

# **ADAS BRIEFING ON PROPOSED MODEL WORK HEALTH AND SAFETY REGULATIONS**

## **SITUATION**

The Council of Australian Governments has agreed to develop a uniform set of legislation for occupational health and safety for all Commonwealth and State/Territory workplaces and work activities. A new Work Health Safety (WHS) Act has been agreed and is in the process of being enacted.

A draft set of model WHS regulations have been developed by Safework Australia (by a group including all State/Territory OHS regulators, the Australian Council of Trade Unions and industry representatives). A copy of these draft regulations is attached FYI.

- These draft regulations contain specific provisions for the regulation of work diving that will apply to all work diving activities conducted in Australia.
- The draft regulations were released in December 2010 and are available for public comment until the 4<sup>th</sup> of April 2011 – that is – FOR A FURTHER 4 WEEKS.
- Unless comment seeking change to the draft regulations are received by Safework Australia (SWA) before 4 April, these Regulations will be enacted as they are drafted.
- The government has signified it will not permit any delay to the process and the regulations will become law for all of Australia in January 2012.

## **SIGNIFICANT DEFICIENCIES IN THE DRAFT REGULATIONS**

ADAS, the Australian Council of Trade Unions and the Maritime Union of Australia has analysed the draft regulations and feels that they are significantly deficient in a number of ways that adversely effect diver safety and jobs and in fact result in a lower level of safety than that which currently exists under existing occupational health and safety arrangements.

- Although we have a number of concerns about the effective opening up of general diving work to recreational scuba divers (as allowed by the draft regulations), we are advised that any change to the provisions that allow minimally trained divers to undertake general diving work is non-negotiable

ADAS is therefore concentrating on seeking change to those provisions affecting overall diver safety and construction diver safety in particular. The following brief is written on that premise.

**It identifies the following issues of significant concern.**

### **1. 2299.1 IS NOT CALLED**

The regulations only apply a very small number of the safety provisions of AS/NZS 2299.1. This results in a situation where unscrupulous rogue divers and contractors will be able to use inappropriate diving methods and equipment to cut costs. This will put reputable divers and contractors at a major disadvantage and will make it difficult (if not impossible) for them to compete in what will effectively be an unregulated market/work place.

- High quality operators will either not be able to compete or will have to compromise;
- Clients will not be able to find the level of quality they require from dive operators;
- Clients and contractors may find it difficult if not impossible to comply with their ISO quality assurance certification requirements in regard to verification of competence;
- They may then not be able to meet the quality assurance standards required of them in large contracts.

Although there are some compliance provisions in the draft called up from 2299.1 (relating to general matters concerning the fitness of workers, proof of qualifications, undertaking risk assessments, dive planning and dive records), there is a complete absence of requirements in relation to such critical issues as:

- duties of diver, attendants and dive supervisors;
- selection of breathing apparatus;
- first aid training and medical equipment for dive teams;
- provision of protective equipment;
- equipment standards;
- ascent rates;
- diving in polluted waters;
- communications;
- maximum depths for air diving on scuba and surface supply breathing apparatus (SSBA);
- restrictions or guidance on the use of gas mixtures other than air;
- standards for diving equipment;
- requirements for scuba reserve arrangements and SSBA emergency and reserve breathing gas supplies;
- dive site requirements;
- decompression diving procedures;
- restrictions on the use of scuba equipment;
- standards for diving equipment;
- standards for breathing gas quality;
- requirements for gas testing to ensure appropriate air quality;
- use of pneumatic and hydraulic tools;
- availability of decompression chamber to support diving operations;
- conditions under which a recompression chamber shall be located at the site of a diving operation;
- standards for recompression chambers;
- contents of diving operations manual;
- minimum team sizes for scuba and SSBA operations;

- ❖ **These very substantial gaps concerning standard operational practice effectively make diving work operations impossible to regulate.**

Such a comprehensive deficiency in the draft regulations is unsupportable. It deprives the regulator of substantial compliance tools necessary to ensure that workers are provided with safe systems of diving work, puts worker health and safety at risk and results in a work environment where current safety standards are significantly reduced.

## **2. CONSTRUCTION DIVER TRAINING IS DE-REGULATED**

### **Reg 4.8.8 Competence of worker—construction diving work**

*A person must not carry out construction diving work unless the person holds a statement of attainment for construction work that includes the type of construction work to be carried out by the person.*

*Example - A statement of attainment issued by the Australian Diver Accreditation Scheme.*

This draft regulation effectively de-regulates construction diver training. Unlike Reg 4.8.5(1) for General Diving Work competency, it does NOT specify the standard to which the training is to be undertaken NOR does it specify that the training must be delivered by a quality assured training establishment. It does not even require that the training deliverer be published on the SWA website!!

