

ADAS Discussion paper

SUPERVISOR ACCREDITATION

1 Aim of Paper

The aim of this paper is to inform ADAS stakeholders on the current status of ADAS Onshore Supervisor accreditation, to outline ADAS thinking regarding training and assessment arrangements for existing and future supervisors and to seek stakeholder feedback as to the suitability and adequacy on those processes as outlined.

2 Background

2.1 Offshore vs Onshore Supervision

Offshore diving is strictly regulated under the Commonwealth Petroleum (Submerged Lands) Act 1967, with the current informal industry arrangements (involving the International Maritime Contractor's Association (IMCA) Offshore supervisor traineeship scheme) under review as part of the implementation of new offshore diving regulations.

2.2 Onshore Supervision

The regulation of onshore diving is nowhere near as robust as that in the offshore domain. The only guidance for employers is that provided in AS/NZ 2299.1 which basically requires that supervisors be divers experienced in the type of diving and the work to be performed. It also requires that they be trained in the recognition and management of diving emergencies and in first aid and be appointed in writing by their employer.

In general, the various State and Territory legislation's require that employers ensure that their employees are provided with any supervision necessary to ensure their health and safety and also that of any other person in the workplace. Such supervision must be provided by 'competent persons' (Queensland requires that they be 'qualified') who have the knowledge, information and training to ensure that the diving is undertaken without risk to the health of the divers.

There is a fundamental expectation therefore, that onshore supervisors must be:

- experienced in the diving techniques to be used in the diving job;
- experienced in the work techniques to be used in the diving job;
- trained in emergency management and first aid;
- sufficiently competent that they can ensure that the diving work that they are supervising is undertaken without risk to the diver.

Until this time there have not been any formal onshore diving supervisor training and assessment arrangements. ADAS has, in consultation with the onshore industry, now instituted a new Onshore Supervisor accreditation scheme to meet this need. The Onshore Supervisor accreditation is designed to provide:

- assessment of prior learning for existing experienced but unqualified supervisors; and

- training and assessment for suitably experienced onshore occupational divers against the specific competencies required to undertake effective supervision of occupational diving.

2.3 Aim and Scope of Supervisor Scheme

The aim of the scheme is to prepare divers with the personal and professional skills to undertake the work of getting diving work done safely to the satisfaction of both the client and the employer.

As this involves building a successful team by considering and developing the individuals in the team, it involves development in the trainee supervisor of:

- management and leadership skills aimed at identifying situations which might arise
- preparing him/her for decision making, problem solving and general personnel management; and, in addition,
- initial theoretical training and practical diving work experience to achieve the required level of experience in the majority of the supervisor practical work competencies (risk assessments, dive planning, briefings, record keeping, report writing, etc.).

2.4 Onshore Supervisor Grandparent Clause

As a first step, ADAS has recently accredited under a grandparent clause approximately 350 experienced occupational divers in recognition of their current employment and competency as supervisors. Accreditation involved compliance with rigorous prerequisites and validation of the applicant's supervisory competency by an independent competent 3rd party.

In view of the structure of ADAS diving accreditation with substantially different competencies for Part 1 for occupational SCUBA to 30 metres, Part 2 for SSBA to 30 metres and Part 3 as SSBA to 50 metres, the accreditation has been aligned to each particular Part, (ie, as Part 1, Part 2 and Part 3 Supervisors).

The grandparent clause is now formally closed and no more supervisors will be accredited through this route.

2.5 Next Steps

The next steps are to institute processes:

- for assessing experienced onshore occupational diving supervisors who did not satisfy the grandparent prerequisites and are now applying for assessment and accreditation under Recognition of Current Competency (RCC) provisions (where a person is seeking recognition of their competence in the chosen area and an assessment of skills is required to achieve it).
- for training and assessing divers in the first instance with supervisor competencies.

3 Recognition of Current Competency

There is a large number of divers presently acting as supervisors who, for whatever reason, could not meet the prerequisites for the grandparent clause. Under the ADAS

approach, these divers can elect to have their competency formally assessed at an ADAS Diver Training Establishment (DTE) and if successful, apply to ADAS for accreditation.

