

## Break free of the reactive cycle of doom



# Achieve PdM Success: Be Like Mike

Making the leap to reliability-centered maintenance is all in your team's mindset



□ Michael Macsisak is a predictive maintenance technician at

Nestlé Purina's pet food processing plant in Allentown, PA ([www.nestle.com](http://www.nestle.com)), which helps produce Friskies, Alpo, and Mighty Dog pet food brands. Recently, the Allentown plant's maintenance team embarked on a multi-year project to improve plantwide asset reliability by embracing reliability-centered maintenance approaches and predictive technologies. Macsisak, who has 30 years of mechanical experience as a heavy equipment mechanic, production line mechanic, forklift mechanic, millwright, and welder, was part of the team that was asked to make this shift. He is now a Level II Infrared Technician, Level II Ultrasonics Technician, Level I Machinery Lubrication Technician, and Expert Laser Alignment Technician, and is currently

training as a Level I Vibration Data Analyst. Macsisak spoke with Plant Services about the challenges associated with making this change, as well as the impact that PdM has had both on asset reliability and on team drive and confidence.

*PS: Could you describe your team's original approach to maintenance, before the start of the reliability initiatives?*

MM: Many years ago, the original function of the maintenance team was reactive – run to fail and fire-fighting only. The common questions were always, “how long until we're back up” and “can we make it to the weekend without completing the repair?”

Also, success was defined as any time before the broken piece of equipment shut the facility down. Speed of repair was the standard for our mechanics. A quick repair deserved a gold star.

*PS: Once the reliability initiatives were implemented, what were some of the major on-the-job changes that took time to get used to?*

MM: We started new PdM routes as required by the machine history on breakdowns. Within months we started having positive results with PdM. Initially we had 20 pieces

of equipment with PdM routes, and all were trending with great results including \$1.4million saved in production due to adequately predicting, planning, and scheduling equipment repairs.

The new standard for gold stars is predicting failures, and planning the needed repairs around production needs. We now control when we fix things rather than when we have a breakdown. Mechanics are now checking and verifying all machinery consistently rather than waiting for a failure to occur with wrench in hand. Dedicated teams now record and analyze the routes for trends. We own the machines rather than the machines owning us.

*PS: What advice would you give other veteran/experienced workers who are trying to make the same change you and your team did?*

MM: Change is good. It may be hard for old dogs to learn new tricks, but from my experience, change was the best thing to happen to me.

As PdM developed at our facility, the mindset of new equipment installations also changed. Before PdM, equipment would come in and major work would occur just to get it up and operational, causing additional costs and major headaches. The PdM and reliability cen-

tered maintenance programs grew not just the equipment functionality and mechanics' ability, but the entire facility's mindset.

The key to making the switch from a mechanic to a PdM technician is in the mindset. If you believe in predicting failures and understanding root cause, PdM is the place to start. PdM is centered on the routine and routes: the routes must be tracked regularly and constantly to ensure a thorough understanding of when equipment is trending poorly. Determine routes based on daily, weekly, or monthly basis and complete the routes when they are needed.

Between oil analysis, vibration, infrared, and ultrasonic, you can track any and every machine in your facility with great results. Many other tools are available with no cost and minor training including centerlining, 5S, and BDAs (Break Down Analysis). All these tools are fantastic ways of getting to root cause on your equipment; however, PdM is the only way to truly trend and predict a piece of equipment before it breaks.

You will always have more wins than losses with a strong PdM team. We are no longer buying for price, we're buying for reliability. You can never put a price on reliability. **□**

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## *Three warning signs that your plant may be engaged in too much reactive maintenance*

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Is your backlog getting out of hand? Your team might be ready take a more proactive approach and break free of reactive cycles

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**□** Improving reliability is a priority for many organizations, but achieving reliability goals can be more difficult than expected. Despite the best efforts of you and your team, problems keep popping up, stealing your time and resources, and keeping you in a cycle of reactive maintenance.

