

A holistic, complete way to build a business system that produces best productivity, problem-free operation and maximum operating profits

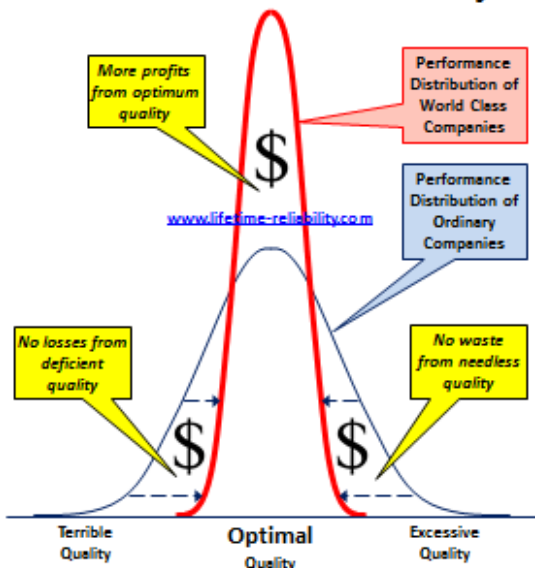
# Create Operational Excellence the Plant Wellness Way

*Build a 'system-of-reliability' to become a world class operation*

*(Save money by running the course in-house if you have 5 or more people.)*

**Get the knowledge, techniques, tools and methodology to get industrial operations world class operational excellence performance and results**

## OPERATIONAL EXCELLENCE The Plant Wellness Way



the best production results you have ever seen, and you get to keep that performance forevermore.

In this Plant Wellness Way to Operational Excellence overview training course, you discover how to:

- make your plant and equipment run consistently at the highest possible availability,
- **produce at full capacity with 100% first-pass-quality ever hour, day, week and year,**
- make the most operating profits possible and to be sure you'll get them all,
- **reduce all production costs and wastes to the lowest ever seen,**

- get utmost throughput from existing plant without spending new capital moneys,
- **make higher productivity absolutely certain so you guarantee big operating profits,**
- make your company a world class Operational Excellence performer.



**L**ifetime **R**eliability **S**olutions  
...your edge in RELIABILITY

## Design-in the least operating costs, highest uptime and most operating profit

Your operational excellence training teaches you new techniques, methods, solutions and knowledge that are missing from other Operational Excellence

### MORE TRAINING

Maintenance Management  
Mastery the Plant Wellness Way

Maintenance Planning and  
Scheduling for Reliability

Life Cycle Asset  
Management the Plant Wellness Way

Applied Reliability  
Engineering for Operating  
Plant Improvement

World Class Machinery  
and Rotating Equipment  
Reliability

SEE WEBSITE FOR  
DETAILS & PRICES

[www.lifetime-reliability.com](http://www.lifetime-reliability.com)

courses. You get new Operational Excellence strategy that gives you the ability to bring massive competitive advantage to your company with world class operating performance. You are introduced to using powerful productivity, quality assurance and business process improvement solutions that:

- **solve your production, reliability and maintenance problems forever,**
- get your business processes (projects, engineering, operations, finance, and quality) interacting correctly to deliver high plant availability with low operating costs,
- **give you innovative, simple, successful concepts and Operational Excellence tools needed to change your business into a world-class performer,**
- introduce the key maintenance best practices and high reliability work techniques vital for your enterprise asset management success,
- **build your business systems with the right, holistic processes to get outstanding plant and equipment health needed to reach world class performance and Operational Excellence profits,**
- get you and your people making the best decisions that bring the most operational and business profits,
- **maximise your life cycle profits with design, operations, maintenance, and finance processes built for maximum business risk reduction,**
- produce best work quality assurance in your processes to get 100% right-first-time performance for everyone.

You learn how to build the asset life cycle and Operational Excellence systems, methods and practices that deliver outstanding operational results. Your company will be:

- **an operation designed for outstanding success**
- making 100%-dependable full production,
- **achieving in-full-on-time delivery,**
- producing first-pass quality product every time,
- **have sustained maximum throughput,**
- safe from Customer penalty claims,
- **having zero breakdowns as normal reliability,**
- certain of getting non-stop highest plant availability,
- **dramatically extending time between failures,**
- making extra production from your 'hidden factory'.



