Robert M. Williamson, Strategic Work Systems, Inc. When looking for an elephant many people think they need to know lots of things about the beast. How do we track it? What does it eat? Where does it sleep? Where is it likely to hide on hot, sunny days? Where might it be when it's cold and dark? Who might have seen the elephant last and when? Where was it headed? And the list goes on and on.

In the world of manufacturing and facilities management we often get called upon to find ways to improve maintenance. How do we track it? What does it cost? Why is maintenance really good at times and other times it is in the pits? Who knows how good maintenance can, and should, be? What IS "maintenance" anyway? This list, too, goes on and on. So, how DO you improve maintenance? And, how do you find an elephant?

Maintenance improvement practices take on many different appearances. For example, there is preventive maintenance analysis and improvement. Then there is reliability-centered maintenance (RCM). How about operator-performed maintenance and total productive maintenance (TPM)? Others include outsourcing specialized maintenance, supplier consolidation, and knowledge transfer. Then there's lean manufacturing (and even lean maintenance) and the Kaizen initiatives.

In a large number of plants and facilities, 30-40 percent of the maintenance hours worked are for reactive or emergency repair requests. Many of these reactive maintenance organizations did not used to be that way. They may have slipped into it because of cost improvement initiatives, re-organizations, higher than normal technician turnover. Their equipment has become more problem-prone than in the past; leaks have not been stopped, vibrations have not been curtailed, and root causes have not been addressed "because we just don't have the time or the resources."

In these reactive maintenance plants and facilities it does not take a great deal of analysis to find out where and what the BIG problem is. It does not take lots and lots of data analysis to point to the biggest, most critical opportunity for improvement. It does not take a fancy maintenance improvement practice, initiative, or activity to address the problem. Consider these four basic steps:

Step 1. Focus on the biggest equipment-related interruption to production throughput. Look for the biggest equipment-related complaint in the facility. Look for the highest maintenance cost. Look for the area having the highest number of maintenance "emergencies." Find the biggest elephant!

Step 2. Focus on the condition of the equipment identified in Step 1. Is the operational condition satisfactory? Or is it leaking, bouncing, missing parts, patched together?

Step 3. Focus on the past years' maintenance history for the equipment identified in Step 1. Are there indications of "pencil whipping" PMs? Are the PM tasks accurate and complete? Are the work orders and the CMMS reports reviewed periodically?

Step 4. Focus on the skills and knowledge of the people responsible for operations and maintenance of the equipment identified in Step 1. Are proper maintenance and operations skills being applied? Are proper operations and maintenance decisions being made, and reinforced?

Sometimes in that great elephant hunt we stumble across the beast when we least expect to. All that research, digging through tons of evidence just bogs us down. Rarely do we need a microscope to find the elephant. Just follow the tracks!

Improving maintenance in a reactive organization does not take a microscope either. Chances are these plants and facilities do not have the resources to undertake a widespread maintenance improvement effort in a sustainable manner. They often find themselves slipping deeper and deeper into reactive maintenance with no hope. They are surrounded by a heard of invisible elephants.

So, what's the bottom line here? In a reactive maintenance plant or facility the goal may NOT be to improve maintenance but rather to improve the equipment—performance and reliability improvement of that most critical, high-maintenance-cost piece of equipment that contributes to the biggest interruption to production, or the biggest complaint in the facility.

Focus on proper operations and maintenance, make just those problems go away, and you have quickly reduced your costs and improved your business performance, one elephant at a time. **MT**