

The Fundamentals: Maintenance New Year's Resolutions

Written by Raymond L. Atkins, Contributing Editor
Monday, 14 March 2011 09:33



It's not too late to tackle this list. Improvement is always in style.

Those of you who are thinking that it's a little late for a New Year's Resolution article need to look at the subject from my point of view. If you had been offered this article back in January, I would have been competing for your attention with all those other resolutions you made. But now that the rush is over and you're no longer skipping dessert, jogging at 6 a.m. or trying to read the Harvard Classics, we can get down to serious business. Specifically, we can look at some strategies you can employ if you want your maintenance reality to be different this year than it has been in the past.

Of course, if you're entirely happy with the way your plant is running and feel there is nothing more you can do to enhance your maintenance efforts, read no further. If you enjoy sleepless nights and the staggering pressure of process breakdowns, feel free to turn the page and scan the rest of the magazine. On the other hand, if you want to break the cycle of reactive maintenance, you might consider adopting one or more of the following "Maintenance New Year's Resolutions" as your own.

#1. Perform preventive maintenance.

According to Dictionary.com, maintenance is "the act of maintaining." The definition goes on to state that maintenance is care or upkeep, as of machinery or property: "*With proper maintenance the car will last for many years.*"

This is a simple and clear definition, yet it highlights a problem that too many maintenance managers face. In the reactive mode of maintenance, a large percentage of your maintenance

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assets—

both in personnel and in capital

—are devoted to putting out fires. The predicament then becomes one of priorities: You can't maintain your plant because you're spending all of your time and budget fixing your plant. You have to do this because your processes are in failure mode. Consequently, since you're not able to maintain your machines, they will continue to fail, thus bringing about the need to use more and more maintenance time and energy to address process failure. This cycle of process misery is a hard habit to break, but you must find a way. Start small, address one machine center at a time and put reactive maintenance behind you.

#2. Staff for success.

Have you ever heard the old saying that "there are only so many hours in the day?" It's true: there are exactly 24, which are usually enough, unless you're trying to make do during hard times by combining necessary jobs. If you are running your maintenance organization with a short staff—*either in the office or out on the plant floor*—then you're creating an environment in which failure will take hold and eventually thrive. Unfortunately, in a sluggish economy, upper management may decide to freeze hiring or to cut out maintenance positions altogether. The answer to that argument is so common-sensical that it shouldn't have to be repeated every time the economy takes a dive.

Positions such as planner, scheduler, maintenance clerk and even reliability engineer all pay for themselves. They are a wise investment, not an unnecessary expense. It isn't the case that a maintenance department really *OUGHT* to have these positions staffed. Rather, it is a documented fact that no maintenance organization can be completely successful without filling these roles—

positions MUST be performed

the tasks associated with the various

. Consider for a moment what happens when you don't fill one of these positions. What are the consequences? Do you pay overtime for the work? Do you pull another employee off of his/her job to cover the labor shortfall? What happens to *that*

person's job as a result? Or, do you simply let that part of your maintenance effort slide while hoping for the best?

#3. Plan and schedule.

If you're not planning and scheduling, I can't do much for you other than offer my sympathies. (OK, I'm kidding, but only a little.) You've read it here before: If you are going to succeed as a maintenance manager, then you must plan and schedule your work. Planning and scheduling are the methodologies by which you gain and keep control of your maintenance processes—*you can't be successful without them.*

Consider the analogy of the car trip. Imagine that you want to visit the Grand Canyon. Do you just walk out, get in the car and head out? Not if you want to have a good trip. To ensure a successful journey, first you drag out the road atlas and decide which route to take. Then you tune up the car, rotate the tires and make hotel reservations. You'll surely develop a travel budget and withdraw adequate cash for the trip. You will also decide who is going to accompany you, when the trip is to be made and how long it should take for you to reach your destination. In other words, you plan and schedule the excursion from start to finish. Your visit to the Grand Canyon cannot be successful without these two vital functions. Neither can your journey to maintenance reliability.

