

**NOAA WORKING DIVING STANDARDS AND SAFETY MANUAL
HIGHLIGHTS OF NEW AND/OR SIGNIFICANT CHANGES**

Version 1.0_Rev1

Section 1910.420 of the Code of Federal Regulations (CFR), 29 CFR Part 1910, Occupational Safety and Health Standards (OSHA), Subpart T, titled Commercial Diving Operations, requires employers to develop and maintain a safe practices manual. The NOAA Working Diving Standards and Safety Manual (Manual) was prepared to meet this requirement and to ensure that all diving conducted under NOAA auspices is conducted safely per all applicable regulations, standards, and policies. The Manual includes all applicable standards from the CFR, as well as selected policies contained in NOAA Administrative Order 209-123, dated 2 May 2003, the NOAA Scientific Diver Standards and Safety Manual, dated 15 August 2008, the NOAA Diving Medical Standards and Procedures Manual, dated 1 August 2010, and various OMAO 0300 Policies, distributed over the past several years.

Below is a list of new, and/or significantly changed, regulations, standards and policies not covered in the above listed documents.

Section 1: Administration

Page	Section	Topic	Description
1-1	1.1.2A	Scope and Application	New. Specifies when, where and to whom the manual applies.
1-1	1.1.2B	Scope and Application	Revised. Limits the weight of objects that can be lifted or moved underwater and still qualify under the OSHA Scientific Exemption to 25 pounds.
1-2	1.1.3B	Obligations, Restrictions and Conditions	New. Grants authority to the NOAA Diving Control and Safety Board (NDCSB) to implement and enforce more stringent diving policies than those stated in the Manual.
1-2	1.1.4A	Substitutions for Required Equipment, Materials, Apparatuses, Arrangements, or Tests	New. Authorizes to the NDCSB to accept substitutions for equipment, materials, apparatuses, arrangements, procedures, or tests required in this standard under certain circumstances.
1-2	1.1.5B	Deviations in Emergencies	Revised. Requires the NOAA Diving Program Manager (NDPM) to notify the OSHA Area Director and the Office of Marine and Aviation Operations (OMAO) Director within 48 hours of the onset of the emergency situation and submit such information in writing upon request of the OSHA Area Director.
1-3	1.1.6A	Manual Revisions	New. Requires the NDCSB to review the Manual at a minimum of every 2 years and revise it as needed or whenever 29 CFR 1910 Subpart T is revised.

Page	Section	Topic	Description
1-3	1.2.3C	Program Management	Revised. Designates the NDCSB as the decision making body for the NOAA Diving Program (NDP) Grants authority to the NDCSB regarding the establishment of diving regulations, policies and procedures.

Section 2: Personnel

Page	Section	Topic	Description
2-1	2.1.2A	NDPM Responsibilities	Revised. Directs the NDPM to implement policies, and disciplinary and corrective actions prescribed by the NDCSB.
2-2	2.2.2A	NDCSB Composition and Qualifications	Revised. Changes title of senior OMAO diving representative on the NDCSB from "Fleet Diving Officer" (FDO) to "Staff Office Diving Officer" (SODO). New. Increases size of Board with the addition of Deputy Line/Staff Office Diving Officers.
2-2	2.2.3D	Selection of NDCSB Members	New. Deputy Line/Staff Office Diving Officers are appointed by LODOs/SODO.
2-2	2.2.4A	Chairperson	New. Prohibits the DSO from serving as Chair.
2-2	2.2.5B	NDCSB Decision Making Process	New. Requires a quorum of 2/3 of the voting members in order to cast a vote on decisions either in-person, electronically or via proxy.
2-3	2.2.6A,B	NDCSB Term Limits	Revised. Sets term limits of 5 years for all members of the NDCSB with the exception of the NDPM and DSO who are permanent members of the Board. Also establishes that the Chair serves a one year rotating membership and is elected from the voting members of the NDCSB.
2-4	2.3.2H	DSO Responsibilities	Revised. Requires the DSO to conduct annual safety assessment of NDP.
2-5	2.4.1A	Line and Staff Office Diving Officers: General	Revised. Removed reference to a National Weather Service Line Office Diving Officer (LODO) as the NWS no longer has divers assigned within its Line Office.
2-5	2.5	Deputy LODO/SODO	New. Authorizes Deputy positions for OMAO, NOS, NMFS and defines responsibilities and qualifications for the positions.
2-6	2.6.1B	UDS Appointments	Revised. Requires the NDCSB to concur with recommendation by the LODO/SODO and employee's immediate supervisor.
2-6	2.6.2A7	UDS Responsibilities	New. Requires the UDS to conduct, or designate someone to conduct, a check out dive(s) with all divers who are new to the unit to familiarize them with local conditions, protocols, procedures, and unique hazards prior to permitting unrestricted operational diving.

