ITT

Reliability, Energy, and Maintenance Solutions

CASE STUDY

PROACTIVITY SPECIALIST

ProActivity℠ Specialist Allows Chemical Plant to Prime its Profits

$1.3 million saved annually in operating costs for pumps

The chemical industry relies heavily on centrifugal pumps, which drive the processes that create thousands of compounds used in making everyday products.

One ITT Goulds Pumps customer is a multi-billion-dollar supplier of basic and specialty chemicals used in automotive, consumer electronics, mining, paper, petroleum and other industries. At their manufacturing complex in the southeastern Louisiana U.S.A., this customer employs about 700 Goulds pumps in the production of more than 2 billion pounds of chemicals each year.

CUSTOMER PROBLEM:
Maintaining Hundreds of Pumps is a Time Consuming Challenge

With more than 700 units operating in a single, sprawling facility, this company wanted better mean time between rotating equipment failure, lower energy costs and reduced maintenance expense. No individual within their own service organization could focus exclusively on improving reliability and lowering operating costs; they were focused primarily on other aspects of production that help to drive profit in their plant, and did not have the time to focus just on pumping system solutions.

ITT SOLUTION:
ProActivity Engineer Makes Lower Pump Costs a Full-Time Job

Through the ProActivity program, this customer has full-time access to an ITT reliability engineer who is dedicated to lowering the operating and maintenance costs of pumping systems. Employed by ITT, this ProActivity engineer works at the customer's site to keep all the plant's pumps running smoothly.

As the ProActivity name implies, the ITT specialist doesn't wait for pump problems to happen. He is proactive, constantly on the lookout for ways to reduce costs and increase productivity of the plant by improving the operation of pumps.

In one part of the operation, for example, a waste injection system designed by a non-ITT vendor created a "maintenance and operations nightmare." Because of electrical restrictions, the company used six pumps operating in series rather than three larger pumps to meet the needs of the application. The pumps were inefficient, failed frequently, expensive to repair and jeopardized total plant operations.

Engineered for life

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The ProActivity expert oversaw the installation of ITT PumpSmart® intelligent controllers to turn the maintenance nightmare into an engineer's dream. Three 200 hp Goulds pumps now allow the injection system to operate more efficiently. The PumpSmart system adjusts the operating speed of each pump to meet the output needs of the process, starting and stopping pumps as needed. The solution reduces energy costs as well as maintenance, saving more than $120,000 annually in operating costs for just three pumps. It also virtually eliminates the risk of costly downtime.

This PumpSmart solution is only one example of how the ProActivity specialist helps this chemical plant boost productivity and profits. He provides on-site training for the plant's internal service and repair teams, is available full-time to troubleshoot problems and helps the service organization to manage its parts inventory more efficiently.

The ProActivity engineer also helps to leverage the outside resources of ITT and Goulds Pumps.

He can call in Goulds experts for specialized installation or service jobs, help to expedite shipment of new pumps or hard to find parts, and access the knowledge of the entire ITT Goulds engineering team as needed.

THE BOTTOM LINE:

Pump operating costs and failures have been declining dramatically over the six years of the program. The customer has implemented about half of the recommendations.

Three examples include:

- Mean time between repairs increased 108 percent from 15.4 months to 32.1 months
- Annual operating costs per pump reduced by 48 percent from $5,070 to $2,564
- The company has saved more than $1.3 million **annually** in operating costs for more than 700 pumps