

Section 1 – Roles of the Onshore Dive Supervisor



"Yoo-hoo! Oh, yoo-hoo!....I think I'm getting a blister."¹

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CHAPTER 1 – ROLES AND RESPONSIBILITIES

INTRODUCTION

ADAS COMPETENCY

Role of the onshore dive supervisor in Australia and New Zealand.

Describe the role and responsibilities of the dive supervisor.

Describe the regulatory framework for occupational diving within Australia and New Zealand.

Abide by legal requirements in all activities associated with working as a supervisor in the diving industry.

■ GENERAL

Your role as dive supervisor is one of tremendous responsibility. The safety of the team depends on you. The boss and the client are relying on you to get the job done.

On the job, there might be pressure to take shortcuts, or skimp on some of the paperwork. But remember, the buck stops with you – as dive supervisor, you are the one specified as having legal² responsibility for the safe conduct of the dive.

In this chapter, you will learn about;

- ✓ the role and responsibilities of the dive supervisor,
- ✓ the regulatory framework for occupational diving within Australia and New Zealand,
- ✓ what you need to do to abide by legal requirements in all activities associated with working as a supervisor in the diving industry.

ROLES AND RESPONSIBILITIES

■ GENERAL



The role of the dive supervisor is specified in the Occupational Diving Standard AS/NZS 2299.1: 1999. It states “Dive supervisors shall ensure that all diving operations under their supervision are carried out in accordance with this Standard, and shall be familiar with any legislative requirements which may be applicable to the diving operations.”³ Specifically, the dive supervisor “shall be responsible for the safe conduct of the diving operation.”⁴

In practice, there are a wide range of tasks and responsibilities that the dive supervisor must undertake.

The dive supervisor assists in preparing for an operation, and, based upon the supervisors own training and experience, plots the operation step-by-step. The supervisor must consider

- ² You are named in AS/NZS 2299.1:1999 as being responsible for the safe conduct of the dive operation, which has force of law in most of Australia.
- ³ AS/NZS 2299.1:1999 clause 2.1.3, p10
- ⁴ AS/NZS 2299.1:1999 clause 2.1.1, p10



all possible contingencies, determine equipment requirements, recommend diving assignments, and establish back-up requirements for the operation. The dive supervisor should be familiar with all personnel on the team and be able to evaluate the qualifications and physical fitness of the divers selected for a particular job.



The dive supervisor inspects all equipment to be used and conducts pre-dive briefings of personnel. When the operation begins, the dive supervisor is in charge of all diving operations. While the operation is underway, the dive supervisor monitors progress, de-briefs divers returning to the surface, updates instructions to working divers, and ensures that other personnel as necessary are advised of progress and of any changes to the original plan.

When the operation has been completed, the dive supervisor is responsible for gathering appropriate data, for analysing the results of the operation, and for preparing reports for submission to higher authority. The supervisor will also make sure that any required records are completed. These may range from equipment logs to individual diving records.

The operations manual of the diving organisation generally specifies the role of the dive supervisor.

The following is an example of the information in an operations manual.⁵ The information on the employer and the dive superintendent helps in clarifying the role and responsibilities of the dive supervisor.

■ DIVING CONTRACTOR OR EMPLOYER OF DIVERS

The Diving Contractor (or employer of divers) has considerable responsibility for the health and safety of all persons employed by him, whether as employees or under a contract for services. His particular responsibilities include;



- ✓ ensuring compliance with the diving regulations and any other regulations that may apply. In particular the fitness to dive and competence of all members of the dive team,
- ✓ appointing Diving Supervisors in writing,
- ✓ issuing diving rules to the Diving Supervisors and making copies available to Government Diving Inspectors if requested,
- ✓ providing and ensuring the maintenance of a diving operations logbook,
- ✓ ensuring that compressed air or nitrox mixes are the only breathing mixtures used and that it complies with air purity standards,
- ✓ ensuring that the diving operation is carried out from a suitable and safe place, with the consent of any persons having control of that place,
- ✓ ensuring that emergency services are available, including emergency transfer facilities for divers who are under pressure,
- ✓ ensuring that effective communications exist between the place at which the diving is being carried out, the persons having control of that place, and the emergency services that have been provided.

Either directly or indirectly, the Diving Contractor has additional responsibilities for many other detailed aspects, but these are not described here in order to minimise duplication. It should be emphasised that AS/NZS 2299.1: 1999 referred to above effectively embraces all aspects

⁵ Originally sourced from the Operations Manual of Descend Underwater Training Centre, Albury, NSW, Australia



of relevant regulations, except where specific responsibility is placed on another party (e.g. an approved Doctor), or where the responsibility may be shared, depending on circumstances (e.g. with the owner, operator, or Ships Master).

■ SENIOR DIVING SUPERVISOR

A Senior Diving Supervisor (who may be called a Diving Superintendent) may be responsible for a number of Diving Supervisors or for a major contract. A Senior Diving Supervisor is normally appointed where diving is being carried out on a shift basis and where it is necessary to have more than one Diving Supervisor. He may act as a Diving Supervisor for one shift, the other shift(s) being under the control of a different Diving Supervisor who reports to him.

