

Business Procedure

Diving Safety and Working on or Near Water Document Number – OHS-PROC-129

This document applies to the following sites:

All Sites	<input type="checkbox"/>		
Rockhampton Office	<input type="checkbox"/>	Brisbane Office	<input type="checkbox"/>
		Tarong Site	<input checked="" type="checkbox"/>
Barron Gorge Hydro PS	<input checked="" type="checkbox"/>	Kareeya Hydro PS	<input checked="" type="checkbox"/>
		Mica Creek PS	<input checked="" type="checkbox"/>
Koombooloomba Hydro PS	<input checked="" type="checkbox"/>	Swanbank PS	<input checked="" type="checkbox"/>
		Mackay Gas Turbine	<input checked="" type="checkbox"/>
Wivenhoe Small Hydro PS		Stanwell PS	<input checked="" type="checkbox"/>
		Meandu Mine	<input type="checkbox"/>

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WRITTEN BY: ENDORSED/CHECKED BY: APPROVED BY: DATE: 1.07.2020
 NAME: J. Fullard NAME: J. Paull NAME: K. Ussher

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1.0 Purpose

This Business Procedure describes Stanwell's minimum mandatory requirements for managing risks associated with diving and working on or near a body of water at Stanwell sites.

2.0 Scope

This Business Procedure applies throughout Stanwell, all its sites and all activities under Stanwell's control. It applies to all Stanwell employees and contractors, including visitors to Stanwell workplaces.

3.0 Actions

When personnel are performing diving work or working above or near water, the following shall occur:

- the requirement to work in such an environment has been eliminated wherever practicable;
- all work activities have been planned;
- all personnel involved are appropriately licensed and competent;
- all work is risk assessed to identify potential hazards; and
- suitable risk control measures are in place.

The need for diving and working above or near water shall be eliminated through design and planning where practicable. Where elimination is not possible, sites shall consider the use of temporary and/or permanent structures over water to minimise risk to personnel.

3.1 Safe System of Work Requirements

The following shall be applied in relation to diving work:

- not allow any person to perform a dive unless they have developed a safe work method statement (SWMS) and a dive plan;
- not allow any person to perform a dive unless the person has a current certificate of medical fitness to dive and relevant licence and competencies as required by *AS/NZS 2299.1:2015 Occupational diving operations - Standard operational practice*;
- make sure a person does not perform diving work until all safety work requirements have been complied with; and
- establish rescue / emergency response procedures.

Diving and working on or near water may be considered remote and isolated work depending on the nature of the work, refer to Remote and Isolated Worker Safety Business Procedure OHS-PROC-127 for specific details on managing remote and isolated work.

3.1.1 Dive Plan

A dive plan shall be prepared by a Dive Coordinator prior to commencing a dive. The dive plan shall include the following:

- the method of carrying out the diving work to which it relates;
- the tasks and duties of each person involved in the dive;
- the diving equipment, breathing gases and procedures to be used in the dive;
- as applicable, dive times, bottom times and decompression profiles;
- hazards relating to the dive, and measures to be implemented in the control of risks associated with those hazards; and
- rescue/ emergency response procedures.

3.1.2 Risk Assessment

When diving or work near or on water is to occur, a risk assessment shall be performed.

As a minimum, a risk assessment for diving work must assess the risks associated with all hazards listed in Appendix B: Diving Work Risk Assessment Requirements when deciding upon the control measures.

All relevant workers, including non-divers associated with the occupational diving such as vessel masters, should understand the control measures decided upon before diving commences.

Risk assessments for work associated with diving or working on or near water shall consider:

- working as a group (not alone) where the risk of drowning has been identified; and
- the need for and frequency of head counts being conducted.

3.1.3 Personal Protective Equipment (PPE)

A personal flotation device (PFD) shall be worn when:

- a risk assessment indicates a risk of falling into water and / or drowning; and
- working on any inclined surface adjacent to a body of water.

PFDs must comply with AS 4758.1: Personal flotation devices – General requirements.

All PPE used for diving or work on or near water shall:

- be maintained and worn according to the manufacturer's instructions; and
- be examined regularly.

Before each use, PPE is to be checked by users, for signs of wear and tear

3.1.4 Dive Safety Logs

Dive Safety Logs must be kept to provide records to assist in decompression management and to provide a tool to monitor and review the occupational diving work.