## **Learn how to change and use the right processes and best practise disciplines that bring you world-class operational excellence results**

You learn to get lower production costs and produce plant and equipment reliability that guarantees higher operating profit margins by discovering how to:

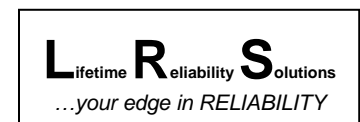
- **control variability in business and operating processes to optimal limits,**
- prevent operating risk by reducing chance of adverse incidents and minimising consequences,
- **use failure prevention quality standards in your plant and equipment lifecycle, including how to buy highly reliable capital equipment and do best practise installation,**
- stop human error by adding accuracy and precision to maintenance and operating work tasks and activities,
- **minimise total life cycle costs by spotting what is robbing you of all the operating profits now being lost.**

You get to take home sound financial management practices from a course that provides full coverage of all the important factors that create operational excellence success. The training you get during the three days of this world class Operational Excellence for Industry course focuses on what to do to surely improve your production results and how to lift plant and equipment reliability performance to guarantee maximum operating profits.



Throughout the operational excellence training course you get involved doing insightful activities, looking into practical case studies and applying the necessary tools, methods and techniques that create Operational Excellence in industrial businesses. The three days are logically structured to take you through the necessary foundational knowledge on which your Operations Excellence success depends. You build on the fundamentals and learn the methods and tools used to make operational excellence performance normal. You get a complete solution from basic operational excellence strategy selection to the best operational excellence model for rapid implementation. Because the course is related to industry, you see examples and activities based on the people, plant, equipment and workplaces of industrial operations.

Each day of the Operational Excellence course covers vital aspects you need to know well. Day 1 explains business systems and process design and what to do



to build a system-of-reliability in your operation that guarantees you get operational excellence performance. The second day covers life cycle industrial asset management and maintenance so you know how to insure your plant and equipment are highly reliable and ready to produce operational excellence results. Day 3 brings everything together into a complete solution and operational excellence framework you use in your company to reach success.

## The Plant Wellness System for Operational Excellence Course Content

### Day 1 – Creating Reliability in Your Industrial Systems, Processes, Plant and Equipment

#### What is Your Process Capability?

Business Process Control and Capability

- Problems you get with series processes
- Your process outcome distribution curves
- Your business success depends on your process success
- What is your Chance of Success in what you do?
- What Deming Saw—statistically stable breakdown creation

#### Process Loss Function

The Loss Function Concept

- Taguchi Loss Function hides important secrets
- Finding your Loss Functions from your cost information

#### Process Quality Function

The Quality Function Concept

- You need to see your work quality distribution curves
- Combining Quality and Loss Functions is powerful
- Use the quality solution that makes you big money

#### Plant Wellness Way Tools

How Plant Wellness Way gets You Operational Excellence

#### Physics of Failure

Why your machines fail

- Do you know your Materials of Construction limits?
- Stress events are what cause all your failures
- Operating life overloads need to be stopped urgently
- Causes of Usage failures and what to watch-out for

#### How You Create Reliability

Understanding how Series and Parallel Systems work

- Series system Reliability Property 1, 2, 3
- Parallel system Reliability Properties
- Making series system highly reliable

#### The True Size of Your Operational Risks

- Measure your risk Boundaries
- Make use of the full risk equation
- Only 3 ways to reduce your risk
- Measuring your real equipment risk

#### Defect Creation in Your Operation

How and where defects enter into your business

- There are many opportunities for your operation to fail
- Machine failure causes and effects and how to stop them
- How defect creation affects your maintenance choices

#### 6 Purposes of Maintenance

Chop out the roots of failure

- Is your maintenance strategy matched to operating risk?
- Build a failure mode removal focus in your maintenance
- Identifying your failure modes so your stop failures

#### Precision Standards for Reliability

Why your machines need reliability standards

- Fits and tolerance case study
- Case studies of when standards were not used

#### Precision Maintenance for Reliability

Proactively eliminate failure

- 7 equipment care standards you must set
- A precision maintenance program is not an option
- Savings from precision workmanship will make you rich

- Creating world class reliability is easy with PWW

## Day 2 – Lifecycle Asset Management and Maintenance to Use for Operational Excellence

### **The Real Life Cycle of Your Physical Assets**

Connection between EAM and Operational Excellence

- Business purpose of industrial asset management
- Processes in asset management systems
- Putting reliability into asset management