#4. Measure your processes.

If you're not keeping key performance indicators (KPIs)—*also known as metrics*—it's as if you are driving on a curving road on a foggy night: You have no idea where you are going and where you've been, and you're not quite sure where you are right now. You may be making great strides toward maintenance reliability, or you may be losing ground every day with respect to that goal, but you'll never know either way if you don't measure your performance.

You must compare your maintenance performance against your own historical data over time and against industry benchmarks. Remember: If you can't measure it, it doesn't exist. As we've discussed in previous articles, you must collect timely, consistent, meaningful and honest data concerning your efforts. Then, you must develop a set of KPIs that have meaning for your particular process. You can't make the journey to maintenance reliability without a system in place to measure your progress.

#5. Train your employees.

Years ago, I worked as a line mechanic in an automobile dealership. I'll never forget the first time I got to troubleshoot a car with solid-state ignition. The brand-new model had just come in on the transport, but it wouldn't start. Employing my usual diagnostic protocol for vehicles with suspected ignition problems, I determined fairly quickly that the thing probably just had a bad set of points. Imagine my surprise when I popped the distributor cap and discovered it had no points at all—*it didn't even have a place to put any!*

My next step was to quietly slip out to the sales lot, look back over both of my shoulders, pop the hood of another new car, and take a peek under its distributor cap. As it turned out, this one also had no points.

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Sensing a trend, I made inquiries and learned the ignition system for the entire vehicle line had been changed. Sadly, we technicians had received no training on the new system. Even worse, the dealership had not purchased any of the rudimentary diagnostic tools that were then available for vehicles with solid-state ignitions. The analogy should be clear: Regardless of the jobs they perform, if your team members aren't adequately trained, they won't be able to give you the results you seek.

#6. Encourage teamwork.

Organizations are complex and multi-faceted entities—*it's a rare one that doesn't have one or even several personnel dichotomies*

This is the natural outcome of the predilection of human beings toward the "us versus them" mindset. Some of these divisions include production versus maintenance, management versus labor, day shift versus night shift, union versus non-union, blue collar versus white collar and probationary versus permanent.

Yes, a little intramural rivalry can bring about a spirit of healthy competition within an operation. But if it goes too far, conflict and negativity—*to the detriment of the organization*—can be the result.

All members of an organization (and particularly management and supervision) should strive to hold this type of activity to a minimum. Regardless of who is harnessed to the wagon, it can only be pulled in one direction at a time. As one of my old bosses used to say, "If they shut this place down, we'll all be standing in the unemployment line together."

#7. Practice accountability.

The concept of accountability is difficult for many maintenance managers to embrace. Perhaps this is because in the world of reactive maintenance, it is often hard to determine the reason for a failure. Did the bearing fail because it was installed improperly? Did the bearing fail because it was not lubed? Did the bearing fail because the machine was operated beyond its rated capacity? Did the bearing fail because it was stored improperly?

When a process is out of control and a failure occurs, it is very difficult to determine the cause—*but you must get to the root cause or the process will fail again*

. The key to establishing accountability is to develop work processes that have documentation

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(and therefore accountability) built in.

Train maintenance employees on how to install the bearing and document that training. Train reliability personnel on how to lube the bearing and document that training. Train production employees on how to operate the machine and document that training. Train storeroom employees on how to store the bearing, and document that training. Then follow up: Get to the root of the failure when it occurs. If human error is found to be the cause, hold the appropriate person responsible. Keep in mind, though, that accountability is not about punishment. It's about progress.

Reality check

I'll admit that this list of Maintenance New Year's Resolutions reflects an ambitious undertaking. It wouldn't be easy to cross off all seven items from it by December 31, 2011. Tackling one or two, however, would still generate benefits for your maintenance organization. If you don't actively set out to change your maintenance reality, it will not change. It's not too late. Now is the time to begin. **MT**

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