Reliability-based Design Master Class

FACILITATORS



Ron Moore is Principal Consultant with Reliable Manufacturing and is an internationally recognised authority on Reliability principles. He is the author of Making Common Sense Common Practice and of What Tool? When? A Management Guide for Selecting The Right Improvement Tools.



Andrew Fraser is Managing Director of Reliable Manufacturing. Andrew has over 30 years experience in Maintenance, Operations and Change Management roles in a variety of industries, in the UK and overseas. He specialises in the delivery of change management projects that help clients change from reactive to proactive operating cultures.



Reliability in capital projects begins with design. Find out how you can achieve true competitive advantage by designing reliability and life cycle cost principles into your capital projects.

DISCOVER HOW:

- How the best companies include reliability in the design phase of their projects to minimise costs and maximise performance.
- How to determine the investment required for applying life cycle principles
- How to balance payback and return on investment
- How to develop a policy for life cycle cost

eliable Manufacturing presents a one-day Reliabilitybased Design Master Class for those implementing new capital projects in their operations.

Reliability doesn't revolve around maintenance, it begins long before this, in the initial design and installation processes. This master class will explain the fundamentals behind reliability practices, and describe how procurement, operations and maintenance need to work together during new capital projects to make sure the right practices are applied to reduce lifecycle costs and increase reliability.

By designing processes and equipment with operations and maintenance in mind, you can prevent 'defects', avoiding unnecessary costs and optimising plant performance.

The class will review different reliability practices, and provide invaluable advice on how you can apply them in your own organisation to not only lower lifecycle costs, but improve performance, increase safety, reduce environmental risks and ultimately enhance your long-term competitive position.

WHO SHOULD ATTEND?

The Master Class is for leaders in capital projects, including Directors, Project Managers & Engineers, Procurement Managers, Site Managers, Change Managers, Operations & Maintenance Managers, First Line Supervisors, Reliability Leaders & influential frontline Operators & Maintainers.

For more information:

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WHAT WILL YOU LEARN:

- 1. An understanding of how to incorporate reliability and life cycle principles into the design of capital projects.
- 2. To what extent your current design and project practices incorporate reliability principles.
- 3. How to incorporate the requirements of operating, maintenance, installation and startup, stores/parts, and procurement into capital projects for better long term outcomes.
- 4. A model for determining the up-front costs of incorporating life cycle and reliability principles into your design and capital projects.
- 5. How to determine whether to use a payback or a discounted cash flow model in assessing the viability of a given project.
- 6. How to draft a corporate policy statement for assuring that life cycle and reliability principles are incorporated into your future projects.

COURSE OUTLINE

Session 1:

- World class operations and low cost producer paradigm
- Relationship between reliability and safety
- Lowest installed cost v. lowest life cycle cost
- Procurement/stores relation to capital projects; balance risk and working capital objectives
- Installation/startup; designing for minimal startup & transition losses and early life failures
- Operating; support operability in the design process

Session 2:

- Supporting maintainability in the design process
- Strategy for implementation leadership, alignment, and organisational principles
- Executive as leader for supporting change
- Reliability-based design for life cycle cost, targeted uptime/reliability goals and use of RCM/FMEA
- Use of overall asset utilisation in the design and capital project process

Session 3:

- Front end loading and its effect on success
- Determining the investment required for applying life cycle cost principles
- Key questions to ask for assuring application of reliability and life cycle cost principles
- Using payback vs. discounted cash flow/ROI
- Assessing reliability practices in your project
- Process flow diagram for designing for reliability

Session 4:

- Self-audit of design practices for reliability
- Development of policy statement for applying reliability and life cycle principles to capital projects
- Review development of asset management policy

OTHER MASTER CLASS CLIENTS SAY

Chris Plews Technical Plant Manager $\ensuremath{\textbf{Sembcorp Utilities UK}}$

C We applied the principles and practices described in this Master Class on our new biomass power generation plant. **Within months we were seeing dramatic improvements** which helped us achieve record from the plant. **J**

Eion Turnbull General Manager CalTex Refineries, Australia

L If you are going to do one thing this year to improve the performance of your manufacturing based business **attend this Master Class.**

Derek Park Transformation Manager **BP**

L The Master Class is a transforming experience. Whether you're a manager or operator, you'll learn simple, practical and achievable ways to solve your problems. I left the class ready to start on a completely new set of priorities.

Some of our clients:

- Huntsman
- Alcoa
- Sembcorp
- Chevron
- Pharmacia
- Dow Corning
- E.I. DuPont
- Michelin
- PPG
- Cristal Global

- BP
 Bolde
- BakkavörShell
 - Weyerhaeuser
- INÉOS
 - Honda
 - Premier Foods
- SABIC
- Tata