Whilst the Diving Supervisor's responsibilities are quite specific, the Senior Diving Supervisor is the senior representative of the Diving Contractor at the site and usually has responsibility for liaison with the client's representative on contractual matters.



He should not override the role or actions of the Diving Supervisor in charge of the shift, but should liaise with him in the interests of safety and efficiency. If at any time (and then only under exceptional circumstances that may lead to a hazard to lives), the Senior Diving Supervisor feels that the Diving Supervisor is not conducting the diving operation safely, he may instruct him to terminate the dive in a safe and expeditious manner, or he may take direct responsibility for the Diving Supervisors function himself. In such exceptional circumstances he should, as soon as practical, inform the Diving Contractor the Clients representative, the Master, the Harbour Master and other appropriate people. He should make a suitable entry regarding his action in the diving operations logbook.

■ DIVE SUPERVISOR

The diving contractor should appoint a Dive Supervisor in writing to be in immediate control of the diving operation. Where two or more Dive Supervisors are appointed in respect of an operation, the Diving Contractor must specify which part of the diving operation each is to supervise. However, if it is permitted by the Diving Contractor in their specific written appointments, two Supervisors may arrange the time at which one may take over dive responsibility from the other.

A Dive Supervisor should be a competent person with adequate knowledge of the diving techniques to be used in the diving operation.

Ideally, a Supervisor should have had experience of the particular techniques employed in diving operations, which he is appointed to supervise, or alternatively have a sound knowledge of the principles of the techniques to be used.

It is the responsibility of the Dive Supervisor to formulate the dive plan and select the equipment and personnel.

The Dive Supervisor should ensure;



- ✓ that a risk assessment is carried out prior to every dive,
- ✓ that all persons engaged in the diving operation, are qualified to perform their assigned tasks,
- ✓ that all divers are thoroughly briefed prior to the commencement of the dive,
- ✓ that the duties of the divers, standby divers and attendants are allocated, and that he directs them during diving operations,



- ✓ that the diving operation is carried out in accordance with the Diving Contractors diving rules, and that it is under his immediate control,
- ✓ that the plant and equipment being used meets all regulatory requirements and that it is suitable for performing the operation, and is in working order,
- ✓ that each member of the diving team has access to a copy of the company diving rules that are relevant to him,
- ✓ that a diving operations logbook is maintained accurately, and he signs the record daily,
- ✓ that the daily entries in the diver's logbooks are correct, and that he countersigns those that he has supervised,
- ✓ that he does not dive while he is acting as Supervisor.



The Dive Supervisor is responsible for the health of divers and other personnel under his control. This responsibility includes divers under pressure and ranges from the treatment of decompression sickness (using well-established techniques) to the treatment of medical problems. The Dive Supervisor must seek advice from a suitable, experienced Doctor if a diver in the team needs special medical attention. Whilst the Doctor will advise on the treatment to be followed, the Dive Supervisor has ultimate responsibility for accepting or rejecting that advice. However, he should only consider rejecting it under exceptional circumstances, having assessed all the circumstances of the case. The Doctor acts in an advisory role, the Supervisor retains overall responsibility for the compression aspects of any treatment prescribed until he formally hands over responsibility of the diver undergoing treatment to another person, for example at an onshore hyperbaric treatment facility. (This applies to Doctors at a diving site or an onshore medical facility).

The Dive Supervisor therefore has very considerable responsibility for the diving operation. Whilst the owner, Master, Harbour Master, client's representative and others may request a dive to be terminated, the Dive Supervisor is the only person who can authorise the actual commencement of a dive and control its detailed conduct thereafter.

In a three person surface supplied diving operation, the Dive Supervisor will normally tend the control panel and voice communications.



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CHAPTER 2 – REGULATORY FRAMEWORK FOR OCCUPATIONAL DIVING

INTRODUCTION



There are two components to the regulatory framework for occupational diving. These are:

- ✓ the training and accreditation of occupational divers, and
- ✓ the legal framework for diving operations.

In this section, we will look at the training and accreditation of occupational divers under the Australian Diver Accreditation Scheme (ADAS) and at the legal framework within Australia and New Zealand. We will examine your legal obligations in the next section.

OVERVIEW OF THE AUSTRALIAN DIVER ACCREDITATION SCHEME

■ GENERAL



The Australian Diver Accreditation Scheme (ADAS) is a not-for-profit diver training and accreditation scheme developed under the auspices of the Petroleum Sub-Committee of the Australian and New Zealand Minerals and Energy Council (ANZMEC). The Commonwealth Department of Industry, Tourism and Resources (DITR) administer it on a cost-recovery basis.

ADAS offers accreditation to divers who can establish that they have been assessed by an ADAS Diver Training Establishment as meeting the competency requirements of the relevant ADAS / AS 2815 Part(s). This accreditation is only valid whilst diving operations are being undertaken in accordance with relevant legislation and operational standards and for a diver, whilst in possession of a current AS 2299 medical certificate certifying him or her fit to dive.

