



Building Sustainable Closed bell Diver Training Through Collaboration

Bergen International Diving Seminar

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Elected IMCA DDMC member & IMCA C&T Vice Chair**

7th – 8th November 2023

Bell Diver Training Review & Proposals

Why!

- Back to the future proposal 2019, 1 x dive school remaining!!
- Cyclic failures in training facilities which has a direct impact on diving contractor's succession planning and sustainability of saturation diving.
- Regional immigration restrictions minimize access to certain schools for candidates which put additional restrictions on availability.
- Impact on project execution of offshore energy projects which are reliant on saturation diving to maintain production.
- Increasing gaps in the competency of candidates and equipment requirements at the worksite / DSV.
- Feedback from divers on inconsistent training delivery and curriculum.



Objectives!

- Engagement with key stakeholders to work as group with common goals.
- Build qualitative sustainable training model which is less prone to failure of the schools.
- Challenge content in existing training curriculum to ensure it is still value adding.
- Minimize competitive gain through increased standardisation and removal of criteria which can be over onerous and doesn't add real learning.
- Review minimum candidate entry requirements which frees up more quality training time, and reduces risk for the candidates and the schools.
- Reformatted competency frameworks with amended training curriculum which facilitates easy cross referencing for training sign off.

Bell Diver Training Review & Proposals

Objectives!

- Detailed bell run activities delivered on surface / Air / Heliox.
- Review emergency and contingency requirements.
- Review minimum manning and competency requirements for schools.
- Review diving instructions and tables which are being used and whether they could be standardized.
- Review standards which dive systems are being audited against.



Workgroup Members – Industry /IDRCF / Schools /



- Chairman - Andy Butler IMCA/TechnipFMC
- IMCA - Ali Macleod
- IMCA - Peter Sieniewicz
- UK HSE - Phil Crombie
- PSA - Øyvind Loennechen – PSA
- PSA - Ulrik Junge - PSA
- Steve Sheppard - Helix / DDMC Chairman.
- Phil Newsum - ADCI
- ADAS - Amanda Sordes
- INPP – Eric Albeir
- DCBC - David Parkes / Mike Graham
- Commercial Dive Academy – Alan Strong
- NYD - Lars Wroldsen
- PDC - Grant Jameson
- Subsea 7 - Martin Yarrow - SS 7
- Kruez Subsea - Jerry Starling

