MARCON 2023:

HOW OTHER MAINTENANCE TEAMS ARE SOLVING THEIR CHRONIC ISSUES TO PROACTIVELY AVOID DOWNTIME

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INTRODUCTION

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THIS IS THE BEST PART OF MY JOB!
AGENDA:

HOW OTHER MAINTENANCE TEAMS ARE SOLVING THEIR CHRONIC ISSUES TO PROACTIVELY AVOID DOWNTIME

01 What I hope you get out of the next 45 minutes
02 Overview: Proactive Maintenance vs Reactive Maintenance
03 A Common Denominator
04 TRUE Maintenance Strategy Success Stories
05 Conclusion
KEY TAKEAWAY: WHAT I HOPE YOU GET OUT OF THIS PRESENTATION

Learning and adopting others’ Maintenance Strategies

- VENDOR PARTNERSHIPS
- REPAIR, DON’T REPLACE
- REDUCING ENERGY CONSUMPTION
- ASSET CONDITION MONITORING
- PRESCRIPTION MAINTENANCE

- MUCH MORE!

Imitation is the sincerest form of flattery
-Oscar Wilde
PROACTIVE VS REACTIVE MAINTENANCE

WORLD CLASS MANUFACTURING

MANUFACTURING RELIABILITY

PROACTIVE: “Prevent the Unpredictable”

PREDICTIVE: “Replace Prior to Failure”

PREVENTATIVE: “Protect from Neglect”

REACTIVE: “Fix after Failure”

- Fastener Loosening
  #1 Cause of Catastrophic Failure
- Keyway Wallow
  Downtime + Replacement Parts
- Spun Bearings
  Downtime + Replacement Parts
- Fretting Corrosion
  Downtime + Replacement Parts
- Tape-Fouled Valves
  Downtime + System Flush

- Hydraulic Leaks
  1 drop per second at $5 per gallon = $2025 per year per leak
- Air Leaks
  1/16” at 100 psi @ $0.065 per kWh = $842 per year per leak
- Gasket Leakage
  Downtime + Replacement Parts
- Delayed Repairs
  Downtime
A COMMON DENOMINATOR

Working with Experts

- Plant Survey to learn and identify issues
- Maintenance Reliability Training for technicians
- Expand the partnership for continuous improvement
MAINTENANCE SUCCESS STORIES!
PARTNERING WITH VENDORS

Cost Savings through Inventory Consolidation

- Food and Beverage Company
- Area Manager, Maintenance & Reliability
- Too many different cleaners in their various storerooms, so they brought in a vendor
- Thousands of dollars in inventory-controlling cost savings!
REPAIR, DON’T REPLACE

$250,000 Cost Savings!

- Industrial Equipment Repair Company
- 1,000 Ton Hydraulic Press
  - Piston issue resulting in wear of the cylinder
- Scrap the unit!? ($$$$$$$$$$)
- Call in an Industrial Distributor
SAFETY: “PRIORITY #1”

Permanent Concrete Floor Repair

- Glass Manufacturer
- Chronic broken concrete floors in high traffic areas – resulting in injuries and lost inventory
- Current solutions were not long-lasting
- Call in an Expert!
Air Leaks = Energy Waste = $$$$$$$$

- “General Manufacturing” Company
- 2019: The Focus is Going Green!
  - 3 Air Leak Surveys to start
- Since 2019:
  - 9 Air Leak Surveys @ 5 facilities = Energy reduction and $260,000 in annual cost savings
Learn from your colleagues

- Pulp and Paper Company (but the issue comes up all the time!)
- Bonding vibration sensors
- Magnets, tapes, super glues: do not work
Increased focus on Training Maintenance Techs

- Pulp and Paper Company
- Every site has a “Training Coordinator”
- Director of Training and Development
  - Maintenance-focused

- Food and Beverage Company: Computer-Based Training, development aided by experts
PREDICTIVE MAINTENANCE

Do Your Research: “Smart” Solutions are out there!

- Chemical Company in Europe
- Infrequent manual inspections were leading to high steam losses and costs
- Found an asset monitoring system for steam traps
- Immediate detection of blow-through – and energy loss
Using “Smart” to schedule proactive asset maintenance

- Refinery in Europe
- Chronic hydrocarbon liquid leaks through flanges
- Downtime, repair, and safety issues
- Smart Solution decreased downtime and number of inspections

- Prescriptive identified a long-term solution
If I had one recommendation today...

- Bring in an expert
- Let them survey your chronic maintenance issues
- Parlay that into Maintenance Training
- Expand your partnerships with more experts
Visit us at Booth #27 to discuss:

- Optimizing reliability
- Increasing efficiency
- Reducing costs
- Improving safety

Kim Smith (Knoxville)
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QUESTIONS?

THANK YOU!