Reciprocal recognition arrangements are available with governments of certain countries for occupational diving qualifications. ADAS therefore recognises the qualifications gained in these countries automatically and issues the equivalent ADAS accreditation on application. The ADAS qualifications are likewise recognised in these countries.

ADAS accreditation is a mandatory requirement for all persons wishing to work as divers in the Australian offshore petroleum and minerals mining industries. In some States, ADAS accreditation supplies proof of compliance with AS/NZS 2299.1:1999, which is required by



regulations for construction diving. In other areas, accreditation under ADAS is not mandatory. However, the rigorous quality-controlled nature of ADAS accreditation offers certainty to an employer of divers and provides a guaranteed way of meeting their legislated and common law duty-of-care requirements to ensure that employees are properly trained and experienced to safely carry out the work that they are employed to perform.

In particular, ADAS accredits diver-training establishments (DTEs) to conduct the training and competence assessments of divers to the levels of the various parts and to recommend their accreditation under the Scheme. Accreditation as an ADAS DTE is conditional upon meeting demanding entry requirements and thereafter maintaining compliance with rigorous ongoing quality assurance conditions.



ADAS training programs are designed specifically to conform to the requirements for the Australian Standard AS2815 – Training and Certification of Occupational Divers. This Standard was developed by the SF/17 Diving Committee of Standards Australia in conjunction with ADAS and overseas diver training authorities, expressly to define the minimum acceptable competency standards for the various levels of occupational divers.

ADAS has obtained official recognition of its courses under the Australian Qualifications Framework up to Diploma level. ADAS is a Registered Training Organisation with approval to issue nationally recognised qualifications. The Diploma is a comprehensive diving qualification, which qualifies the holder to work in a wide range of areas requiring specialist diving skills and in particular the supervision and management of dive operations.

The course incorporates specialist streams and multiple exit and re-entry points to enable participants to pursue a career in a variety of fields. These include; aquaculture, marine science, police diving, underwater construction, television/film making and oil field industry (some of these fields require completion of additional units of competency).

Contact details for ADAS and for Diver Training Establishments are given in the following section.

CONTACT DETAILS FOR ADAS & DIVER TRAINING ESTABLISHMENTS

AUSTRALIAN DIVER ACCREDITATION SCHEME

Contact Name	Paul Butler National Manager Australian Diver Accreditation Scheme
Address	526 Duncan Road, DUNOON NSW 2480
Postal Address	526 Duncan Road, DUNOON NSW 2480
Telephone	(02) 6689-5656
Email	mailto:paul@adas.org.au
Website	http://www.adas.org.au
Addresses of Training Sites	See below



DIVER TRAINING ESTABLISHMENTS - LOCATION/S AND CONTACT DETAILS

<p>Western Australia</p>	<p>The Underwater Centre Fremantle</p> <p>8 Rous Head Road PO Box 130 North Fremantle WA 6159</p> <p>Ph 08 9336 3343 Fax 08 9336 3345 e-mail: milly@tucf.com.au Web: http://www.tucf.com.au</p> <p>Accredited to train Part 1, 2 and 3</p>
<p>Queensland</p>	<p>Commercial Diver Training Academy</p> <p>16 Dean Street South Townsville QLD 4810</p> <p>Ph 07 4721 1155 Fax 07 4772 3119 e-mail: divebell@t140.aone.net.au Web: www.home.aone.net.au/divebell</p> <p>Accredited to train Part 1, 2 and 3</p>
<p>South Australia</p>	<p>South Australia Underwater Training School (Flinders Diving Services)</p> <p>PO Box 1362 9 North Quay Blvd Port Lincoln SA 5606</p> <p>Ph 08 8682 4140 Fax 08 8683 0897 e-mail: sauts@basshams.com.au</p> <p>Accredited to train Part 1 and 2</p>
<p>Tasmania</p>	<p>The Underwater Centre Tasmania</p> <p>Inspection Head Wharf PO Box 342 Beauty Point TAS 7270</p> <p>Ph 03 6383 4844 Fax 03 6383 4850 e-mail: underwater.center@tassie.net.au Web: www.stenmar.com</p> <p>Accredited to train Part 1, 2, 3 and 4</p>



<p>New South Wales</p>	<p>Commercial Diver Training Centre</p> <p>37 Captain Cook Drive Caringbah NSW 2229</p> <p>Ph 02 9526 2800 Fax 02 9524 3861 e-mail: Graydive@mpx.com.au Web: www.graydiving.com.au</p> <p>Accredited to train Part 1, 2 and 3</p> <p>Descend Underwater Training Centre</p> <p>1/826 David St Albury NSW 2640</p> <p>Ph 02 6041 1405 Fax 02 6021 6732 e-mail: descend@albury.net.au Web: www.descend.com.au</p> <p>Accredited to train Part 1, 2 and 3</p> <p>Royal Australian Navy Diving School, HMAS Penguin</p> <p>Middle Head Rd Mosman NSW 2088</p> <p>Email: Russ.Crawford.106323@navy.gov.au</p> <p>Accredited to train to Part 1, 2 and 3 Available only to persons within the RAN.</p>
<p>Police Force Diver Training Establishments</p> <p>Location/s and Contact Details (Name, address, phone, fax numbers)</p>	<p>South Australian Police - Water Response Section</p> <p>82 The Esplanade Semaphore SA 5019</p> <p>Ph 08 8242 3466 Fax 08 8242 3596</p> <p>Accredited to train Part 1, 2 restricted and 3 restricted. Available only to persons in the Police force.</p> <p>NSW Police Diving Unit</p> <p>Wharf 25 Harris St Pyrmont NSW 2009</p> <p>Ph 02 9692 5433 Fax 02 9692 5460</p> <p>Accredited to train Part 1, 2 restricted and 3 restricted. Available only to persons in the Police force.</p>



