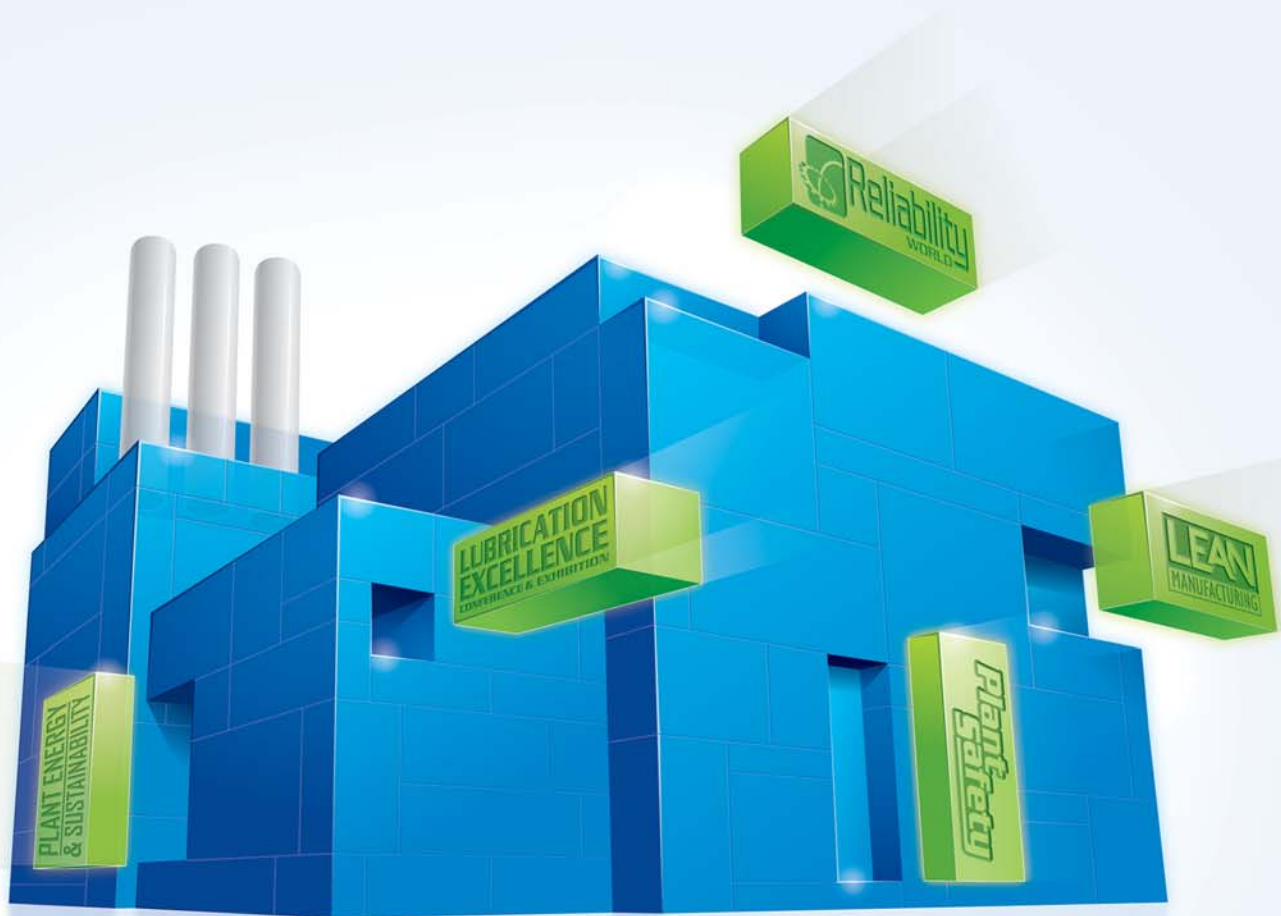


Noria's 10th Annual Conference & Exhibition

# RELIABLEPLANT

COLUMBUS, OH  
SEPTEMBER 1-3 2009

Building a Lean, Safe,  
Efficient, Reliable Plant



## OFFICIAL PROGRAM GUIDE

Sponsored by:



