

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:
NAME: J.Paull NAME: M.Joy / T.Hooper NAME: I.Gilbar

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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.

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 work method statement (WMS) 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 2299.1:2007 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 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 *Business Procedure: Remote and Isolated Work Safety* 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
- emergency 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,

3.1.3 Emergency Response

Divers shall have a written emergency plan to deal with emergency situations. These emergency plans are to be made readily available to all relevant workers. Situations covered in the written emergency plan are to 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 sturdy 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 *AS4758.1:2006 Personal flotation devices – General requirements*;
- fire extinguisher (3A20B);
- 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 according to the manufacturer's instructions and any relevant standards.

A log book shall be kept for each registered water vessel and it shall be maintained by a competent person. Log books 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 Safe Work Practices

3.4.1 Communication

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.

3.4.2 Personal Protective Equipment (PPE)

A PFD shall be worn when:

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

PFDs must comply with *AS 4758.1:2008 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

3.5 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.

All persons who operate registered water vessels shall hold a recreational boat licence in accordance with the marine safety legislation for the particular state/territory.

4.0 References (Including Information Services)

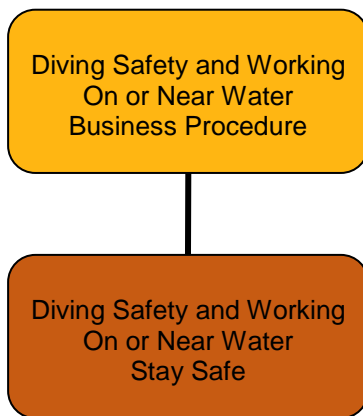
| Source | Reference |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 2299.1:2007 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"> HS Hazard Management Remote and Isolated Work Safety Training and Competency |
| Stay Safe | <ul style="list-style-type: none"> Diving Safety and Working on or Near Water |
| Tools | <ul style="list-style-type: none"> Nil |

5.0 Definitions

| Term | Meaning |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Dive Coordinator | The Dive Coordinator is 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. |

6.0 Appendices

Appendix A Diving and Working On or Near Water Document Flowchart



Note: These documents are also supported by site specific instructions / WMS.

Business Procedure

Appendix B Diving Work Risk Assessment Requirements

| Hazard | Description |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental Conditions | 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: <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 | 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. |
| Hyperbaric Physiological Factors / | Hyperbaric and physiological factors include: <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 Factors Activity | The effects of associated activity factors should be assessed. These associated activities include: <ul style="list-style-type: none"> • manual handling • boat handling • dive platforms • crane operation • rigging. |
| Other Hazards | Presence of other hazards such as the following should be taken into account: <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. |

| | |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 • emergency response procedures. |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| 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. |