	<p>Victoria Police - Search and Rescue Squad</p> <p>30 Upper Esplanade St Kilda South VIC 3182</p> <p>Ph 03 9537 1006 Fax 03 9534 7663</p> <p>Accredited to train Part 1, and 2 restricted. Available only to persons within the Police force.</p>
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LEGAL FRAMEWORK IN AUSTRALIA AND NEW ZEALAND

■ GENERAL



Australia is a federation of six States and two Territories. The individual States and Territories have responsibility for making laws and for enforcing those laws. The Commonwealth Government has responsibility for federal law. These laws are laid out in various Acts and Regulations.

It is vital to recognise that the Acts and Regulations applicable to diving are different in every State and Territory and different again for offshore diving, which comes under Commonwealth Government Acts and Regulations. This highlights the challenge in locating and being familiar with all legislation applicable to diving, particularly if working in a variety of locations.



New Zealand has different laws again; in spite of the fact that some Australians think, it should be a seventh State!

The structure is similar, with Acts and Regulations as law, backed up by Codes of Practice and Standards (which may or may not be legal requirements, depending on whether they are called up in the Acts or Regulations).

■ COMMON LAW VERSUS STATUTE LAW

Common law is law arising from court decisions. In other words, when a person sues somebody else and the matter is taken to court in a civil action, the decision of the judge sets a precedent, which can then be used for later decisions. Legal decisions arising from such actions form the "common law", which is different to statute law.

Statute law is that made by parliament and set out in Acts and Regulations. Regulations provide more detail on how to comply with the associated Act.

Acts are made by Parliament and require Royal Assent (by the Governor-General on behalf of the Queen) before those laws can come into operation. Acts can also provide for the making of subordinate legislation, such as regulations, which are made by approval of the Governor-General without the need for introduction into the Parliament.

Statute law overrides common law. For example, civil actions may be taken out to seek damages for personal injury in some countries. However, in New Zealand, for example, accident compensation legislation rules out such actions for personal injury in the majority of situations. This arises out of the "no-fault" system of accident compensation introduced by statute in 1974.

In Victoria, Australia, the common law right for an employee to sue an employer for injury



sustained at work was removed between 1997 and 1999 in an attempt to keep spiralling compensation payouts under control. It was reinstated on 20 October 1999.

■ SOURCES OF INFORMATION

Although you are unlikely to be required to access or interpret legislation in your role as a dive supervisor, it is important to have a general awareness of the legislation. If you do need to clarify any legislation, you can obtain information on Australian legislation from the following websites:



- ✓ Attorney General's Department's website at <http://law.gov.au/wotl.html>
- ✓ Australasian Legal Information Institute <http://www.austlii.edu.au>
- ✓ Law Australia Online <http://www.lao.com.au>
- ✓ Scale Plus <http://scaleplus.law.gov.au>

Information on New Zealand legislation can be found at The GP Legislation Collection at <http://www.gplegislation.co.nz>



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YOUR LEGAL OBLIGATIONS

INTRODUCTION

■ GENERAL

Management is generally responsible for ensuring that their staff complies with legislation. The company policies and procedures should cover all essential aspects of the legislation. Often, however, in smaller companies (and even in some larger companies!), the procedures are not sufficiently comprehensive to cover all applicable legislation.



You therefore need to have a general awareness of the legislation to ensure that you are applying the procedures appropriately and abiding by all legal requirements. AS/NZS 2299.1:1999 requires that you are familiar with any legislative requirements that may be applicable.

The law is constantly being updated and revised. All information on legislation given in this module has been provided as guidance only. It may not be complete or up-to-date and may not show the latest revision. It is your responsibility to ensure that you are using accurate and up-to-date information on legislation for a diving operation.

As well as applying diving legislation, you need to abide by all other legal requirements in all the activities you undertake as a supervisor in the diving industry. As an overview, you need to:



- ✓ be aware of both statutory and common law duties in all activities in the workplace,
- ✓ follow policies and procedures set down by your employer,
- ✓ make sure your team members abide by legal requirements while under your care and responsibility.

We will expand on some of these in later chapters.

■ STATUTORY AND COMMON LAW DUTIES

You have a common law duty of care towards others who might be affected by your actions or lack of action. In many areas, this has become statute law, such as occupational health and safety, which is covered in Section 2. You also have a duty of care towards members of the public and the client, which was originally a common law duty and is now covered under occupational health and safety law.