Page	Section	Topic	Description
2-6	2.6.2A8	UDS Responsibilities	New. Requires the UDS to ensure that any diving conducted using specialized equipment or procedures (e.g., drysuits, full face masks, tethered or line-tended SCUBA) is practiced on an annual basis to maintain diver proficiency. Failure to meet these minimum standards requires work-up dives to be conducted prior to making operational dives.
2-8	2.7.1B	Divemasters and Lead Divers	New. Authorizes the Divemaster and Lead Diver to dive as long as there is a qualified topside person, designated by the Divemaster or Lead Diver, to render assistance in an emergency.
2-8	2.7.3A	Divemaster Qualifications	Revised. Removes minimum years of experience required.
2-9	2.8.3A	Ship Diving Officer	New. Authorizes the delegation of a vessel crew member to serve as Ship Diving Officer.
2-9	2.9	Designated Person-in-Charge	Revised. Clarifies duties and responsibilities of DPIC.
2-11	2.10.4A 8,9	Working Divers: Qualification	New. Requires all NOAA divers to submit to voluntary drug testing and sign a statement of agreement regarding compliance with the standards and procedures in the NWDSSM.
2-11	2.11	Temporary Working Divers	New. Establishes a new, time-limited classification of NOAA divers.
2-13	2.12.5	Observer Divers: Manning Requirements	Revised. Specifies the manning requirements for conducting Observer Dives.
2-14	2.12.6	Observer Divers: Equipment	New. Requires Observer Divers to wear personally supplied diving equipment equivalent to that of NOAA divers, unless otherwise authorized by the LODO/SODO. Also requires NOAA to provide a diver carried reserve breathing gas supply when not provided by the Observer Diver, and with verification of the appropriate training,
2-16	2.13.5A, C	Reciprocity Working Divers: Equipment	New. Requires Reciprocity Divers to wear personally supplied diving equipment equivalent to that of NOAA divers, unless otherwise authorized by the LODO/SODO. Also requires NOAA to provide a diver carried reserve breathing gas supply when not provided by the Reciprocity Diver, and with verification of the appropriate training,
2-17	2.14.4D	Volunteer Working Divers: Minimum Requirements	Revised. Authorizes UDSs to designate an individual to verify successful completion of written examinations for Volunteer Divers.
2-18	2.14.7D	Volunteer Divers: Responsibilities	Revised. Requires the LODO/SODO to forward recommendation to NDPM within 10 days for receipt of UDS recommendation.

Page	Section	Topic	Description
2-18	2.15	Special Task Endorsement Divers	New. Establishes a new classification of NOAA divers based on completion of specialized training.
2-19	2.16.3H	NOAA Diving Medical Review Board	New. Specifies that the NDC DMO shall serve as the Chair, NDMRB.
2-20	2.17.3A 2)	NOAA Diving Medical Review Board	New. Requires the Chair of the Board to be a certified scuba diver.
2-20	2.18	NOAA Technical Advisory Committee	New. Establishes an advisory panel to provide input to the NDP on various diving-related matters beyond the expertise of the NDCSB.

