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***Feeling covered and smothered? Despite fewer resources these days, you still have to keep your systems up and running as required and help your operations stay competitive. Lowering the quality of maintenance is certainly no way to do it.***

Maintenance Departments across all industries are facing a similar challenge: As executive management takes a slash-and-dash approach in reducing costs, maintenance must accomplish the same quality of service with only a fraction of the resources. Unlike some other departments, the Maintenance Department's workload doesn't get smaller when resources are cut. Buildings don't disappear. Equipment systems are still there. Maintenance simply doesn't have the option of lowering its quality of service; it must maintain assets for the company to stay competitive. In other words, you still have to deliver for your clients. If you don't, someone else will.

**So, how do you handle this situation?**
Fortunately, there are ways you can turn the downsizing and budget cuts into improvement opportunities by eliminating inefficiencies and increasing productivity. Most companies can actually improve efficiency in the face of fewer resources by making a few adjustments to their workflow, planning and scheduling and technology.

Start by identifying improvement opportunities in the workflow, improve planning and scheduling functions, then introduce technologies such as a computerized maintenance management system (CMMS) and/or "mobile" to support your efficient workflow.

***Identifying opportunities in the work process flow…***
A thorough understanding and analysis of a maintenance work process flow makes it easier to identify and eliminate inefficiencies. The goal, however, is to not only eliminate inefficiencies, but to develop an improved work process flow that is more effective and productive. As the flow is thoroughly reviewed and analyzed, the entire process flow becomes visible and inefficient activities are easily identified and eliminated.

Common inefficiencies in maintenance work process flow include transportation time, waiting for parts or instructions, overdoing PMs, recurring repair problems and other process waste.

Most of these types of inefficiencies are associated with unplanned jobs— *technicians don't have the right tools, parts, or instructions* —or due to poorly planned jobs, such as indirect routes or unavailable machinery/assets that waste time.

For example, performing preventive maintenance tasks more often than is necessary or redoing jobs that were not done correctly the first time wastes valuable time. If maintenance personnel are waiting for equipment to become available, or for tools, parts and instructions, their time could be better spent elsewhere. Waiting is not a value-added activity and should be eliminated or reduced as much as possible.

***Improving planning and scheduling…***

Frequently, maintenance is working under stressful conditions caused by emergencies and other unplanned activities. Unpredictable emergencies will always occur to some extent. Technicians are generally derailed from the job at hand to attend to an emergency—*an event for which they typically are unprepared* . They have to rush or abandon their initial job, then have to waste time retrieving the appropriate parts for the emergency repair.

A simple way to ensure that 95% of your maintenance force is not disrupted by unpredictable situations is to have a small reserve crew whose primary purpose is to work on emergencies. When not responding to emergencies, this crew can be assigned to other, lower-priority work.

Technicians often don't have time to correctly analyze the root cause of a problem. Instead, they quickly fix it and move on to the next problem. This can lead to recurring breakdowns and long-term loss of productivity. By optimizing the workflow and scheduling, technicians can spend more time determining the root causes of problems. This way, repairs will be thorough and complete, reducing the risk of recurring defects and/or further damage.

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It is crucial that inefficiencies in planning and scheduling and work process flow be minimized— *or all the technology in the world will not improve your bottom line*. By putting a proper work process flow in place, doing adequate planning and scheduling, then applying appropriate technologies, you can turn an efficient Maintenance *Department* into a real-time, problem-solving Maintenance *Center* .

***Introducing CMMS technology…***

A CMMS will not only support your work process flow, it can enhance it. It does so by easily allowing technicians to initiate and approve work requests and helping with planning, scheduling, dispatching, completing and following up for continuous improvement. An online work-request system increases the efficiency of both the maintenance operation and the requester. Moving this system to mobile technology will allow instant information access and

data entry, further improving workflow. Requesters have convenient access to the status of open and completed requests, which reduces lost productivity from identifying and disposing of duplicate requests.

Today, a technician can receive a work order on a mobile phone. Included in the work order is all the information required to complete the necessary repair. He/she finishes the work and instantly the customer receives notification that the job is complete. CMMS has a provision for specifying parts and tools on work orders. Adding mobile technology also allows the technician handheld access to the parts list and the current location of the part, and gives him/her the ability to instantly update the status of the repair.

**The benefits of adding mobile**

In the next 5-10 years, use of mobile technology in maintenance will literally explode. Among other things, the ability to enter data in real-time and at the point of performance saves time and reduces errors. With bar-code and RFID technology, technicians can simply scan a piece of equipment and instantly update maintenance records, saving substantial time and man-hours spent in inspections and data entry activities.

Mobile technology will revolutionize the way maintenance departments approach equipment, work orders and inventory. As it becomes more common in maintenance systems, users will find that it:

- Provides technicians with more information at the point of performance. With mobile devices, technicians have access to history and other pertinent information while performing inspections and repairs, instead of having to come back to the office to retrieve the information.n Offers greater return on initial investment. Managers who carefully review the flow of work and information will capture significant savings from mobile technology.

- Enables faster troubleshooting. Technicians spend less time looking for information, yielding more wrench time.
- Provides easier capturing of data, such as pressure, temperature and oil levels. Security checks can be done and easily recorded using mobile technology.
- Increases the performance life of critical equipment and assets.
- Manages parts receiving, parts addition and depletion, cycle counts and annual physical inventory. All of these things can be done very efficiently with handheld devices.

Even though your Maintenance Department may be seeing diminishing resources, failing to maintain assets can never be an option for a successful company. Following the outline given

for improving workflow, increasing efficiency in planning and scheduling and researching the options of adding CMMS and the use of up-and-coming mobile technology, a maintenance operation can help decrease costs and continue to provide the quality of service its organization needs to remain viable and vigorously compete in today's and tomorrow's global marketplace. **MT**

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