

Maintenance Excellence for Maintenance Supervisor Workshop



August 16-18

LIVE in Asheville, NC



“Maintenance Supervisors are the people who make the largest impact on reliability in most organizations and thus I created this program to provide ideas which will allow them to far exceed management’s expectations and make a real difference in day-to-day maintenance of their equipment and motivation of their staff”.

Maintenance Excellence for Maintenance Supervisors Workshop will provide any organization proven methods and concepts to help their organization obtain a highly level of Maintainability and Reliability. This is an interactive training course covering Maintenance and Reliability Best Practices as proven by the best Maintenance organizations in the world and provide Maintenance Supervisors with ideas and concepts which can increase reliability through hands on exercises.

Who should attend? Maintenance supervisors, maintenance foreman, and senior maintenance technicians

The objective of this program is to equip participants with Known Maintenance and Reliability best practices (World Class Maintenance) plus Maintenance Supervisor Best Practices and provide them with knowledge which will better prepare them to transition any Maintenance Organization to a highly level of effectiveness and efficiency.

Known Best Maintenance Practices will be defined and demonstrated, along with numerous “hands on exercises) to enhance learning, and attendees will work in groups on real world issues in each functional area in maintenance and reliability which enhances learning from the instructor and fellow attendees.

What you should expect to Learn?

1. A better understanding of Maintenance and Reliability Best Practices and how to apply in any organization.
2. Learn what are Known Maintenance and Reliability Best Practices and how to apply in any organization.
3. Review what is “World Class Maintenance”, workflow, attributes, and benchmarks.
4. Develop Maintenance Leading and Lagging KPIs for any Organization and learn how to create Maintenance KPI Dashboards
5. How to Optimize Maintenance Planning and Scheduling to improve wrench-time of your technicians
6. How to Optimize Preventive Maintenance
7. Recognition of the gaps in your Maintenance Organization and how to close those gaps.
8. Create a simple plan one can implement when they return.
9. Feel pride in your Maintenance Work through the knowledge one has gained. Less stress through new knowledge and skills gained.
10. Participate in over 10 “Hands on” exercises

Day 1: Maintenance and Reliability Best Practices Overview

- Introductions and what are your expectations from this workshop
 - Name
 - Position
 - What are your expectations from the training?
- Workshop Overview
- Pre-Test – Maintenance Best Practices (15 minutes)
- Maintenance and Reliability Best Practices (Maintenance Excellence)
 - What is Maintenance Excellence?
 - When and who created Maintenance Excellence?
 - Attributes of Maintenance Excellence
 - Benefits of Maintenance Excellence
- Individual Exercise: Maintenance Assessment of your Current Maintenance Organization (30 minutes)
- A Day in the Life of a Proactive Maintenance Supervisor
- Maintenance Supervisor Leadership Principles and How to Apply in your organization
- Maintenance and Reliability Overview
- Definition of Maintenance
- Definition of Reliability
- What does Maintenance Excellence (World Class Maintenance) look like and where was it created?
- World Class Maintenance Benchmarks
- Maintenance Leading and Lagging KPIs
- Work Identification
- Definition and expectations from PM and PdM
- The PF Curve and How does it Work.
- Repeatable Procedures
- Individual Exercise: Create a Repeatable Procedure (30 minutes) on a specific asset provided

- The RACI Model to define Roles and Responsibilities.
- **RACI Exercise** - Preventive Maintenance (one person's plant)
- Failure Modes and how to manage and mitigate them
- Developing and managing a PM Program/Process
 - Steps required to develop an Effective PM Program
 - Writing a Repeatable/Effective PM Procedure
 - Preventive Maintenance Roles and Responsibilities (RACI)
 - Managing a PM Program Preventive Maintenance Leading and Lagging KPIs



- **Predictive Maintenance (PdM) / Condition Monitoring (CBM)**
 - Definition of PdM / CBM
 - The Objective of PdM / CBM
 - Expectation of PdM
 - Vibration analysis
 - Ultrasonic analysis
 - Infrared analysis
 - Oil analysis
 - Laser-shaft alignment
 - Motor circuit analysis
 - Non-Destructive Testing

Preventive Maintenance Best Practices

- **Introduction to Preventive Maintenance Best Practices**
 - Why Preventive Maintenance is not working in most organizations (Top 10 Reasons)
 - Definition of:
 - ❖ Preventive Maintenance
 - ❖ PM Optimization Process
 - ❖ PM Metrics / Scorecard
 - ❖ How does Preventive Maintenance Actually Work
 - ❖ Expectations from PM and PdM
 - ❖ Failure Modes mitigation strategies
 - ❖ Developing and Managing an Effective Preventive Maintenance Program
 - ❖ Preventive Maintenance Workflow Process
 - ❖ Steps required to develop an Effective PM Program
 - ❖ Best Practice PM Procedures Example
- **Group Exercise (30 minutes):** Create a PM Procedure on asset provided
- **Group Exercise:** (30 Minutes) Identify the 14 Steps of a PM Optimization Process and perform PM Optimization based on the asset shown

