

## Return On Net Assets

Written by Terry Wireman, C.P.M.M. Editorial Director  
Wednesday, 01 March 2006 21:36

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Terry Wireman, C.P.M.M. Editorial Director In the past few columns, we've dealt with the expense side of maintenance and reliability and how they affect the capacity of a plant. In this column, we take this one step further and show how it is important to corporate officers. In its recent "Best Plants" competition, Industry Week magazine used a series of indicators to measure plant performance. One of these was Return on Assets (ROA). Simply stated, ROA looks at the profits generated compared to the valuation of a plant assets. If a plant performs efficiently, with little waste in its processes, it generates a higher profit with its asset base. Another plant with identical assets may be less efficiently operated and would show a lower profit for the same asset base.

ROA is being used to scrutinize plants more frequently and is developing into a benchmarking standard. How, though, does the maintenance and reliability (M&R) function impact ROA?

Considering that the formula for ROA is basically profits divided by asset valuation, the M&R function impacts both the numerator and the denominator of the calculation. The asset valuation is determined not just by the physical presence of the asset, but by its contribution to profits. If assets are poorly maintained, they cannot reach design production rates. Hence, to reach the production commitments, more assets are required, increasing the size of the denominator in the ROA calculation.

As for the numerator, profits generated by a company are affected by many factors. Most relate to turning out a product with minimal waste, on time and with the highest quality. The M&R function impacts profits by reducing downtime, maintaining expenses at budgeted levels and removing waste from production. For example, consider the following:

- Is unplanned downtime a waste?
- Are product defects related to poor equipment condition a waste?

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- Is WIP to compensate for unreliable equipment a waste?
- Is working extra shifts to compensate for breakdowns a waste?

The list could go on and on. But, the real question is: What is the impact on profits for each area of waste?

This scenario highlights the real M&R dilemma—how to communicate the impact that maintenance and reliability functions in a plant have on the indicators that are important to company executives and investors. Intuitively, M&R professionals know there is significant impact on the ROA calculation. Subliminally, company executives and investors know the linkage is there, but they fail to see the direct correlation.

As previously discussed, if M&R professionals can't articulate their business into indicators and financial terms that company executives and investors understand, they will always be counted on the expense slide of the ledger, with a focus on reductions. The only solution is for M&R professionals to educate themselves so they can translate what they do into terms that company executives and investors can clearly understand—and appreciate.

Only then will companies be able to unlock the true secret of competitiveness. Until that time, they will continue to focus primarily on cost reduction. How anemic will industry become before the problem is corrected? **MT**