

*Announcing the following Seminar
to be conducted at IVEPE-SEV*

The Plant Wellness Way Operational Excellence System

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

**Learn the right knowledge, solutions and practices to build a system-of-
reliability and join the world best industrial operations**

Three-day Intensive Course

Course Director

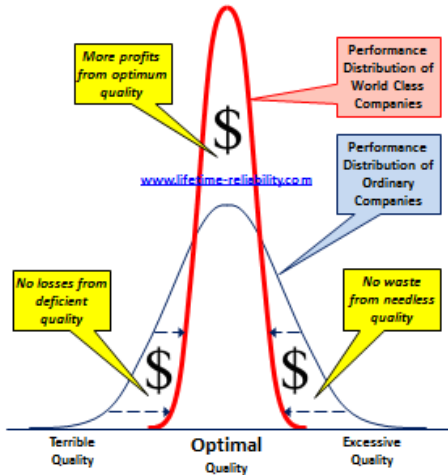
Mike Sondalini

“INSTITUTE FOR CONTINUING EDUCATION AND VOCATIONAL TRAINING”

The Plant Wellness Way Operational Excellence System

Learn how to go straight to world class operational excellence results

OPERATIONAL EXCELLENCE The Plant Wellness Way



Now every industrial business can reach operational excellence performance and deliver maximum operating profits. Your operation can become highly effective, efficient and reliable in incredibly quick time. This Operational Excellence and Operations Excellence training course gives you a complete solution—with all the tools, training and knowledge you need to take your industrial business to world class performance. You will no longer wonder what you need to do to change your company into a highly productive operation that makes outstanding operating profit. You will know exactly how to do so, and most importantly, you will know how to pick the most profitable options to take.

Operational Excellence the Plant Wellness Way is a system for creating optimal production performance. Starting from where your company is today, you rebuild your business processes to produce the best production results you have ever seen, and you get to keep that performance forevermore.

In this 3-day Plant Wellness Way Operational Excellence 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.

Always get the least operating costs, the highest uptime and most profit

You will learn new techniques, methods, solutions and knowledge that are missing from other Operational Excellence training courses. You get new Operational Excellence strategy that gives you the ability to bring massive competitive advantage to your company. You are introduced to using powerful productivity, quality 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,
- **maximize 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 practice disciplines that bring you world-class operational excellence results

Over the three days of the Plant Wellness Way Operational Excellence training course you learn all that you need to create world class Operational Excellence results in your company. You get an operational excellence framework full of the right processes, methods and techniques. You get a complete 'tool kit' with the solutions to do practical changes in your company to make world class performance inevitable. The entire course is made to give you all that you need to know and do to take your business up to the greatest heights of Operational Excellence. You get full details and the best methods that work to deliver world class industrial plant and equipment performance. 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 minimizing consequences,
- **use failure prevention quality standards in your plant and equipment lifecycle, including how to buy highly reliable capital equipment and do best practice installation,**
- stop human error by adding accuracy and precision to maintenance and operating work tasks and activities,
- **minimize total life cycle costs by spotting what is robbing you of all the operating profits now being lost.**

The content and coverage you get makes this an outstanding Operational Excellence course. You leave with a powerful operational excellence framework and successful operational excellence strategy covering key elements of systems engineering, reliability engineering, maintenance management, operational management, risk management, industrial engineering and business process management. 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 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.

Course Outline

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 you 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
- Q&A Forum with Attendees

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
- 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
- Q&A Forum with Attendees

Day 3 – Designing and Creating Your Operational Excellence the Plant Wellness Way

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 & PAS55 EAM 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

Open Discussion Forum with Attendees

Course Director

Mike Sondalini, BEng (Hons), MBA, CPEng is your trainer and course presenter. He has extensive industrial business experience, process improvement, equipment reliability improvement and plant maintenance optimization expertise. He uses that knowledge and the insights gained over decades in industry to take course attendees on a thorough and comprehensive coverage of the key reliability improvement knowledge, understandings and skills needed to improve asset productivity, reduce maintenance costs and maximize production performance and quality.

Mike has been involved 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. Mike takes his years of experience in business and industry and helps you focus on the critical success factors of what to do for sure world class reliability improvement and operational excellence, along with how to do it quickly and how to do it well.

Mike works with you to show you and your people the best solutions to create world class operations excellence, make wise reliability improvement decisions, most effectively use your resources, work expertly in the least time, and continually improve your operation's productivity, efficiency and effectiveness.

Note: English will be used in all lectures and course notes.