Section 3: Certification

Page	Section	Topic	Description
3-1	3.1.5	Voluntary Drug Testing	New. Requires all NOAA divers to undergo initial and random drug testing. Divers unwilling to participate in drug testing will not be permitted to become NOAA certified, or continue diving under NOAA auspices if already certified.
3-2	3.3.1	Initial Depth Limitation	New. Limits all newly certified NOAA divers to a depth of 60 feet until approved to go deeper by the UDS.
3-2	3.3.2A	Certification to Dive Deeper than 130 fsw	New. Requires NOAA divers to complete a NDCSB-approved deep diving course in order to conduct dives deeper than 130 fsw.
3-3	3.4.2A	Dive Proficiency Requirements	Revised. Requires NOAA divers to log a minimum of three (3) dives during each quarter of the calendar year in order to maintain dive certification.
3-3	3.4.5A1)	Annual Watermanship Assessment	New. Requires all NOAA divers to pass an annual timed swim test using mask, fins and snorkel in order to maintain dive certification.
3-4	3.4.6C	Physical Conditioning Training	New. Authorizes immediate supervisors to grant NOAA divers up to 3 hours work time per week to help maintain a conditioning level sufficient to pass the annual watermanship assessment.
3-5	3.5.2	Recertification: Requirements	Revised. Specifies new recertification requirements based on new proficiency requirements.
3-6	3.6.4	Suspension or Revocation Appeal Process	Revised. Requires suspended divers to appeal the decision to the NDCSB within 30 days of receipt of notification. Revised. Requires terminated divers to appeal the decision to the OMAO Director within 30 days of receipt of notification.

Section 4: Working Diver Training - New section covering the training requirements for Working Diver Certification.

Section 5: Diving Standards and Policies

Page	Section	Topic	Description
5-1	5.1.3B	Tasks Authorized	New. Requires specialized training for certain tasks, equipment, techniques, and environments listed in the Manual.
5-2	5.1.4B	Hours of Operation	New. Recommends that the normal work schedule for personnel engaged in diving activities not exceed 12 hours during any 24 hour period; and requires a minimum rest period of 8 continuous hours for all divers during each 24 hour period.
5-2	5.1.4C	Consecutive Days of Diving	New. Establishes limits on number of consecutive days of diving for NOAA divers.
5-2	5.1.5	Participation in Non-NOAA Operations	Revised. Authorizes NOAA divers to participate in an official capacity in non-NOAA diving operations with agencies with which NOAA has established diving reciprocity agreements pending approval from their UDS, receipt of a letter of reciprocity from the NDC, and LO program authorization. Revised. Authorizes NOAA divers to participate in an official capacity in non-NOAA diving operations with agencies without established diving reciprocity agreements provided the divers comply with the NOAA diving regulations, policies and procedures specified in this manual, the operation is approved by the NDCSB and a Memorandum of Understanding has been established with the receiving organization.
5-3	5.1.6B	Diver Responsibility	New. Specifies that while the employer has ultimate responsibility for safety in the workplace, divers are responsible for their own safety and share responsibility for the safety of their buddy.
5-3	5.1.7B,D	Unit Inspections	New. Requires NOAA diving units to be inspected by the NOAA Diving Safety Officer, or his designee, as part of the Diving Unit Safety Assessment (DUSA) program. Units found to be deficient may be suspended from diving by the NDSO, NDPM, or LODO/SODO until discrepancies are corrected.
5-4	5.2.2E	Dive Planning and Approval	Revised. Changes the amount of time that the UDS must keep copies of Dive Plans after conclusion of dive operations from 48 hours to 24 hours.
5-4	5.2.3	Dive Emergency Assistance Plan	New. Changes term "Dive Accident Management Plan" to "Diving Emergency Assistance Plan," and lists minimum contact information required at the dive site.