It is not clear why SWA has taken this tack in regards to deregulating the highest risk form of occupational diving. It can only be presumed it has been done in ignorance – but it is clearly not in the best interests of construction divers.

The implications are clear. Construction diver training is the high end of the market. It is expensive to deliver – requiring costly plant and equipment, venues and dive sites; support staff and trainers must be experienced construction divers and must be paid industry-equivalent wages; it is a small market and margins are small – it cannot support large numbers of schools; it is high risk, and safety and quality standards must be rigidly enforced.

By completely de-regulating the training market:

- schools will NOT be required to train to the Australian Standards which have been developed by the industry specifically for construction diving work;
- dive trainers will not need to be experienced industry divers;
- construction diver training will follow the model of the recreational dive training industry - competition between training schools will mean that standards are cut to reduce costs to the bone.
  - The recreational scuba training industry (which is currently suffering a very severe drop in interest and earnings) will see this as a new avenue to earn money;
  - Course content and course length will be reduced to ridiculous extremes;
  - Trainers will be paid a pittance and therefore come from the bottom end of the market and will have minimal construction experience;
  - Exposure to current construction diving equipment and practices will be reduced;
  - Recreational dive practices will creep into the training programs and then into the industry;
  - Safety for trainees will be reduced and accidents will increase.

- The market will be flooded with cheap-as-chips semi-trained divers who will underbid for jobs;
- Standby divers and supervisors may not have the training to perform effectively in an emergency
- The quality associated with existing Australian certification will be devalued;
- The quality-assured training that ADAS provides to offer employers proof of compliance with their duty of care may disappear.
  - If low end, cheap-as-chips construction diver training becomes prevalent, high quality ADAS schools will not be able to compete and will have to close down.
  - ADAS divers may then be adversely affected by the loss of a structural pathway to the offshore industry.

This deregulation would put a huge emphasis on contractors, employers and even clients to have in place very robust verification of competency arrangements to ensure that they meet their due diligence responsibilities under their legislated duty of care requirements.

- And God forgive if anything happened and it was necessary to have to defend in a court of law decisions that have been taken.

It must be noted that the mandate for ADAS to be the national construction diver certification agency comes NOT from Safework Australia (who is making the new regulations) but from the Department of Resources, Energy and Tourism, which is concerned only with the offshore oil and gas sector. It seems this is a case of the left hand of government not knowing what the right hand is doing.

ADAS is working with the unions to overcome this anomaly but needs your help to convince Safework Australia to recognise that offshore construction diving is a global industry.

It needs to know that the access of Australian divers to international jobs is dependent on a carefully designed sequential training and certification process.

These regulations have the potential to unravel the internationally recognised ADAS diver career path which starts at occupational scuba and leads through offshore saturation diving and beyond.

These regulations stand to affect the safety and jobs of all current and future Australian construction divers. The globally-recognised ADAS certificate stands to be devalued and ADAS diver global portability put at risk.

### **3. CONSTRUCTION DIVING WORK IS OPENED UP TO NON-CONSTRUCTION DIVERS**

The draft regulations divide diving work in two classes – general diving work and construction diving work. General diving work is defined as all diving work other than construction diving work. Two special subsets of general diving work are created (*incidental* and *limited scientific diving work*) which are subject to reduced competency requirements. Divers undertaking these subsets of general diving work are restricted to *limited diving*. *Limited diving* is defined as general diving work that does NOT:

- go deeper than 30 meters;

- require decompression,
- entail using surface powered plant;
- require penetration diving;
- use mechanical lifting equipment or buoyancy lifting device.

**The importance of this ‘*limited diving*’ provision is that it implies that a general work diver undertaking ‘*normal*’ general diving work can do any of these things (i.e, can dive to any depth, can undertake decompression and penetration diving, can use surface powered tools and lifting devices and mechanical lifting equipment!)**

There seems to be a strong presumption in the Regulations that categorising diving work into these two classes (‘general diving work’ and construction diving work’) results in a situation where there is a substantially lesser risk (and consequently reduced need for diver training, competency and certification requirements), for the class of ‘general diving work’.

As the regulations are formulated, however, there are a number of high risk and demanding aspects of diving work that will fall clearly into the class of ‘general diving work’. These include:

- Extreme depth
- Decompression diving
- Low visibility, strong current and cold water conditions
- Breathing mediums other than air
- Penetration diving
- Differential pressure situations
- Simultaneous operations including overhead lifting
- Using powered tools, especially cutting tools

*Construction diving work* is defined as diving work that involves *construction work*. *Construction work* is defined as meaning any work carried out in connection with the construction, alteration, conversion, fitting-out, commissioning, renovation, repair, maintenance, refurbishment, demolition, decommissioning or dismantling of a structure.

