



# Reducing Equipment Maintenance Costs

## Is Poor Control Wearing You Out?

In the power industry, the cost of replacing a single pump can amount to hundreds of thousands of dollars in terms of new equipment cost, manpower, and system downtime. Changes to certain processes – if abrupt – can shave years off the expected life of valuable power production equipment. Even small variances in process stability shorten the Mean Time Before Failure (MTBF) for most process instrumentation. At such a high cost, it's understandable when plants manager worry about wear and tear on their production equipment.

When processes are stable and controlled for maximum efficiency, production equipment will last significantly longer and a power plant's return on investment is maximized. Even in good economic times no one wants to write a check for a new \$100,000 pump unnecessarily. The best course of action is to conduct a proactive maintenance program and to regularly tune control loops for optimum efficiency.

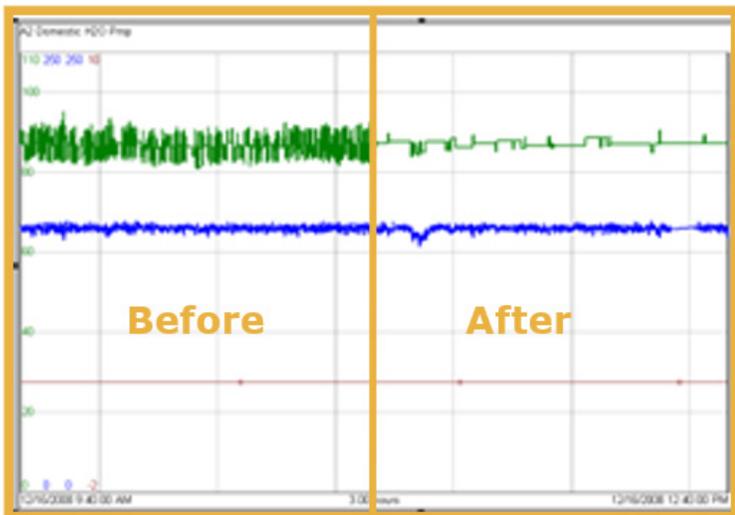


*"I implemented the tuning parameters recommended by LOOP-PRO™. As a result, the controller works much more smoothly. I was truly impressed."*

**Kliff Hopson - I & C Technician, University of Alaska CoGen**

## When a Picture Tells a Thousand Words

Efficiency of heat production is critical to the success of a power plant, especially in Fairbanks, Alaska where subfreezing temperatures are common most of the year. In such an environment, there is little room for inefficiency with a facility's pumps.



At the cogen plant located at University of Alaska's Fairbanks campus engineering staff spent significant time trying to reduce variability in the VFD's that controlled the plant's pumps. With the primary objective of reducing wear and tear on the pumps and VFDs, the team manually adjusted tuning parameters on the associated control loops. Even with close attention, the pumps and VFDs operated inefficiently.

LOOP-PRO™ is a process modeling and PID controller tuning software that is uniquely suited to tighten control over oscillatory processes. The cogen's engineering staff trialed the software on loops controlling the VFDs and achieved immediate success.

The graphic shows the oscillatory nature of the cogen's VFDs along with the improvements made through the use of LOOP-PRO™. On the left, control over the pumps was clearly inefficient as the Controller Output can be seen swinging excessively. On the right, the new tuning parameters from LOOP-PRO™ settled the process and dramatically reduced wear on both the VFDs and pumps.

**Finally – tune your facility's most complex PID control loops for optimal performance.**

Learn why LOOP-PRO™ is the only product that accurately models oscillatory, noisy process data. Contact us today at +1 (860) 872-2920 or [sales@controlstation.com](mailto:sales@controlstation.com).

