

Learn About:

- Identify Why Time Based Maintenance Doesn't Work
- Describe the Benefits of a PdM and Condition Monitoring Program
- Identify What Equipment to Monitor
- Understand Different PdM Technologies
- Predict What Maintenance Needs to be Done and When
- Choose the right PdM Technologies for You
- Measure the Effectiveness of Maintenance Decisions
- Communicate the Condition Monitoring Program through the Facility
- Choose a PdM Service Provider
- Implement Your Own PdM Program



Predictive Maintenance & Condition Monitoring

Condition monitoring maintenance requires less personnel, saves money, and downtime!



► **"Learned the importance of PdM and how to justify it."**

Daniel A. – Maintenance Planner

Learn How to Develop a Predictive Maintenance Program and Monitor the Results!

- Reserve your space now! **CALL 1-877-978-7246**
- Check us out online at live.tpctraining.com for a complete listing of all seminars coming to your area
- This seminar is also available as an **Online Simulcast** or can be brought **On-Site** to your facility

SEMINAR OVERVIEW

With ever increasing demands from top management to do more work and decrease costs, investing in predictive maintenance and condition monitoring makes more sense today than ever. While many organizations still rely heavily on time based maintenance, it's a proven fact that condition monitoring maintenance requires less personnel and saves money and downtime.

Predictive Maintenance and Condition Monitoring will provide students with a framework to make the right decisions on what equipment needs condition monitoring, what technologies to use to meet their needs and how to measure the effectiveness of their decisions. In addition to exposing students to the principles and options for a program, they will learn about real world applications that have benefited other successful maintenance programs.

WHAT YOU WILL TAKE HOME

- Comprehensive classroom materials
- A Personalized Training Certificate with 0.8 TPC Training Continuing Education Units for each day attended, 1.6 for both days.
- All the information you need from asking our instructors specific questions about your own unique equipment or facility.

CONTINUING EDUCATION

Upon completion of this seminar, the student will receive a Certification of Completion and .8 TPC Training CEUs per day attended. Most employers and many government agencies accept TPC Training CEUs to fulfill their continuing education requirements. If the student needs CEUs to renew a state license, please contact us at 303-867-5039 to ensure the state licensing board has approved the seminar. If we are currently not approved by your state licensing board, we are happy to begin the process as long as we receive your request at least one month before the training date.

TRAINING PHILOSOPHY

TPC Training's curriculum is designed to provide complete coverage of essential industrial maintenance skills, across a full range of electrical training, HVAC, plant management, and mechanical & industrial topics. Our "see, touch, do" instructional approach allows us to impart practical skills in an intensive format.

The most vital part of our seminar format is the coverage that goes beyond the course outline. Our small class sizes allow each instructor to tailor the course to address students' individual needs, concerns, and experience levels. Our instructors deliver content with hands-on exercises, demonstrations role-playing, visuals, and case study discussions.

DISCUSSION TOPICS

Predictive Maintenance Program Types

Failure Rate vs. Time

- Bathtub Curve
- Weibull Distribution Curve vs. Time

Sixteen PdM Program Benefits

- How to Develop a PdM Program Worksheet

Four Foundations for Improving Reliability

- The Culture of Reliability
- Product Mission
- Reliability Specifications
- Defining Universal Failures

Comparing Maintenance Strategies based on Cost and Availability with "Large Truck Case History"

- Run to Failure
- Scheduled Repair/Replacement
- On-Condition Inspections

Basic Concepts of FMEA and FMECA

Identifying Probability and Costs of Equipment Failure

- Recovering CMMS Data
- FMEA Data
- IEEE 493 Standards of Electric Motors

Using Maintenance Log Data

- Times-To-Failure and Times-To-Repair
- Suspension Time
- MTBF - Mean Time Between Failures

Root Cause Analysis for Beginners

- What Happened? How? Why?
- Cause Charting for Root Causes
- Implementation Action Steps

How to Sell Root Cause Analysis to Management

- Preserving Evaluation Data
- Building the Analysis Team
- Analyzing the Data
- Tracking Cost Savings
- Calculating Bottom Line Results
- Set Up a Seal Failure Analysis Program

The Role of Reliability Centered Maintenance

- NASA's Guiding Principles of RCM
- Five RCM Strategies
- RCFA-Root Cause Failure Analysis

PdM for Manufacturing Plant Operators

The Relationship between Availability and Reliability

- Profit benefits of Operational Availability
- Calculate Up-time Value in Profit Dollars

Down-Time Analysis

How PdM Technologies Integrate with RCM

How to Write a PdM Return on Investment Report

Monitoring for Instant Machine Condition Diagnostics

- How to Make Recommendations for Repair

The Future of Predictive Maintenance

Conformance Testing for Contractor Suppliers

SEMINAR FEE & AGENDA

This 2-day course is just \$1195 (Earn 1.6 CEUs)

7:30 am	Registration
8:00 am	Class Begins
12:00 -1:00 pm	Lunch (on your own)
4:30 pm	Class Ends

NO RISK REGISTRATION & MONEY-BACK GUARANTEE

You can reserve your space in the class at any time and cancel without penalty. Cancellations made more than 14 days prior to the seminar may be refunded or rescheduled. Cancellations made within 14 days may be rescheduled for any future topic and/or date. If you're not satisfied with the course, we'll promptly refund your payment.

JOIN OUR CLASSROOM SEMINARS FROM VIRTUALLY ANYWHERE

live.tpctraining.com/simulcast

Our simulcast option allows students to connect to a live classroom seminar via a web link, with the ability to participate fully in the classroom dialogue, exercises, and Q&A. Online participants get all the benefits of the full classroom experience, plus the convenience of remote access.

Features include

- Two full days of live, interactive instruction from a TPC Training instructor
- All classroom materials in PDF format
- Certificate of completion for 16 hours of live training
- Full technical support to ensure your online experience is a rewarding one

BRING THE TRAINING ON-SITE TO YOUR FACILITY

live.tpctraining.com/on-site

Every public seminar class in our Course Catalog can be conducted on-site, with the same expert instructors. To arrange an on-site training, call or email us at onsite@tpctraining.com.

Some Advantages of On-Site Training

- Cost Savings — Save time and travel costs by keeping workers on-site
- Customized Content — Tailor the seminar to your facility and equipment
- Flexibility — Accommodate multiple shifts and different start and end times

