

DEVELOPING AND IMPLEMENTING A RELIABLE MAINTENANCE STRATEGY FOR PRODUCTION EQUIPMENT



1. OVERVIEW

Reliable maintenance strategy is integral to the world class manufacturing concept of Total Productive Maintenance. Industrial organisations delay the priority of independently developing a maintenance strategy due to the limited internal resources.

CPC has over 15 years experience in developing

customised maintenance strategies for small and large manufacturing companies through the use of MSG3 (Maintenance Steering Groups) technique.

CPC engineering specialists will coordinate and facilitate input from internal experts in a non-intrusive and least disruptive manner to produce the Maintenance Strategy.

2. STRUCTURE

The MSG3 Logic guides the CPC specialist and the organisation's experts through the following process:

- Identify the plant where the maintenance package is required.
- Partition the plant from the highest level to the lowest level.
- Create an MSG3 document.

- Develop basic work instructions to enable both experienced and inexperienced staff to start up, shut down, operate, clean and conduct basic maintenance on the equipment in a standardised manner.
- Identify failure causes for every partitioned part.
- Define a corrective action including frequency, discipline, time to complete and the specific task.

3. PROCESS

- Collaborate with the organisation's Plant Engineer.
- Appoint internal specialist that will make up the multi-disciplinary team.
- Clarify roles and responsibilities of team members in support of the project.
- Facilitate team meetings to gather specialist input and ultimate review of the completed maintenance strategy.
- Obtain final approval from the multi-disciplinary team and Plant Engineer.

- Create and publish maintenance schedules in a format agreed by the client. These documents would include the task to be carried out, whether it be a "walk about" or an inspection or predictive maintenance, the frequency, whether it's electrical, mechanical, instrumentation, lubrication etc.
- Upload schedules to the company's maintenance system i.e. SAP.

4. BENEFIT

The basic maintenance package would consist of a set of work instructions defining standard operating procedures for all operational staff.

The maintenance schedules ensure that the plant is maintained to an acceptable level of performance targets whilst prolonging the dependable lifespan of equipment.

Assists with machine capability studies and budget setting including capital and operational expenditure.

Supports the maintenance team to manage and coordinate the right maintenance at the right time within the pressurised production environment.

Aids with problem solving such as formal failure analysis.

5. OUTPUT

- Maintenance Strategy
- Operational Work Instructions
- Maintenance Schedules

5. NEXT STEPS

The above includes the critical maintenance foundation required to start up and run a plant efficiently.

Once the maintenance schedules have been successfully implemented and training completed, bill of materials can then be created for each schedule which requires spares.

6. FOLLOW UP

For a needs analysis, detailed scoping exercise and comprehensive quote or simply to meet us and ask further questions, please contact:

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or e-mail **debbie@cpctrain.co.za**

- Maintenance Procedures
- Populated Maintenance System

Strategies like failure cause analysis are more indepth and can be developed further from this foundational platform.

