as necessary. The Office of Managing Risk and Public Service will serve as the

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APPENDIX 1

EXCERPT FROM 29 CFR 1910.440 - RECORDKEEPING REQUIREMENTS

A(a)(1) [Reserved]

(2) The employer shall record the occurrence of any diving-related injury or illness which requires any dive team member to be hospitalized for 24 hours or more, specifying the circumstances of the incident and the extent of any injuries or illnesses.

(b) Availability of records.

(1) Upon the request of the Assistant Secretary of Labor for Occupational Safety and Health, or the Director, National Institute for Occupational Safety and Health, Department of Health, Education and Welfare or their designees, the employer shall make available for inspection and copying any record or document required by this standard.

(2) Records and documents required by this standard shall be provided upon request to employees, designated representatives, and the Assistant Secretary in accordance with 29 CFR 1910.20(a)-(e) and (g)-(I). Safe practices manuals (1910.420), depth-time profiles (1910.422), recordings of dives (1910.423), decompression procedure assessment evaluations (1910.423), and records of hospitalizations (1910.440) shall be provided in the same manner as employee exposure records or analyses using exposure or medical records. Equipment inspections and testing records which pertain to employees (1910.430) shall also be provided upon request to employees and their designated representatives.

(3) Records and documents required by this standard shall be retained by the employer for the following period:

(I) Dive team member medical records (physician=s reports) (1910.411) - 5 years;

(ii) Safe practices manual (11910.420) - current document only;

(iii) Depth-time profile (1910.422) - until completion of the recording of dive, or until completion of decompression procedure assessment where there has been an incident of decompression sickness;

(iv) Recording of dive (1910.423) - 1 year, except 5 years where there has been an incident of decompression sickness;

(v) Equipment inspections and testing record (1910.430) - current entry

or tag, or until equipment is withdrawn from service;

(vi) Records of hospitalizations (1910.440) - 5 years.

(4) After the expiration of the retention period of any record required to be kept for 5 years, the employer shall forward such records to the National Institute for Occupational Safety and Health, Department of Health and Human Services. The employer shall also comply with any additional requirements set forth at 29 CFR 1910.20(h).

(5) In the event the employer ceases to do business:

(I) The successor employer shall receive and retain all dive and employee medical records required by this standard; or

(ii) If there is no successor employer, dive and employee medical records shall be forwarded to the National Institute for Occupational Safety and Health, Department of Health, Education, and Welfare.@

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