Page	Section	Topic	Description
5-5	5.2.5B2	Pre-Dive Checklist	Revised. Changes time the checklist must remain at the dive site following the dive operations from 48 to 24 hours.
5-5	5.2.6B,C	Fitness to Dive	New. Recommends that divers refrain from alcohol consumption for a minimum of 12 hours prior to diving and 4 hours after diving. New. Prohibits divers exhibiting any effects of alcohol or substance abuse from diving on official duties, or off-duty using SEP gear; and will have their diving certification temporarily suspended or permanently revoked from diving pending review by the NDCSB.
5-6	5.2.9B	Warning Signal	New. Requires a red and white “diver down” sport diving flag, appropriately sized for the vessel used, to be displayed at the dive location in a manner which allows all-round visibility, and shall be illuminated during night diving operations when diving in areas capable of supporting marine traffic,
5-6	5.2.11	Diver Recall Capability	New. Requires that topside personnel be capable of recalling divers during all diving operations.
5-6	5.3.1A,B	Water Entry and Exit	New. Requires that a means shall be provided to assist all divers entering and exiting (including an unconscious diver) the water. The means provided for exiting the water shall extend below the water’s surface.
5-7	5.3.3	Supervisor Dive Log	New. Requires a copy of the dive log to be kept at the dive location.
5-7	5.3.4	Decompression Tables and Procedures	New. Requires that a set of NOAA-approved decompression tables (as appropriate for the breathing gases used) be at the dive location.
5-10	5.4.2B	Post-Dive Debriefing and Checklist	Revised. Changes time the checklist must remain at the dive site following the dive operations from 48 to 24 hours.

Section 6: Diving Procedures

Page	Section	Topic	Description
6-1	6.1.1B,C ,D	Scuba Diving Mode: General	New. Requires all SCUBA operations conducted using tethered or line-tended divers (including standby divers) to be conducted from a moored or fixed platform (i.e., no liveboating). New. Requires a team of divers or a line-tended diver be stationed at the underwater point of entry when diving is conducted in enclosed or physically confining spaces. New. Requires divers trained in specialized

Page	Section	Topic	Description
			equipment and techniques to maintain proficiency in the gear.
6-1	6.1.2	Manning Requirements	Revised. Clarifies the minimum positions required for free-swimming and tethered scuba diving operations.
6-1	6.1.3	Limits	Revised. Clarifies the limits for conducting scuba working dives.
6-2	6.2	Drysuit Diving	New. Specifies the general, training, equipment, and emergency requirements for drysuit diving.
6-3	6.3	Line-Tended Scuba Diving	New. Specifies the general, manning requirements, limits, equipment, training, and tender responsibilities required for line-tended scuba diving.
6-4	6.4	Tethered SCUBA with Voice Communications: Proficiency Requirements	New. Specifies the general, manning requirements, limits, equipment, training, tender responsibilities, emergency procedures, and proficiency requirements for line-tended scuba diving.
6-5	6.5	Diving in Low Visibility	New. Specifies the general, requirements, equipment, and responsibilities required for diving in low visibility water conditions.
6-6	6.6	Surface-Supplied Air Diving Mode	New. Specifies the general, limits, minimum personnel, and general procedures for surface-supplied diving mode using air.
6-7	6.7	Blue-Water Diving	New. Specifies the general, equipment, training, and general and emergency requirements and procedures for conducting blue-water diving.
6-8	6.8	Overhead Obstruction Diving	New. Specifies the general, equipment, training, proficiency, and diving procedures for conducting overhead obstruction diving.
6-8	6.9	Cold-Water Diving	New. Includes general, qualifications, and equipment requirements for cold-water diving.
6-9	6.10	Snorkeling/Breath-Hold Diving	New. Specifies the general, qualifications, limits, and requirements for snorkeling/breath-hold diving.
6-10	6.11	Hyperbaric Chamber Operations	New. Specifies the general, manning levels, personnel responsibilities and qualifications, and operating requirements for NOAA hyperbaric chambers.
6-12	6.12	Contaminated Water Diving	New. Prohibits diving in contaminated water.
6-12	6.13	Decompression Diving	New. Refers divers to NOAA Scientific Diving Standards and Safety Manual for decompression diving requirements.
6-12	6.14	Working Techniques	New. Specifies the requirements for using hand-held pneumatic-powered tools, welding and cutting equipment and explosives. Also includes procedures for diving near unexploded ordinance.

