

UMBILICALS AND FLEXIBLE PIPES: BUYER BEWARE

Since the earliest applications of flexible pipes and umbilicals in the offshore industry, BPP-TECH has been engaged in providing operators, contractors and manufacturers with specialist services for flexible pipes, including risers, and for helically armoured and steel tube umbilicals. These have included third party design verification, preparation of specifications and manufacturing plans, and carrying out or overseeing qualification testing and manufacturing plant inspections.

In recent years, clients of BPP-TECH have utilised the above services in an integrated manner starting with the initial cross-section selection, technical specification, manufacturing plans through to support during acceptance, installation and commissioning. This has benefited all parties involved in the project by an integrated focus on



umbilical or flexible pipe quality throughout the procurement process. BPP brings several capabilities into the project team which include:

- Unique and powerful cross-section analysis software capable of predicting strength, stiffness and service lives of these products.
- Experience of numerous procurement programmes and data from many failure investigations.
- A cross-section and materials database that permits lessons learnt from previous experience to be applied.

The integrated technical and procurement support that BPP-TECH can provide has several elements as follows:

- Third party design reviews of global configurations and cross-sections.
- Preparation of detailed technical specifications including manufacturing conformance requirements and QA/QC issues.
- Support to operators for preparation of tender documents and review of the technical content of bids.
- Provision of inspectors and inspection programmes at manufacturing site.



- Technical support for installation analysis and provision of operator's representatives for the commissioning phase.

Other services that are provided by BPP-TECH for flexible pipes and umbilicals include:

- Steel and thermo-plastic materials testing services and related consultancy.
- Failure investigation and insurance claims support.
- Supply of monitoring systems for flexible pipe and umbilicals.
- Specialist pull-in, thermal properties, crushing and impact analyses.