

# Are you Brave enough to Submit your Company to an **Asset Management Audit** – a tale of our time?



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**“O**ver the years the company has grown comfortably. Er... well... perhaps the last three years have been a little, how should I put it, difficult. We have had to cut back on production staff and some of the engineering lads have had to double up now we are not recruiting for those who have either left the company or retired.

The production machines are not the most modern, but seem to be holding up well. We got a couple of auto-mixers from our Norfolk site recently and although they were of a different make and design from our own mixers we try to maintain them like the others. So far so good! It is a pity that I do not have any maintenance records for them. Ours are a bit patchy because no one seems to have the time to put it all down on paper, let alone a spreadsheet!

The big problem I have is what happens if we get a major breakdown. Head of Engineering at HQ

would not be best pleased if one of the four lines stopped as they rely on us for ingredient formulation pre-mixes.

I can cope with minor line disruptions, the ordinary line operators are still a bit flaky about what to do if we had an

emergency shut down, but one of the engineers is usually about, and will do his best to retrieve the situation. I can't seem to get staff interested in looking after the equipment though. They say it is not their job and I do not have enough engineers to be on standby all the time".

Perhaps a worse case scenario, but I am sure many large and small company directors and managers will recognise some of these symptoms within their own organisations. Indeed this example also points up the additional need for specialist training of operatives. At MCP we see situations like this all the time so you are not alone!



## THE FIRST STEP – HOW DO YOU ASSESS WHERE YOU ARE?

The starting point is to assess a company's current asset status. This should be achieved by carrying out an audit of the company's operations – in our case we use the AMIS audit. Originally sponsored by the DTI (now DBERR) we have developed this standard assessment and audit tool as an internationally recognised benchmark.

The audit should determine the degree of compliance/benchmarking against a best practice model. The audit should be concerned with, and be applicable to, the operation and care of physical assets, whether these are industrial or facilities based. The goal is to achieve optimum life cycle cost with maximum availability, performance efficiency and the highest quality.

This should be the essential foundation of any programme. It should provide the means to measure, on an objective basis, a company's approach to maintenance and asset management, and be designed to assess and provide scores for the key aspects of asset management and operation. This will typically include:

- Work management
- Maintenance effectiveness and productivity
- Equipment reliability
- Manufacturing equipment management
- Spare parts management
- Performance management
- Workplace organisation
- Contractor management

The assessment should identify strengths and weaknesses and provide the basis for developing an improvement plan. It should also provide a series of benchmark scores against industry sector specific results. (Note: Since its inception, over 4000 sites worldwide have used the AMIS model to devise and implement effective improvement programmes for managing the maintenance of their physical assets.)

## HOW DO I IMPLEMENT BEST PRACTICE IN MY ASSET MANAGEMENT PROGRAMME?

The audit guidelines should provide the key information required for implementing an asset management improvement programme. Its purpose should be to identify the roles and responsibilities for each element of the best practice model, the



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stages of implementation and the detailed step by step activities.

### HOW YOUR STAFF CAN IMPLEMENT BEST PRACTICE THROUGH TRAINING

The programme should contain training materials designed to provide awareness and understanding of best practice, these should include:

- Knowledge of the topic concepts
- Practical examples
- Exercises

Each module should be designed to enable trainees to implement best practice, deliver improvements and create ownership of the programmes they have developed and the assets that they relate to.



### PERFORMANCE MONITORING

This provides the means to measure performance and drive improvements through performance management and continuous improvement.

The appropriate equipment and maintenance key performance indicators should be selected based on the industry sector and business needs and a balanced scorecard developed. The process for reviewing actual performance and initiating improvement actions should be provided, and this should also include a tracking system for improvement ideas.

### WHY ONE NEEDS EFFICIENCY IN MAINTENANCE

The need to demonstrate and deliver high performance increases daily. More and more organisations are coming under the scrutiny of external regulators who require them to demonstrate that their operations are founded on good and, ideally, best practices. At a company level, boards of directors are required to demonstrate responsibility for their company's physical assets, and ensure a safe working environment for their employees that will generate the required return on investment.

Applications (for example the AMIS best practice programme) help meet these requirements by:

- ▷ Defining consistent ways of working
- ▷ Ensuring a process for effective management exists to provide the basis for driving increased return on investment

### WHAT SORT OF RESULTS SHOULD I EXPECT TO SEE?

The average savings from a typical improvement programme for a site employing, say, 250-300 people, can be in the order of £150-300K - a very worthwhile benefit. However, examples exist where the savings achieved have been of an order of magnitude greater. Take the actual results from a pharmaceutical manufacturing site employing 400 people with a transfer value of £100m, a maintenance budget of

Area	Gain	Benefit
OCM - downtime	Shift labour	£426k
R&M	Improved management	£117k
Fill pack	Changeover standard work (+5% OEE)	£1500k
Fill pack	B stop/short stop improvement (+1% OEE)	£300k
Fill pack	Downtime reduction (+6% OEE)	£1800k
Work planning	Optimise MERPS use	£90k
TOTAL	TBC	£4233k

Table 1 - Financial payback

£4m and operating costs of £40m. The audit process identified the following areas where there was considerable room for improvement - see below. The financial savings achieved, broken down by departments and activities, totalled £4233k and are shown in Table 1.

- ▷ The site's overall maintenance engineering effectiveness combined score was 44% which places the department in the 'Control' category. A world class performing site score would be greater than 75%.
- ▷ The audit flagged-up several opportunities for the site to further develop its strong capability and reduce operating costs in the form of released Man Hours/OEE improvement and financial benefits.
- ▷ Also the possibility of increasing OEE by at least 12%.

### A WORD ABOUT OPERATOR TRAINING

An essential part of any audit process, and subsequent improvement programme, should be to highlight and lay plans for operator training. A recent report undertaken by MCP highlighted the continuing lack of investment in technical skills which, coupled with the increasing age of the currently skilled workforce, indicates a growing problem for employers in the coming years. Already in some parts of the country it is nearly impossible to find qualified and competent electricians and process instrumentation engineers.

The problem is not going to go away. Whilst the numbers employed in the manufacturing sector continue to decrease, we see employment opportunities for the technically skilled increasing in the building services, warehousing and facilities management sectors. There is therefore a need to continue to drive home the importance of providing good training programmes.

### TRAINING TO UPGRADE SKILLS

One approach which is becoming increasingly common is for operators and maintenance technicians to increase their skills levels. For operators, this means taking responsibility for completing simpler maintenance tasks (fault finding, setups, lubrication, spares replacement, continuous improvement). At a more senior level, maintenance technicians are being trained to take on skills from other disciplines, for example basic electrical tasks for mechanics, along with trouble shooting and continuous improvement. One advantage of cross-skilling is the potential for increasing the range of jobs taken on by maintenance and production staff. Transfer of maintenance tasks to operators frees-up more time for improvement and other projects.

The single most important message for companies to take on board is that if you want to remain competitive, retain existing staff and attract quality people, then training, whether it is in technical or people skills, should be seen as an important long-term investment and not a cost subject to short-termism. ✱

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