Our Reliability Engineering Deliverables

- Asset Catalogue Development
- Criticality Analysis
- RCA-RCM
- FMA—FMECA
- Equipment Maintenance Plans
- Consequence Classification
- Spares optimisation
- Workflow optimisation
- Maintenance optimisation
- Lean Manufacturing
- Gap analysis (operations & maintenance)
- Reliability Excellence
- PAS 55 ISO 55000

Our CM Deliverables

Vibration Analysis

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- Ultrasound Analysis
- Infrared Analysis
- Steam Trap Analysis
- Oil sampling and Analysis
- Grease Handling
- Fluid Management
- Remote Control
- Operational checks
- PdM Assessments

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iTecRisk iTecProjects

iTecEngineering

iTec Electro & Instrumentation

iTecPdM—Condition Monitoring

iTecMan—Reliability Engineering



The optimum approach to implementing and improving Reliability Engineering Programmes



iTecMAN is focused on cost effective, optimised Maintenance and Reliability Improvements with proven success at delivering best practice results



At iTecSolutions, our certified reliability engineers are professionals who fully understand the principles of performance evaluation and prediction to optimise product, systems, reliability and maintainability. iTecMan is a body of knowledge and applied technologies which delivers, however are not limited to, Failure Modes and Effects Analysis, understanding human factors in reliability, Planning and Scheduling, KPI Dashboard development, Training and the ability to develop Reliability facilitation over the entire product and system

life cycle. Equip Maint. Plans



Walkdowns/Asset

catalog

EMP





Reliability Engineering

Maintenance

Assessments

Risk Assessments

Project

AOC Assistance

MC & Commissioning iTecMan, Barrier Management IS, SPS and

missing link in your PdM Program

the

Walkdown—Asset Catalogue

An accurate and 'live' asset catalogue, developed by the relevant personnel and verified in the field is considered best practice. An asset catalogue is the foundational element of any maintenance or reliability initiative and consists of not only the list of assets, but also includes system descriptions, component configurations, component attribute data, hierarchy structure, etc. The reason an asset catalogue is considered 'foundational' relates to effective management of assets. If there are errors, all maintenance and reliability initiatives will be flawed, leaving asset without effective management.



Equipment Maintenance Plan



An equipment maintanance plan Identifies what tasks should be deployed/implemented to most effectively manage the failure modes present in assets. Best practice programmes plan and schedule at least 80% of daily tasks to drive efficiency and proactive work. It is proven that planned work is 50% more efficient and causes less infant mortality than reactive. A high percentage of daily work hours should be Planned Maintenance (PM), Condition Monitoring and also follow up work created from those inspections. All tasks must be well written and designed to effectively eliminate, manage or inspect failure modes, reduce risk of human error and deliver optimum feedback and history in to the CMMS .

Criticality / Consequence Classification

Criticality / Consequence classification is the most effective deployment of the limited resources (spares, manpower, time, condition monitoring) within an organisation. It is important to carry out criticality analysis on all assets to identify which have the biggest impact on operations, safety and environment. The best practice approach is to involve personnel from each area of the business (cross functional team) i.e. operations, maintenance, health and safety etc. to gain consensus. A criticality assessment must to be executed by a cross functional team and can be facilitated by an iTecSolutions certified reliability engineer.



PM Evaluations (PME)

iTecSolutions has proven that most existing Asset Management programmes contain tasks which are not value adding, do not address failure modes, are highly dependent on experienced personnel and can be changed to condition monitoring tasks. A best practice asset management programme is a Failure modes driven programme. iTecSolutions will Optimise existing Maintenance programmes and compare the PM tasks with world leaders or best practice PM/CM and ensure all tasks; effectively address failure modes, reduce human error, drive repeatable and consistent results, maximise ability to plan and schedule/load level, identify the defect before it causes failure and enable senior personnel to make informed decisions based on scientifically proven technologies. Best practice asset management programmes have a balance of PM and PdM and asset care routines to maximise reliability and operational integrity.

Spare Parts Opti-

Modifications

Organisations need a different approach to that of the classical min/max method in order to optimise spare parts. Knowledge of MRO (Maintenance, Repair and Operations or Overhaul) items are critical for effective operations and cannot be merely left in the hands of a single person. It requires an integrated approach by all team members to solve the problem. iTecsolutions can facilitate this in helping you with the optimum approach in MRO analysis .

RCM—RCA—FMA—FMECA

World class organisations ensure that their maintenance programmes and tasks are failure modes driven. This approach enables them to understand the operation and optimise the performances and reliability. To develop these programmes there is a need for RCM, FMECA, RCA, etc. iTecSolutions have a proven track record of delivering best practice maintenance programmes using our methodologies and best in class tools for efficient and highly effective development.