You also have a number of responsibilities that are covered by statute law. Depending on the extent of your authority within the organisation, some of these areas may include:

- ✓ Occupational health and safety,





- ✓ Employment law,
- ✓ Contract law,
- ✓ Commercial law.

All of these areas should be covered by your company's policies and procedures, so you should not need to concern yourself with the details of the legislation. However, because of the practical realities of the workplace, there are some aspects of the law that you need to know. This is to protect yourself against possible legal liability, especially in the event that you work for an employer who does not have comprehensive policies and procedures. We will cover some of the vital aspects of occupational health and safety law in Section 2 and employment law in Section 9.

■ POLICIES AND PROCEDURES

You need to follow your company's policies and procedures. These should include all the practical requirements to make sure that you or other members of staff are getting the job done effectively and abiding by the law at the same time.

If you work for a company that does not have comprehensive policies and procedures, there is plenty of guidance around for most important areas of legal responsibility. There are books and software packages available with sample policies and procedures that can be easily customised to suit the company. ADAS also supplies pro forma risk assessment templates and guidelines, which can be found in this manual.

For contract dive supervisors, it is a very good idea to build your own reference manual with good checklists, copies of the relevant tables and first aid/emergency procedures and phone numbers. This not only helps you find the information when you need it at the dive site, it also presents a professional and competent image to your employer, or to your clients. They may even appreciate assistance in improving their own diving operations manual!

The following is an actual example of what a practising dive supervisor has in his manual:



- ✓ Emergency contacts (DES, Hospitals, Hyperbaric units, etc.)
- ✓ Frequently used contacts
- ✓ Marine radio frequencies
- ✓ Briefing check list
- ✓ Emergency plan proforma
- ✓ Risk assessment proforma
- ✓ Dive logs
- ✓ Conversion tables
- ✓ AS/NZ2299.1
- ✓ Initial neurological examination (by non-medical person)
- ✓ Field neurological checklist
- ✓ Repetitive dive worksheet
- ✓ Chamber operations Log
- ✓ Chamber checklist & operation notes





- ✓ Surface supply equipment checklist
- ✓ KMB 17, 18, EXO, AGA Divator etc. checklists
- ✓ SSBA panel settings and checklist
- ✓ Dive site checklist
- ✓ Altitude diving worksheet
- ✓ Dive equipment field repair information KM, DSI, Interspiro etc
- ✓ Specific dive equipment operation information
- ✓ Witness statement
- ✓ Accident report form
- ✓ Work cover forms

You must remember, however, that you are obliged to follow the company's policies and procedures when these are available, unless they do not comply with legislation. The legislation always takes precedence. If you find something in the policies and procedures that do not comply, bring it to the attention of management.

■ YOUR RESPONSIBILITY FOR YOUR TEAM

As supervisor, you take on the responsibility for the actions of your team while at work. You must make sure that they abide by all legal requirements when undertaking work under your direction.

As supervisor, you also set the tone for the group you work with. Setting a good example, and even being prepared to take a moral stand on issues such as not letting an employee drive home if they turn up to work under the influence of drugs or alcohol, should earn you some respect, even if the person doesn't appear to like you for it!!

■ PERMISSION TO WORK IN AUSTRALIA

A valid work visa or Australian residency is required for undertaking paid employment within Australia.

■ QUALIFICATIONS, COMPETENCE AND MEDICAL FITNESS TO DIVE



You will need to check all of these before allowing any diver to enter the water, particularly if you are working with divers you do not know. ADAS qualifications, along with relevant industry certificates are legal requirements in many parts of Australia. Medical fitness to dive certificates need to be current, as do first aid certificates. For other qualifications that do not require regular updating, you may need to assess current competence, as again, it is a legal requirement that you ensure that your team is competent to perform the task or job safely.



4

LEGISLATION AND GUIDANCE APPLICABLE TO DIVING

INTRODUCTION

■ LEGISLATION

Much of the legislation applicable to diving is found in the Regulations for construction and occupational health and safety. The legislation varies throughout Australia and New Zealand and you will need to make sure that you have a good understanding of the local requirements. Some Regulations refer to specific Standards, which then have force of law.

STANDARDS AND CODES OF PRACTICE

■ GENERAL



Standards are published documents, which set out specifications, and a procedure designed to ensure that a material, product, method or service is fit for its purpose and consistently performs the way it was intended to. They are intended to act as vehicles of communication for producers and users. They establish a common language, which defines quality and establishes safety criteria.

A standard is a set of guidelines developed for guidance to industry and endorsed by an appropriate body such as:

- ✓ Standards Australia
- ✓ International Standards Organisation (ISO)
- ✓ British Standards (BS)
- ✓ American National Standards Institute (ANSI)
- ✓ American Society of Mechanical Engineers (ASME)
- ✓ American Petroleum Institute (API)
- ✓ American Society for Testing and Materials (ASTM)
- ✓ Comité Européen de Normalisation (CEN, European Committee for Standardization)



Similarly, a code of practice is an industry guideline, which may be developed by an industry association or similar body.

