



CONTROL DYNAMICS INTERNATIONAL, LP

Engineered for Energy™

Success story

Hydraulic Workover Control System For BP Thunder Horse

The Challenge

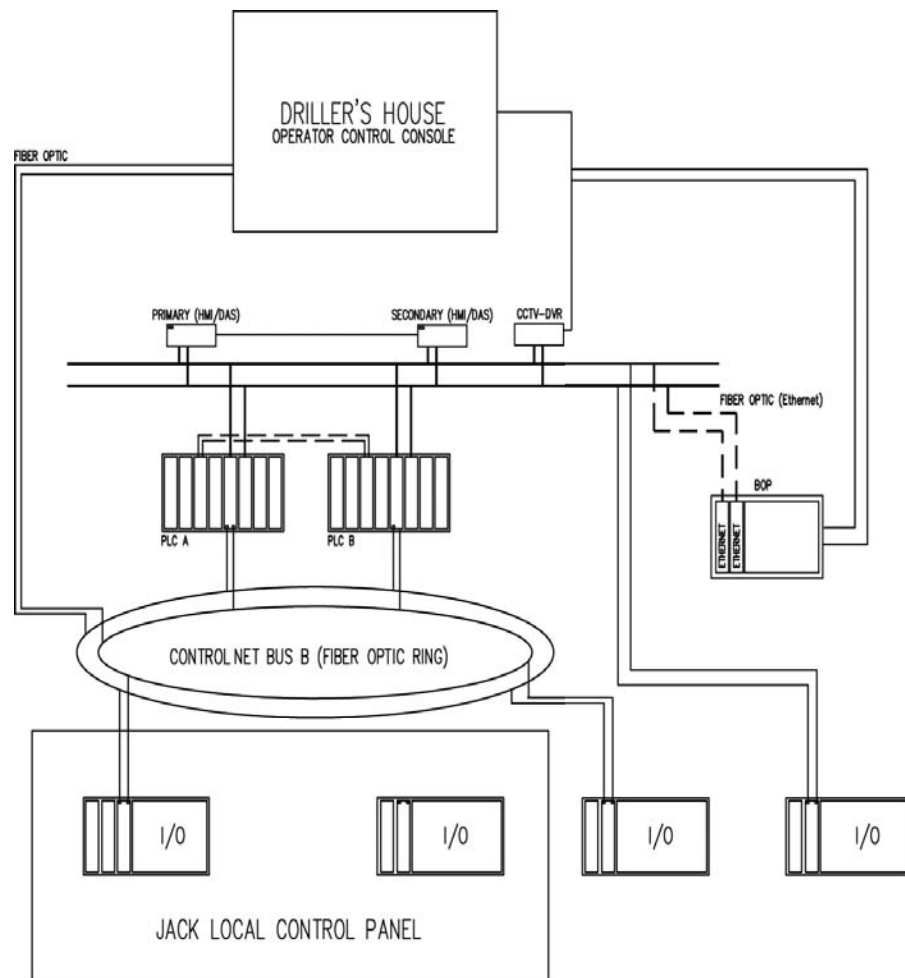
Most of the existing drilling rigs have been designed to use coil tubing technology, which has limitations of depth and angular direction. Halliburton retained CDI to develop a control system for a new drilling technology that would overcome these limitations and enable expansion of the BP Thunder Horse facility in the Gulf of Mexico. The Halliburton project included converting an existing drilling rig to the new well intervention technology. The project specifications required that the system have 100% uptime during the workover process, which may last from one to four months.

The Solution

Working with Halliburton and BP, CDI developed the electronic and hydraulic systems that monitor and control the workover process. Once a well is drilled, the system performs completion and places the well on production.

The Workover crew was provided the ability to work in concert with the drilling crew for simultaneous operations. During the workover process full safety controls of the blow out preventor (BOP) was paramount and had to be fully operational at all times with no chance of failure. BOP system integrity had to be maintained at all times to protect the facility and personnel.

No single point of failure can take the system down. The system has been built on fully redundant PLC-based electronic controls, fiber optic communications, and back-up power supplies. The whole workover system can be operated manually via the hydraulic controls alone in the highly unlikely instance that the electronic controls are not functioning.



281.209.3900 tel
281.209.3900 fax

www.controldynamics.com



CONTROL DYNAMICS INTERNATIONAL, LP

Engineered for Energy™

Business Impact

The time to achieve FirstOil has been substantially decreased as a result of this advanced workover capability.

The advanced workover system increases BP's ability to drill in deeper water with significant directional drilling freedom. Wells are now being completed at greater distances from the production facility, while drilling cost have been substantially reduced.

Founded in 1991 in Houston, Texas, CDI (www.controldynamics.com) has grown to be a recognized industry leader in designing and implementing some of the largest, most advanced control solutions for all segments of the hydrocarbon supply chain; upstream, midstream and downstream. Having completed over 1000 process control projects worldwide, CDI technology experience spans Distributed Control Systems (DCS), Programmable Logic Controllers (PLC) and Hybrid Distributed Control Systems.

CDI employs certified Professional Engineers (PE) and Project Management Professionals, degreed in electrical engineering, computer science, and chemical engineering. As an ISO 9001:2000 certified company, CDI's project methodology encompasses all project phases, including design, life-cycle cost analysis, systems and equipment selection, software development, quality control procedures, and supporting business processes. These rigorous processes, steps and procedures help ensure customers' on-time, on-budget project completions.



Control Dynamics International
15534 West Hardy Road, Suite 100
Houston, Texas 77060

About...

Control Dynamics International

281.209.3900 tel

281.209.3900 fax

www.controldynamics.com