### **Does Your Asset Management System Create Reliability?**

- How you lose reliability
- How you make reliability
- Watch carefully what happens to your parts
- What high Reliability looks like

### **Know Your Total Business Wide Costs of Failure**

The instantaneous business cost of failure

- Failure cost surges
- Defect and Failure Total (DAFT) Costs

### **Import Your Understanding Your Asset Lifecycle**

You only have one chance to get your lifecycle right

- The Project team makes or breaks your business success
- Maximising your life cycle operating profits
- Know the cost of failure at the design phase
- Use the DOCTOR to protect your future

### **Human Error**

Poor Reliability in human dependant processes

- Humans break things, make mistakes, cause disasters
- Does your asset management system protect your machines from you and your people?

### **Human Factors**

We know why people make errors—we're just flesh and bones

- The Dirty Dozen your business must control
- The likelihood of having human errors
- Lifting your capacity to get things right
- How to get 10,000% fewer errors

### **How to be an Accuracy Controlled Enterprise**

- How to have statistically stable processes
- 3Ts – Target, Tolerance Test – for quality workmanship
- Tri-quality performance measures drive right behaviours
- Setting 3T feedback in your procedures

### **Useful Process Monitoring and Measuring**

Selecting the best process performance measures

- Short term KPI's
- Long term KPI's
- Cascade your KPI's
- KPI Distribution Curves
- When is benchmarking useful?

### **Have a great Root Cause Failure Removal Process**

How will you conquer all your failures?

- Build root cause removal into your processes
- Make RCFA normal for everyone to do
- Follow a sound investigation process
- Learn to use the right tools

### **Create a System of Endless Reliability**

You need a system that makes you successful

- Characteristics of top reliability performers
- The Pacesetter business model
- The success factors you need to instil in your operation

### **Building a Plant Wellness System-of-Reliability**

Focus on Defect Elimination and Failure Prevention

- Build processes that make zero defects
- Remove and prevent risk
- Measure process step performance, not process performance
- Use Accuracy Control that creates reliability

### **The Business and Work Process Controls You Need**

The three universal problems in every business

- Can you see your process variation?
- How failure starts in your processes
- What can you do to reduce your business risks?
- How to measure your process losses, wastes and costs

### **How to Stop All Your Losses, Defects and Wastes**

Examine the lifecycle and remove all causes of your problems

- Maximising your lifecycle profits
- How to build an integrated, business-wide quality system

### **What Lean Six Sigma Cannot Do for You**

Lean is not a best choice for industrial process improvement

- The standard operating risk reduction strategies
- Add Plant Wellness Way operating risk reduction answers
- How to put effective risk reduction into your processes

### **Process Redesign the Plant Wellness Way**

Use the 6 IONICS processes to create process reliability

#### **Business Risk Reduction**

- Business process redesign
- Work process redesign
- Equipment process redesign

#### **Using the ‘Stress to Process’ Model**

- Build from the bottom up, removing risk at each level
- Doing Physics of Failure Analysis
- Putting error prevention into your processes business wide
- Designing ISO 55001 / PAS 55 EAM systems with PWW

#### **Life Cycle Risk Reduction**

- 8 Life Cycle Questions you must answer
- Get DOCTOR into projects if you want high profits
- Put a DAFT Cost on all your failures so you know how big your operating risks really are
- Designing ISO 55001 asset management systems with PWW

#### **Operating Risk Reduction**

- Use consequence reduction strategies
- Use chance reduction strategies
- Model your financial savings and your new operating profits

#### **Machinery Risk Reduction**

- Put yourself into the precision zone
- Reliability Growth Cause Analysis (RGCA)

#### **Start using ACE 3T Quality in all Your Procedures**

- Get a clear picture of your risks, costs and losses
- Write your procedures with content that vastly improves your chance of work success
- Standardise on the one best way to do a job and never deviate

#### **Making the Right Changes Stick**

- Start to set the standards and the behaviour follows
- Map where you are and where you need to go
- It takes continuous learning and improvement

### **The PWW 8 Step Program to Operational Excellence**

- Businesses change too slowly from within
- Establish your current process behaviours
- Remove risk of defects and losses
- Maximise your chance of outstanding success
- Look for more ways to make your processes better
- Design your business to get the results that you want