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“ Mystik® JT-6® Synthetic Blend Grease eliminated costly \$20,000-per-hour shutdowns. ”

Randy Huckabay  
Maintenance Supervisor,  
St. Gobain Glass Containers



“St. Gobain Glass Containers is one of the largest glass bottle manufacturing plants in the country. Our bearing on the fan drive in the plant was overheating and causing bearing failure. The failure caused the shutdown of the glass forming area. When we switched to Mystik JT-6 Synthetic Blend Grease to reduce friction and overheating in the bearing, immediately, the operating temperature of the bearing was reduced from 150°F to 100°F. On average, shutdowns cost between \$10,000 to \$20,000 an hour. Mystik JT-6 Synthetic Blend Grease not only saved St. Gobain from bearing failure, but also continues to solve costly shutdowns and reduces maintenance costs.”

Ask the people who know best. When it comes to protecting farm, heavy trucks and industrial equipment, there's no better name than Mystik. Our innovative technology provides more than superior lubrication, it provides confidence.

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## Welcome to Columbus

Dear Friends,

On behalf of Noria Corporation, our sponsoring and endorsing organizations, and our great exhibitors, I welcome you to Columbus for the Reliable Plant 2009 Conference and Exhibition.

Finding better ways of doing business is the key to progress. New ideas, strategies and processes, applied to all aspects of the plant – maintenance, production, design and management – increase effectiveness and allow us to make the most of our existing assets. That's why we're here – to find and apply knowledge that can truly make a difference.

This year's program features speakers from around the world in an impressive offering of case studies and workshops that touch on almost every aspect of production excellence.

In addition to the idea sharing and information exchange, this conference provides excellent opportunities to network and have some fun. You won't want to miss the Opening General Session featuring Mike DaPrile, vice president, Toyota Motor Manufacturing North America. This exciting session will outline Toyota's present and future direction in the wake of a changing (and challenging) auto manufacturing landscape and illustrate how Toyota is reinvigorating/reinforcing/reinventing itself.

The schedule also allows ample time for making new contacts or catching up with friends during the daily breakfasts and refreshment breaks. The Meet and Greet Reception on Tuesday and the Networking Reception on Wednesday are further ways to ensure that everyone has a good time.

As always, a key feature of the program is the exhibition. You'll find more than 100 companies offering a range of products and services, and lucky attendees will take home 1 of 3 Snap-on/J.H. Williams tool sets.

Use this guide to view sessions, session times and locations, to find exhibitor listings and booth numbers, and to gather details on daily social events. And don't hesitate to engage our event staff for assistance. We want to help make your Reliable Plant 2009 experience both enjoyable and productive.

Thank you for attending Reliable Plant 2009. We greatly appreciate your support and wish you and your plant future success.

Sincerely,

Mike Ramsey  
President, Noria Publishing

## Schedule of Events

### MONDAY, AUGUST 31

7:00 am – 6:00 pm	Registration open
8:00 am – 4:30 pm	Pre-Conference Workshops
5:00 pm – 7:00 pm	Certification Testing (SMRP)
5:30 pm – 8:30 pm	Certification Testing (ICML)

### TUESDAY, SEPTEMBER 1

7:00 am – 6:00 pm	Registration open
7:30 am – 8:00 am	Continental Breakfast
8:00 am – 9:20 am	Opening General Session
9:30 am – 10:50 am	Exhibit Hall Grand Opening
10:00 am – 10:50 am	Break in Exhibit Hall
11:00 am – 11:50 am	Conference Sessions
12:00 pm – 1:20 pm	Lunch in Exhibit Hall
1:30 pm – 3:20 pm	Conference Sessions
3:30 pm – 4:20 pm	Break in Exhibit Hall
4:00 pm	Daily Prize Drawing in Exhibit Hall
4:30 pm – 5:20 pm	Conference Sessions
5:30 pm – 6:30 pm	Meet & Greet Reception in Exhibit Hall
9:30 am – 6:30 pm	Exhibition Hours

