

Maintenance is now the frontier for expanding profitability

As the primary means to significant increases at the bottom line, automation is over the hill. The almighty bottom line is dependant on maintenance these days, says Editor in Chief Paul Studebaker in his monthly column of www.PlantServices.com.

Two things I appreciate about a high-level conference like the recent ARC Strategy Forum in Boston are first, you get a good sense of what executives are thinking, because ARC Advisory Group works hard and does a great job of leading by identifying and explaining technology trends and how they relate to top management concerns like global competition and profitability.

Second, you get to share ideas with people who know their stuff and like to talk. Granted, their wisdom is not always well grounded in the real world – as a group, many of these folks don't spend a lot of time actually inside industrial facilities – but because they're in positions to make things happen, it's good to know what's on their minds. You can be sure you'll see the best of their analyses reflected in upcoming articles.

One such conversation included Terry O'Hanlon, CMRP, the head honcho of ReliabilityWeb.com, who acknowledged sometime after the bar closed Monday evening that when I came to *Plant Services* in 2003, he didn't expect me to do well. He said, "What, you came over from some instrument and control magazine, right?" Well, yes, I did leave sister publication *CONTROL* to take the helm of *Plant Services*, and here's one reason why.

Instrumentation, controls and automation are fascinating topics with plenty of details for an engineer like me to appreciate, and they've been the backbone of manufacturing quality and productivity improvements for years. They'll always be important, but as the primary means to significant increases at the bottom line, automation is over the hill.

Like the machines and process equipment it controls, automation is largely a known quantity with an established track record. You can do a lot of work and spend a lot of money eking out a bit more quality, a little higher speed, a little more production, and it's often very worthwhile, but at the end of the day, in most cases your ROI will depend more on whether or not the equipment is in good running condition when it's needed. It doesn't make sense to me to focus on process optimization to get 2% higher output (which, granted, may be worth millions to a refinery) if bad seals, poor lubrication and loose wires are going to shut the line down for 12 days out of the year.

So when the opportunity came to move from an audience where reliability, efficiency and asset management are subsets of instrumentation and control to one where the roles are reversed, I gladly took it.

The decision was reinforced at the ARC Forum by Johan Claassen, engineering manager for Sasol. Claassen's company is a \$10 billion multi-plant oil, gas and chemical concern in South Africa and 2005 HART Communication Foundation Plant of the Year.

Back in 2000, Sasol resolved to include condition monitoring and predictive maintenance on the control system for a new butanol plant. That and leveraging HART instrumentation in two other plants has reduced reactive maintenance and improved equipment availability to the tune of about \$1.4 million per year, for which Claassen calculates an 18-month payback.

The company is very pleased with the results of applying good maintenance practices, and is now planning to expand them to its mechanical and production equipment. There, Claassen estimates, the investment will return 10 to 15 times the yield of the instrumentation programs.

The role of people is another big difference between engineering control systems and performing excellent asset management. The great strength of automation is eliminating people and the variation that comes with them, while excellent maintenance only can be done by empowering people and encouraging their best performance.

Claassen knows this. His presentation focused on technology and financial results, but was peppered with quotes on the importance of people and the critical role of culture change, including, "The pivot point that separates the good companies from the great companies is the way you look at change," from Jim Collins; "The best change is what the people think they did themselves," from Lao Tzu; and from Claassen himself, "Today, we are facing some brutal facts in the process industry. Those who look, listen, learn and act will survive, those who don't will fail."

These are great times for plants with people who are willing to figure out how to do things right. You can be glad, and proud, to be where the action is -- in industrial maintenance.