

Business Driven Asset, Facility or Maintenance Management



Course Duration

The duration is 3 days.

Audience Profile

Owners of industrial or infrastructure assets and facilities, Managers, Engineers, Planners, Designers, Logisticians, Tradespersons, Operators, Finance Managers, Safety Officers and all those who contribute to asset, facility or maintenance management and who are eager to achieve a sustainable improvement in productivity, revenue and return on investment at reduced cost and risk level.

Course Objectives

To equip those active in the management of productive and infrastructure assets or facilities with the knowledge, skills and attitudes needed at the various stages in the life of an asset or facility for optimising the quality and quantity of outputs or services, minimising risk and use of inputs, as required by the business plan. The course will combine theoretical concepts and practical considerations to refine the understanding of:

- the role of asset, facility or maintenance management as a vital business driver;
- the essential tools required for effective and efficient management of assets and facilities, in the light of economics, safety, health and environment;
- the importance of accurate performance data and analysis and of decision making based on facts and life cycle costs.

The value of the course will come from implementing the practical techniques presented in this course.

What makes this course different?

We approach maintenance as meaning 'maintaining functions at the required performance levels'. This has two implications:

- operators affect the performance of a function as much as maintainers, hence we cover operational and maintenance tasks and introduce operators performing minor maintenance to address any performance deterioration as soon as possible, reducing costs; and

- we perform maintenance when the asset requires it to perform its function at the required performance level. This means that we do not perform maintenance to 'make an item look good'. This also reduces costs.

We address all issues that contribute maximising revenue and minimising costs and risk over all stages of the life of an asset. We emphasise that existing assets or facilities may benefit from a one-off design modification or changes to the operational or maintenance procedures. Hence the manual applies equally to existing and new assets and facilities.

Main Topics – Day 1

• Asset, Facility or Maintenance Management Explained

- Towards most appropriate asset, facility or maintenance management practice
- What is asset, facility or maintenance management?
- What are the objectives and goals of asset, facility or maintenance management?
- Definitions and acronyms
- What are the benefits of achieving most appropriate asset, facility or maintenance management?
- Why should you improve asset, facility or maintenance management?
- What is the asset, facility or maintenance management process?
- How should you improve asset, facility or maintenance management?

• What Is Needs Driven Asset, Facility or Maintenance Management?

- What are needs, assets and asset, facility or maintenance management?
- How do business and asset, facility or maintenance management interact?
- What are the business vision, mission, objectives, goals and values?
- What are the asset, facility or maintenance management objectives and enablers?



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Course Description

- What tools are available for developing business strategies?
- Group exercise (Vision, mission, cascading objectives, select a function and determine required assets in type and quantity)
- **How To Optimise Asset or Facility Design?**
 - Introduction
 - How to match an asset or facility to needs?
 - What Is Involved in Facility Site Selection?
 - What Is Involved in Building and Service Asset Design?
 - How to design for changing demand?
 - How to Design Facilities for Energy Conservation?
 - Design for Accessibility by Disabled Persons
 - Design for Build-ability and Upgradeability
 - How to design for operability, safety, reliability, maintainability, availability, transportability and compatibility?
 - Finalise asset configuration
 - How do you design for asset supportability?
 - How do you optimise life cycle profit?
 - Group exercise (develop functions and performance levels, configuration and indicate operability, maintainability and reliability issues)
 - Chapter three for existing assets
- **Main Topics – Day 2**
 - **How Do You Develop the Asset, Facility or Maintenance Management Plan?**
 - What is the Asset, Facility or Maintenance Management Plan?
 - Which asset or facility to cover first?
 - What tools exist for selecting operational tasks?
 - How to select operational tasks?
 - What are Operational tasks and Asset Operations Optimisation?
 - How do you eliminate the six big losses?
 - How to reduce waste with Asset Operations Optimisation?
 - How do you select maintenance tasks?
 - How to select maintenance tasks with Reliability Driven Maintenance?
 - Tasks and Total Quality Management
 - How do you develop Standard Task Instructions?
 - Are there other sources of maintenance tasks?
 - How do you manage risk?
 - How do you optimise Life Cycle Costs?
 - Chapter four for existing assets
 - Dynamic Asset, Facility or Maintenance Management Plan
 - Group exercise (for selected function develop operational tasks, perform loss analysis and an RCM analysis, compare the techniques, how do you perform these tasks currently, what info is available, what gaps exist?)
- **How to Determine Resources and Specification?**
 - How to develop the work schedules?
 - How do you establish human resource needs
 - What organisational structure should you adopt?
 - How to estimate materials and spares needs?
 - How to estimate need for tools and equipment?
 - How to estimate need for workshops?
 - How to finalise asset or facility configuration and verify capability?
 - How do you optimise life cycle costs and budget forecasts?
 - How do you develop technical and performance specifications?
 - What is the Overall Asset Effectiveness factor?
 - How to set up service contracts?
 - How to establish legal and contractual needs?
 - Secure resources for the project
 - Chapter five for existing assets
 - Group discussion regarding method of budget provisioning and how to improve
- **How to Procure Assets, Facilities and Resources?**
 - What are reliability audits and reviews, hazards and operability analysis?
 - How to procure the asset or facility?
 - How to develop manuals and test plans?
 - How to obtain the right personnel?
 - Build the asset or facility
 - How do you commission the asset or facility?
 - Update documentation
 - Finalise accurate asst register and database
 - Chapter six for existing assets
 - Group Discussion regarding assessing of existing assets and the development of a commissioning plan
- **Main Topics – Day 3**
 - **What Is Computerised Asset, Facility or Maintenance Management?**
 - Do you need computerised asset, facility or maintenance management?
 - What is computerised asset, facility or maintenance management?
 - What are the prerequisites for a computerised asset, facility or maintenance management system?



