



Learn the powerful maintenance strategy, methods and practices that create productive, problem-free operations and reliable production assets

Maintenance Management Mastery the Plant Wellness Way Training Course

“This course makes you think differently. You learn how to use the really powerful maintenance strategy and practices that always create high reliability.”

Register your name for our 3-day training course

We run public courses in any capital city for five (5) or more people.

(You save money by running the course in-house if you have 4 or more people.)

Guaranteed you will make your plant and equipment highly reliable and rapidly move your operation to world-class maintenance performance

Learn how you do world class maintenance strategy. Run you operation with best practice maintenance. Make new, extra operating profit from your mobile and fixed plant and equipment maintenance. Crammed with insights, understanding and knowledge, this course teaches you how to get outstanding maintenance performance and world-class maintenance results.

Learn the best and the vital understandings you must know and the critical methods you must use to get world-class maintenance results from your operation. Discover how the Plant Wellness Way lets you set-up leading-edge maintenance processes and the best strategies to make your equipment run stoppage-free for longer, produce at maximum sustainable capacity with first-pass quality throughput, and make your industrial operation highly profitable.



The Master Your Maintenance Management course is perfect for both industrial plant maintenance and mobile plant maintenance. You are introduced to the Plant Wellness Way of building component-based maintenance strategy. You are taught a simple, risk-based, six-step methodology to make your plant and equipment outstandingly reliable. You learn the details of how to use and tune your business systems and maintenance work processes to create outstanding maintenance excellence and world-class maintenance performance.

Over the three days of the course you discover how to use the Plant Wellness Way methodology from the ground up and build the ideal asset maintenance processes your operation needs for world-class performance. You learn exactly how to find the least cost, right maintenance and operating strategies that make your equipment run breakdown-free, produce at maximum sustainable capacity with first-pass quality throughput, and make lasting high operational profits.

When done well your new maintenance strategies deliver the six purposes of maintenance – equipment reliability, failure avoidance, defect elimination, least operating costs, risk reduction and maximum production. Fail to achieve one of them and your maintenance efforts will not get the big pay-offs that they should. Mastering Industrial Plant Maintenance Management the Plant Wellness Way focuses your maintenance on maximising operating profit by driving reliability growth at every stage of the business life-cycle. This training course shows you and explains how to select and use optimal maintenance strategy and methods that help you achieve:

MORE TRAINING

Industrial Maintenance Management Mastery

Maintenance Planning and Scheduling for Reliability

Enterprise Asset Management Excellence for Executives and Managers

Applied Reliability Engineering for Operating Plants

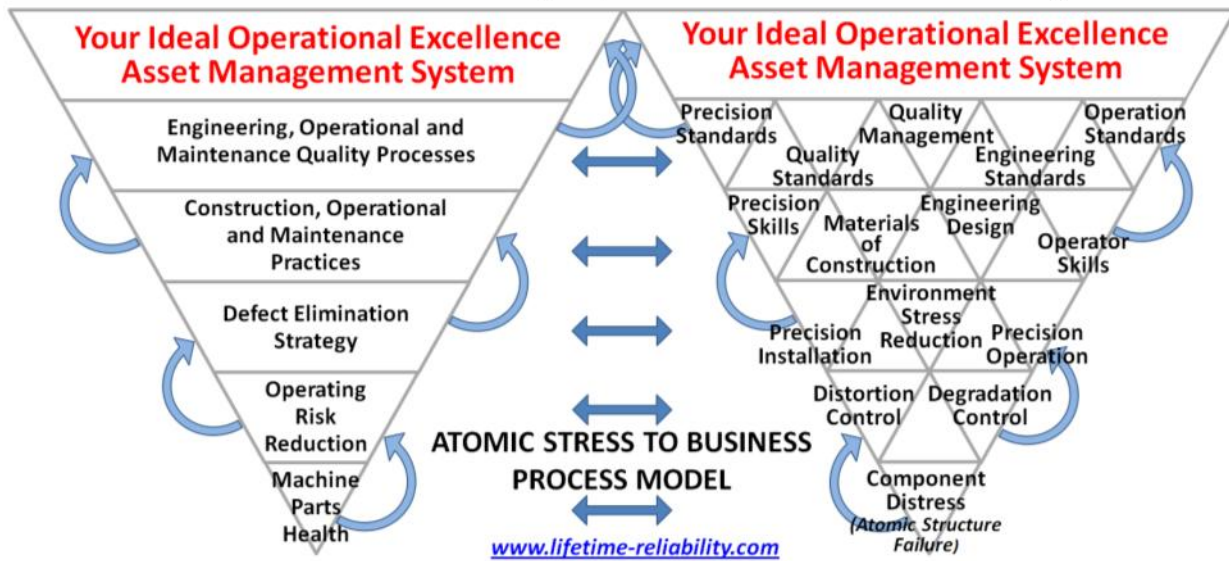
Plant and Equipment Root Cause Failure Analysis