### WEDNESDAY, SEPTEMBER 2

7:00 am – 6:00 pm	Registration open
7:30 am – 8:00 am	Continental Breakfast
8:00 am – 9:50 am	Conference Sessions
10:00 am – 10:50 am	Break in Exhibit Hall
11:00 am – 11:50 am	Conference Sessions
12:00 pm – 1:20 pm	Lunch in Exhibit Hall
1:30 pm – 5:20 pm	Conference Sessions
3:30 pm – 4:20 pm	Break in Exhibit Hall
4:00 pm	Daily Prize Drawing in Exhibit Hall
4:30 pm – 5:20 pm	Conference Sessions
5:30 pm – 6:30 pm	Networking Reception in Exhibit Hall
6:00 pm – 9:00 pm	Certification Testing (ICML)
9:30 am – 6:30 pm	Exhibition Hours

### THURSDAY, SEPTEMBER 3

7:30 am – 11:00 am	Registration open
7:30 am – 8:00 am	Continental Breakfast
8:00 am – 8:50 am	Conference Sessions
8:50 am – 9:20 am	Break in Exhibit Hall
9:20 am – 11:10 am	Conference Sessions
11:15 am	Daily Prize Drawing in Exhibit Hall
8:50 am – 12:00 pm	Exhibition Hours

## Opening General Session



### Toyota's Vision: Reliability Based on All-Encompassing Continuous Improvement

Ballroom – Columbus Convention Center  
 Tuesday, September 1, 8:00am – 9:20am  
 Mike DaPrile, vice president,  
 Toyota Motor Manufacturing  
 North America

Toyota is the face of the successful 21st-century manufacturing company. Fortune named the corporation as No. 3 (behind Apple and Berkshire Hathaway) on its list of the World's Most Admired Companies. Toyota plants are viewed as role models in terms of lean, reliability, sustainability, safety and asset performance. They truly embody the Reliable Plant. However, even Toyota has encountered some potholes during the recent world economic crisis. In this keynote session, company vice president Mike DaPrile (a 47-year veteran of the global auto industry, including 22 years at Toyota and 25 years at General Motors) will outline Toyota's present and future direction in the wake of a changing (and challenging) auto manufacturing landscape and illustrate how Toyota is reinvigorating/reinforcing/reinventing itself.

## Networking Opportunities

### Hy-Pro Filtration Meet and Greet Reception

Exhibit Hall - Columbus Convention Center  
 Tuesday, September 1  
 5:30 – 6:30pm



### Hydac and Schroeder Industries Networking Reception

Exhibit Hall - Columbus Convention Center  
 Wednesday, September 2  
 5:30-6:30pm



### Daily Coffee Breaks

Exhibit Hall - Columbus Convention Center  
 Tuesday, Wednesday and Thursday



### Delegate Luncheons\*

Exhibit Hall - Columbus Convention Center  
**Tuesday, September 1**      **Wednesday, September 2**  
 12:00pm – 1:20pm      12:00pm – 1:20pm



\*Included with full-conference registration.

## Exhibit Hall Features

### Cyber Café – Free Internet

Exhibit Hall – Booth 628

Stay connected with the office and home while you're in Nashville. Take advantage of free email access in the exhibit hall. Available during exhibition hours.



### Bookstore

Registration Foyer - Columbus Convention Center

Looking for more information on a session topic? Excited about learning more from an expert speaker? Review and purchase a wide range of helpful titles in the bookstore.



J. H. WILLIAMS  
 TOOL GROUP

Snap-on  
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### Take Home the Tools Game

Exhibit Hall – Booth 528

Check out the latest products and services from sponsoring exhibiting companies, get your entry form stamped and then register for a chance to win one of three Snap-on/J.H. Williams tool sets and a 50" plasma HDTV. Bring the completed game card to booth 528.



## Pre-Conference Workshops

### Change Agent Maintenance Planning and Scheduling

Richard Palmer,  
Richard Palmer & Associates

Monday, August 31  
8:00 am-4:30 pm

Room D140

### Overall Equipment Effectiveness (OEE)

John Kravontka,  
Fuss & O'Neill Manufacturing Solutions

Monday, August 31  
8:00 am-11:30 pm

Room D144

### Integration of Safety through Mapping and Maintenance Excellence

Robert Levandoski,  
Fuss & O'Neill Manufacturing Solutions

Monday, August 31  
1:00 pm-4:30 pm

Room D142

## Certification

### Set Yourself Apart as a Leader among Peers

Industry-leading maintenance and reliability organizations will offer a variety of certification exam opportunities during Reliable Plant 2009. All exams will be conducted at the Columbus Convention Center.