**However, there are some exceptions to this definition, most importantly:**

- **testing, maintenance or repair work of a *minor* nature carried out in connection with a structure; or**
- **mining or the exploration for or extraction of minerals**

There are therefore a number of key aspects where the various provisions of the regulations are unclear and will be open to interpretation in line with the specific interests of the employers and contractors. These include:

- What is ‘minor’ in relation to large complex construction projects? E.g.; is the deep non destructive testing of a steel offshore wind turbine structure ‘minor’? Is the change-out of a small but critical dam control valve at 80 metres ‘minor’?
- Does “Construction work’ include ‘salvage’? E.g.; is the recovery of a semi-trailer submerged in a river, weir or the sea after driving off, say, a bridge or pier “construction work”?

- Is the salvage of a large car ferry submerged in a river or channel 'construction work'?
- Is the salvage of a fishing trawler in 70 metres of water 'construction work'?
- Does 'construction work' include inspection tasks?
- Is a waterway, the seabed or a shipping channel a 'structure'?
- Is a mooring (of any size) a 'structure'?

**In our view, the regulations as formulated allow “general diving work” to be interpreted to include:**

- Hull cleaning including of large freighters, passenger liners, cargo ships;
- Anode installation and replacement on large vessels, wharves and other structures;
- Salvage of any boat, ship, motor vehicle or aircraft;
- Search and recovery tasks not involving construction;
- Cleaning or inspection of piles;
- Inspection tasks at any depth, potentially involving penetration diving. This can include deep inspections of dams, wharves, locks, tunnels, mine shafts etc, using underwater video, photographic or visual at any depth using equipment, bridge inspections;
- Non Destructive Testing (NDT) tasks, potentially involving deep and/or penetration diving;
- Plugging holes in dams and weirs;
- Underwater maintenance or change-out of components at any depth (such as changing foot valves or swapping out pumps);
- Plugging leaks in dams and weirs;
- Tank cleaning and dredging, including overhead penetration dives and confined space entries;
- Water jetting and dredging of channels or the seabed;
- Erosion control of river banks or the seabed involving installing concrete mattresses;
- Diving in toxic or contaminated environments to undertake inspections or minor maintenance tasks;

***Note that nothing in the draft regulations specifies any depth limitations.***

***Note that nothing in the draft regulations specifies any limitations on the breathing gas mixtures or limits the type of diving equipment that must be used.***

***Note that 'general diving work' includes deep diving decompression diving, penetration diving and using hydraulic tools and mechanical and buoyant lifting devices.***

- ***Presumably, then, these sorts of general diving work could be undertaken by a diver with a recreational scuba training qualification on scuba, or a surface supplied general work diver using heliox at 70 metres.***

#### **4. STANDARD OF DIVE SUPERVISION IS SUBSTANTIALLY COMPRISED**

The draft regulations (Reg 4.8.11) require that a one or more divers be appointed as dive supervisors to supervise all diving work carried out in the business or undertaking. The competence

requirements for a dive supervisor are merely that he be a diver qualified for the work being undertaken and that he be experienced in the work being carried out.

The draft regulations then impose a range of responsibilities on the dive supervisor. He is required to:

- identify all hazards and assesses all risks associated with the diving work;
- implement measures to control risks and monitor their implementation
- prepare a dive plan
- brief workers on the dive plan;
- maintain and authorises the dive safety log.

The requirements for dive supervisor competencies as drafted fail to recognise these significant legislated responsibilities imposed on dive supervisors by the draft regulations themselves and the critical role of the dive supervisor both from a diving safety and a work-outcomes perspective.

The competence requirements for dive supervisors in the draft make no allowance for the degree of significant maturity, judgment and expertise required to comply with the duties these regulations place upon him.

- The provisions of the draft result in significant reduction of the standards of safety currently applied by AS/NZS 2299.1.
- The draft regulations totally ignore the requirements placed on the role of the supervisor by 2299.1 and identified as specific competencies in AS 2815.5.
- Supervisors are the key risk management control for occupational diving.
  - Remember what this individual does at the moment ,keeping the worksite, divers and equipment safe and ensuring the minimal escalation of any issues that may occur on a dive site

The draft regulations require only that the worker be 'experience in the type of diving to be supervised'.

- The obvious question is 'how experienced' and 'experienced in what'?

Shonky contractors will use their experienced and capable divers on the bottom getting the work done and their least experienced divers on the surface 'supervising'.

