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The print issue of the August New Engineer Journal also includes:

PROFESSIONAL INDEMNITY INSURANCE,

CONFERENCES, COURSES, PRODUCT NEWS and MORE

IEAust CENTRE FOR ENGINEERING LEADERSHIP AND MANAGEMENT

The concept of establishing a Centre for Engineering Leadership and Management deserves the full support of members. Since the plan to set up the Centre has become more widely known, I have received many positive and constructive comments.

Engineers will come into contact with the Centre at many stages of their careers. The contact will start when they are new graduates. The second point of interaction for IEAust members with the Centre will be when they get promoted into management.

Unless you stay focused in a technical management role, you quickly become a general manager valued for your analytical or problem-solving approach to management issues. Employers value such people.

John Boshier, Engineers Australia May 2002

Learning From the Past: Tribological Case Studies

W. Scott

Summary: Tribology is the study of contacting surfaces with relative motion. It embraces the areas of friction, lubrication and wear. Due to its interdisciplinary nature tribology is seldom treated as a composite subject and tends to be overlooked from an educational and applications viewpoint. This neglect has resulted in machine and equipment failures which could easily have been prevented if the basic principles of tribology had been known and applied. This paper reviews case studies of tribological related failure and gives some guidance as to how such failures may be avoided in the future.

Efficient Office Layouts

Martin J Stone

Summary: Office space is an expensive commodity. It is certainly an important consideration when designing new or remodelling existing offices. One should avoid making snap decisions about partitioned offices versus open-plan layouts. Movable partitions, screens, plants and carpets may result in some economies. However, unless planned carefully, the result may decrease overall office efficiency. Richard Muther & Associates of the U.S.A. pioneered the Systematic Layout Planning (SLP) approach from the 1950s. SLP has been applied very successfully to office planning. This article provides a series of useful checklists.

A Recipe for Developing a Maintenance and Replacement Plan – Part I (Part Two Next Issue)

M J Boyd

Summary: United Energy, Victoria, developed and uses its maintenance and (long-term) replacement plan for internal maintenance and capital project planning, as well as successfully during the recent Regulatory Price Review process. This paper describes an innovative way of developing an asset replacement plan. It uses a bottom up approach, focused on a specific documented plan for each asset group. The plan is a useful micro decision-making tool, includes risk assessments and enables comparisons for competing capital funding. The plans are comprehensive covering maintenance, condition monitoring & refurbishment to extend life, as well as replacement. Having documented policies enhances internal communication, is a reference for auditing and ensures safety aspects are covered. As a reality check, worldwide typical figures are provided. In its electricity distribution network, United Energy has been able to continually improve its reliability over the past 4 years. The system Average Interruption Duration Index (SAIDI) is a measure of performance, this being the average number of minutes in one year that customers are without supply. Figures have improved from a SAIDI of 207 in 1997 to 73 in 2001, in part due to application of its Maintenance & Replacement Plan. This same format is now being used to develop plans for the gas network managed by United Energy.

ICOMS ®-2002 Presentations on the Web

A number of ICOMS ®-2002 Presentations are being streamed onto the web, each as an Audio, Video and PowerPoint presentation or if you have band width problems, as an audio and PowerPoint presentation. You need to use Microsoft Explorer and Media Player 7.01. **See all this in the News Section at**

Principle – Risk Based Inspection

P Akbar

Summary: There is an ever-increasing pressure on pipeline operators to continually monitor the integrity of their pipeline systems. The use of metal loss and geometry in-line inspection tools is growing at a rapid rate. Intelligent pig inspections have become an integral part of risk management and integrity verification programs. In the last two decades, intelligent pigging has developed into an industry which provides a wide range of integrated services to pipeline operators worldwide. In order to achieve the set objectives of integrity and optimum efficiency, it is imperative to use the correct combination of inspection tools and an effective pigging program. This paper will introduce some of the state of the art tools in the market, describe their principle of operations, highlight their capabilities and show the use of inspection results in conjunction with other services to accurately determine the integrity of the pipeline.

