

My Intro to TPM and the resulting evolution

A Check-list? Why do we need a checklist for what should be a basic understanding I asked?.

In Ontario the employment standards act states at the beginning that every employee is responsible to insure that their work area is safe ... then the balance of the act dictates what the employer is required and should do to protect the employee.

So the response to my question was simple ... think of the check-list as an “alarm clock for the brain” as the operator goes through the check-list it makes them think about each attribute ... but the more important aspect of the check-list is that it makes an emotional attachment between the operator and the process and this is key!!!

Sure we know that when we provide operators with a check-list they view it as just another task that management wants completed and even if they “pencil whip” the completion of the check-list the subliminal aspect of emotional attachment to the process will still transpire.

Initially **TPM or Total Predictive Maintenance** was having the operator conducting equipment self checks that would hopefully detect potential problems that could be resolved before creating unscheduled equipment down-time ... and emotional attachment. Typically it was difficult to go beyond that since operators were not allowed to tinker with their machines or process. The sheer fact of adding a check-list to a process reduces unscheduled down-time by 20-30%.

As management became more educated and mature they realized that their operators who were managing their households outside of work and did not park their brains at the punch clock were actually capable of doing minor maintenance tasks to their equipment and processes. Hence **TPM evolved to Total Productive Maintenance** which allowed operators to conduct minor maintenance activities to their equipment and process to prevent unscheduled equipment down-time. These activities included, for example, lubrication and the replacement of filters. But more important was that it increased the emotional attachment of the operator to the process. By adding operator tasks to your TPM program further reduces unscheduled down-time by another 20 % ... but more important is that since the operator has increased ownership of the process the equipment stays in better shape with less nicks, scratches and dirt accumulation.

So then I evolved into managing processes where equipment was not a dominant factor of the process but I still understood the under lying attribute the TPM applies to a process. What to do?

Hence my evolution of **TPM to Total Productive Management.**

Here I took the check-list beyond equipment and applied it to The entire process to insure that the work area would be sustained to my expectation and 5S standard ... hence my commitment that Lean and 5S is a management methodology of **distributed accountability.**

“Unless you try to do something beyond what you have already mastered, you will never grow.”

Ronald. E. Osborn

Where Lean Thoughts can become Reality

TPM ... the evolution

If we acknowledge that the primary role of your TPM methodology is to act as an alarm clock for the operator's brain while creating an emotional attachment between the operator and the process we are not harvesting the full benefit of TPM.

Like in most Lean Methodologies we overlook the most important aspect and that is the role of the observer and the act of reflection ... these 2 attributes are a must if your organization is going to be successful .. But many organizations view this role as waste while it actually is the inverse ..

For example, overall machine downtime is obviously an important metric, but it lacks sufficient detail to be actionable. The details – such as downtime by production line, by work center, by shift, and by reason code – are where useful information can be found. Using this approach, coupled with effective root cause analyses and segmentation methodologies, the TPM team at a major automotive parts distributor was able to identify which of its many work centers had both high labor costs and low OEE. By prioritizing these particular work centers the team was able to achieve a 25% improvement in overall labor productivity within a matter of a few weeks. Again, the objective was to improve performance, not just implement TPM.

Instill accountability and implement strong governance. A clear, structured approach with high-level management oversight can help organizations focus time, money and resources on those elements that will have a direct and measurable impact on business performance. In addition to high-level leadership, the effort also will require implementation of a strong accountability system.

Making the accountability regimen functional and permanent can be a challenge. It is not unusual for managers to tire of the rigor and discipline that are needed to continue actively searching for improvement opportunities on an ongoing basis. Maintaining this regimen will require regular reinforcement and leadership from the top.

Improve utilization of existing maintenance systems and IT capabilities. Most M&D organizations invest heavily in technology such as a computerized maintenance management system (CMMS), but they often fail to take full advantage of that technology. A thorough assessment of system utilization often reveals numerous new opportunities to use these tools more effectively to improve machine uptime and OEE.

For example, a recent analysis in one multibillion-dollar corporation revealed that its powerful CMMS was being used primarily as a work order system to create and track repair tickets. The system's many other powerful capabilities – such as downtime tracking, real-time performance dashboards, standardized reporting, manpower, planning, and equipment reliability tracking – were accessed only rarely, if at all.

By approaching TPM from this perspective, M&D organizations can begin to drive targeted, tactical improvements that will have a demonstrable, positive impact on financial performance. These results, in turn, can help the TPM team build and maintain momentum as it works toward achieving the long-term cultural change that will be necessary for TPM to take hold and thrive.