
















# MAINTENANCE PLANNING AND SCHEDULING Best Practices

**April 16-18, 2024**

**THREE DAY WORKSHOP BY RICKY SMITH, CMRP, CMRT, CRL**

**“15 Hands on Exercises”**

-  Day In the Life Of a Proactive Maintenance Supervisor
-  Day in the Life of a Proactive Maintenance Technician
-  DILO Proactive Maintenance Planner (2)
-  Get out of the Dark with Leading KPIs
-  MAINTENANCE PLANNING AND SCHEDULING ASSESSMENT
-  Maintenance Planning is Too Hard in My Workplace
-  Maintenance Work Scoping Checklist
-  Planning and Scheduling Blank Master Plan
-  Planning and Scheduling RACI Exercise Template
-  Planning and Scheduling Ranking Model
-  Procedure Template
-  Single Point Lesson - Facts about Maintenance Wrench-Time
-  Single Point Lesson - How to Evaluate Your Storeroom
-  Single Point Lesson - Maintenance Kitting
-  Tool Box Talk - Effective Maintenance Work Procedures

**PRESENTED BY:**

RICKY SMITH CMRP, CRL

VP - WORLD CLASS MAINTENANCE

# OVERVIEW

*“Learning through hands-on exercise or knowledge sharing.”*

*- RICKY SMITH, CMRP, CRL*

This workshop is “activity based” (hands on) with the focus on “Best Practices in Maintenance Planning and Scheduling” with the focus on optimization of Maintenance Wrench-Time.

Who should attend this course:

- Maintenance Planners
- Maintenance Schedulers
- Maintenance Planner/Schedulers
  - Maintenance Supervisors
- Senior Maintenance Technicians
  - Maintenance Managers
- Maintenance Planning/Scheduling Managers/Leaders

# OVERVIEW

## THE OBJECTIVES

### **The objectives of this workshop for each attendee:**

- Learn the Proactive Maintenance Process from “Work Identification to Work Order Close Out”
- Obtain the ability to Execute Proactive Maintenance Planning and Scheduling
- Define how “Known Best Maintenance and Reliability Practices” impacts the Planning and Scheduling Processes
- Describe the objective, mission and attributes of Proactive Planning and Scheduling
- Plan and Schedule through numerous “hands on” exercises
- Learn how to Measure an organization’s current Wrench-time
- Define Methods to Optimize Maintenance Wrench-Time
- Create a Proactive Maintenance Planning and Scheduling Workflow Model which impacts Maintenance Wrench-time
  - Create Leading and Lagging Planning and Scheduling Metrics
  - Define how to transition from current state to a more Proactive Planning and Scheduling Process
  - Define how to measure and manage Maintenance Backlog
  - Learn to implement and manage a Proactive Kitting Process
  - Gain first steps in how to Manage Change

# TRAINING SCHEDULE

## DAY 1: MAINTENANCE PLANNING AND SCHEDULING OVERVIEW

- Instructor and Attendee Introductions
- Expectations from each attendee
- Expectations from instructor
- Course Objectives
- Daily Training Schedule
- Proactive Maintenance Workflow Model/Process
- World Class Maintenance Planning and Scheduling Case Study (Alumax/Alcoa Mt Holly – John Day PE)
- Definition of:
  - Maintenance
  - Reliability
  - Work Identification
  - Preventive Maintenance
  - Predictive Maintenance
  - Maintenance Planning
  - Maintenance Scheduling
  - Work Execution
  - Work Order Close Out
- Backlog
- What is Wrench-Time and How Maintenance Planning and Scheduling Impacts it
- Maintenance Planning and Scheduling Vision, Mission, and Guiding Principles
- Group Discussion – How does Maintenance Planning and Scheduling Actually Work?

# TRAINING SCHEDULE

## DAY 1: MAINTENANCE PLANNING AND SCHEDULING OVERVIEW (CONTINUED)

- **Exercise:** Process Map Development – Proactive Maintenance
- **Exercise:** Create a RACI Chart for Proactive Maintenance

Maintenance "Roles and Responsibilities"								
Task Position → ↓	Plant Mgr.	Prod Mgr.	Maint Mgr.	Stores Mgr.	Maint Tech	Maint Super	Maint Planner	CMMS Admin
CMMS Management	I	I	C	C	I	C	R	A
Lean Leading and Lagging KPI Management	I	I	A	C	I	C	R	R
Preventive Maintenance	I	I	A	I	R	C	C	C
PM Evaluation/Optimization	I	C	A	C	R	R	R	R
Maint. Planning/Scheduling	I	R	A	I	I	R	R	I
Work Execution	I	I	A	I	R	C		I
Maintenance Rework	I	I	A	C	R	C	C	C
Production Rework	I	A	I					
Failure Reporting, Analysis, Corrective Action Process	A	R	R	C	I	C	C	C

Responsibility

Accountable

Consulted

Informed

"the Doer" (could be more than one)

"the Buck stops here" (One person only)

"two-way communication" (in the Loop)

"one-way communication" (kept in the picture)