3.1 Draft Pre-requisites for RCC

The following requirements are proposed as the prerequisites a diver would need in order to apply for RCC (to be supported by a portfolio of supporting evidence):

- Minimum age, character and experience of applicant to establish sufficient maturity to undertake responsibilities (approximately 21 years)
- Minimum diving experience of 100 dives and minimum bottom time of 100hrs at the required level (except for Part 3 where must have 100 hrs at Part 2 level and 50 hours at 30metres plus (including SurDO₂);
- Minimum supervisory experience of 100 dives at the required level
- Minimum surface support experience of 100 hours (tending, compressor operation and maintenance, log keeping, stand-by diver, panel operation, air testing etc).

3.2 Process for RCC

The following process is proposed for undertaking the RCC process:

- Applicants to be issued a comprehensive Study Guide at time of application for RCC;
- Applicants to attend an assessment process at an accredited DTE and must successfully complete a comprehensive theory exam prior to commencement of any other assessment activity;
- Assessment for each supervisor applicant is to include
 - for Part 1 - common theory (physics, physiology, diving maladies, legislation and guidance, recovery, hand tools, decompression and tables), and 2 days (min 5 hrs per day) SCUBA supervision to include all aspects of the conduct of diving, especially air management and emergency management;
 - for Part 2 - common theory plus top -up theory (SSBA specific - including SSBA equipment and maintenance, pneumatic and hydraulic tool safety, construction techniques) and 2 days (min 5 hrs per day) SSBA supervision to include all aspects of the conduct of diving, especially air management and emergency management;
 - for Part 3 - common theory plus Part 2 and Part 3 top-up theory (including chamber operation, offshore activities, tools, SurDO₂, hot water suit diving) + 2 days (min 5 hrs per day) deep SSBA supervision to include all aspects of the conduct of Part 3 diving, especially chamber supervision and diving emergency management;
- This process is envisaged to take 2 – 3 days.

4 Formal Supervisor Training Course

It is felt that to be effective, supervisor training and assessment must provide the students with hands-on experience of 'best practice' supervision - particularly with regard to emergency management competencies. This requires students to undertake practical supervision of realistic and relevant tasks at the required levels of diving and

diving work. The scenarios should expose the applicant to situations that develop their communication, interpersonal, conflict resolution, leadership and management skills. This is a time consuming (and thus expensive) process.

Two basic approaches have been considered:

4.1 'Piggy-Back' Approach

In this concept, the supervisor's assessment is conducted alongside and in conjunction with the appropriate level of basic course, with the supervisors undertaking supervision of basic students in the course of their training.

- This has the advantage of the trainee supervisors undertaking the supervision of inexperienced real divers who are likely to make mistakes, which have safety implications.
- There are significant drawbacks relating to the low number of trainee supervisors that could be catered for under this concept and the distraction from the primary diver training function they would cause to the basic course

4.2 Discrete Supervisor Training and Assessment Courses,

In this concept, a self contained group(s) of applicants is used to provide both the divers who are being supervised and the supervisors who are supervising. The majority of students form the dive team whilst individual student supervisors are undergoing training and assessment.

- This approach has the advantage of increasing the numbers of trainee supervisors who can be trained in a given period of time and is therefore more cost effective.
- The significant disadvantage is the amount of 'non-supervisor' specific activities that students would have to undertake to provide the exercise dive teams for the scenario exercises (ie, with a 4 person dive team, there would be a 1-3 ratio of 'productive' supervisor-specific training to 'unproductive' supporting role playing). There are additional difficulties with the divers becoming 'scenario'd-out' over the repetition of exercise scenarios. The time commitment for the divers also becomes quite significant as high quality training and assessment requires that the practical exercises are comprehensive to train and assess in all aspects of a supervisor's role and responsibilities.

4.3 Deficiencies of Discrete Training and Assessment Course Approach

Neither of these concepts offers an ideal solution to the training and assessment problem. As noted above, they variously present difficulties in the number of candidates that may be trained and the impact on the students of the 'piggy back' basic diver training course or in the way in which the discrete practical training course is structured and delivered and the cost-benefit to the student. The main criticism is that they require a substantial time commitment for the trainee supervisor in order to achieve the requisite workplace experience.

In both instances, there would be an initial block of 5 days or so of theory review and new theory sessions (including risk assessment, OH&S legislation, interpersonal skills, conflict resolution, etc).

5 'Traineeship' Approach

5.1 IMCA Supervisor Scheme

As noted above, the offshore industry presently prepares supervisors through the IMCA Offshore Supervisor training scheme. Under this arrangement, the divers undertake an initial theory training course and examination, and if successful, are qualified as a 'Trainee Dive Supervisor'.