In a recent Plant Services webinar, Jason Tranter, CEO and founder of Mobius Institute, explored the causes of a detrimental cycle of reactive maintenance and identified five ways to break out of the cycle. To start understanding how so many teams get trapped in this unending cycle, Tranter says to first examine what happens in organizations that experience a lot of reactive maintenance:

1) Every time a preventable breakdown occurs, workers must stop what they are doing to fix the problem. This type of emergency work is

often rushed, and the repairs can be performed incorrectly. The failing machine is at the mercy of whoever is available to do the job, regardless of whether or not they have the right skills, have been properly trained, or have the right tools.

2) Sometimes temporary repairs are performed with a "let's just get it done" attitude. The workers get the machine running with the intention of coming back later to do the repair work properly but, of course, later never happens. The necessary work is done quickly, which causes the machine to fail again in a short amount of time, wasting additional resources and time.

3) No root cause failure analysis is performed to determine what can be done to eliminate the failures from reoccurring. And if suggestions for improvements are made, they're either totally ignored or there's just no time to implement them.



When management looks at these continual repairs and they see all the costs and resources being consumed by this downtime, they decide to make cuts to the maintenance department to recoup some of the losses. This means that there are now fewer people to do the same amount of work, causing morale within the department to decline. And, as more and more jobs are added to the to-do list, the maintenance backlog continues to grow until preventive maintenance tasks are missed.

Changes need to be made to break out of the cycle. So how can you break out of this “reactive maintenance cycle of doom”?

To learn how, watch the on-demand webinar.

[http://info.plantservices.com/mobius\\_pd\\_mnt-feb-17](http://info.plantservices.com/mobius_pd_mnt-feb-17)

## *Additional Resources*

### **FIVE ESSENTIAL ELEMENTS OF A RELIABILITY INITIATIVE**

Building a reliability improvement initiative is not rocket science, but there are five key elements that are required to ensure the program will achieve the greatest benefit and be sustainable. Can you just focus on maintenance? No. Can you pass the buck to consultants? We don't think so. In this Webinar, we will reveal the five elements, justify why they are so important, and explain why (in our experience) the best programs are driven from within.



CLICK HERE >> <http://bit.ly/2rW7neo>

### **CONTAMINATION CONTROL: THE KEY TO GEARBOX RELIABILITY**

If you are not controlling contamination of your lubricants, then you cannot achieve the maximum service life of your rotating machinery or your lubricants. Using lots of 3D animations and animated illustrations, this presentation will focus on gearbox lubrication, explaining why contamination reduces the life of the gears and bearings (and the oil itself), how much the service life is reduced, how to reduce contamination, and how to remove unavoidable (and avoidable) contaminants.



CLICK HERE >> <http://bit.ly/2qNGSKI>

### **BEARING FAILURE, DETECTION AND PREVENTION**

In this webinar, we discuss the most common reasons why rolling element bearings fail, including lubrication problems, lubricant contamination, excessive loading, and installation and handling. Next, the webinar summarizes how a variety of condition monitoring technologies can be utilized to determine the condition of rolling element bearings, including basic and advanced vibration analysis, oil analysis, wear particle analysis, and thermography. And finally, and most importantly, we discuss how to make changes in order to extend the life of rolling element bearings through precision maintenance techniques.



CLICK HERE >> <http://bit.ly/2rRZnLn>

### **E-LEARNING: ILEARNRELIABILITY [ENTERPRISE]**

iLearnReliability [Enterprise] provides reliability improvement training for reliability professionals, an entire industrial facility or your whole enterprise. iLearnReliability is unrestricted, online training that provides strategic guidance, plant-wide buy-in, and skills development. iLearnReliability™ includes awareness training for plant management, reliability program manager and technical skills training, and toolbox talks to build support and buy-in from the plant floor. Now you can now make “Reliability a Reality”.



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