Diver's logs should include:

- date of dive;
- operation number of the dive, that is sequential numbering of each of the dives for any one day;
- location and nature of dive site, for example boat or shore diving;
- environmental conditions at the dive site;
- time in;
- time out;
- maximum depth of the dive;
- bottom time;
- the decompression tables followed by the diver;
- any emergency or incident of special note which occurred during the dive, for example failure of diving equipment or emergency decompression;
- any discomfort or injury suffered by the diver; and
- depth and duration of safety stop.

3.1.5 Rescue / Emergency Response

Divers shall have a written rescue / emergency response plan to deal with emergency situations. These rescue / emergency response plans are to be made readily available to all relevant workers. Situations covered in the written rescue / emergency response plan should include:

- first aid, including equipment and competency requirements;

- rescue; including equipment and competency requirements;
- evacuation, including evacuation to the nearest recompression facility; and
- missing persons.

3.2 Work Environment Requirements

3.2.1 Fall Protection

All walkways over water shall have adequate edge protection fitted as per AS4994.1:2009 Temporary edge protection – General requirement as far as reasonably practicable.

Pipes or other structures in or over water shall never be used as walkways.

Where edge protection is not reasonably practicable, it shall be ensured that where personnel are working near an edge over water, other means of fall protection is used.

3.3 Plant and Equipment Requirements

3.3.1 Water Vessels

Depending on the specific use, registered water vessels should have the following safety equipment on board, plus any additional equipment required for the specific class of vessel, whilst in use, as per Queensland maritime safety requirements for the waters the vessel is being operated within:

- a bucket with a lanyard attached with FIRE labelled in large writing on the side (can be used as a bailer);
- an anchor with 18m of cable attached;
- oars or paddles;
- sufficient drinking water for all on board;
- a signalling device (i.e. a torch, fluorescent light etc.-between sunset and sunrise only);
- capacity label or Australian Builders Plate (ABP);
- Type 1 personal floatation device (PFD) – one of appropriate size for each person boarding the vessel (in working order and free of damage) in accordance with AS4758.1 Personal flotation devices – General requirements;
- Foam fire extinguisher
- V sheet marine distress signal;
- two red and two orange flares; and
- first aid kit.

Where a vessel is not registered, a risk assessment shall be performed to determine safety equipment requirements specific to the task being undertaken.

Water vessels used on site shall be:

- registered for commercial use, where applicable;
- in good working condition;
- used in accordance with marine safety legislation; and
- secured when not in use.

Routine inspections and maintenance shall be carried out on all Stanwell owned water vessels and trailers. Inspections and maintenance shall be carried out according to the manufacturer's instructions and any relevant standards.

A logbook shall be kept for each registered water vessel and it shall be maintained by a competent person. Logbooks are to contain details of all maintenance and repairs undertaken on a particular registered water vessel and any other information as determined by the site and manufacturer.

3.3.2 Electrical Power Tools and Equipment

All electrical power tools and equipment used over or near water shall be:

- connected to an earth leakage safety switch or residual current device;
- physically prevented, as far as practicable, from falling into water or being inadvertently splashed;
- isolated or prevented from making live contact with steelwork;
- checked for damage before use;
- inspected and tested by a competent person as per Stanwell's electrical equipment testing requirements;
- used in accordance with safe work procedures for such equipment; and
- banded where there is a risk of oil or fuel spill or release from the equipment.

3.4 Training and Competence Requirements

All personnel involved in diving and working on or near water shall be trained and competent as per Stanwell's requirements. Proof of competency must be supplied for all occupational diving work.

A person must not carry out high risk diving work unless the person has the qualifications, knowledge, skills and experience required by AS/NZS 2299.1 (Occupational diving operations—Standard operational practice) for work of the kind to be carried out by the person.

All persons who operate registered water vessels shall hold a recreational boat licence in accordance with Queensland marine safety legislation.

4.0 Review, Consultation and Communication

Review:

This Document is required to be reviewed as a minimum every 5 years.

Consultation:

Consultation will occur in accordance with the Health and Safety Consultation Business Procedure OHS-PROC-21.

Communication/Requirements after Update:

This Business Procedure will be communicated to sites by an e-mail from the Health and Safety Manager and on GenNet.