They then gain offshore supervisory experience prior to passing the IMCA theory exam and subsequent formal appointment as a Diving Supervisor. Initially, a Trainee Supervisor is only allowed to supervise for short periods of time and always with a properly appointed Diving Supervisor present. However, a Diving Supervisor must remain in charge of the diving operation at all times and must not delegate his responsibility to the Trainee.

5.2 An ADAS Supervisory Traineeship

Although onshore arrangements are not as structured as those of the offshore diving industry, it is possible that a similar onshore supervisor traineeship could be instituted, broadly run along similar lines as the IMCA scheme described above. The process would depend on industry providing opportunity for gaining the required workplace experience, and the rigour and quality control of that part of the process would be difficult to control. However, the ADAS final assessment process would be the final arbiter in ascertaining that the applicants possessed the required competencies.

- Conceptually, it would initially involve divers registering with ADAS their intention of undertaking the Supervisor Traineeship, paying a registration fee to cover the administration costs of the program and being issued with a comprehensive study pack and Record of Work Experience log book.

They could undertake this step as early in their careers as they liked - in their own interests as early as possible so that they can start what could be a longish process perhaps conducted over several years

- The divers would then attend an introductory course (of approximately 7 days) which would
 - revise relevant physics and physiology etc knowledge,
 - identify supervisor roles and responsibilities under the law,
 - introduce the basis for good interpersonal and management skills;
 - set up for the work-experience phase the required safety critical procedures relating to risk assessment, emergency management, safe work procedures etc.
- The divers would then commence acquiring relevant workplace experience under the direct supervision of an accredited supervisor. This experience would be specifically targeted, with the diver being required to log specified minimum times, at identified areas such as:
 - Risk assessment
 - Dive planning
 - Briefing and debriefing

- Dive control
- Emergency response drills
- When the diver had acquired all relevant work, certified by the relevant supervisor who had supervised the work, he/she could then apply for formal final assessment and accreditation as an ADAS Onshore Supervisor.

5.3 Strengths and Weaknesses

- The traineeship approach has a number of benefits -
 - It reduces the time spent in formal training and thus the time away from work commitment of the diver;
 - It takes account of the absolute requirement for supervisor applicants to have adequate diving and diving work experience, and directs their learning development learning activities in the first years on the job in what might otherwise be dead time;
 - It reduces the cost of the scheme to the users;
 - It obviates the problems identified above in the piggyback and structured course approach.
- The main drawback appears to be the lead-time taken to get the first applicants through the assessment process. This would mean that potential supervisors who have acquired the diving and workplace skills required but don't have their work experience signed-off might have to start the process cold, and this could take considerable time.
- There is also the issue as to whether or not there will be sufficient opportunity for trainees to undertake actual supervision in circumstances where dive teams are 'lean and mean' and don't have fat for providing the required opportunities for this experience. If this is seen to be an insoluble problem, then it may be necessary to incorporate more 'hands-on' supervisory training in the initial preparatory training program.

However, even bearing these negative factors in mind, it seems that there are significant advantages in utilising what would otherwise effectively be 'dead' time for the trainee supervisors to undertake directed experience in fundamental aspects of the diving supervisor's role and responsibility and be able to demonstrate this through a formal record.

6 Conclusion

It seems there are a substantial number of divers waiting for ADAS supervisor accreditation - either experienced supervisors looking for assessment through the RCC provisions or inexperienced divers through a process that provides training and then assessment.

It is apparent that the formal training route for preparing onshore supervisors is not ideal because of the reason identified above, but it has the overwhelming advantage that it can provide experienced divers with the supervisor -specific knowledge without long lead time. In view of the lead time aspect of the traineeship approach, we probably need to approach the issue on a number of fronts. This would entail:

- providing an RCC assessment process ASAP;
- in the short to medium term (probably for 2 years) providing formal training and assessment courses;
- Implementing the traineeship scheme in conjunction with the above so that its trainees come on stream as soon as possible.

ADAS will ensure that all supervisor training is undertaken only by instructors who possess the specific competency to train and assess supervisor candidates. ADAS Diver Trainers will need to apply for specific endorsement to conduct supervisor training and assessment, having demonstrated substantial experience as a supervisor and comprehensive relevant work experience.