



AN INNOVATIVE MATTER

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The philosophy of asset management has undergone many changes during the last decade, aided by the internet being a comparative knowledge base for companies and shareholders wishing to be competitive globally. Thus a more innovative approach to implementing and sustaining asset care best practices was born.

Mining, an intrinsically dangerous industry, hasn't been excluded from this journey. Management structures often were silo-based and conflicting. This resulted in high inefficiencies and maintenance costs per production unit as opposed to working as integrated teams with a common reference frame and shared goals. Initially, the Japanese realised this partnership's importance and promoted it in the TPM concept.

CCI-GrowthCon realigned this idea to accommodate a need to be more profit focused, realise the potential of supporting computerised systems and proactively expand the reliability maintenance approach. Alignment also encompassed eliminating on-the-job hazards caused largely by rapid expansion and the drop in technical skills and experience.

The resultant strategy known as Business Centred Maintenance recognises that while quick results are essential to achieve programme buy-in and support, these results often aren't sustained and personnel quickly revert to old habits.

Asset care strategy

To combat this, a comprehensive asset care strategy should be formulated and signed off by the executive. A range of key performance indicators implemented at all organisational levels would ensure compliance. Failure to do this invariably negates the programme with the support systems viewed as inaccurate score boards.

A people-system relationship is as fundamental to modern asset management as a production-maintenance relationship. Companies striving for high manufacturing efficiencies should view the asset management function holistically and not delegate responsibility to the most likely department (eg engineering). Consequently, the Business Centred Maintenance philosophy is based on a series of Key Success Factors. Companies maintaining an asset management function - particularly in the continuous process industry - need to consider learning points that have surfaced globally over the past 20 years:

- An organisational structure supporting effective communication and clear responsibilities between the functions of Maintenance, Production, Materials

- Management and other departments
- Sound technical skills at all engineering structure levels
- An effective continuous improvement ethic linked to financial results tracking
- A strong Leading and Managing Change culture
- A solid reliability-based maintenance foundation backed by support elements and underpinned by adherence to world class manufacturing basics: 5S Cleaning and Organising, Visual Performance Measurement, Teamwork, etc
- A Talent Management support system
- An internal assessment system addressing all the above to enable internal ownership of progress measurement and subsequent action plans supported by external-based assessments

Learning points

Often companies showing the following symptoms have difficulty optimising their assets and rarely, if they do obtain performance, manage to sustain it:

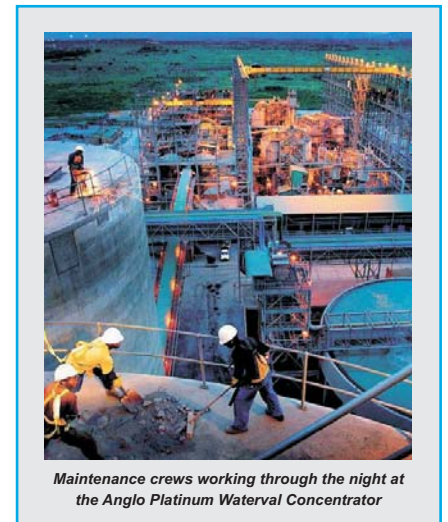
- A traditional approach to maintenance ('You run the machines, we fix them')
- Silo-based structures (Operations vs Maintenance) - no cross-functional goal alignment
- No effective Root Cause Analysis (equipment failure is automatically the engineer's fault)
- No focused improvement initiative driving the asset management function to contribute to company profits (no measurable results from maintenance effort and maintenance seen as a cost, not a profit centre)
- Poor teamwork and managers managing one level down (no or little ownership of assets at shop floor level)
- The CMMS system is 'window-dressing' (system fed with information - often inaccurate - to update management reports)
- Little or no maintenance forward planning - most work is executed reactively, leading to escalating costs, more breakdowns, compromising preventative maintenance and generally an unhappy working environment

In many countries it's been noted that the absence of asset management basics often prevents a company from moving towards a sustained best practice culture. Elements such as strong leadership, leading and managing change and a sound rewards and recognition system play as much a part in realising an effective asset management system as the technical aspects. Most failures are

because of competency-related issues as opposed to machine root causes. This inevitably means that equipment reliability isn't always impacted by design characteristics, but rather external factors compromising machine availability.

These external factors are aggravated by fewer technical skills and experience currently experienced by all industries. Retaining good technical skills is especially difficult in fast developing markets such as the mining industry. This situation demands greater focus to iron out potential hazards when developing modern reliability maintenance programmes.

Asset management as a holistic business function will become critical for heavy industrial companies throughout the world to sustain high performance levels and execute a cost-effective asset management programme.



Maintenance crews working through the night at the Anglo Platinum Waterval Concentrator

