

Meeting the ‘walk to work’ safety challenges

As ‘walk to work’ crew transfer systems increase in popularity, guidelines for safe operation have become a necessity. Mike Sano and Zhifa Dong, of the American Bureau of Shipping, look at the options

In the early days of offshore drilling in shallow-water, near-shore operations, it was relatively simple to transport work crews, but as developments have moved farther offshore, delivering, accommodating and supporting work crews has become significantly more challenging. The need for new types of personnel transfer systems became evident, giving rise to systems that can safely and efficiently deliver work crews with tools and spare parts in tow, even in high winds and elevated seas.

Personnel safety is a paramount concern, but economics is a compelling driver. When workers cannot access the offshore work platform due to bad weather, downtime translates into lost productivity and potentially high consequential losses.

One of the key enablers for offshore access systems (OAS) is dynamic positioning on the vessel. A principal element of safety and efficiency is the fact that crew transfer vessels do not need to anchor or attach themselves to the offshore tower or platform. When sea conditions change rapidly, the OAS can be shut down and stowed, and the vessel can move off station and away from potential problems.

OASs with passive motion compensation systems are deployed and connected to the delivery point, maintaining the connection

► Vroon’s subsea support walk to work vessel, *VOS Start*, which is to be ABS classed, is outfitted with a DP2 positioning system

Photo: courtesy of Vroon



via telescoping features that maintain a flat, inclined walking surface between the offshore support vessel and the tower or structure. Telescoping gangways are relatively simple to deploy and recover. When sea conditions become challenging, active motion compensated systems are needed. These systems are technically sophisticated, requiring power and in most cases, a trained operator. Active motion compensation systems include motion sensing devices that compensate for heave, pitch and roll while maintaining the end point position of the gangway, creating a safe and stable walkway crews can use to ‘walk to work’ (W2W).

Increasingly, companies are discovering the benefits of using W2W vessels and OASs, which has introduced the need for guidelines for safe operations. *The ABS Guide for*

Offshore Access Gangways provides requirements for OAS certification, including structural strength, machinery systems, contingency management, system recovery and redundancy, safety and communications, and regulatory requirements. The guide applies to both active and passive motion compensated systems and to OASs designed for both controlled and uncontrolled flow of personnel.

As offshore operations change, classification societies have the responsibility to create guidance that helps industry to maintain safe operations. This guide is one of the ways in which ABS is meeting that vital obligation.

All change: an alternative to immersion suit servicing

Improperly serviced immersion suits pose a potentially costly threat to crew safety and the vessel’s ability to operate. What are the underlying issues – and how can the risks be mitigated?

Shipowners have plenty of critical issues to attend to, from vessel utilisation to crew management. Making sure immersion suits are in perfect working order is just a drop in an ocean of operational tasks. Yet failure to do so can be a painful showstopper.

Ten-year-old immersion suits must be serviced more frequently instead of every three years. That’s an extra, often unforeseen cost. Perhaps more importantly, it also introduces the risk that the vessel will not pass inspection, potentially becoming delayed in port. There is, however, an easier, more cost-effective and lower-risk solution: an immersion suit exchange programme.

Søren Hansen, PPE product manager at Viking Life-Saving Equipment, said: “Vessels under a Viking Shipowner Agreement, for example, simply swap suits due for servicing at the pier with serviced, approved and vacuum-packed suits in a single, time-saving transaction.

“Exchange suits are upgraded with the latest, high-quality products long before they become old enough to require more frequent servicing. For vessels carrying lower-quality brands, this is a bonus for crew safety, vastly reducing the likelihood of emergency malfunctions and inspection issues.”

According to regulations, immersion suits must be checked each month to see if they are intact – and pressure-tested every three years until the 10th year, when the requirement for more frequent checks kick in. Shipowners who have their crew perform this servicing on board often believe they are saving money despite the difficulties of testing, drying and re-packing. Yet these checks seldom ensure 100 per cent compliance and safety. And,

with more than 200 suits aboard larger OSVs, that’s a chilling liability. Experience shows, too, that quickly checking the seams is rarely enough, as just 500ml of icy water entering a suit at sea may reduce its insulation value by up to 30 per cent¹.

Vacuum-packed suits have many advantages, including better protection from the elements during storage. But can any brand of suits be made part of an exchange programme? Not necessarily, as it turns out. In fact, a recent investigation by Fleetwood Test House has shown that vacuum-packed suits subjected to fluctuating temperatures can stick together and become dysfunctional.

Hansen added: “Viking’s own equipment has been tested in the EU by a notified body to be free of this problem – an alarming reminder of the need to purchase high-quality suits designed to perform above and beyond regulatory requirements from the beginning.”

¹ Transport Canada, 2003, *Survival in Cold Waters: Staying Alive*