NOTE



Note that it is not legally binding to comply with a given standard or code of practice, except where it is specifically referred to in legislation. Compliance with a standard or code of practice may be a requirement of a contract for a specific diving operation, even where not required by legislation.

Standards and codes of practice are useful for planning dive operations, as well as a range of other areas, such as equipment certification and maintenance, occupational health and safety record keeping and so on.

■ AS/NZS 2299.1:1999 OCCUPATIONAL DIVING



For the onshore dive supervisor, your “bible” for diving operations is the joint Australia and New Zealand Standard, AS/NZS 2299.1:1999 Occupational Diving (along with this manual of course!!). This Standard is called up in Regulations throughout most of Australia and it is good practice to abide by the requirements in the Standard as a minimum.

Much of the legislation and guidance directly applicable to occupational diving is covered in Section 5, which covers planning dive operations. For general awareness, we have included information on offshore legislation in this chapter.

While AS/NZS 2299.1:1999 is considered the definitive diving standard, there are other Standards and Codes that may also be applicable, depending on the dive operation.

■ OTHER APPLICABLE STANDARDS



Another example is AS 2815-1992, *Training and certification of occupational divers*, which sets out detailed guidelines for the training of occupational divers. All ADAS Diver Training Establishments training programs comply with ADAS requirements, which generally exceed requirements set out in this Standard.

There are other Industry codes of practice, which have not been specifically approved by the Government, but provide invaluable assistance in many areas, having been developed by people and organisations with years of experience in the industry. For example, the International Marine Contractors Association (IMCA) provides guidance material for offshore diving, which is an international trade association representing offshore, marine, diving and underwater engineering companies.

IMCA has an accreditation scheme that caters for divers who are not covered by a national government scheme (e.g. ADAS), and specifically provides accreditation for offshore Air and Mixed Gas Supervisors, Life Support Technicians and Diver Medical Technicians. IMCA guidance documents are specifically for offshore diving related activities but are very informative. The IMCA website can be found at <http://www.imca-int.com>.

The following table is a list of Standards and other documents that may be applicable to a diving organisation. To obtain information on the latest version and the cost, visit the Standards Australia website at <http://www.standards.com.au>.



■ STANDARDS DIRECTLY APPLICABLE TO DIVING

AUSTRALIAN/AUSTRALIAN NEW ZEALAND STANDARDS



- ✓ **AS/NZS 2299.1:1999;** Occupational Diving.
- ✓ **AS/NZS 2299.2;** Scientific Diving (currently under development – July 2000).
- ✓ **AS 2815.1-1992;** Training and Certification of Occupational Divers (Scuba to 30m).
- ✓ **AS2815.2-1992;** Training and Certification of Occupational Divers Part 2: Air Diving to 30m.
- ✓ **AS2815.3-1992;** Training and Certification of Occupational Divers Part 3: Air diving to 50m.
- ✓ **AS2815.4-1992;** Training and Certification of Occupational Divers Part 4: Bell diving.
- ✓ **AS4005.1-1992;** Training and Certification of Recreational Divers Part 1: Minimum entry-level SCUBA diving.

■ STANDARDS RELEVANT TO DIVING ORGANISATIONS

AUSTRALIAN STANDARDS



- ✓ **1210;** Pressure vessels.
- ✓ **1885;** Measurement of occupational health and safety performance.
- ✓ **1885.1;** Part 1: Describing and reporting occupational injuries and disease (known as the National Standard for workplace injury and disease recording).
- ✓ **2030;** The approval, filling, inspection, testing and maintenance of cylinders for the storage and transport of compressed gases (known as the SAA Gas Cylinders Code).
- ✓ **2030.1;** Part 1: Cylinders for compressed gases other than acetylene.
- ✓ **2626;** Industrial safety belts and harnesses – Selection, use and maintenance.
- ✓ **2815;** Training and certification of occupational divers.
- ✓ **2815.1;** Training and certification of occupational divers Part 1: SCUBA to 30m.
- ✓ **2815.2;** Training and certification of occupational divers Part 2: Air Diving to 30m.
- ✓ **2815.3;** Training and certification of occupational divers Part 3: Air diving to 50m.
- ✓ **2815.4;** Training and certification of occupational divers Part 4: Bell diving.
- ✓ **3000;** Electrical installations-Buildings, structures and premises (known as the SAA wiring rules).
- ✓ **3848;** Filling of portable gas cylinders.
- ✓ **3848.2;** Part 2: Filling of portable cylinders for self-contained underwater breathing apparatus (SCUBA) and non-underwater self-contained breathing apparatus (SCBA) – Safe procedures.
- ✓ **4005;** Training and certification of recreational divers.
- ✓ **4484;** Industrial, medical and refrigerant compressed gas cylinder identification.





