

TIME CRITICAL: HELIX FAST RESPONSE SYSTEM

BPP-TECH's Project Management proved essential for the fast production of Helix's Fast Response System. It often takes a major event in the oil & gas energy industry to drive the development and use of new technologies. This has certainly been the case in the Macondo Development.



The blowout and spill from the Macondo oilfield has brought the importance of preparedness to the attention of the industry. After the oil spill last year, Helix Energy Solutions reacted swiftly to develop an emergency response capability, which would be readily available in the Gulf of Mexico if a similar disaster happens again. The key to the Helix Fast Response System (HFRS) well capping and containment system is their offshore construction and intervention vessel the Q4000, and their dynamically positioned floating production unit the Helix Producer 1. The Q4000 would effectively capture the oil spill and bring it to the surface, and this reclaimed oil would then be off-loaded to the FPU Helix Producer 1, using a dynamic flexible pipe catenary.

This solution uses available vessels that can be quickly mobilised to reach the disaster area and minimise the environmental impact of the oil spill. To develop the HFRS Helix required a fast-track manufacture of the flexible pipe. This was critical to achieving the response capability quickly enough to be able to contribute to the environmental clean-up plan.

Wellstream International was selected as the supplier based on their capability to provide the pipe within the required period. BPP-TECH was selected by Helix to provide on-site procurement

support. The main reason for BPP-TECH's involvement was Helix's previous experience of working with them on a similar project with a critical delivery. BPP-TECH project managed the procurement of the Wellstream flexible pipe for the Phoenix field in 2007.

BPP-TECH, from their offices in the UK, was ideally placed to provide on-site engineers at Wellstream's Newcastle manufacturing plant at very short notice. In addition, BPP-TECH engineers attended material sub-suppliers' facilities, carrying out inspection points for Helix, ensuring the tight schedule was kept on-track. The fast-paced dynamic nature of modern production scheduling requires knowledgeable engineers to be able to make informed decisions quickly, based on the nature of the problem and the manufacturing capabilities, and always in the knowledge of the ultimate use of the product.

BPP-TECH provided this experienced engineering and inspection on site and significantly reduced delays to the schedule. In addition to the standard quality control inspection work, BPP-TECH was also in position to provide direct project management support for Helix should any difficulties arise. It is not unusual to experience issues that can potentially impact the delivery schedule of a complex manufacturing

process, especially when on a tight delivery. With Helix personnel based away from the manufacturing site, it was imperative they had a SURF engineering team from BPP-TECH present. Their representatives have to be able to accurately assess the situation and respond in the most appropriate way, not to compromise the quality, whilst minimising the impact on completing the supply. BPP-TECH was able to react instantly and dynamically to head off the threats to the schedule and to minimise downtime and costs.

Despite these difficulties, the team successfully delivered the kilometre long, 5-inch, 10,000 psi dynamic riser to the Helix facility at Ingleside, Texas, stored and ready to deploy with the HFRS rapidly and well within the timeframe required by the US Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE).

It is interesting to note that the availability of containment solutions like the Helix HFRS was used by BOEMRE as a key reason to grant one of the first drilling permits in the Gulf of Mexico following the drilling moratorium imposed after the Macondo incident. BPP-TECH's contribution to the project management of the HFRS has enhanced our experience and proven track record in procurement and technical support.