

Turnkey engineering services provider celebrates 20 years

KnightHawk Engineering

Knighthawk Engineering (KHE) founder Cliff Knight has always enjoyed design/failure analysis and troubleshooting static and rotating equipment. After working with The Dow Chemical Co., he became interested in working in multiple industries. In 1991 this drove him to open KHE in Baton Rouge, La.

Before it became the 30-man turnkey service provider it is today, KHE was a two-man company performing analytical services. It assessed clients' problems and provided professional opinions on how they should be addressed. At that time, KHE primarily addressed emergencies and performance- or design-related problems, as well as one-of-a-kind equipment.

KHE started off providing domestic services in Louisiana and Texas, but quickly began serving international clients as well. With this change, KHE moved its offices to Houston.

"We were doing business all over the world and Houston is essentially the petrochemical capital of the world, so I wanted to be here in this marketplace," said Knight. "The new location made it

easier to service our international clients, which were quickly becoming a large portion of our revenue base."

KHE grew quickly through word of mouth and its marketing efforts. Before long, the company was expanding its services and bringing more value to its clients.

"We can now do full turnkey services that involve specialty engineering, field services and our metallurgical materials lab. We can also do reverse engineering. We've grown in those areas step-by-step over the years," said Knight.

Knight saw the need for field services to validate mathematical modeling with the collection and analysis of field measurements on flows, pressures, temperatures and vibration. Today, KHE has assembled an extensive set of data acquisition equipment that complements the skills of its field service personnel. KHE can work independently or as an extension of clients' teams.

The materials lab developed similarly over time. "We grew into the lab because we had previously been subcontracting the work or going to other labs, but we needed the

ability to provide complete turnkey solutions that involved all areas," said Knight.

The lab's capabilities allow KHE to respond to customer needs quickly and effectively. The KHE materials engineer heads a team of talented engineers and technicians to provide comprehensive services, including failure analysis, positive materials identification, metallography, chemical analysis, corrosion evaluation and more.

According to Knight, these abilities have made a significant impact for clients.

"We have saved clients millions of dollars in avoiding unnecessary failures and fixing major industry problems," said Knight. "KHE has been successful because of its impact to clients' bottom lines. The problems we have addressed have allowed us to impact our clients' profitability in a remarkable way."

KHE's experienced staff is ready to provide innovative solutions to industry problems.

"Many on our staff have experience working in production and on major industry problems. We speak the language and

we talk the talk," said Knight.

KHE's development of EZ De-Coke, a coating for transfer line exchangers in ethylene plants, is an example of how it is continuing to innovate industry and provide value for clients. The coating provides easier and more effective on-line de-coking and slows build-up of coke. This means clients benefit with less downtime, less damage to components and lower maintenance costs.

To mark 20 years of success, KHE recently bought 20 acres of land in northern Texas City, Texas, for a new office, laboratory and testing facility. It will be moving its offices to this bigger and better location once construction is complete.

KHE looks toward another 20 years of success, with plans to diversify to one-of-a-kind equipment design, and higher levels of testing on larger scales.

For more information, visit www.knighthawk.com or call (281) 282-9200.



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KnightHawk is a specialty engineering company that performs consulting, field services and testing worldwide. KnightHawk's Engineering Response team is available 24/7 to respond to critical equipment failures and plant emergencies.



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NEWS UPDATE

World's largest gas-to-liquids plant set for production

THE HAGUE, The Netherlands — The world's largest plant to turn natural gas into cleaner-burning fuels and lubricants took a major step closer to production when gas began flowing from a giant offshore field.

Pearl GTL will process around 3 billion barrels of oil equivalent over its lifetime from the world's largest single gas field, the North Field in the Arabian Gulf. The field stretches from Qatar's coast and contains more than 900 trillion cubic feet of gas, equivalent to 150 billion barrels of oil, or more than 10 percent of worldwide gas resources.

The gas-to-liquids (GTL) plant — a joint development by Qatar Petroleum and Shell — will add almost 8 percent to Shell's production worldwide,



making it the company's main engine for growth for 2012. It has a capacity of 260,000 barrels oil equivalent a day and is expected to ship its first product in 2011 and reach full production in 2012.

The plant is expected to reach full production in 2012.

The plant will produce cleaner-burning diesel and aviation fuel, oils for advanced lubricants, naphtha used to make plastics and paraffin for detergents. It will make enough diesel to fill more than 160,000 cars a day and enough synthetic oil each year to make lubricants for more than 225 million cars. The products will reach customers in every major energy market through Shell's global retail network.

For more information, visit www.shell.com or call +31 70 377 9111.