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www.lifetime-reliability.com



The Plant and Equipment Wellness Way



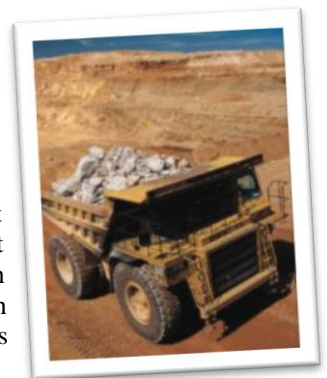
- zero breakdowns,
- steady production at maximum sustainable capacity,
- equipment that makes first-pass quality product,
- sustained, high plant availability,
- soaring equipment reliability,
- high energy efficiency from equipment,
- ever falling maintenance costs,
- a continual improvement culture.

Discover the best new maintenance and reliability strategies, methods and practices to lift your operation to new heights of performance

You learn how to focus your maintenance methods and practices on defect removal and failure prevention in every phase of the asset life-cycle. You learn critically important requirements for maintenance success and exactly what to do to drive your equipment reliability higher. Understanding how to intentionally make your business processes and production equipment more and more reliable turns average organisations into world-class organisations. This maintenance improvement course is packed with new reliability insights and techniques that you can use every day in your operation to make your products less costly, faster, safer, waste-free and with zero breakdowns.

You start pushing the boundaries of what is possible in your company

The course challenges existing mindsets, questions common paradigms and introduces the key improvements that turn operations around fast. If you think it takes years to have outstanding maintenance success you will be happily surprised at how simple and quick it is with the Plant Wellness Way to maintenance management mastery. Becoming world-class at industrial plant and equipment maintenance needs to take just a matter of months. Low maintenance costs, high equipment reliability, high plant availability and sustainable production rates can be yours much faster than ever because you build only the smallest system you need for world-class maintenance performance.



Discover the maintenance optimisation to get higher returns-on-investment from your operating plant

Achieving the least unit cost of production is a strategic business imperative and a project investment necessity. Your maintenance management should be focused on delivering maximum returns to your business in ways that secures its future success while ensuring current operating profitability. Plant and Equipment Wellness driven maintenance maximises return on investment from your plant and equipment by improving productivity in your operation through reducing the cost of maintenance, boosting output and lifting plant uptime. Reliability is central to maintenance success and the course makes sure you understand the key reliability principles. The information and techniques you learn are at the forefront of modern maintenance and reliability practices. In future you will do maintenance differently to what you do now because you will know better, simple, yet powerful techniques from your training with us at this seminar. You'll learn the best methods to rapidly focus your maintenance efforts for highest productivity and profits.



The best maintenance processes prevent failure by use of systematic inspection, detection, and correction of embryonic failures before they develop into problems. Attend this training course to discover and to learn how to use the most successful failure prevention principles and the simplest appropriate condition checking practices for building the smallest, successful maintenance management system in your company.

Content of the 3 Day Course on Master Your Maintenance Management Training for Mobile Equipment and Industrial Plant

Day 1 – Key Risk and Reliability Concepts for Your Plant and Equipment Maintenance Success

Operating Risk Identification

- The Creation of Reliability
 - The vital few reliability concepts
 - Improving equipment reliability
- Two Reliability Engineering Insights
 - Series systems
 - Parallel systems
 - Reliability Properties 1, 2, 3
- Process Mapping for Reliability
 - Equipment
 - Work activities
- Physics of Failure (PoF)
 - Materials atomic limitations
 - Design materials selection
- Degradation Curve Causes
 - Rate of equipment failure
 - Sensible condition monitoring
- Variability and Defect Creation
 - Defect generation model
 - Defect elimination strategy
- Instantaneous Cost of Failure
 - Breakdowns go business-wide
 - Cost surge from failure