- How to Manage a PdM Program

Individual PM Assessment

Individual Exercise: Identify 2 things you learn today
Six Steps to Optimize your Current PM Program

- **Maintenance Workflow**

Individual Exercise: (15 Minutes) What did you learn in Day 1 which you plan to do differently when you return to work

- ❖ Review of Day 1
- ❖ World Class Maintenance (Alumax Mt Holly – John Day PE, one of the founding members of SMRP)

Work Execution

- ❖ Work Execution Definition
- ❖ Work Execution Leading and Lagging KPIs
- ❖ Work Execution Roles and Responsibilities (RACI)

Work Order Closeout

- ❖ Work Order Close Out Definition
- ❖ Work Order Close Out Leading and Lagging KPIs
- ❖ Work Order Close Out Roles and Responsibilities (RACI)

Maintenance Dashboards

- ❖ Objective of Maintenance Dashboards
- ❖ Maintenance Dashboard Fundamentals
- ❖ Steps to Creating a Maintenance Dashboard

Group Exercise: Create a Maintenance Dashboard



Maintenance and Reliability Best Practices

- ❖ Definitions in Maintenance
- ❖ Maintenance Best Practices Questions
- ❖ Failure Reporting, Analysis, and Corrective Action System (FRACAS)
- ❖ Best Maintenance Repair Practices
- ❖ How to Maintain Mechanical Components
- ❖ How to Maintain Electrical Components

- What have you learned in the past 2 days?

Day 2: Maintenance Technician Best Practices

Open Discussion: What have you learned so far?

Group Exercise: Day in Life of a Proactive Maintenance Technician (30 minutes)

- Maintenance and Production Roles and Responsibilities
- Causes of Equipment Failures and what to do to mitigate these failures
- Defect Elimination from Human Induced Failures
- Maintenance Planning
- Maintenance Scheduling
- Work Execution
- Work Order Close Out
- Equipment Problems and Solutions
- Equipment Problem Board with Pictures
- Corrective Action Taken with Verification
- Root Cause Analysis at the Technician Level

Best Practices for Installation and Maintaining Equipment

- Best Maintenance Technician Practices
- How to Conduct a PM Optimization
- Equipment Installation Requirements
 - ❖ Specifications
 - ❖ Verifications
 - ❖ Nameplate
- Maintaining Equipment
- Safety First, Safety Always
- Bearings
- Chain Drives
- Conveyors
- Couplings
- Gears and Gearboxes
- Hydraulics
- Lubrication
- Machinery Installation
- Packing and Seals
- Why Work Order Information and Closeout is critical to mitigate Rework

Individual Exercise: What one thing did you learn today and how you plan to implement?

Day 3: Maintenance Planning and Scheduling

Individual Exercise: Day in the Life of a Proactive Maintenance Planner - 15 minutes

- 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

- **Planning and Scheduling Leading and Lagging KPIs**
- **How to Develop and Managing an Effective Maintenance Planning and Scheduling Process**
- **Kitting Parts**
- **Planning and Scheduling Workflow Process**
- **Steps required to develop an Effective Planning and Scheduling Program**
- **Repeatable/Effective Procedures**
- **Planning and Scheduling Roles and Responsibilities working with a Maintenance Supervisor using “RACI Model”**

Group Exercise: Create a RACI Chart for Proactive Maintenance Planning and Scheduling

- **Managing a Proactive Planning and Scheduling Program**
- **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)**
- **Create Maintenance Planning and Scheduling Mission, Vision and Guiding Principles for your organization**
- **Create Planning and Scheduling Leading and Lagging KPIs for Planning and Scheduling**
- **“The Wall” (what is it and how will it impact success)**

Last Day – Prepare for when you return to Work

- **What is one thing you learn over the past 4 Days you plan to implement when you return to work?**
- **What are the Expectations from Leadership when you return to work?**
- **Culture Change is a challenge – “The Good, the Bad, and the Ugly”**

Individual Exercise – 30 Minutes: How to Create a Culture Change in “your” Maintenance Department

- **How reduced Human Induced Failures through Planning and Scheduling**
- **Common Mistakes and Miss-steps when moving into Proactive Maintenance**
- **Why Proactive Maintenance Implementations fail and what to do to mitigate mistakes**

INDIVIDUAL EXERCISE: Create a Plan when you return (individually with my guidance) using the Crawl, Walk, Run Methodology and quick wins based on what you learned

- **Course Evaluation**
- **Course Completion Certificates**

**Interested? Email me for more information or to register,
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