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- Which computerised asset, facility or maintenance management system?
- Work initiation based on the Asset, Facility or Maintenance Management Plan
- What happens during work planning?
- What is work scheduling?
- How does computerised inventory management work?
- How does computerised performance monitoring work?
- How does computerised management reporting and analysis work?
- Decision support analysis
- Document control
- What is E-commerce and bar coding?
- How do you implement a computerised asset, facility or maintenance management system?
- Chapter seven for existing assets
- Group Discussion regarding CAMS and GIS/GPS experiences
- **How To Improve Daily Asset Management?**
 - Maintain the best asset condition
 - Avoid the effects of deterioration
 - Monitoring performance
 - Problem diagnosis and solving
 - What is involved in daily asset maintenance?
 - Minor and major asset, facility or maintenance management
 - How can you improve Employee Productivity and the Overall Trade Effectiveness (OTE)
 - Operability and Hazard Analysis
 - How do you manage an asset or facility configuration change?
 - Life cycle cost management
 - How to decide on asset or facility replacement and disposal?
 - Chapter Eight for existing assets
 - Group exercise regarding asset replacement decision flow chart development
- **How to Change An Existing Asset, Facility or Maintenance Management System?**
 - How to analyse current asset, facility or maintenance management practices?
 - What is an asset, facility or maintenance management audit?
 - What is most appropriate practice?
 - What Is a Strengths, Weakness, Opportunity and Threat Analysis?
 - How to Establish Improvement Opportunities?
 - How do you implement change?
 - What's in it for them?
 - Changes to the asset, facility or maintenance management plan, roles, organisation
 - Group exercise regarding a change management plan
- **How to Write an Asset, Facility or Maintenance Management Plan?**
 - Introduction
 - Executive summary
 - Part 1 Objectives and background
 - Part 2 Load or demand forecasting – change to asset or facility base
 - Part 3 Asset or facility analysis and ask forecasting
 - Part 4 Life Cycle Cost estimating
 - Part 5 Asset, facility or maintenance management plan implementation
 - Conclusions

All delegates will receive a textbook that sets new standards for industrial training materials that will reinforce the training experience for many years to come.

Seminar Leader – Emile Eerens

Emile Eerens holds a doctoral degree in Engineering and a Grad.Diploma in Business Management. Emile has experience in planning and managing shutdowns in power stations and mines in Australia and is extensively involved in “training for excellence” in the wider business of asset maintenance and management. Emile has over 22 years experience as an Asset Maintenance and Management Engineer, Trainer and Consultant. In his career he worked in the Power Generation, Electricity Distribution, Mining, Health Facilities, Construction and Petrochemical Industries and has experience in Supervision, Design, Engineering, Research & Development, Training and Management. He is in demand as a developer and presenter of various public and in-house Asset Maintenance and Management courses.

