



# *Building Sustainable Saturation Diver Training - Back to the Future*

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# Introduction

Why are we reviewing existing Divers Saturation training;

- Cyclic failures in training facility's relating to industry downturns.
- Remove total reliance on training schools
- Limited succession planning for forecasted attrition.
- Existing protocol is non profitable (UTC business review).
- Training does not fit present industry competency requirements.



# Objectives?

- Build sustainable training model which is less prone to failure, and promotes investment in diving schools.
- Reduce costs for divers succession planning (school and diver).
- Capture industry experience through utilisation of the our experienced dive teams before its to late.
- Ensure training criteria;
  - Meets Legislative (HSE-PSA) and industry certification requirements.
  - Align with Diving contractors and Clients business needs.
  - Carried out in safe environment utilising industry standard equipment.
  - Delivered by Industry certified Competent Personnel.
- Protect the future of our industry!

# Proposal- Goals

## **Closed Bell/ TUP qualification - restricted to surface supplied only**

- Additional certificate.
- Carried out at the training establishments.
- Service increased requirement for TUP/ closed bell Air diving
- Option for non saturation qualified divers to be used.

## **Closed Bell/ TUP qualification - Unrestricted**

- Carried out in diving school as per present practice.
- Delivered on DSV as apprenticeship.

## **Expanded training review to cover diver core operational skills training**

- Key stake holders to review requirements (industry and cost of non quality).

# Diver Training Requirements

IDRCF- International Diving Regulators and Certificates Forum.

mutual recognition to identify and implement ***best practice in diver training and assessment*** with the objective of harmonising cross-border diver training outside Europe.”

## Members

- HSE- UK
- PSA- Norway
- ADAS- Australia
- DCBC- Canada
- Secretariat General to the  
Sea Progress Committee- France



# Existing training criteria- UK

## Typical costs and high level course content

HSE Air Diver Course- 9 weeks- £11,000 (Full board).

- HSE Professional Scuba Diver and First Aid - 4 weeks.
- HSE Commercial Air Diving course - 4 weeks.
- HSE Offshore Top Up- 5 days.



Presently no facility for Air closed Bell/ TUP training (JFD 2020)

HSE approved saturation training course- £15, 500 (full board)

- Based on UTC pricing pre closing.
- 2 weeks??
- Including DMT.

# Existing training criteria- Norway

## Typical costs and high level course content

Offshore Air Diver Norwegian Class 1- 16 weeks- € 4,000 (excluding board)

- Theory – 4 weeks.
- Practical – 12 weeks.
- Includes Closed Bell and TUP on Air.
- PSA Class 1 - 50m surface orientated offshore with wet bell

PSA- Bell Diver - 4 weeks- € 19,500 (Full board)

- Training and familiarisation with the bell.
- Emergency procedures.
- Transfer under pressure.
- Diving 0-100 metres deep.
- Majority of Closed bell at NYD , with 5-7 days at INNP saturation facility
- PSA class 2 Bell diver & IMCA DMT



# Existing diver training & competency lifecycle

1. Legislated surface supplied diver training process.
2. Documented surface diving/ in water requirements.
3. Legislated diving medical requirements.
4. Legislated saturation training program.
5. Employment as saturation diver.
6. Certified as fit to dive offshore.
7. Accredited experience and documented water time- Professional Diver.





# Existing diver training & competency lifecycle

## Present practice;

- **No** restrictions on working depth for first commercial saturation dive.
- **No** guidance on periods of inactivity between qualifying and diving.
- **No** requirement for minimum period as contingency diver.
- **Varied** level of expectations on divers performance.



# On board TechnipFMC DSV

## People

- Delivery of familiarisation and training carried out by operational competent personnel
- Paired up with experience dive teams for duration of saturation
- Supervised by experienced personnel who are fully familiar with company operating instructions, best practice, and industry guidance

## Process

- Fully validated standard operational and emergency procedures
- Robust documented emergency drills process

## Plant

- Top tier dive system and diving equipment
- Fully compliant diving equipment with verified and validated redundant systems

# Proposal- summary of key points

## Closed Bell/ TUP qualification - restricted to surface supplied only.

- Review pre requisites for dives/ water time.
- Define sections of existing training which can be completed on Air.
- Define requirements for normal and emergency SDC & DDC training.
- Gap analysis on competency of Air versus Heliox, are there any documented aborts at training schools.
- Validation of training quality through assessment and feedback.



