

## Viewpoint: PdM vs. Failure Avoidance

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What a heresy to not "talk up" PdM (predictive maintenance) in a publication that deals with maintenance technology! Yet, I firmly believe that decades of primary emphasis on PdM have proved very costly for industry.

It has been said that PdM is like calculating and predicting when two trains moving in opposite directions on the same track will crash into each other. Knowing their respective speeds and the distance separating them will let you do that. A much more intelligent choice would be to know the distance to the nearest side spur equipped with a switch, and to then initiate appropriate changes in the speed of one train. The crash would be avoided and all involved parties would be better served.

In my opinion, as matters stand today, there is too much congratulating oneself for having accurately predicted the time and location of a disastrous crash. Only a relatively few companies realize that reliable process plant machinery is either available or feasible and can (usually) be cost-justified by due diligence.

Companies that do due diligence (i.e. engaging their brains to the fullest) are the ones that understand and reward the best choice in terms of equipment life cycle cost. They try never to automatically reward the lowest bidder with their purchase order. Instead, these smart purchasers get superior machines by expending additional design, engineering, fabrication, installation, maintenance and—*above all*—educational effort. Those that really get results use a combination of planning, sound specifications, well-formulated procedures and intelligent work processes. There are many reasons why these intermeshing activities are rarely in place and to list them would fill countless pages.

Suffice it to say that another key ingredient, accountability, is lacking in many instances. Many project executives are allowed to concentrate merely on cost and schedule. In essence, they are being rewarded for picking the cheapest equipment and getting it delivered in record time. From that day on, someone else is being rewarded for cobbling together the failed machine in record time. The overwhelming majority of plants then experience repeat failures—*no wonder, since the reward system encourages a never-ending cycle of such failures.*

Ready for a radical proposal? Start insisting on people reading books and articles that describe how the best of the best do the literally hundreds of tasks that ultimately lead to equipment

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uptime extension. Let them report to a designated and accountable individual on how the designs, engineering features, fabrication and installation procedures, work processes and whatever else is done at your facility differ from what can be gleaned from this incalculably important reading. Then have individuals explain the ramifications of doing it one way vs. another way.

Set realistic goals for your workers and for yourself. Aspire to a higher standard and hold people accountable for understanding how often your pumps fail—*and how often they fail elsewhere, at a best-of-class facility*. Then ask them what it would take to move a bit closer to the failure avoidance achievements of those "other" facilities. Follow this roadmap for everything and accept the premise that there is no other way to get there. Trust me.

**MT**

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### Reference:

*Bloch, H.P., Improving Machinery Reliability, (1998) 3rd Edition, Gulf Publishing Co. (1988), Houston, TX, ISBN 0-88415-661-3*