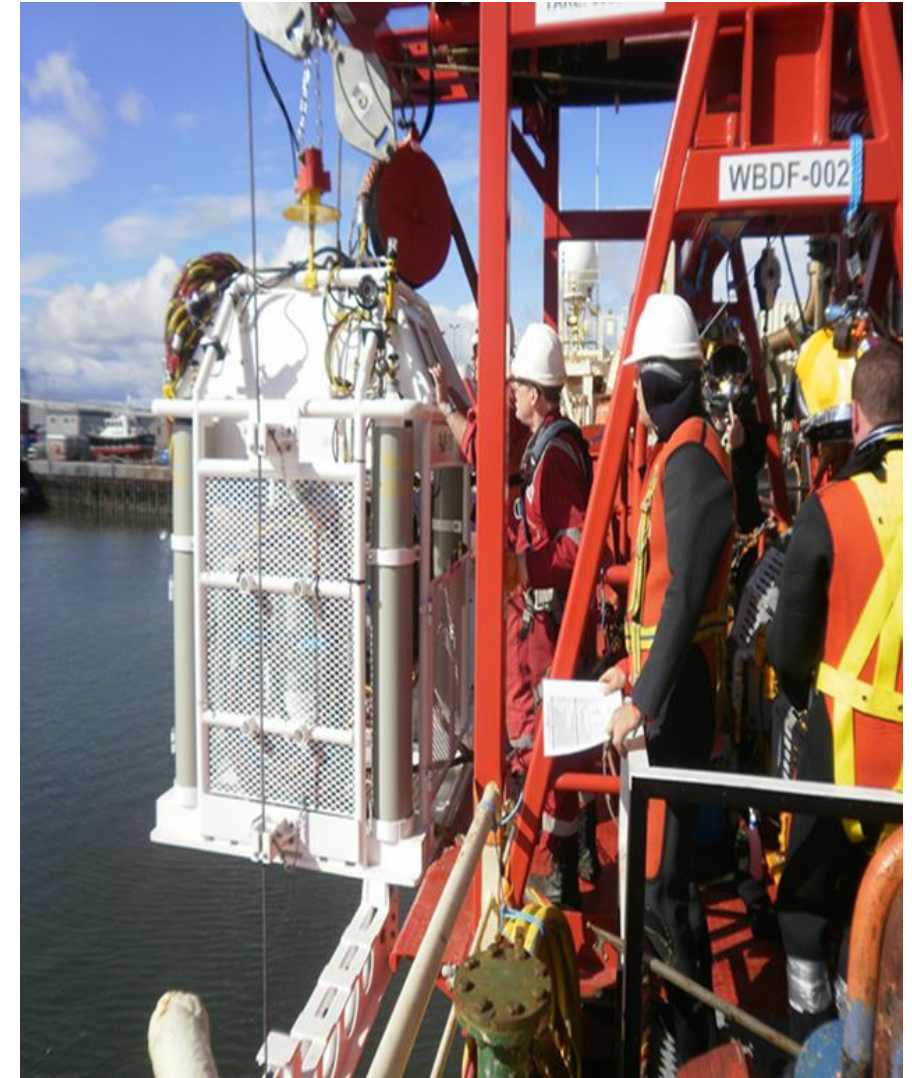
Proposed Prerequisites

- Hold a valid and approved surface supplied diving qualification to 50m for a minimum period of 12 months.
- Completed offshore top up surface supplied diving qualification as required in the country of training delivery e.g. the EDTC
- Hold a valid certificate of medical fitness to dive which remains in date for the duration of the training course.
- Hold a valid Diver Medic Technician which remains in date for the duration of the training course.



Proposed Prerequisites

- Defined minimum depths for qualifying dives.
- Documented record of dives using surface supplied breathing apparatus (SSBA)
 - a) At least 200 dives using SSBA, and
 - b) At least 200 hours of bottom time.
- A factor of 2 will be implemented for dives and times that are carried out offshore.



Proposed Amendments

- List of approved industry recognized diving instructions / tables for use.
- Use of excursion tables and removal of bounce diving methodology.
- Reduce diver lockouts from 29 to 24 for improved efficiency and deemed adequate for learning achievement and knowledge retention.
- Define minimum lock out durations for in water activities for improved quality.
- Inclusion of ALST competencies – Asst LST certificate.



Proposed Amendments

- Removal of medical curriculum that is covered in DMT course, other than emergency drills.
- Clarification on competency requirements for the instructors and training staff who can act under supervision of the instructors.
- Practical Instruction by way of power point presentation on the use of rebreathers – Classroom.
- Practical instruction for set up and use of divers reclaim – Hands on and Classroom.
- DP theory and include practical training through emergency drills to set expectations.
- Additional critical training such as replacing bell bottom door "O" ring.



Proposed Amendments for Deep Dives

- 3 bell lockouts at a minimum bell depth of 50 msw using an excursion window as defined within the diving instructions, using heliox as the breathing medium and bell atmosphere.
- Act as a diver from minimum storage depth of 50 msw with Heliox as the chamber atmosphere.
- One of the 3 lockouts requires the diver to swim away from the bell to the allowable extent of their umbilical which shall be a minimum distance of 15 meters.
- Act as a bell man from a minimum storage depth of 50 msw.



Proposals still to be discussed in detail

- Assurance and compliance requirements for People / Process / Plant at the diving schools.
- Review Emergency and contingency plans, single point failures and ensure key diving emergencies are covered.
- Create descriptive dive plans for surface / Air / TUP/ Heliox which ensure consistency and ease of visibility for sign off all competencies in the frameworks.



Questions??