- Calculating DAFT Costs
- Life-Cycle Costs and Profits
 - Design = operating costs
 - Maintenance ≠ reliability
- Operating Risk Rating**
- Atomic Stress to Business Process
 - One universal life cycle model
 - Design fewer, smaller processes
- The True Causes of Failure
 - What Deming saw
 - Humans are over half the problem
 - Business process are the rest
- Business Tendency to Failure
 - Measure your business inclination for failure
 - Measure your process SD
- Risk and Probability of Failure
 - Frequency reduction strategies
 - Consequence reduction strategies
- Calibrating your Business Risk Matrix
 - Make your business risks visible
 - Understand your choices
- Operating Risk Assessment

- Setting your risk boundary
- Doing a PEW Criticality Rating
- Building Your Business Tool Kit
 - What quality really is
 - Business risk reduction first
- Operating Risk Controls**
- Process Map to See the Truth
 - Use Series Reliability Property 1
 - Use Series Reliability Property 2
- PoF Analysis finds what FMEA Can't
 - PoF Analysis Methods explained
 - Requirements for powerful PoFA
- Power Law Implications of Risk
 - Interactions within a system
 - Havoc by mysterious free-agents
- Risk Reduction Strategy Choices
 - Consequence management
 - Chance management
- Selecting Risk Management Strategies
 - 8 questions to answer
 - 9 steps to great strategy
- Q&A Forum with Attendees

Day 2 – Introducing You to Powerful Operating Plant Maintenance Strategy

Introducing Risk Controls

- Organisational Structure Problems
 - A work process is a series design
 - Designs that support your people
 - How teams create reliability
- Reliability Principles in Team Creation
 - Use parallel teamwork
 - Why autonomous teams are best
- Accuracy Controlled Enterprise (ACE)
 - Design SPC into work processes
 - Standardise on the best way to work
- Accuracy Controlled Procedures
 - Writing standards into procedures
 - The 3Ts of precision workmanship
 - Adding 3Ts into procedures
- Useful Key Performance Indicators
 - Measure what matters at all levels
 - Turning data into information
 - Present information visually
- Mining Maintenance History
 - Use the information you have
 - A timeline is most useful

- View failure modes' distribution
- Reliability Growth**
- Reducing Equipment Parts Failure
 - Weibull Analysis ≠ Reliability
 - Limitations of Series Reliability Property 2
- Reliability Growth Cause Analysis
 - Minimise stress in parts
 - Precision reduces stress
- Crow-AMSAA Growth Plots
 - Collecting suitable data
 - Log-Log plots in Excel
- CM and Predictive Maintenance
 - CM ≠ less maintenance
 - Choosing easy CM technologies
 - Selecting parts replacement
- Preventive Maintenance Strategy
 - PM activities ≠ Reliability
 - Selecting PM frequency
- Risk Continual Improvement**
- Failure Root Cause Analysis
 - Latency root causes explained

- Series Reliability Property 3
- Only 5-Why when there is evidence
- Degradation Management
 - Condition monitoring of degradation
 - Standardised operation = Reliability
- Deformation Management
 - Set high reliability standards
 - Common errors causing equipment deformation
 - Learn by Creative Disassembly
- Precision Maintenance
 - 13 precision maintenance must-dos
 - Introducing precision maintenance to the workforce
- Lubrication Standard
 - Lubrication cleanliness
 - Lubrication management
- Balancing Standard
 - Balance limits
 - Common errors causing out-of-balance
- Alignment Standard



• Shaft alignment limits
 • Common errors causing misalignment
 Bearing Vibration Standard

• Common errors causing bearing vibration
 • Control of bearing vibration
 Maintenance Work Quality Assurance

• Setting accuracy control standards
 • Writing ACE procedures
 Q&A Forum with Attendees

Day 3 – Practice and Application Day: Bring Great Maintenance Strategy into Your Operation

Examples and/or practical use of the following techniques and methods will be performed by Attendees:

- Selecting ‘Just-Right’ Maintenance Strategy
- Business Process Mapping
- Reliability Calculations
- Risk Reduction Effectiveness Rating
- Practical Equipment Criticality
- Simple Ways of Failure History Analysis

- PoF / FMEA – Parts Hardware Level Analysis
- Maintenance Strategy Selection
- Reliability Growth Cause Analysis
- Weibull Charts and Crow-AMSAA Plots
- Writing Accuracy Controlled Procedures
- 5-Why Root Cause Analysis with Latency

Open Discussion Forum with Attendees

Details of Your Course Presenter

Your trainer and course presenter has extensive industrial business experience, equipment reliability and plant maintenance optimization expertise. He uses that knowledge and the insights gained over the years in industry to take course attendees on a thorough and comprehensive coverage of the key reliability improvement knowledge, understandings and skills to improve asset productivity, reduce maintenance costs and maximise production performance and quality.

