

Ten Easy Process Improvement Wins

Top 10 Low Hanging Fruits to Pick for Process Improvement Before or After a Lean Audit

This is a quick list to help any plant manager, maintenance supervisor, process engineer, or mechanical team shine. These may not be everyday ideas for you, but they are simple and absolutely impact your job performance in regard to up time. These will help you to eliminate excuses or identify opportunities for improvement of your daily operations.

■ **By John Laurens – Cross Company**

Some may think this means they are stirring up work and finding ways to spend money. However, in reality, this is farming existing expense to raise some savings by ensuring your system is running at peak efficiency. Most of the initiatives begun by these types of audits are centered around reducing sunk and repeating costs. This makes for a fast return on investment and even an annuity of savings.

Outsource Valve Automation: Look at the overall cost of the installation and weigh the benefits of the parts as well as the sum of the parts. It may provide a cheaper purchase cost to buy your valves, bracketry, indicators, and actuation separately for assembly on site. That is true, until you dive into the actual costs to assemble, install, and repair the valve assemblies PLUS the cost of downtime. This makes the marginal cost increase for professional assembly seem cheap. This coupled with the benefits of a professionally assembled, tested, and warranted assembly make this a no brainer.

Preventative Maintenance (PM) Contracts for your Relief Valves: Many chemical plants have on site storage and process vessels. These typically have Pressure and Vacuum Relief Valves, Emergency Relief Valves, and High-Pressure Relief Valves. These all wear over time and when exposed to the process or outside environments these can fail at the worst possible times. Beside the fact that its best practice to evaluate and repair these on a regular interval it can even save you tons of down time, repair cost, and even court costs. Set up an annualized contract to handle this cost, and to maintain records. This will ensure your process is run well, your emissions are limited, and your risk is decreased.

Open Contracts for Valve and Equipment Repair: Do not wait on an approval process, wade through vendors, and then make a decision. Skip ahead to the solution with an open service contract with your most trusted vendors. Simply send each item in for repair/evaluation/recalibration and charge it to the open purchase order. This will decrease your number of touches per repair, overall costs, and provide access to some interesting data.

Startup of Valves and Assemblies: You have invested budget in a new set of valves for your main production vessel. Properly installing, testing, and operating a valve can be difficult. Especially without a trained team on site. We find it best to provide startup and commissioning services for the valves and valve assemblies we work with. This allows for a faster startup and less cost overall. The pros can startup, test, train, and establish preventative maintenance plans for your team quickly and efficiently.

Panel Builds for your controls: Have you ever tried to install car audio equipment? Did it work? Did you enjoy it? If you answered no to all three or have a full schedule; consider outsourcing this time intensive task. It is much easier to provide a Process and Instrumentation Diagram (P&ID) to an engineer and to let them do it. If there is no P&ID that is fine too. Most top service providers will be able to handle this as well.

Service Contracts for annual Calibration: The majority of chemical plants have a great deal of instrumentation, tooling, and diagnostic equipment that need calibration on regular intervals. With the changing environment many firms are seeking to outsource this task to a provider that can more efficiently complete the task. This can reduce head count, decrease cost and improve quality. Each of these calibrated pieces are integral to proper valve installation, operation, maintenance, and longevity. All of this can be maintained with a cloud-based asset management platform such as GageSuite.

Rebuild vs Replace Valves: Industrial sites are known for their boneyards. An often forgotten treasure trove of old valves, assemblies, parts, and pieces. Take advantage of this hidden stock by repairing and having at the ready all valves integral to your system. A valve can typically be rebuilt for less than the expedite charge you would be paying if unprepared.

Non-Destructive Testing (NDT) for your Tanks: How old is your tank? What is your Maximum Allowable Working Pressure? Maximum Allowable Vacuum? Temperature? What is in the vessel? Does this process match the vessels capabilities or exceed it? If you cannot quickly and definitively answer these questions you need your tanks inspected. An NDT completed by a certified inspector can provide a wealth of knowledge about your process vessels, their capacity, and how to safely maximize their revenue generation.

Tank Optimization Surveys: Now that your NDT is complete you can begin to optimize the inflows and outflows of your vessels. This allows for maximum revenue and decreases work orders for repair due to exceeding the vessels available capacity. These visual inspections can be completed in under an hour per vessel and uncover many blind spots within your process. A recent survey found under 13% of tanks onsite to be unprotected from vacuum and pressure spikes.

Machine as a Service: Incentivize your suppliers by providing uptime rewards for their equipment in the form of increased revenue. Do not buy a digester



capping valve, expensive gearbox, or other capital-intensive wear items. Set up a machine as service agreement with a trusted vendor. This will essentially allow you to rent the use of the equipment for a designated amount of time. This incentivizes the vendor to provide

the best equipment, service, and stocking arrangements to maximize the contract, and their profit. If you can find an economical way for your company to provide an annual contract with a trusted vendor this a great way to distribute cost, decrease down time, and reduce risk.

■ ABOUT THE AUTHOR



John Laurens is a Senior Account Manager with The Cross Company, a nearly 75-year-old, 100% employee-owned, process powerhouse focused on improving manufacturing results for its customers. John utilizes his 21 years of manufacturing experience across several industry verticals, his education including a BS in Industrial Management focused on Manufacturing, and a MBA. This provides a full scope view of the entire manufacturing process and highlights symptoms that a plant may showcase ahead of need. With a focus on continuous improvement balanced with ROI, and an unending eye on safety Mr. Laurens provides an interesting perspective on manufacturing across discrete and process manufacturing systems.