# Proposal- summary of key points

## Closed Bell/ TUP qualification - Unrestricted

- Documented requirements- *IMCA?*
- Classroom training.
- Divers PDE familiarisation- Theoretical and practical
- Dive system familiarisation.
- Review and validate learning objectives, *Lockout/ Depth/ Activities.*
- Objective to minimize vessel operational time
- Document and instigate training criteria

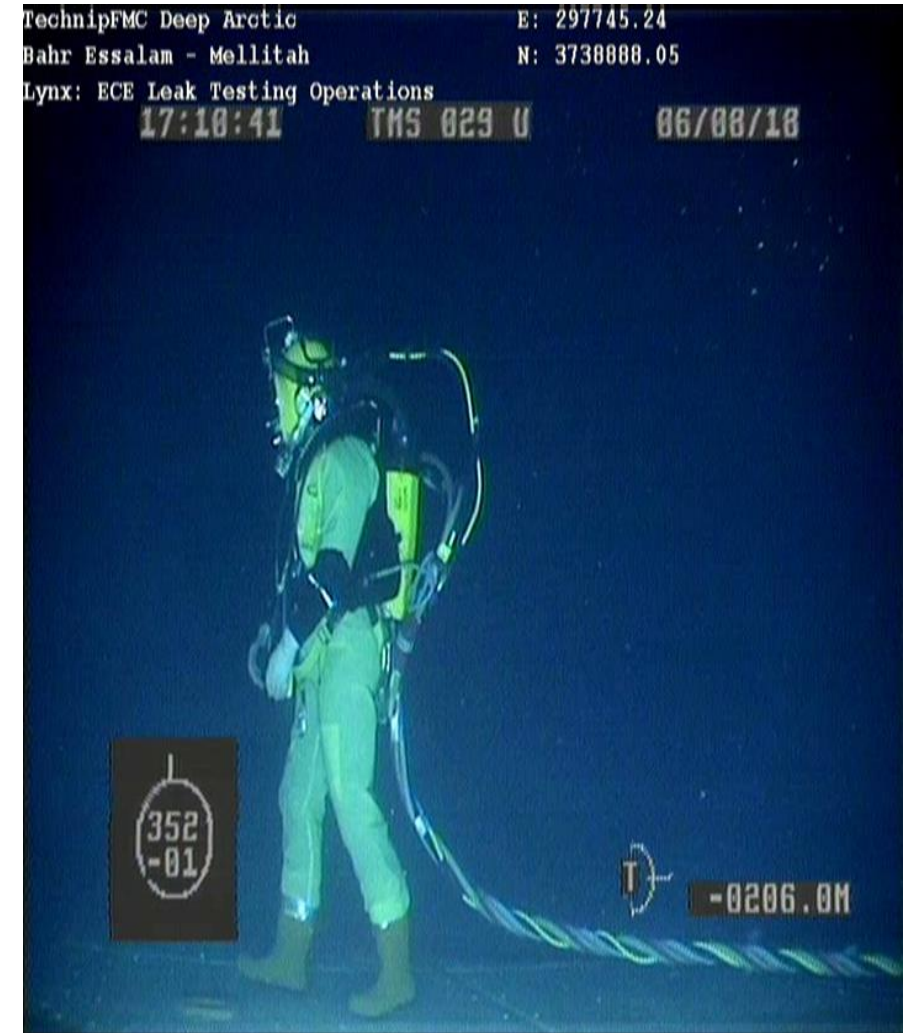


# Proposal- summary of key points

## Closed Bell/ TUP qualification - Unrestricted

### On board DSV training

- Contingency Diver- Minimum Hours
- Dive system familiarisation- Documented
- SDC external and internal checks- Theoretical and practical
- DDC external & internal checks- Theoretical and practical
- SDC emergency Drills- Theoretical and practical
- DDC emergency Drills- Theoretical and practical
- Define initial dive requirements for Industry certification.



# Recap - Training proposal and Diver Competency

- Completed industry training for surface supplied diving and competency for key tasks.
- Attained required in water hours and onsite feedback to be classed as experienced diver.
- Completed additional TUP/ Closed bell training at accredited school (Restricted)
- Continual growth of TUP/Closed bell divers and experience for saturation diving.
- Fully familiarised with Dive system and PDE on board DSV (contingency diver).
- Introduced as trainee diver with experienced team.
- Completed initial scope and assessment in saturation as diver 2 (Certified).
- Continued development through appraisals and competency portfolio.

