

Why Can't Maintenance Be a Strategic Initiative, Too?

Written by Dale R. Blann, P.E., Marshall Institute Inc.
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Maintenance suffers from a deficiency of understanding and respect. It is probably fair to say that most people (even management) think the role of maintenance is to “fix things when they break.” That could hardly be further from the truth. When things break down, maintenance has failed. The maintenance job is to maintain it so that it never breaks.

A typical manufacturing plant has hundreds, even thousands, of equipment components that can create problems in myriad ways. Plant managers and production managers often do not understand the reasons behind these chronic problems and thus miss one of the biggest strategic opportunities available to make improvements in capacity, throughput, and profits—performance improvement through better maintenance and reliability.

In many of these companies, maintenance practices are highly informal, not well-organized, and not based on “best practice” approaches. Good systems of work control are either inadequate or not present at all. Breakdowns are frequent and the majority of maintenance activity is reactive. In the pressure of time, maintenance may be subjected to a “quick fix” mentality, an approach that actually exacerbates the situation—not exactly the formula for world class status.

The challenge for maintenance managers today is to gain recognition, at all levels, in all departments, that maintenance is a strategic tool, too—recognized as an integral part of the plant production strategy, an integral component of the overall plan by which the plant meets its marketplace.

What can you do to move to world class status in maintenance and reliability? The following steps provide a useful framework for constructing the “vision” and organizing the effort for making the journey to maintenance excellence.

Step 1. Get your act together

Maintenance improvement must start with good management processes. To make maintenance resources more productive requires the implementation of appropriate planning methods, organizational structures, work control systems, material control techniques, information management systems (CMMS), and measurement and control techniques so as to optimally manage and control the maintenance resources—labor, materials, and capital.

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Step 2. Get beyond the boundaries

Maintenance cannot do it alone. Both production and maintenance share a number of basic responsibilities that each must exercise diligently in concert with each other to get what they all want.

As a minimum, production should work with maintenance to reduce dependency on "stand-by" shift mechanics and "just-in-case" maintenance. Furthermore, production should develop performance measures which reflect the maintenance contribution in terms of the overall production objectives, not as a cost but as a necessary value-added resource to best meet production objectives.

Step 3. Fix the process, not just the problems

By this step, zero breakdown maintenance is the goal, and it is actually achievable using such techniques as total productive maintenance (TPM), reliability centered maintenance (RCM), and PM optimization (PMO).

TPM. TPM is a process to improve machine reliability and efficiency by involving all employees in the care, purchase, and improvement of equipment. It fully engages the entire organization (especially maintenance and production) in eliminating every possible thing that gets in the way of overall equipment effectiveness ($OEE = Availability \times Production Rate \times Quality Rate$).

RCM. Reliability centered maintenance (RCM) is a systematic, highly structured, disciplined approach to maximize safety and function of equipment assets. RCM uses a rigorous framework for identifying and eliminating all the potential ways an asset can fail to perform its intended function and/or the consequences of that failure.

PM Optimization. PM Optimization uses RCM principles to optimize current maintenance strategies with the result that downtime is reduced, performance is increased, maintenance costs are reduced, and the resulting maintenance procedures are actually more effective.

It is time that enhanced asset reliability is recognized as a critical element in manufacturing performance and market competitiveness (maybe even survival) in today's manufacturing

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environment. It is time that maintenance is recognized as a cost to be optimized, not as a necessary evil to be minimized. **MT**

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