

# HRP18: Diving and Underwater Work

## Section 1 - Purpose and Scope

- (1) The purpose of this procedure is to ensure the management of risks associated with diving and underwater work at Southern Cross University (SCU) are appropriately managed and controlled.
- (2) The purpose of this procedure is to ensure Southern Cross University's management, employees, contractors, students, visitors and others are aware of the risks associated with diving and underwater work in the workplace, management strategies and to provide advice on appropriate controls.
- (3) All employees, students and others including both independent contractors and contractors under SCU control are to be made aware of and follow this procedure.
- (4) This Procedure applies to all SCU Work Units and sites. The procedure aligns with WHS legislation in the relevant jurisdictions SCU operates.
- (5) This Procedure must be read in conjunction with the SCU Diving Manual.

## Section 2 - Definitions

|                                |  |
|--------------------------------|--|
| General Diving Work            | General diving work includes limited scientific diving work and incidental diving work. This includes scientific diving, photographic or filmmaking, aquaculture, marine harvesting.   |
| Dive Coordinator               | Nominated person responsible for the supervision, safe conduct and overall running of the on-site diving/snorkeling operation. An experienced diver, approved by the Work Unit on the recommendation of the MSDO.  |
| Dive / Snorkel Leader          | The 'in water' leader of a diving/snorkelling team. Nominated by the Dive Coordinator for every dive/snorkel and must be the person most qualified/experienced for the conditions, tasks and equipment of the planned dive/snorkel.  |
| Dive Plan                      | A dive plan sets out the way diving will be carried out to ensure the worker's health and safety and must include:<br>the method of carrying out the diving work<br>the tasks and duties of each person involved<br>the diving equipment, breathing gases and procedures to be used<br>as applicable, dive times, bottom times and decompression profiles<br>hazards relating to the dive and measures to be implemented to control the risks<br>Contains records of a divers' qualifications, experience, medicals and classifications. |
| Dive Register                  | A listing of all University divers who are authorised to dive with the University.   |
| SCU Safety Dive Officer        | Person appointed by the University to:<br>Oversee and manage SCU diving operations.<br>Ensure diving and snorkeling operations are conducted safely in accordance with Australian legislation, regulations, standards, University policy and procedures.   |
| Limited Scientific Diving Work | Is general diving work that is carried out for the purpose of professional scientific research, natural resource management or scientific research as an educational activity; and involves only limited diving.   |

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|-------------------|--|
| Scientific diving | Diving performed for the purpose of professional, scientific or archaeological research, cultural and natural resource management or as an educational activity. |
| Snorkeling        | Surface and breath-hold diving where fins, mask and snorkel are used.  |

## Section 3 - General Principles

(6) Diving and underwater activities as part of SCU education and work (including research) must:

- a. Be undertaken following the requirements set out in this procedure.
- b. Only be general, incidental or limited scientific diving and not high-risk diving (as defined by WHS Regulations).
- c. Undertaken under the WHS Regulations, SCU Diving Operations Manual, and Australian ASNZS 2299.2 Occupational diving operations – Scientific diving.
- d. Diving operations undertaken at SCU will only be authorised for non-commercial, scientific, archaeological and media diving for research or educational purposes.
- e. Only be undertaken when a dive proposal and general risk assessment has been lodged and approved by the Diving Officer, reviewed by the WHS team, and approved by the Head of Work Unit.

(7) Before any person undertaking any diving activity related to their role must:

- a. be medically fit to dive.
- b. be appropriately qualified as set out in the SCU Diving Operations Manual
- c. have confirmed that they have read and understood the SCU Diving Operations Manual, and ensure that they have been inducted and registered on the Diver Registration Form located in the SCU Diving Manual and approved to dive by the Diving Officer.

### SCU Safety Diving Officer (SDO)

(8) The SDO is responsible for administering and managing all diving operations, and ensuring compliance with legislation, regulations, Standards, SCU policies and the SCU Diving Operations Manual.

(9) The SDO has the authority to restrict, prohibit or suspend diving and/or snorkelling activities, or require additional safety practices, procedures or equipment to ensure safety.

### Dive Coordinator

(10) A dive coordinator shall be present at all times while a diver is in the water. The dive coordinator shall be responsible for the safe conduct of diving and shall coordinate and direct the activity of the diving teams and ensure that all diving is carried out in accordance with legislation, regulations, Standards, SCU policies and the SCU Diving Operations Manual.

### Snorkel Diving

(11) As a general guide, snorkel diving (for all persons) should only be used as an observation and/or light recovery or collection technique. No difficult or strenuous work of any kind should be attempted using snorkel diving, without implementation of appropriate safety precautions and the written permission of the Diving Officer.

(12) Snorkel divers should also be reasonable swimmers, comfortable in the water, and observe common sense rules regarding boating and swimming safety. Inexperienced snorkellers must undertake a snorkel diving familiarisation course with the Diving Officer or delegate, and should initially practice snorkelling in either a swimming pool, or other sheltered, shallow waters, or attend snorkel training, until they attain enough confidence to swim in deeper water.