#### Monday, August 31

Sponsoring Organization	Room	Time
International Council for Machinery Lubrication (ICML)	D232	5:30pm
Society for Maintenance and Reliability Professionals (SMRP)	D233	5:00pm

#### Wednesday, September 2

International Council for Machinery Lubrication (ICML)	D232	6:00pm
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# Sessions at a Glance



Tuesday

	Room D131	Room D231
8:00-9:20am	GENERAL OPENING SESSION - Ballroom Toyota's Vision: Reliability Based on All-Encompassing Continuous Improvement - <i>Mike DaPrile, Toyota</i>	
9:30-10:50am	Break - Exhibit Hall Grand Opening	
11:00-11:50am	7 Tools for Developing an Effective Lubrication Program - <i>Tom Hiatt, Covance Inc., and Wayne Ferguson, Eli Lilly</i>	Wear Debris Analysis for Early Warning Fault Detection - <i>Martin Lucas, Kittiwake</i>
12:00-1:20pm	Lunch Break - Exhibit Hall	
1:30-2:20pm	How to Cut Lubricant Consumption by More Than 50% - <i>Jim Fitch, Noria Corporation</i>	Are You Sanitizing Your Equipment To Death? - <i>Jason Kopschinsky, Noria Corporation</i>
2:30-3:20pm	Electric Motor Lubrication - <i>Jeremy Wright, Noria Corporation</i>	Are your Machines Designed for Lubrication Maintainability and Reliability? - <i>Mark Barnes, Noria Corporation</i>
3:30-4:20pm	Break - Exhibit Hall	
4:30-5:20pm	RCM for Lubricants - <i>Darrin Clark, Timken Reliability Solutions</i>	How to Implement an Operator-assisted Lubrication Program - <i>Jarrold Potteiger, Noria Corporation</i>
5:30-6:30pm	Meet and Greet Reception - Exhibit Hall	
9:30am-6:30pm	Exhibition Hours	

	Room D132	Room D230
8:00-9:20am	GENERAL OPENING SESSION - Ballroom Toyota's Vision: Reliability Based on All-Encompassing Continuous Improvement - <i>Mike DaPrile, Toyota</i>	
9:30-10:50am	Break - Exhibit Hall Grand Opening	
11:00-11:50am	The Five Fundamentals of Implementing a Reliability Program - <i>Dan Roberts, MillerCoors</i>	The Business of Maintenance - <i>Terry Wireman, Vesta</i>
12:00-1:20pm	Lunch Break - Exhibit Hall	
1:30-2:20pm	Holcim's Maintenance & Reliability Training Program - <i>Bill Lyons, Holcim</i>	Using Root Cause Analysis to Boost Your Bottom Line - <i>Chris Eckert, Apollo</i>
2:30-3:20pm	Planned Work Predominance over Reactive Work - Contribution to the Bottom Line - <i>Mike Shekhtman, Goodyear</i>	Vibration Analysis Basics - A Machinery Health Primer - <i>Robert Skeirik, Emerson</i>
3:30-4:20pm	Break - Exhibit Hall	
4:30-5:20pm	Highwall Miner Reliability - From Rags to Riches - <i>Terry Taylor, Arch Coal</i>	Principles of Maintenance Planning and Scheduling - <i>Doc Palmer, Richard Palmer and Associates</i>
5:30-6:30pm	Meet and Greet Reception - Exhibit Hall	
9:30am-6:30pm	Exhibition Hours	