- Planning and Scheduling Leading and Lagging KPIs
- Expectations from PM and PdM
- Failure Modes and how to manage and mitigate them
- Creation of the following Proactive Maintenance...
  - Vision Statement
  - Mission Statement
  - Guiding Principles
- Developing and Managing an Effective Maintenance Planning and Scheduling Process

# TRAINING SCHEDULE

- Planning and Scheduling Workflow Process
- Steps required to develop an Effective Planning and Scheduling Program
- Repeatability/Effective Procedures
- Planning and Scheduling Roles and Responsibilities (RACI)

Managing a Proactive Planning and Scheduling Program

Maintenance Planning and Scheduling Leading and Lagging KPIs

Maintenance Planning and Scheduling Dashboards

- **Exercise:** Create Definitions for Maintenance planning  
Maintenance Scheduling, Parts and Material Kitting
- Group Question: 1 thing each person learned today

## DAY 2: MAINTENANCE PLANNING

- Review of Day 1
- Proactive Maintenance Planning Process
  - Maintenance Planning Definition
  - Requirements of Maintenance Planning
    - Planned Job Requirements
    - Repeatability Procedure Definition
    - How to create Repeatability Procedures
    - Parts Requirements/Kitting Process
      - Definition of Kitting
      - How to establish a Kitting Process
      - Parts Ordered from Vendor vs Storeroom Stock
      - Security of Scheduled Work Parts/Material
- **Exercise:** Create Maintenance Planning Vision and Mission
- **Exercise:** Create Guiding Principles for Maintenance

# TRAINING SCHEDULE

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- Developing an effective Maintenance Planning process
- Maintenance Planning Roles and Responsibilities
- Maintenance Planning Leading and Lagging KPIs

## DAY 2: MAINTENANCE PLANNING (CONTINUED)

**Exercise:** Create RACI Chart (Roles and Responsibilities for Maintenance Planning)

- Why Repeatable Procedures are critical
- Examples of Repeatable procedures for Preventive Maintenance
- How to create a Repeatable Procedure

**Exercise:** Create a Repeatable Procedure for Replacement of a pump provided

- Proactive Maintenance Scheduling
  - Maintenance Scheduling Definition
  - Requirements of Maintenance Scheduling
    - Requirements for Daily and Weekly Scheduling
  - Roles and Responsibilities for Scheduling
  - Leaderships expectations of Maintenance Planning and Scheduling
- **Exercise:** Create Maintenance Scheduling Vision and Mission
- **Exercise:** Create Guiding Principles for Maintenance
  - Scheduling Developing an effective Maintenance Planning process
  - Maintenance Planning Roles and Responsibilities

# TRAINING SCHEDULE

- Creating a Workflow Process for Maintenance Scheduling
- Creating a RACI Chart for Maintenance Scheduling
- Lessons Learned from Day 1 and 2
- Preliminary plan to implement what you learned from the past 2 days.

## DAY 3: MAINTENANCE PLANNING AND SCHEDULING ALIGNMENT

- Managing Maintenance Planning and Scheduling Exercise
- Knowledge Assessment (Test)
- **Role Play - Group Exercise:** Real World "Proactive Maintenance Process" exercise
  - Players include Maintenance and Production Leadership, Maintenance Planner / Scheduler, Storeroom Person, Maintenance Technician
- **Maintenance Scheduling Exercise:** Create a Weekly Maintenance Schedule with the following players: Maintenance Planner, Maintenance Supervisor, Production Management
  - Pulling Maintenance and Planning into the Real World for you when you return (Think about this day as if you had all the control and power do anything do anything that is required for success)
- **Exercise:** Create a Maintenance Planning and Scheduling Mission, Vision, and Guiding Principles for your organization
- **Exercise:** Create Leading and Lagging KPIs for your organization



# DAY 3: MAINTENANCE PLANNING AND SCHEDULING ALIGNMENT (CONTINUED)

- Risk Mitigation Planning
- Expectations from Leadership
- Common Mistakes and Miss-steps when moving into Proactive Maintenance Planning and Scheduling
- Why Maintenance Planning and Scheduling Implementations fail and what to do to mitigate these mistakes
- **EXERCISE:** Create a Plan when you return (individually with my guidance) using the following process, “Quick Wins, Crawl, Walk, Run” Methodology

## The Crawl/Walk/Run Methodology Guiding Principles

The approach is simple:

1. The objective is sustainment of each step in the maintenance transformation approach.
2. Each step must be met its goal before moving to the next phase (if not sustainable it will fail to meet management’s expectations).
3. The first step or “**Crawl Phase**” requires quick wins which are simple but makes a large impact on everyone. I call this phase “The Awareness Phase” and requires a Maintenance Dashboard to measure progress.



4. The “**Walk Phase**” is actions which requires everyone having same knowledge and acceptance in Maintenance and Reliability Best Practices.
5. The “**Run Phase**” is the sustainment and continuous improvement phase.

- Course Evaluation
- Course Completion Certificates

Every attendee will receive a copy of “Planning and Scheduling Made Simple” by Ricky Smith CMRP and Jerry Willson which will be used in the workshop.



FOR MORE INFORMATION OR TO REGISTER, EMAIL [rsmith@worldclassmaintenance.org](mailto:rsmith@worldclassmaintenance.org)