G+ CONFINED SPACES IN FLOATING OW

07 DECEMBER 2023

WORKSHOP REPORT

1. Overview

On the 07th December 2023, the G+ held a virtual workshop on confined spaces in floating offshore wind. Floating OW designs increase the number of confined spaces that need to be accessed offshore (e.g. as part of ballast systems). This is a change from fixed-bottom structure, where although work areas are often restricted, few are confined spaces. G+ felt it was important to help raise awareness of this change in risk profile and the control measures necessary to safely access and work in confined spaces, but also to explore any unique aspects of confined spaces in floating offshore wind, the applicability of existing guidance and standards are applicable, and the need for any adjustments to better reflect the floating OW work environment.

Agenda

2. Opening sessions

2.1. Welcome

Maxime welcomed all to the call and played IMCA's confined space awareness video by way of introducing the session.

video

2.2. IOGP

Wendy Poore, IOGP's Senior Manager - HSSE Data Management, presented IOGP's data and the uniqueness of confined space incidents, noting that there were 21 fatalities 2009-2022, and 37 Lost-Work-Day Cases. Compared to other incidents, Wendy highlighted how the data shows that Confined space incidents are infrequent compared to other categories but when they happen, they tend to be fatal. With most fatalities are colleagues going in to rescue without proper PPE/rescue plan in place. Frequent from maintenance/construction/cleaning.

Slides

In the discussion that followed, the attendees highlighted the importance of design in preventing confined spaces, need for entry and reducing risk, noting that the industry is at point where designs can be affected.

2.3. IMCA

Rhys Jones, IMCA's Technical Adviser - Marine Renewable Energy, gave a presentation on IMCA's existing guidance covering confined spaces and how marine contractors see the challenges that floating OW brings in the space. He started his presentation with a safety share where three workers died when accessing the legs of a jack-up rig for inspection.


sides

In conclusion, Rhy's raised the following key points:

- gaps and risks resulting from lack of standardisation of FOW designs.
- Need for existing guidance principles to be transitioned to FOW in a proactive way rather than reactive.
- Approach to apply existing principles to novel FOW untested
- Confined space experience in FOW
- Legal and regulatory status
- Availability of competence and experience to FOW projects
- Suitable guidance exists but focus is how we apply those principles to FOW
- Understanding it will be a continuous improvement

3. Breakout sessions

3.1. What are the unique H&S implications of confined spaces in FOW?

- How motion will impact access and ability to be in confined spaces
- (Vessels already have to account for motion in CS)
- Transfer time to turbine is generally longer, time for emergency support to arrive longer
- Teams need to be more self-sufficient
- Extraction of casualties, also to be considered in full FLOW design/plan for ER
- Ventilation/mechanical ventilation
- Noise: partially submerged structures can be noisy – can affect communication – acoustic effects of design. Affecting communications between team.
- Competence, lots of existing courses but need familiarization with FLOW.
- New technology might be able to help reduce need for human access, but also new foundation designs might need more frequent access initially

3.2. Second breakout – how do we remove need for CS access through design?

Can reduce (very significantly) but never remove fully.

Design compartments to reduce access need, reduce pockets of poor ventilation

Automation

- Reduce maintenance
- Continuous monitoring equipment
- Drones - Not just for full inspection, but also to e.g. perform gas tests, give greater assurance

Competence:

- Lots of technicians across countries, but unaware of offshore environment – need familiarization

- By significantly reducing need for access, need for competent workforce increases (risk is higher, and workforce less familiar/greater skill fade)

What should be in a Safe by Design workshop on the topic?

- Emergency access, including fire escape
- Securing points
- How to standardize!

4. Conclusions

The chair, summarized the sessions: All agreed that there were relevant and appropriate guidelines on confined space access, no need to reassess it from scratch, but there was a need to ensure FLOW industry understood and considered the hazard. There was a plea thorough for greater commonality, if not outright standardization. And a great desire to reduce the need for human access to confined spaces, however that means that when there is a need for access, the need for competent people and ensure they are familiar and current with procedures is more significant. Training focused on Confined Space in Floating Offshore Wind might be required.