Maintenance And Reliability Like They Should Be Done!

What can a 25-year veteran of condition monitoring tell you about how to do better maintenance and get better reliability?

First a little background. Max started his vibration analysis monitoring company back in the late 1970’s. He and his company developed expertise and technologies in condition monitoring over many years. They monitored and reported on a large range and number of machines, and worked for numerous companies. He and his people were the recognised experts in vibration monitoring and control.

Over the years he saw, did and tested a lot of things to fix equipment vibration problems. Often he was doing cutting-edge analysis and coming up with innovative answers. Max retired just a few years back. He sold his vibration analysis business and now day’s he works with his son in-law helping to grow the Vitech business.

The other day Max was asked to come up with the maintenance strategy he would recommend to deliver high plant and equipment reliability and availability.

This is what he came up with based on his 25 years of experience in improving plant and equipment reliability. I think it’s one of the most simple and effective maintenance strategies available today. I thank Max and Vitech for letting me publish it.

Condition Monitoring Strategy

Strategies for Reliability Improvement

| Specification Review, Root Cause Analysis | Creative Disassembly, Precision Maintenance and Alignment | Lubrication Management | Operator training in CM and basic maintenance routines |

The Machine – four essentials for reliability

| DESIGN | ASSEMBLY | LUBRICATION | OPERATION |
| Suitability for purpose, Suitability for environment | Machine Assembly, Machine mounting, Shaft alignment | Suitability and adequacy, Cleanliness, Sealing | Proper sequencing and operation, Cleaning |

Condition Monitoring Methods

| Performance tests, Performance KPI’s | Vibration Analysis, Thermography | Oil Analysis, Wear Debris Analysis | Visual Observations, Process control information |

It presents a complete approach to increasing reliability. It provides focus and recognises the interconnection between the important factors that affect equipment life cycle. It indicates what must be done in today’s industrial plants to achieve maintenance excellence and world class availability.

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Max also went on to explain how to use condition monitoring to get higher equipment reliability and higher plant availability.

The graph below is what he said to do.

Again it’s simplicity itself. Condition monitoring is a tool to gather the information you need to focus your efforts in increasing reliability. In time you improve the plant and the people so together they deliver world class availability.

Mike Sondalini

www.lifetime-reliability.com

Max Wishaw MIEAust CPEng was one of the pioneer consultants in condition monitoring. He established Wishaw Engineering Services in Perth, WA in August 1977 to provide condition monitoring and vibration analysis services to the process and mining industries and public utilities. The business grew to be one of the major CM service providers with offices in three States and a staff of 45 engineers and technicians. In 1999 Max retired from what then became AMEC Technical Services. He has continued his involvement in the technology working as Technical Manager with Vitech Asia-Pacific Pty Ltd, a business directed nationally by his son-in-law, Kelvin Wright.