Wednesday

	Room D131	Room D231
8:00-8:50am	Case Study: Lubrication Program Transformation at Albemarle - <i>Kirk Williams, Albemarle</i>	Can Premium Lubricants Really Reduce Energy Costs? - <i>Jeremy Wright, Noria Corporation</i>
9:00-9:50am	How to Fix a High Particle Count - <i>Jim Fitch, Noria Corporation</i>	Beyond the 250 Hour Oil Change - <i>Stacy Heston, Noria Corporation</i>
10:00-10:50am	Break - Exhibit Hall	
11:00-11:50am	Dry Air Purging for Water Contamination Control - <i>William M. Needelman, Donaldson</i>	Benchmarking Your Plant's Lubrication Performance for Reliability - <i>Jason Kopschinsky, Noria Corporation</i>
12:00-1:20pm	Lunch Break - Exhibit Hall	
1:30-2:20pm	RCM Defines the 100 Failure Modes of Lubrication - <i>Terry Harris, Reliability Process Solution</i>	Extending the Life of Rolling Element Bearings with Precision Lubrication - <i>Jeremy Wright, Noria Corporation</i>
2:30-3:20pm	Building a Business Case for Lubrication Excellence - <i>Jarrold Potteiger, Noria Corporation</i>	Oil Color - The Cinderella Test - <i>Dave Wooton, Wooton Consulting</i>
3:30-4:20pm	Break - Exhibit Hall	
4:30-5:20pm	How Much Did We Save Anyway? - <i>Mark Barnes, Noria Corporation</i>	Is World-class Contamination Control Possible in Gearboxes? - <i>Jason Kopschinsky, Noria Corporation</i>
5:30-6:30pm	Networking Reception - Exhibit Hall	
9:30am-6:30pm	Exhibition Hours	

	Room D132	Room D230
8:00-8:50am	Improving Planned Work in a 24/7 Work Environment - <i>Walt Lynch, Coca-Cola</i>	Are Your PMs Working For or Against You? - <i>Drew Troyer, Noria</i>
9:00-9:50am	Solutions to Technical Skill Challenges - <i>Gary Pelini/Bill Woodruff, Honda</i>	The Maintenance Excellence Audit - <i>Terry Harris, Reliable Process</i>
10:00-10:50am	Break - Exhibit Hall	
11:00-11:50am	What Really Was the Cause of That Failure? - <i>David Rodgers, John Morrell</i>	Using Infrared Thermography to Inspect Mechanical Equipment - <i>Harold Van De Ven, Snell</i>
12:00-1:20pm	Lunch Break - Exhibit Hall	
1:30-2:20pm	Reliability - The Human Element - <i>Ted Melencheck, Cargill</i>	Operational Risk Management as a Component of Reliability Excellence - <i>Mike Poland, LCE</i>
2:30-3:20pm	Reliability Improvement: What Works and What Doesn't - <i>John Crossan/Randall Quick</i>	How Should You Manage Maintenance? - <i>Doc Palmer, Richard Palmer and Associates</i>
3:30-4:20pm	Break - Exhibit Hall	
4:30-5:20pm	Word on Reliability - Teachings from a Life Spent in M&R - <i>Richard Word, ex-Whirlpool</i>	The Importance of Alignment and Reliability - <i>Philip McCarthy, Pruftechnik</i>
5:30-6:30pm	Networking Reception - Exhibit Hall	
9:30am-6:30pm	Exhibition Hours	

Thursday

	Room D131
8:00-8:50am	Doing More with Less: Increasing Wrench Time through Dynamic Work Management - <i>Mark Barnes &amp; Michael Collins, Noria Corporation</i>
8:50am-9:20am	Break - Exhibit Hall
9:20-10:10am	Using Antioxidant Fingerprints as a Key Quality Control Method for New Lubricants - <i>Dave Wooton, Wooton Consulting and Jo Ameye and Greg Livingstone of Fluitec International</i>
10:20-11:10pm	Drips, Spills, and Leaks - Hydraulic Blunders That Are Taking Money Out of Your Pocket! - <i>Stephen Sumerlin, Noria Corporation</i>
8:50am-12:00pm	Exhibition Hours

	Room D132	Room D230
8:00-8:50am	Maintenance Goals: Three Simple Tools to Attain Engagement - <i>Mike Gehloff, General Physics</i>	Elements of Root Cause Analysis - <i>Andy Page/Bill Keeter, Allied</i>
8:50am-9:20am	Break - Exhibit Hall	
9:20-10:10am	How to Build Contamination Control into Your Reliability Program - <i>Trigg Minnick, Des-Case Corporation</i>	Strategies to Achieve Zero Breakdowns - <i>Terry Wireman, Vesta</i>
10:20-11:10pm	Recruit, Train and Assess Your Maintenance Organization of Tomorrow - <i>David Crockett, CenTec</i>	Maintenance and Reliability Benchmarking - <i>Jerry Putt, Noria Corporation</i>
8:50am-12:00pm	Exhibition Hours	



