SUBJECT: Administrative

Part 485: Safety and Occupational Health Program
Chapter 27: Underwater Diving Safety
Chapter 27H: Diving Standards and Safety Manual Handbook

EXPLANATION OF MATERIAL TRANSMITTED:

This manual chapter and associated handbook provides policy and responsibilities for the establishment and execution of a Scientific Dive Program.

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OPR: Office of Administration, Management Support Division
Date:
1. **Purpose.** This chapter specifies the minimum requirements for an underwater diving safety program in the BSEE. The purpose of these standards is to ensure that all diving under the auspices of the Bureau of Safety and Environmental Enforcement is conducted in a manner that will maximize protection of divers from accidental injury and/or illness.

2. **Objective.** The objective of this chapter is to provide the authority, policy, and responsibility to execute an occupational safety and health management program covering diving operations conducted by personnel under the auspices of the BSEE. This chapter provides for BSEE-specific approaches to diving, tailored to address BSEE’s unique program mission, research, and resource management requirements. This chapter also establishes minimum diving, safety, training, equipment, and medical requirements.

3. **Authorities and References.**


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


4. **Requirements.**

   A. **BSEE Programs.**

      1. BSEE will 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, and Appendix B, Guidelines for Scientific Diving.
2. BSEE will establish and maintain an active diving safety program. The program shall include provisions for the establishment of BSEE Diving Control Board (DCB). The DSB will meet or exceed the requirements in 29 CFR 1910, Subpart T, Appendix 1 and provide administrative oversight of the BSEE diving safety program to ensure compliance with OSHA, Department and Bureau requirements.

3. BSEE will conduct or participate in diving activities included in exemptions authorized under 29 CFR 1910.401(a)(2)(iv) and will ensure that such activities are conducted in strict accordance with these exemptions. For diving activities conducted under the OSHA exemptions, BSEE will develop appropriate operational safety requirements to ensure that equivalent or greater safety precautions are instituted. These measures shall be reviewed and approved by the DCB.

**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 this section. BSEE 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 792.10 for which a negative drug test is received prior to appointment. Once employed, the diver will be subject to the DOI’s random drug testing program.

3. Undergo a periodic diving medical examination to determine individual fitness to dive.

4. Complete a cardiopulmonary resuscitation (CPR) course, comparable to American Red Cross (ARC) or American Heart Association (AHA) Adult CPR, a nationally recognized first aid course, taught by the ARC or AHA, and an oxygen administration course. Certifications must be current at the time of dive.

5. Make a minimum of 12 logged dives in 12 months with at least one dive in 6 months.

6. Complete a minimum of 40 hours of diving-related training over any 3-year period.

7. Complete an annual test of diver fitness as defined by BSEE 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). BSEE 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 27-1, Underwater Diving Recordkeeping Requirements). Diver medical records will be maintained in accordance with the requirements of 29 CFR 1910.20, Access to Employee Exposure and Medical Records (section 3.C of this chapter).


1. BSEE will develop and maintain a Diving Standards and Safety manual which will include, 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. The BSEE program will include provisions for establishment of a BSEE Diving Control and Safety Board (DCSB) to provide oversight to ensure a mission-related Diving Safety Program is maintained.

3. The BSEE DCSB, with the majority of its members being active divers, shall have the authority to approve and monitor diving projects; review, revise Bureau dive safety policy; 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. The BSEE program 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.

5. The BSEE DCSB is responsible for maintaining and/or revising the contents of the Diving Standards and Safety manual. Revisions to the Diving Standards and Safety manual do not require revising this Bureau Manual Chapter.

F. Specialty and Technical Diving. BSEE divers engaged in specialty and technical diving including, but not limited to, decompression diving, closed circuit diving, mixed gas diving, surface-supplied diving, and 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 Standards and Safety Manual (Section E of this chapter) and will include specific safety and training requirements.

G. Diving Safety Work Group. The Department has established a standing Diving Safety Work Group to serve as a forum for peer group discussion of diving safety issues and that meets as necessary. The Office of Managing Risk and Public Service serves as the point of contact for the Work Group.
5. Responsibilities.

Responsibilities for the management, implementation, and enforcement of the requirements of this Underwater Diving Policy are contained in the associated Diving Standards and Safety Manual Handbook.
Appendix 1

Excerpt from 29 CFR 1910.440 - Recordkeeping Requirements

1910.440(a)(1) [Reserved]

1910.440(a)(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.

1910.440(b) Availability of records.
1910.440(b)(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 and Human Services of their designees, the employer shall make available for inspection and copying any record or document required by this standard.

1910.440(b)(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 1910.1020 (a)-(e) and (g)-

1910.440(b)(2)(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.

1910.440(b)(3) Records and documents required by this standard shall be retained by the employer for the following period:

1910.440(b)(3)(i) [Reserved]

1910.440(b)(3)(ii) Safe practices manual (1910.420) - current document only;
1910.440(b)(3)(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;

1910.440(b)(3)(iv) Recording of dive (1910.423) - 1 year, except 5 years where there has been an incident of decompression sickness;

1910.440(b)(3)(v) Decompression procedure assessment evaluations (1910.423) - 5 years;

1910.440(b)(3)(vi) Equipment inspections and testing records (1910.430) - current entry or tag, or until equipment is withdrawn from service;

1910.440(b)(4) The employer shall comply with any additional requirements set forth at 29 CFR 1910.1020,

1910.440(b)(5) [Reserved]