(13) Snorkelling is prohibited in areas of high boating traffic, e.g. around boat ramps or in shipping channels.

### **Risk assessment**

(14) There are a number of hazards associated with occupational diving. They should be considered as part of a structured and systematic risk assessment process, with appropriate controls implemented before work commences. Due to the dynamic nature of such risks, occupational diving requires daily risk assessments as the work is carried out and completed. Potential applicable hazards include the following:

- a. Environmental conditions, such as wind, current, tide, visibility, entrapment, temperature, water depth and underwater terrain.
- b. Task factors such as the complexity of the work or non-routine changes/conditions.
- c. Physiological factors such as frequency of diving, depth, duration, breathing gas mixture, noise, exertion, fitness, and altitude exposure.
- d. Activity factors such as manual handling, rigging and other associated actions done as part of the task.
- e. Other hazards such as marine animals, shipping, inlets, hazardous substances and submerged objects.

(15) Specific risks that occupational divers may encounter include the following:

| Diving-specific Risks   | Example Control Measures   |
|---|--|
| Injury and/or damage to breathing equipment from vessels (propellers) | Propellor guards, qualifications of vessel master and crew, emergency breathing supplies provided, visibility/location flags, communications system.   |
| Breathing gas quality   | Program of inspection/verification of breathing gas mixtures, implementation of standard AS/NZS 2299 Part 1  |
| Decompression illness   | Reduce severe exercise before or after decompression, ensure physical fitness, hydration, drug and alcohol-free policy, reduce or eliminate repetitive or multi-day diving at depth, and assess pre-existing injuries before work commences. |

### **Minimum Fitness and Competency**

(16) All SCU SCUBA divers must be certified medically fit via a current occupational AS/NZS 2299 dive medical (renewed annually) issued by a registered practitioner with training in underwater medicine and detailed in AS/NZS 2299.1. For specific dive classifications (i.e. Scientific Diver, Restricted Diver, Snorkel Diver) and minimum competency, refer to the SCU Diving Operations Manual.

(17) Prior to undertaking a dive with the University, divers must complete (or provide proof of completion):

- a. Current Provide First Aid (renewed every 3 years).
- b. Oxygen Provider and CPR training (renewed annually).

(18) The WHS Regulation requires SCU to obtain proof of competency before all occupational diving work is conducted.

### **Diver Classification**

(19) In addition to the minimum training and experience, divers will be classified by the MSDO based on their qualifications, knowledge, and experience. The requirements for each diver classification, including specific qualifications, training, number of dives, hours of experience, and depth limits are determined by WHS legislation and Australian Standards and are detailed in the SCU Diving Operations Manual.

(20) Divers will be classified as Restricted, Limited, or General Scientific Divers. Additional skills and qualifications as specified in the SCU Diving Operations Manual are required for roles such as Dive Coordinator, Dive Leader, Diving

Officer, Standby Diver and Divers' Attendant. All divers registering with SCU must provide copies of their diving qualifications (including competency criteria), personal logbook, and certificates of fitness before the Diving Officer determines their diver classification.

### **Field Trip Approval for Diving and Underwater Activities**

(21) Before starting any University field trip involving diving or snorkelling, the Field Trip Leader and Dive Coordinator must obtain approval from the Diving Officer, and conduct a Field Trip risk assessment.

(22) The Dive Proposal and Risk Assessment for SCUBA must be submitted to the Diving Officer, WHS Team and Head of Work Unit before every diving operation and must be completed and submitted to the MSDO before commencement of the first dive. Sufficient time must be allowed for the Diving Officer to fully assess the proposal. It comprises a dive plan, risk assessment and emergency plan.

(23) A signed copy of the Dive Proposal must be taken to the dive site. A signed copy must also be shown to the relevant technical staff member to borrow University diving equipment.

(24) Refer to the SCU Diving Operations Manual for more information on field trip and diving.

### **Dive Plans and Diving Limits**

(25) Dive Plans must be developed for each dive operation by a competent employee. Refer to the SCU Diving Operations Manual for the Dive Plan template.

(26) The dive tables must be used for all SCU diving operations as outlined in the SCU Diving Operations Manual.

### **Daily Diving Operations**

(27) All dive operations must be supervised by a competent person such as a Dive Coordinator and in water by the nominated Dive Leader. As part of managing the risk for diving the following must be completed for each diving activity:

- a. Diver Registration Form
- b. Dive Proposal and Risk Assessment Form
- c. Hazard Identification and Risk Assessment
- d. On-site Pre-dive Check and Risk Assessment Form
- e. Employers Record of Dive Sheet Personal Logbook

### **Snorkelling**

(28) All SCU snorkelers must have as a minimum:

- a. Be competent swimmers.
- b. Satisfy the relevant supervisor of their fitness to participate.

(29) All Snorkel Leaders must also have:

- a. Appropriate snorkelling experience.
- b. Current First Aid (renewed every 3 years).
- c. Oxygen Provider and CPR training (renewed annually).

(30) During a snorkelling field trip, the Dive Coordinator is on site and in-charge of supervising the snorkel diving operations and must conduct a pre-dive briefing.

