



## **Industrial Plant Maintenance Organizations that Have Adopted the Principles of Lean Manufacturing and Were They Successful?**

The quick answer to the question is **YES** they were! But I think everyone is looking for a little more detail and information. In years past, *Fat Budgets and Profits* covered up a lot of sins. Today that is not as true as we all know. Our actions and reactions are scrutinized from the top down and from all sides...no place to hide. But even in the best of times the truth is we were accountable for our actions and reactions because the bottom-line was; they were a contributing factor to how fat our budgets and profits were.

As I think back over my career in maintenance, I graduated from engineering school in the late 70s and started working as a maintenance engineer in the textile industry for Burlington Industries. We were already practicing lean manufacturing and maintenance; we just didn't have a catchy name to call it. We identified it as doing your job properly as a maintenance and manufacturing professional. We were already doing and measuring things like: equipment downtime, efficiencies, cost per whatever, cost per pound produced, KWH per pound, asset life cycle costs, utility energy costs of support equipment, schedule compliance, PM compliance, boiler efficiencies, % planned work, % reactive work, etc. Again we were doing it but didn't have a cool name for it.

We first started hearing about lean in conjunction with the TPS program (Toyota Production System) or Toyotism as some named it in the 1990s.

I could bore you with the official definition of Lean Manufacturing but you can Google it as quick as I can type it so let's go with "Mikes" definition.

*Anything you do in the manufacturing of a product that does not increase value or, in other words the customer is not willing to pay for, is waste.*

Therefore if you remove all of the waste you now have a lean product or organization. Another way to describe it is when you go to the grocery store to buy ground beef you have a choice to buy the most expensive (lean) or a lower priced ground beef that has much more fat (waste) in it.

In my opinion the only way to truly have a lean manufacturing organization is for the entire plant, including maintenance, to be lean. This includes planning, inventories, raw materials, work order system, safety, labor, preventive maintenance, human resources, etc. Everything must be lean or having little or no waste.

So back to the original topic, lean manufacturing is the key to being successful in today's organizations and you must have a lean maintenance team to support your manufacturing efforts. We all have to do more with less (dollars and personnel) and are expected to keep the quality and standards high. Unfortunately, I do not see that changing anytime soon for any industry.

Over the years we have called Lean things like Total Productive Maintenance (TPM), Reliability Centered Maintenance (RCM), World Class Maintenance, Best in Class Maintenance, and Autonomous Maintenance. The relatively new term is now... Leading... *Practices, Maintenance, and so forth*. All of these programs, in one way or another has lean components, "preserving value with less work".



**Those of you out there that are not in the manufacturing world are probably scratching your heads right now asking how or what can I learn from this tip of the month?**

Lean Facility Management can work the same way, the key is to step back and take a very close look at your organization and the way it performs the day-to-day activities of maintaining your campus, building, or facility. Look for the fat and waste and begin to develop and find ways to reduce those activities. You now have a lean organization. You can do this by putting into place the components of leading practice organizations like: proactive maintenance, work order planning and scheduling, skill training, reliability centered maintenance, 5-S processes, autonomous maintenance in your utility areas, computerized work order systems, preventive and predictive maintenance programs, performance measures, well run storerooms, supply chain management, and many others.

The bottom-line is to migrate to a Lean anything requires a major commitment from management which involves changing visions, attitudes, and ultimately the culture of your organization.