

The Importance of Maintenance for the Survival of Your Organisation

Maintenance of industrial or infrastructure asset, covering most private and government industries and delivering product as well as services, is possibly just as important as operating them. When everything is fine, the assets can deliver output in the right quality and quantity. However, the emphasis is on 'when everything is fine'. Let's look at 'everything is fine' in a broader sense.

First of all, the output of the assets you are using must meet the needs of your clients and stakeholders, from shareholders to the government. This means that your assets must contribute to an optimum balance of output (revenue), use of input resources (cost) and risk. Note that an optimum balance between these three aspects of business and asset management is not necessarily the same as maximising output at minimum costs and risk.

To achieve this optimum balance, we must know exactly what and why we want to achieve in our organisation (Vision, mission, objectives etc.) and ensure that every department, division, group or individual works towards the same goals. As the vision, mission and objectives guide every asset management (operations, maintenance and support) decision, we must get them absolutely right.

To optimise asset output in quality and quantity and minimise costs and risk we must have well-designed assets, not only with regards to the provision of their function but also with a view to the ease of operation, maintenance and support. Much of this depends on proper design of the assets, otherwise we will need to spend more on modifications. With existing assets we should assess whether their design allows easy operation and maintenance. If not, we need to compare the cost of a modification against benefits for the rest of the life of the asset.

The balance of output, use of resources and risk is also greatly affected by the way we operate, maintain and support the assets. When we use the word maintenance we mean the maintenance of the function of the asset (not of the way it looks!). Although we mostly think that maintainers maintain assets we must realise that operators may have an even greater affect on whether the asset keeps performing its functions at the required performance levels, by the way they operate the asset and respond, or otherwise, to signals of deterioration from the asset. With some training operators could perform up to about 80% of tasks that are currently done by maintainers. Maintainers can then concentrate on major maintenance, performance analysis and development of improvement modifications.

We can optimise the balance further by developing a thorough plan, covering all operational and maintenance tasks with tools such as RCM, TPM and TQM to select all essential tasks, reduce or eliminate asset or process losses, continuous improvement, developing standard task procedures and ensuring that everybody shares the responsibility for asset performance.

When we know what tasks we need to perform and at what intervals, we can determine the needs for human resource skills, spare parts (delivered as much as possible just in time, so we don't need to pay for the purchase and storage of large quantities of parts just in case), work shops and information. Once we know these requirements, we can develop budget forecasts that cover every day of the life of the assets. With everything largely planned and only a small contingency for (unexpected) breakdowns we are then truly in control of our assets, production or service provision, risk, revenue and profits. This will reduce or eliminate daily fire fighting and the need for the annual 'budgeting' panic and we greatly reduce costs and risk.

To optimise the balance between output, costs and risk and reap the benefit of reduced stress and increased profit you need to take control! This means being willing to challenge everything 'we always did that way'! To teach you how, Engineering Education Australia offers a two-day Maintenance Management course that covers all aspects that affect maintenance in the various stages in the life of assets or facilities and that apply equally to the assessment of existing, as to the development of new assets or facilities. The course is developed on practical experience and includes practical exercises in the various techniques to improve maintenance management.

It is delivered by Mr. Emile Eerens who is the author of several innovative maintenance books and presenter of various international courses. He is also lecturer in the Maintenance Management and Reliability Engineering Certificate/Diploma/Masters Degree course, offered via distance education by Monash University, School of Applied Sciences and Engineering, Gippsland. The next courses will be offered in October and November 2004 in various cities (See EEA Website for dates and venues).

Alternatively, peruse the information regarding consulting, courses and publications on our home page and contact us directly on eercons@i.net.au