(31) All snorkelers must adhere to the safe snorkelling limits as outlined in the SCU Diving Operations Manual.

### **Dive Equipment**

(32) All dive equipment used on SCU dive trips must be serviced annually or to manufacturer's specifications and be in good working order. Where divers wish to use personal dive equipment, they must forward scanned copies of the annual service record to the MSDO before undertaking the dive trip.

(33) Any faulty equipment must be tagged out immediately, recorded on the daily Diving Safety Log and reported to the MSDO.

### **Stinger Suits**

(34) When diving in open bodies of water where marine jellyfish are likely to be encountered, a full length stinger suit made from a synthetic smooth fabric with mesh size no greater than 200 microns is mandatory. Stinger suits must be manufactured to recognised industry standard.

### **Personal Electrical Shark Deterrents**

(35) The use of approved shark deterrents for diving and snorkelling operations when diving is undertaken in Australia or regions where dangerous sharks are known to exist overseas is optional.

### **Emergency Procedures**

(36) The Dive Coordinator must prepare emergency procedures which outlines the response plan for each diving/or snorkelling operation as part of the diving/snorkelling plan, this is in addition to the general field trip plan. Such a plan should include the following considerations:

- a. Type and location of the dive site.
- b. Appropriateness of existing emergency procedures.
- c. Adequate of communication system in place to reduce delays in response.
- d. Location of rescuers, and their qualifications, experience, and fitness levels.
- e. Availability, location, and appropriateness of rescue equipment.

(37) Emergency response factors must be considered as part of planning for emergency events, such as the location and availability of emergency systems and equipment, and the effectiveness of emergency response procedures. Availability and response times of emergency services such as coast guard and marine rescue services should be considered as part of the overall risk assessment process.

(38) SCU must ensure that the following are available at all dive sites:

- a. Appropriate Marine Commercial F scale first aid kit as per AMSA requirement. Person on the surface should hold current training in diving first aid.
- b. An oxygen system capable of providing an inspired concentration of oxygen at or near to 100% oxygen levels, and be able to also facilitate artificial ventilation of a non-breathing person (along with adequate training in administration of such equipment to onsite personnel).
- c. Sufficient spare oxygen is available considering the distance of the dive site from appropriate medical or emergency facilities.

### **Reporting Incidents**

(39) Employees and students must:

- a. report all accidents and incidents to their Dive Coordinator as soon as is reasonably practicable after they occur.

(40) The Dive Coordinator is then to report details to the MSDO and complete a report in RiskWare as soon as reasonably practicable or within 24 hours of the event occurring. Notification pathways outlined in WHSMP18: Incident Management, Reporting and Investigation Procedure should be followed.

(41) Notifiable incidents must also be reported immediately to the Head of Work Unit, WHS Team or University Security (available 24/7) who will notify senior management. The WHS Manager is responsible for notifying the relevant Regulator as legally required.

### **Boating Operations**

(42) All participants in SCU diving and/or snorkelling operations must comply with HRP17: Vessel and Maritime Safety.

## **Section 4 - Roles and Responsibilities**

(43) Refer to [WHSMP13: WHS Responsibility and Accountability Statement](#).

## **Section 5 - Records of Documentation**

(44) All relevant documentation will be recorded and kept in accordance with WHS Legislation and other legislative obligations including:

- a. Service/Maintenance records for vessel Training evidence/licences Competency assessments Incident reporting form Emergency plan Dive Plans and Risk Assessments

(45) After a dive takes place, certain records must keep for legal reasons. These records must be kept for the minimum following duration:

- a. Certificate of medical fitness – 1 year after the work is conducted.
- b. Evidence of competencies – 1 year after the work is conducted.
- c. Written risk assessment – 28 days after the work is completed.
- d. Dive plan -for the duration of the work, or two years if a notifiable incident occurs.
- e. Dive safety log – 1 year after the last entry.

(46) Where a notifiable incident has occurred, the above records must be kept for a minimum of 2 years.

## **Section 6 - Revision and approval history**

(47) This procedure will be reviewed as per nominated review dates or because of other events, such as:

- a. Internal and external audit outcomes.
- b. Legislative changes.
- c. Outcomes from management reviews.
- d. Incidents.

## Section 7 - References

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| <a href="#">Work Health and Safety Act 2011</a>                             |
| Work Health and Safety Regulation 2011 (QLD) 2017 (NSW)                     |
| Occupational Diving Work Code of Practice 2005 (Qld)                        |
| AS/NZS 2299.1 Occupational diving operations —Standard operational practice |

## Section 8 - Related Documents

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| WHSMP02 - FOR - 01 - Hazard Identification, Risk Assessment and Control Tool |
| SCU SCUBA Diving Operational Manual  |
| <a href="#">WHSMP17: Incident Management, Reporting and Investigation</a>    |
| <a href="#">HRP17: Vessel and Maritime Safety</a>                            |

## Status and Details

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|------------------------------|--|
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| <b>Responsible Executive</b> | Kim Franks<br>Vice President (People and Culture)  |
| <b>Head of Work Unit</b>     | Brendan Pearce<br>Director, Workplace Relations  |
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