- There is no recognition that supervisors have a special responsibility to ensure diver safety and that entails training in the recognition and management of emergencies as required by 2299.1.
- There is no recognition that most divers go for years without experiencing an emergency and then may well – during their very first emergency – actually have to manage it and secure the safety of the diver(s).

In our view, as a minimum, the regulations must require that the dive supervisor be a required to be a 'competent person' (defined as a person who has acquired through training, qualification or experience the knowledge and skills to carry out the task).

- However, in view of the high risk nature of construction diving work, we feel that the regulations should specify that supervisors must undertake appropriate training (as specified in 2299.1) in diving risk assessment, hyperbaric first aid and emergency management skills.

## **5. DIVING WORK ABLE TO BE DONE ON BREATHOLD 'FREE DIVING'**

The draft Regulations provide for diving using breath hold technique to be used in both general and construction diving work. This is deemed to be totally unsafe and unacceptable for any other activity where there is a risk to the worker from a toxic or non-respirable atmosphere (for example, in operations involving work in toxic or asbestos contaminated atmospheres or for confined space entries).

- **By any understanding, attempting to breathe water will result in substantial injury or death to the worker.**

The draft regulations specifically provide that a standby diver is NOT required for free diving operations. Workers undertaking free-diving work are always susceptible to being snagged and running out of air or suffering from shallow water blackout on ascent.

Only within the last two years, a worker undertaking diving work on a tuna pen in South Australia was pulled unconscious from the water after undertaking free diving work.

- In our view, free diving work is a totally unacceptable technique for undertaking either general or construction diving work.
- Workers in the asbestos removal industry and those working in confined spaces would never be permitted to just 'hold their breath' for periods of time in order to circumvent the Hazardous Work regulations;
- Unscrupulous employers will be tempted to use this provision as a cheap and dirty way to undertake general and construction diving work;
- The safety of divers will be put at risk if this regulation is permitted.

## **IF THESE DRAFT REGULATIONS ARE ENACTED:**

- **Overall lower standards of quality and safety in diver training and diving work activities will result.**
  - There will therefore be greater potential for injury to workers and loss of life;
  - There will be lower levels of enforceability by regulators;
  - Unscrupulous contractors will have even greater freedom to undercut legitimate and safety conscious operators..
- **Construction diver training will be de-regulated.** The standard of construction diver training will be compromised and competencies for construction diving work, the most hazardous of this high risk work, will become extremely variable, resulting in less skilled, less competent and less safe divers and diving operations.
  - Cheap divers will flood the marketplace.
  - Good divers and contractors will be forced to compete at lower and lower prices.
  - Workplace safety will be compromised.
  - Contractors will be forced to put in place even more stringent due diligence procedures to determine if applicants are competent.



- **Minimally trained divers will be able to undertake quite advanced and high risk diving work that under the current regulatory arrangements would be undertaken by construction divers.**
  - Construction divers and contractors will be underbid by cheaper general work divers operating with lower standards of training and equipment and at lower standards of safety;
  - General work divers will be put at increased risk.
- **Recreational scuba training schools will be able to provide training for advanced forms of general diving work and for construction diving.**
  - The draft regulations allow various levels of training organisations for general diving work.
  - Previous drafts of these regulations specified that the training provided for under Reg 4.8.5(1)(b) was specifically to be provided by recreational scuba training organisations.
- **The quality-assured training that ADAS provides to offer employers proof of compliance with their duty of care may disappear.**
  - If low end, cheap-as-chips construction diver training becomes prevalent, high quality ADAS schools will not be able to compete and will have to close down.
  - This will make it more and more difficult for divers to access ADAS basic and advanced training.
  - Divers will be forced to go overseas to access internationally recognised and IMCA accepted training.
  - Australian divers will find it increasingly difficult to access the onshore work experience they need to become eligible and attractive to offshore employers.
- **Dive Supervision, crucial for ensuring the safety of a diver, will be of a significantly lower standard.**
  - Dive supervisors will have substantial levels of responsibility but will not be trained for those responsibilities;
  - Dive supervisors will be at risk of being prosecuted for breach of their responsibilities even though they will not have received appropriate training to undertake them.
- **The insufficient call up of AS/NZS 2299.1 will allow for greater variation of training, compliance standards.** This will significantly reduce:
  - diving safety standards for all occupational diving;
  - the ability of regulators to regulate work of this nature and thus to safeguard the safety of workers.
- **The inclusion of 'free diving work' as a legal method of undertaking diving work will allow unscrupulous employers to direct workers to breathhold diving be used in place of safer methods (even for construction diving).**
  - This will allow for key aspects of the regulations to be disregarded;
  - Existing diving safety standards will be substantially reduced and workers put at significantly increased risk of injury or death.