AUSTRALIAN/ NEW ZEALAND STANDARDS

- ✓ **1269**; Occupational noise management.
- ✓ **1337**; Eye protectors for industrial applications.
- ✓ **1891**; Industrial fall-arrest systems and devices.
- ✓ **1891.1**; Industrial fall-arrest systems and devices Part 1: Safety belts and harnesses.
- ✓ **2299**; Occupational diving operations.
- ✓ **2299.1**; Occupational diving operations Part 1: Standard operational practice.
- ✓ **4360**; Risk Management Standard.
- ✓ **4801**; Occupational Health and Safety Management Systems – Specification with Guidance for Use.
- ✓ **4804**; Occupational Health and Safety Management Systems – General Guidelines on Principles, Systems and Supporting Techniques.
- ✓ **4581**; Management System Integration – Guidance to Business, Government and Community Organizations.
- ✓ **HB 143**; Guidelines for managing risk in the Australian and New Zealand public sector.

OTHER DOCUMENTS



- ✓ The Petroleum Submerged Lands (Diving Safety) Regulations 2000.
- ✓ The Petroleum Submerged Lands (Diving Safety) Regulations 2000 Code of Practice.
- ✓ International Maritime Contractors Association; Numerous advisory documents.
- ✓ ISO 2230 (International Standards Organisation); Vulcanised rubber – guide to storage.
- ✓ ANSI/ASME; Boiler and Pressure Vessel Code.
- ✓ Ministry of Commerce New Zealand; New Zealand Electricity Regulations 1993.
- ✓ International Maritime Organisation; International Regulations for Preventing Collisions at Sea (1972).
- ✓ Commonwealth of Australia; National Measurement Act 1960.

PETROLEUM INDUSTRY

■ GENERAL

While the petroleum industry is not generally relevant to the Onshore Dive Supervisor, it is useful to be aware of the requirements for the Australian offshore petroleum and minerals mining industries.

ADAS accreditation is a mandatory requirement for all persons wishing to work as divers in the Australian offshore petroleum and minerals mining industries.





The State and Territorial *Petroleum (Submerged Lands) Act* and associated regulations apply from the Territorial Sea Boundary seaward for a distance of three nautical miles. The State and Territorial Acts also apply for islands or reef systems regarded as State or Territory land.

The Commonwealth *Petroleum (Submerged Lands) Act 1967* and associated regulations apply to all Australian waters outside of the 3 nautical mile line (except for islands or reef systems regarded as State or Territory land). This is a Commonwealth Government Act, jointly administered by the Commonwealth Government and the relevant State/Territory Government.

Further details are given below.

COMMONWEALTH

The Department of Industry, Tourism and Resources administer areas under Commonwealth jurisdiction. The website may be found at:

- ✓ <http://www.industry.gov.au>

The following legislation may be applicable:

COMMONWEALTH LEGISLATION



- ✓ The Petroleum (Submerged Lands) Act 1967.
- ✓ Petroleum (Submerged Lands) Regulations.
- ✓ Petroleum (Submerged Lands) (Management of Safety on Offshore Facilities) Regulations.
- ✓ Petroleum (Submerged Lands) (Occupational Health and Safety) Regulations.
- ✓ Petroleum (Submerged Lands) Act – Directions.
- ✓ Schedule of Specific Requirements as to Offshore Petroleum Exploration and Production 1995.
- ✓ The Petroleum Submerged Lands (Diving Safety) Regulations 2002.

APPLICABLE LEGISLATION FOR STATES/TERRITORIES & COMMONWEALTH ADJACENT AREAS

NOTE: **Active/Inactive** refers to current or existing petroleum facilities or works for the area. Inactive means that there is no petroleum work currently taking place in that area, although the legislation still exists.

LEGISLATION FOR STATES TERRITORIES AND COMMONWEALTH ADJACENT AREAS



State/Legislation	State/Territorial Waters	Commonwealth Adjacent Area
New South Wales	Inactive	Inactive
Petroleum	Petroleum (Onshore) Act 1991. Petroleum (Submerged Lands) Act 1982. Petroleum (Submerged Lands)	See Commonwealth above.



State/Legislation	State/Territorial Waters	Commonwealth Adjacent Area
General OH&S	Further Amendment Act 1991. Construction Safety Regulations 1950. Occupational Health And Safety Act 2000. Occupational Health And Safety Regulation 2001.	
Northern Territory	Inactive	Active
Petroleum OH&S	 Northern Territory Work Health Act. Work Health (Occupational Health and Safety) Regulations.	See Commonwealth above. Northern Territory Work Health Act. Work Health (Occupational Health and Safety) Regulations.
Queensland	Inactive	Inactive
Petroleum OH&S	 Workplace Health and Safety Act 1995.	
South Australia	Inactive	Inactive
Petroleum OH&S	The Petroleum Act 1940 (as amended). The Petroleum (Submerged Lands) Act 1967. The Petroleum (Submerged Lands) Act 1985 and Regulations by the same title. The Occupational Health Safety and Welfare Act 1986. The Occupational Health Safety and Welfare Regulations 1995.	See Commonwealth above. The Occupational Health Safety and Welfare Act 1986. The Occupational Health Safety and Welfare Regulations 1995.
Tasmania	Inactive	Inactive
Petroleum OH&S	 Workplace Health and Safety Act 1995.	See Commonwealth above. See Commonwealth above.
Victoria	Inactive	Active
Petroleum General	Petroleum (Submerged Lands) Act 1982. Port of Melbourne Authority (No 2) Regulations 1988.	Commonwealth legislation as shown above.