5.0 References

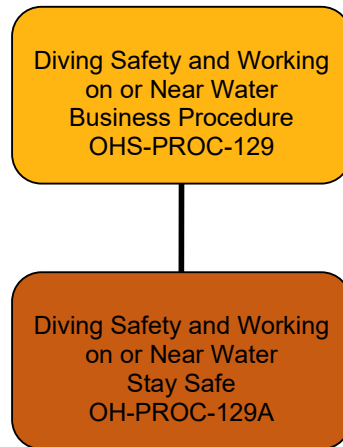
Source	Reference
Legislation	<ul style="list-style-type: none"> Queensland Work Health and Safety Regulation 2011, Part 4.8 Queensland Occupational Diving Work Code of Practice 2005
Australian Standards	<ul style="list-style-type: none"> AS/NZS 2299.1:2015 Occupational diving operations – Standard operational practice. AS4758.1:2008 Personal flotation devices – General requirements AS4994.1:2009 Temporary edge protection – General requirements
Business Procedures	<ul style="list-style-type: none"> Health and Safety Hazard Management OHS-PROC-33 Remote and Isolated Worker Safety OHS-PROC-127
Stay Safe	<ul style="list-style-type: none"> Diving Safety and Working on or Near Water OHS-PROC-129A
Tools	<ul style="list-style-type: none"> Nil

6.0 Definitions

Term	Meaning
Dive Coordinator	Responsible for the overall conduct of the dive, including any necessary pre/post dive activities, and the actual dive.
Dive Plan	An operational plan prepared by the Dive Coordinator for a dive, or a series of dives, a dive plan must be prepared and submitted for every dive.
High Risk Diving Work	<p>means work—</p> <p>(a) carried out in or under water or any other liquid while breathing compressed gas; and</p> <p>(b) involving one or more of the following—</p> <ul style="list-style-type: none"> (i) construction work (ii) testing, maintenance or repair work of a minor nature carried out in connection with a structure (iii) inspection work carried out in order to determine whether or not work described in subparagraph (i) or (ii) is necessary (iv) the recovery or salvage of a large structure or large item of plant for commercial purposes but does not include minor work carried out in the sea or the waters of a bay or inlet or a marina that involves cleaning, inspecting, maintaining or searching for a vessel or mooring.

7.0 Appendices

Appendix A: Diving and Working on or Near Water Document Flowchart



Business Procedure

Appendix B: Diving Work Risk Assessment Requirements

Hazard	Description
Environmental Conditions	<p>Certain parameters should be examined for their effects on the dive from the perspective of operations both on the surface and below, including, but not limited to:</p> <ul style="list-style-type: none"> • strength and direction of wind and the degree of influence that it may have on the diving operation and emergency response capability • current and tide • visibility • entrapment hazards • depth at worksite • water temperature • time of day • underwater terrain • atmospheric temperature and humidity • contaminants • isolation of the dive site
Task Related Factors	<p>The complexity of the diving task or the presence of a component which is non-routine in nature may increase the level of risk associated with a diving operation.</p>
Hyperbaric / Physiological Factors	<p>Hyperbaric and physiological factors include:</p> <ul style="list-style-type: none"> • frequency of diving, including repetitive diving and multi-day diving • depth of dive • duration of dive • breathing gas • exertion required to reach dive site or conduct task • excessive noise • immediate pre-dive fitness (prior dives, prior physical exertion, fatigue, recent illness) • altitude exposure • diver temperature, e.g. use of hot water suits.
Associated Activity Factors	<p>The effects of associated activity factors should be assessed. These associated activities include:</p> <ul style="list-style-type: none"> • manual handling • boat handling • dive platforms • crane operation • rigging.
Other Hazards	<p>Presence of other hazards such as the following should be taken into account:</p> <ul style="list-style-type: none"> • dangerous marine animals • shipping movements • water inlets • hazards peculiar to the dive locations • use or presence of hazardous substances, biological pollutants or explosives.

Rescue/ Emergency Response Factors	<p>There should be an assessment of what would be required in case of an emergency. The assessment should include consideration of:</p> <ul style="list-style-type: none"> • the location and availability of appropriate emergency systems; and • rescue/ emergency response procedures.
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Hierarchy of Control	Description
Elimination	Where the level of risk cannot be controlled to an acceptable level, no diving should take place.
Substitution	Where the risk can be controlled by performing the task using alternative methods of diving, consideration should be given to using these alternative methods.
Design	Plant and procedures should be designed to minimize risk.
Isolation	Persons should be isolated from the identified hazards.
Administrative	<p>Every dive plan should seek to minimize the degree and duration of the diver's exposure to risk. Administrative controls include:</p> <ul style="list-style-type: none"> • training, supervision, experience and selection of employees, including staffing levels • provision of an appropriate diving operations manual • organization and planning before, during and after the dive • selection of appropriate plant • selection of the appropriate form and level of communication.
Personal Protective Equipment (PPE)	Appropriately designed and sized personal protective equipment should be provided, used and maintained. The limitations of all equipment used should be identified as part of the risk assessment process. Information from manufacturers and from records of prior experience should be used to identify limitations.