Room D142/D143	
<b>GENERAL OPENING SESSION - Ballroom</b> Toyota's Vision: Reliability Based on All-Encompassing Continuous Improvement - <i>Mike DaPrile, Toyota</i>	
<b>Break - Exhibit Hall Grand Opening</b>	
Transform Your Company through Operational Excellence - <i>Bill Kimbro, Kennametal</i>	
<b>Lunch Break - Exhibit Hall</b>	
Lean's Inseparable Link to Reliability (and Vice Versa) - <i>Bill Schlegel/Rich Hirsh, Novelis</i>	
Lean at Wausau Paper – A Comprehensive Case Study - <i>Terry Olson/Jennifer Castle, Wausau Paper</i>	
<b>Break - Exhibit Hall</b>	
Accelerating MRO Continuous Improvement: Keys to Reducing Cost, Eliminating Waste and Adding Value - <i>Kevin Hartler, Grainger</i>	
<b>Meet and Greet Reception - Exhibit Hall</b>	
<b>Exhibition Hours</b>	

Room D142/D143	
Why and How to Go Beyond Lean Six Sigma and the Balanced Scorecard - <i>Forrest Breyfogle, Smarter Solutions</i>	
How You Can Apply Toyota's Zone Control System - <i>Sam McPherson, Shingo Prize and Lean Leadership Academy</i>	
<b>Break - Exhibit Hall</b>	
Curing the Firefighting Epidemic - <i>David Hicks, Auburn University</i>	
<b>Lunch Break - Exhibit Hall</b>	
Impact Your Company's Bottom Line by Improving Process Changeovers - <i>Andrew Boger, NSK</i>	
Accelerate Your Results by Utilizing Lean Sigma - <i>David Ward, Plexus</i>	
<b>Break - Exhibit Hall</b>	
How to Use Lean Six Sigma to Rapidly Deliver Bottom-Line Impact - <i>Sandy Klaasse, former vice president of Lean Six Sigma, OMNOVA</i>	
<b>Networking Reception - Exhibit Hall</b>	
<b>Exhibition Hours</b>	

Room D142/D143	
Policy Deployment & Lean Implementation Planning: A 10-Step Road Map to Successful Policy Deployment Using Lean as a System - <i>Larry Rubrich, WCM Associates LLC</i>	
<b>Break - Exhibit Hall</b>	
Using Value-Added Flow Analysis to Zero in on Hidden Wastes: A Case Study with Results - <i>Joe Ziskovskiy, Weatherford International</i>	
Improvement Initiatives Live and Die with the Leadership - <i>D. Wilson, AbitibiBowater; S. Isenhour, ABB</i>	
<b>Exhibition Hours</b>	

Room D140/D141	
<b>GENERAL OPENING SESSION - Ballroom</b> Toyota's Vision: Reliability Based on All-Encompassing Continuous Improvement - <i>Mike DaPrile, Toyota</i>	
<b>Break - Exhibit Hall Grand Opening</b>	
The Components for Creating an Ideal Electrical Safety Program - <i>L. Rene Graves, Texas Instruments</i>	
<b>Lunch Break - Exhibit Hall</b>	
Honda's People-Based Approach to Safety - <i>Joe Cicero, Honda</i>	
NFPA and its Implications on Thermographic Inspections - <i>Martin Robinson, IRISS</i>	
<b>Break - Exhibit Hall</b>	
Best Practices in Pneumatics and Safety Systems - <i>Eric Cummings, Ross Controls</i>	
<b>Meet and Greet Reception - Exhibit Hall</b>	
<b>Exhibition Hours</b>	