Our trainers have been in engineering, reliability and maintenance careers in a wide range of companies and operations including original equipment manufacturing, beverage production, resources and mining industries, fabrication and construction, process plants, industrial chemical manufacturing, quality management, project management, industrial asset management, maintenance management and industrial training. They use their years of experience in business and industry to focus you on the critical success factors of what to do for sure reliability improvement, and how to do it quickly and well.

Your Presenter shows you how you and your people can make wise reliability improvement decisions, effectively use your resources, work expertly in the least time necessary, and continually improve your operation’s productivity, efficiency and effectiveness.

Book Yourself into the Course Early if You want to be Sure to Get One of the Ten Seats Available



Register for the course immediately if you want to be sure of getting a seat. Seating is limited to a maximum of 10 people per course and seats are allocated on a first-come-first-served basis. Complete your registration form, and fax it to us at (+61 8) 9457 8642 or scan it and email to info@lifetime-reliability.com. Book yourself and your people into the course now; don’t delay. Contact us now on mobile 0402 731 563 to confirm a place is still available for you on the next course.

A 100% Money Back Guarantee

You get maximum protection in our seminars, courses and workshops with a 100% Money Back Guarantee. If you attend the course and, for whatever reason, you believe that your expectations have not been met, our fees will be totally refunded. As further compensation you keep all materials handed out during the presentation. (Guarantee is subject to the full booking fee being received before the due date.)

Discounts are Available for Companies Sending Multiple Attendees

For companies sending more than two people a twenty percent discount is available for the third person, twenty five percent for the fourth, thirty percent for subsequent persons.

More Course Information and On-Site Training Details

The training course venue in each city will be advised in a confirmation email sent to all participants two (2) weeks before the course start date.



On the first day course registration is from 8am, with the course starting at 8.30am and finishing at 4.30pm each day. A PDF certificate of training is sent to participants following the course.

We can run also this training course on-site in your operation at your convenience. Contact us to get a free quotation and practical advice.

Email us at info@lifetime-reliability.com or telephone us on +61 8 9457 6297 or cell/mobile +61 (0) 402 731 563 to get more information and answer any questions that you have.

Mike Sondalini
www.lifetime-reliability.com



Your Course Registration Form and Payment Details

1 - Select Your City: Maintenance Management Mastery for Industrial Plant and Mobile Equipment 3-day Training Course

Name your preferred city to run the course _____

Tell us your preferred time of year for the course _____

Name your second choice city to attend the course _____

What other time of year would you attend the course _____

2 – Course Fee: \$2,700 plus Taxes

Payment is required prior the course start date. Attendees get a full set of course notes and workbook, a softcopy of the PowerPoint course and workbook, along with morning tea, lunch, afternoon tea provided each day.

3 – Register Your Name:

By Phone: (+61) 0402 731 563
By Email: info@lifetime-reliability.com
By Fax: (+61 8) 9457 8642
By Post: General Training Pty Ltd,
 PO Box 2091,
 Rossmoyne, Western Australia, 6148

4 – Your Payment Options to Make Payment:

A. Electronic Fund Transfer to:

Bank: National Australia Bank
 Branch: Bull Creek Branch Office
 Shop 33 Stockland Bull Creek
 Cnr South Street and Benningfield Road
 Bull Creek, WA, Australia, 6149
 Account: General Training Pty Ltd
 BSB No: 086-138
 Account No: 580663221
 Swift Code: NATAAU3306P

B. Cheque in favour of 'General Training Pty Ltd' sent to postal address

C. Credit Card secure online at www.paypal.com with Visa or MasterCard (*fee applies*)

On-line Payment email address: info@lifetime-reliability.com for Order/Item # - **Planning & Scheduling**

D. Purchase Order:
(Only in Australia)

5 – Delegate Details (One form per person attending):

Name:

Job Title:

Company:

Street/Box:

Suburb:

Zip/Post Code: State/Country:

Email:

Phone No:

Cancellation Policy:

Cancellation by Attendee: Substitute delegate welcome. To cover administration costs, printing costs and training venue penalties there is 80% refund with prior 30 days notice of cancellation, 70% refund between 30-15 days, 50% refund after 15 days. 25% refund for non-attendance. Discounted seats are charged at full fee cancellation rates.

Cancellation by Training Provider: A minimum number of people is required to run a course. If numbers are insufficient the course will be cancelled. There is a full refund or free registration to next, or another course of equal value if a course is cancelled.

How did you find out about the course?