The **long haul**

A chemical plant profits greatly by using the Life Cycle Advantage program

A major chemical plant on Spain's north Mediterranean coast manufactures polymers in several of the plants on its campus. In response to increased demand for its chemicals during the past three years, the plant was forced to increase staffing by more than 30% to about 600 people.

The gas and steam turbines, centrifugal and reciprocating compressors, mixers and pumps operate at widely varied temperatures, pressures and flow rates. Because much of this equipment relies on mechanical seals, the plant protects the seals on 10 blowers, 48 mixers and more than 600 pumps with the Flowserve LifeCycle Advantage™ program.

The start

As recently as 1998, 95% of the mechanical seals were competitor's units. But the plant was unhappy with the prices, delivery and quality. That same year, the plant agreed to a Flowserve fixed-fee LifeCycle Advantage program as a reasonable alternative.

Nobody realized the program would turn into a long-term relationship operating under a global umbrella agreement. The key to success has been the culture of teamwork that developed between the plant staff and the Flowserve representatives. Membership in the long-term initiative changed over time, and each new person involved with the program embraced the culture established earlier.

The KPIs

Another reason the LifeCycle Advantage program has endured is its practical operational results. For example, the mean-time-between-repairs for seals has increased from 26 months to 42 months.

Production is paramount. When equipment needs new seals, they're needed immediately. The LifeCycle Advantage program has reduced its standard delivery time to 24 hours. If critical equipment needs seals, the program shifts to a four-hour delivery schedule. But getting seals quickly still isn't sufficient. The seals must be functional right out of the box. The Flowserve LifeCycle Advantage program drove seal quality issues to zero, according to the program records.

Strategy and tactics

A strategic advantage of the program is the institutionalized learning gained over time. Having an evolving set of tools to control program performance gives ability to manage in an increasingly professional manner. Team-building is enhanced by regular meetings to share information, procedures and expectations; to define and review goals; and to provide feedback.

Effective troubleshooting reduced the number of bad-actor seals and allowed the team to tighten the criteria that defines a bad actor. This has had a positive effect on uptime, profitability, material cost, inventory and fixed costs.

The Flowserve commitment to a four-hour emergency response hasn't been breached even once. Standardization and inventory optimization achieved this goal, and the Flowserve Quick Response Center has played a critical role when hardware needed to be manufactured."

The plant can link the LifeCycle Advantage program to a quarterly savings of as much as €50,000, better mean-time-between-repairs and reduced leak rates, cost and lead time. "The plant is very happy," says Ricardo Comenge, Flowserve area sales manager. "To them, we are their seal solution provider. They have subcontracted everything related to seals - service, know-how, training. Our team leads in these aspects."

A testament to program effectiveness, the plant uses Flowserve to support equipment that's outside the original scope of work. The performance of the LifeCycle Advantage program was so valuable that the plant now uses only Flowserve seals on the 250 pumps and mixers at its two newest plants.