State/Legislation	State/Territorial Waters	Commonwealth Adjacent Area
OH&S		OH&S Act 1985(Vic) and Regulations.
Western Australia	Active	Active
Petroleum	Petroleum (Submerged Lands) Act 1982. Petroleum (Submerged Lands) Regulations 1990. Schedule of Specific Requirements as to Offshore Petroleum Exploration and Production 1995.	Commonwealth legislation as shown above.
OH&S	The Schedule of General Requirements for Occupational Health and Safety Requirements. Occupational Safety and Health Regulations 1996.	Schedule 7 of the Petroleum (Submerged Lands) Act 1967 (Commonwealth).

OTHER RELEVANT ACTS AND REGULATIONS



ANSI/ASME	Boiler and Pressure Vessel Code.
Ministry of Commerce New Zealand	New Zealand Electricity Regulations 1993.
International Maritime Organization	International Regulations for Preventing Collisions at Sea (1972).
Commonwealth of Australia	National Measurement Act 1960.

DEPARTMENTS ADMINISTERING PETROLEUM LEASES

Details of departments responsible for administering petroleum leases are given below.

■ **NEW SOUTH WALES**

- ✓ Department responsible: Department of Mineral Resources.
- ✓ Legislation: <http://www.austlii.edu.au/do2/form.pl?formtype=guided>

■ **NORTHERN TERRITORY**

- ✓ Department responsible: Department of Mines and Energy.
- ✓ Web Site: <http://www.dme.nt.gov.au/>

■ **QUEENSLAND**

- ✓ Department responsible: Department of Mines and Energy.



✓ Web Site: <http://www.dme.qld.gov.au/iasd/index.htm>

■ SOUTH AUSTRALIA

✓ Department responsible: (Petroleum) Primary Industries and Resources, (Petroleum Group).

✓ Web Site: <http://www.petroleum.pir.sa.gov.au/>

■ TASMANIA

✓ Department responsible: Department of Infrastructure, Energy and Resources (Minerals Resource Tasmania Division).

✓ Web site: <http://www.mrt.tas.gov.au/>

■ VICTORIA

✓ Department responsible: Department of Natural Resources and Environment (Minerals & Petroleum Operations).

✓ Web site: <http://www.nre.vic.gov.au/minpet/pet/pet.htm>

■ WESTERN AUSTRALIA

✓ Department responsible: Department of Industry and Resources.

✓ Web site: <http://www.dme.wa.gov.au/>



5

SUMMARY

SECTION SUMMARY



- ✓ The diving contractor or employer of divers must ensure that all members of the dive team comply with the relevant legislation, which generally includes complying with AS/NZS 2299.1:1999 *Occupational Diving*.
- ✓ AS/NZS 2299.1:1999 requires the diving contractor to appoint Dive Supervisors in writing.
- ✓ A senior diving supervisor or diving superintendent may be responsible for a number of Dive Supervisors or for a major contract and usually has responsibility for liaison with the client.
- ✓ The Dive Supervisor is responsible for the safe conduct of the diving operation and is generally responsible for the dive plan, selection of equipment and personnel, ensuring compliance with legal requirements, maintaining appropriate records and liaising with the dive superintendent or manager.
- ✓ The Australian Diver Accreditation Scheme (ADAS) offers accreditation to divers who can establish that they have been assessed by an ADAS Diver Training Establishment as meeting the competency requirements of the relevant ADAS/AS 2815 Part(s).
- ✓ ADAS accreditation is a mandatory requirement for all persons wishing to work as divers in the Australian offshore petroleum and minerals mining industries.
- ✓ In some States, ADAS accreditation supplies proof of compliance with AS/NZS 2299.1:1999, which is required by regulations for construction diving.
- ✓ Acts and Regulations applicable to diving are different in every State and Territory and different again for offshore diving, which comes under Commonwealth Government Acts and Regulations.
- ✓ You can find information on Australian legislation at the Attorney General's Department's website at <http://law.gov.au/wotl.html>; the Australian Legal Information Institute website at <http://www.austlii.edu.au>; Law Australia Online <http://www.lao.com.au>; Scale Plus <http://scaleplus.law.gov.au>
- ✓ Information on New Zealand legislation can be found at The GP Legislation Collection at <http://www.gplegislation.co.nz>.
- ✓ Standards and codes of practice are guidelines, which are not legally binding, except where specifically referred to in legislation.
- ✓ A complete list of Australian Standards and the latest revision can be obtained from Standards Australia or from their website Standards Australia Online at <http://www.standards.com.au>.
- ✓ Codes of practice are available from the applicable industrial body.
- ✓ AS/NZS 2299.1:1999 Occupational Diving is the main standard used by Onshore Dive Supervisors.



- ✓ The diver(s) should have a valid certificate of training or competence, have a valid AS/NZS 2299.1:1999 diving medical certificate and be competent to carry out safely the required work.