What 's In A Name? Engineering Accountability

PM Robinson

Summary: This presentation reports on the status and trends in accountability for maintenance engineering and asset management in a complex international economic environment, and notes the most significant threads of thinking to emerge from our past. In Australia we have seen in just over one year a number of industrial disasters and near misses all connected with cost and engineering. The list is as frightening as it is widespread from airlines to fairground equipment and gas plants to oil spills. The presentation summarises key points of the challenges to our accountability for the discipline. Discussion is on the use or misuse of the theory and practice of maintenance engineering, reliability and asset management through applied statistics, economics, systems, problem solving, risk, case studies and the controversial issues of the day about industrial accountability and conflict of interest. The paper exposes ideas and approaches to maintenance engineering, brings together parts of the discipline and emphasized the value of continuous improvement. The presentation discusses the progress achieved in trying to foresee industrial disasters in the discipline of maintenance engineering and in addressing the conflicts surrounding maintenance engineering in business.

Professional Indemnity Insurance

Professional Engineers know that their insurance fees have skyrocketed and cover has been decimated. The need is for proportional liability, liability limits and time limits. IEAust is pursuing these issues via insurers, Federal and State Ministers and through the *Senate Economics Reference Committee Inquiry into Public Liability and Professional Indemnity Insurance*. IEAust Council has strongly supported moves to seek legal reform and to negotiate limiting costs of insurance for those with chartered status and with registration, risk management and quality practices in place. IEAust also aims to set up guidelines and an advisory hotline for members.

For current Papers, Click on 'Latest News' at www.mesa.org.au

ManSA 's Site Visit to Smorgon Steel on 20 June 2002

W Ferme

This is the story of an Australian entrepreneurial venture as well as taking on an industrial giant. The Smorgon family is a Russian Jewish family who have established a business empire in Australia. Construction of the steel plant began in November 1981. By January 1983, the melt shop was operational with rolling commencing the following year. Due to increasing market demand, the output of the melt shop was increased in 1988 and again in 1997 with the upgrading of the original steel-making facility. In 1997 post combustion and additional casting capacity were also introduced. To increase the production of rod products, a separate rod mill was commissioned the same year. Smorgon Steel utilises state-of-the-art steel-making technology. Operating 24 hours a day, 365 days of the year from a 28-hectare site in Laverton North, Victoria, Smorgon Steel has the capacity to produce over 600,000 tonnes of steel each year.

ICOMS[®]-2002 BRISBANE AND GLADSTONE Queensland, May 2002

PMR

Delegates to ICOMS[®] experienced a range of Papers, Seminars, Forums and Electronics, together with Debate, Discussion, Learning and Networking. ICOMS[®] continued the MESA initiative to look for new ways of dealing with old problems. We also saw that there are often very satisfactory old ways of dealing with new problems. Presentations showed that we already have the tools and technology with which we can achieve maintenance engineering, reliability and asset capability management. Delegates saw some valuable insights into asset capability management, condition monitoring and the scientific basis underpinning much of such work. The conference also addressed the very essence of hands-on maintenance by drilling down to replacement decisions, life costing, and shutdowns - indeed the real nuts and bolts. ICOMS[®]-2002 was not just talking heads. The seminar on The Australian Maintenance the Conference Gala Dinner was an occasion which included the presentation of the Australian Maintenance Engineering Excellence Awards. The conference also showed what electronics could do internationally:

- Ben Blanchard from Virginia,
- Total sharing between Brisbane and Gladstone, and
- Our friends John Sharp and Chris Bamber from the UK

This twin-city international event was marked by it's serious and thought provoking look at Maintenance Engineering and Asset Management team, at work at the coal face and at the signals from all levels - union, management, business and professions, about change, about maintenance and about a "people in maintenance" perspective.

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Reader Survey New Engineer Journal

We received an interesting and varied response, with submissions still coming in. We will report more fully in November. Comments to date range from liking the "good concise articles both technical and general interest" to "too technical for an Associate Grad." However, the thread of good articles and news gets strong support, as does some form of electronic delivery of a limited summary (four to ten pages).

-PMR

END

BACK