Section 7: Equipment

Page	Section	Topic	Description
7-1	7.1.1E,H	Operations and Maintenance	<p>New. Requires diving conducted using specialized equipment or procedures (e.g., drysuits, full face masks, tethered or line-tended SCUBA) be practiced on an annual basis to maintain proficiency. Failure to meet these minimum standards requires work-up dives to be conducted prior to making duty dives.</p> <p>New. Requires NOAA divers to conduct an annual inventory of SEP issued diving equipment and submit results to the UDS.</p>
7-1	7.2.1A	Emergency Oxygen Kits	Revised. Requires a bag-type manual resuscitator with transparent mask be available at the dive site. This new requirement is in addition to a positive-pressure oxygen ventilator that must also be at the dive site.
7-2	7.2.2	First Aid Kits	<p>Revised. Requires a first aid kit, appropriate for the dive location and approved by the NDC DMO, be available at the dive location.</p> <p>New. Requires first aid kits to have the minimum equipment and supplies listed in the NOAA Small First Aid Kit (Appendix 9). If the vessel/dive site has space available, the NOAA Large First Aid Kit should be used.</p>
7-2	7.2.3	Air Compressor Systems	New. Specifies the requirements for using and maintaining air compressors, air system components, and compressed gas cylinders.
7-3	7.2.5	Breathing Gas Supply Hose	New. Requires hoses to be made of corrosion-resistant materials; have a working pressure at least equal to the working pressure of the hose to which they are attached; and be resistant to accidental disengagement.
7-3	7.2.6	Hyperbaric Chamber Equipment & Systems	New. Specifies the general operating and minimum equipment requirements.
7-5	7.3.1B14	Minimum Equipment Requirements	Revised. Requires a sound-producing device to be worn for all official duty scuba dives.
7-5	7.3.2A	Regulators	New. Requires that the use of scuba regulators other than those issued via the SEP be listed on the USN's Authorized for Navy Use list; and be approved by the LODO/SODO.
7-5	7.3.3C	Buoyancy Compensator Devices	New. Requires the inflation assembly to be serviced every 12 months from the date of issue.
7-5	7.3.6B,H	Maintenance Requirements	Revised. Requires that diver worn depth gauges be tested every 6 months against a master reference gauge, with no deviation greater than +3.0/-0.0 fsw between any two equivalent

Page	Section	Topic	Description
			gauges. New. Requires weight-harness systems to be tested prior to each diving day.
7-7	7.4.1	Tethered Scuba Diving Equipment: Servicing & Testing	New. Specifies the servicing, testing and record keeping for tethered scuba diving equipment.
7-7	7.5	Surface Supplied Diving Equipment	New. Prohibits hookah diving and specifies minimum requirements for masks and helmets, breathing gas supply hoses, weights and harnesses, buoyancy control, and gauges and timekeeping devices.

Section 8: Medical Standards

Page	Section	Topic	Description
8-2	8.2.5D1	Recordkeeping: Availability of Records	New. Specifies when medical records can be released to the NDC DMO.
8-3	8.3.1B	Requirements for Reporting Changes in Medical Condition	New. Specifies when changes in medical condition must be reported to the UDS and NDC DMO.

Section 9: Emergency Procedures: No new information or changes

Section 10: Recordkeeping and Reporting Requirements

Page	Section	Topic	Description
10-4	10.2.2E	Reporting Diving Incidents: Reporting Procedures	Revised. New amount of time that individuals have to forward reports to next higher level echelon.

APPENDICIES

Page	Appendix	Topic	Description
App 9-1	9	NOAA Divers First Aid Kit Inventory: Small and Large	New. Specifies minimum equipment and supplies required to be at the dive location.