

# Asset Data Management & Reliability Improvement Specialists

# **M2K UNDERSTANDS**

- That companies are always looking for improved efficiencies while maintaining productivity. We are adept in methods such as RCM, RBI & IPF combining these will develop the most applicable and effective PM tasks for your critical rotating, static and SCE equipment and keep your plant running well.
- TRIP™ is an important business process that provides structure, role definition, performance monitoring and control. It is to be used continuously, hence must become part of the culture.
- Visible management support is an essential pre-requisite and enabler
- M2K are also experienced in Dynamic Simulation Modelling Tools (e.g. MAROS, Miriam) that will significantly improve the effectiveness of RAM (Reliability, Availability and Maintainability) analyses.

# **M2K Limited**

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# THE RELIABILITY IMPROVEMENT PROCESS™

M2K have been improving Asset Maintenance and Operational Reliability for process industries since 2000. In our experience, the main cause of poor performance is poor plant reliability, which in turn leads to poor plant integrity. The effective management of these will enable you to reach the ranks of top performers.

Sustainable improvement requires a systematic and structured approach. M2K have developed  $\mathsf{TRIP}^\mathsf{TM}$ , a process that will provide steady and continuous improvements.

TRIP™is a collaborative effort between your asset management staff and us. Generally, all facilities do some things well and from this starting point, we help the client revamp their improvement process. TRIP™compares local practices with proven best practices, identifies worthwhile improvement opportunities and devises "what to do and how to do it" solutions to exploit these opportunities.

There are eight levels to the process (normally conducted in the following order):

- 1. Up-to-date Asset Register.
- 2. Competent, motivated workforce.
- 3. Getting the Basics Right.
- 4. Failure Elimination and Threats program.
- Robust Planning Process.
- Strong WPSE (Work Preparation, Scheduling & Execution) practice.
- 7. High PM Compliance Percentage.
- 8. Condition Based Maintenance.

# Level 1 - Asset Register

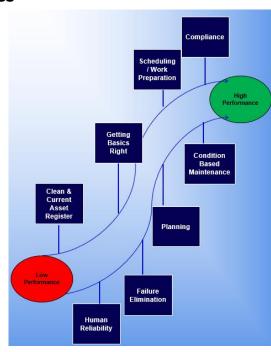
Held as a database in the CMMS, the Asset Register is essential for planning and organising effective maintenance. Our site sites audits have shown a 30-40% mismatch between Asset Register and reality.

# Level 2 - Human Reliability

This is probably the most important factor affecting performance. Sustainable improvements are only possible when our people are reliable. They have to be competent, skilled and motivated to meet the objectives of safety, production and low costs.

#### Level 3 - GTBR

This will solve up to 50% of all reliability problems. GTBR deals with issues such as equipment ownership, housekeeping, cleaning, lubricating, alignment, tightness and first line maintenance by operators.



# **Level 4 - Failure Elimination**

Top performers focus on systematic elimination of highrisk failures, analysing these failures using RCA (Root Cause Analysis). They ask why, whenever there is a failure

## Level 5 - Work Planning

Planning tools such as RCM, RBI & IPF help identify work scopes, frequency, and sequence of PM tasks for your critical rotating, static and SCE equipment. Planning is a key activity that enables high performance.

# Level 6 - WPSE

Everything ready to complete the work first time and to do it right first time. Permits, site preparation, spares, drawings, equipment release, consumables etc. enabling high productivity, minimum delays, and low downtime.

# Level 7 - PM Compliance

High compliance automatically leads to high equipment reliability i.e., fewer failures. The volume of emergent work should be low.

# Level 8 - CBM

This means monitoring the health of equipment to detect warnings of a failure and predicting when to intervene. There are many CBM tools to manage up to 50% of anticipated failures.

M2K have worldwide experience in implementing  $\mathsf{TRIP}^\mathsf{TM}$ , a process that will enable you to reach World Class performance. What makes M2K unique is that we can not only identify opportunities for improvement but also support their realisation through our wide range of integrated services.