Room D140/D141	
Success Factors for Reliability & Maintainability: An Ergonomic Perspective - <i>Klaus Blache, Univ. of Tenn. MRC</i>	
Boiler and Combustion Safety: What You Don't Know Can Kill You! - <i>John Puskar, Combustion Safety Inc.</i>	
<b>Break - Exhibit Hall</b>	
OSHA Regulations and Other Trends Changing Safety & Health Practices - <i>Mary Beth Parker, Grainger</i>	
<b>Lunch Break - Exhibit Hall</b>	
Quantifying a Business Case for Improving Safety - <i>Nick Revelas, AVEVA</i>	
Using Visuals to Drive Continuously Improving Safety Performance - <i>Chris Rutter, Brady Corporation</i>	
<b>Break - Exhibit Hall</b>	
PdM Integration for Electrical Distribution Safety and Reliability - <i>Dale Smith, Predictive Service</i>	
<b>Networking Reception - Exhibit Hall</b>	
<b>Exhibition Hours</b>	

Room D140/D141	
Worthington Steel Got Safe, and So Can You! - <i>Ryan Lamb, Worthington Industries</i>	
<b>Break - Exhibit Hall</b>	
Best Practices for Leak and Spill Control - <i>Beth Powell and Tim McMillen, New Pig Corporation</i>	
Enforcement Update: An Interactive Session with OSHA - <i>Deborah Zubaty, area director, OSHA</i>	
<b>Exhibition Hours</b>	

Room D144/D145		
<b>GENERAL OPENING SESSION - Ballroom</b> Toyota's Vision: Reliability Based on All-Encompassing Continuous Improvement - <i>Mike DaPrile, Toyota</i>		8:00-9:20am
<b>Break - Exhibit Hall Grand Opening</b>		9:30-10:50am
Energy Reduction as a Core Component of Cost Reduction - <i>Jerry Osheka, PPG Industries</i>		11:00-11:50am
<b>Lunch Break - Exhibit Hall</b>		12:00-1:20pm
Reducing Energy and Emissions Saves Navistar Money - <i>Terri Sexton, Navistar</i>		1:30-2:20pm
Cutting Energy Costs with Airborne/Structure-borne Ultrasound - <i>Mark Goodman, UE Systems</i>		2:30-3:20pm
<b>Break - Exhibit Hall</b>		3:30-4:20pm
Optimized Boiler Package Evolves from the Super Boiler - <i>Earle Pfefferkorn, Cleaver-Brooks</i>		4:30-5:20pm
<b>Meet and Greet Reception - Exhibit Hall</b>		5:30-6:30pm
<b>Exhibition Hours</b>		9:30am-6:30pm

Room D144/D145		
How Toyota Facility Became a Zero-Landfill Site - <i>Jef Friedman, Toyota</i>		8:00-8:50am
Optimize Asset Performance at the Least Energy Cost - <i>Rod Ellsworth, Infor</i>		9:00-9:50am
<b>Break - Exhibit Hall</b>		10:00-10:50am
Save Big Bucks, Big Energy with Reliability Excellence - <i>Darrin Wikoff, Life Cycle Engineering</i>		11:00-11:50am
<b>Lunch Break - Exhibit Hall</b>		12:00-1:20pm
Maintenance, Reliability and Transforming Waste into Green Energy - <i>Allan Trout, Wheelabrator</i>		1:30-2:20pm
Saving Energy & Earning Revenues through Regional Demand Response Programs - <i>Gregg Dixon, EnerNOC Inc.</i>		2:30-3:20pm
<b>Break - Exhibit Hall</b>		3:30-4:20pm
Proven Strategies to Manage Energy Use in Buildings - <i>Kurt Paulus, Trane</i>		4:30-5:20pm
<b>Networking Reception - Exhibit Hall</b>		5:30-6:30pm
<b>Exhibition Hours</b>		9:30am-6:30pm

Room D144/D145		
A Dynamic New Approach to Energy Management - <i>Christopher Russell, Energy Pathfinder Management Consulting</i>		8:00-8:50am
<b>Break - Exhibit Hall</b>		8:50am-9:20am
SKF's Inside/Out Approach to Energy and Sustainability Management - <i>Mike Roberts, SKF</i>		9:20-10:10am
Improving Energy Efficiency and Productivity in Steelmaking - <i>Lawrence Boyd, Energy Industries of Ohio</i>		10:20-11:10pm
<b>Exhibition Hours</b>		8:50am-12:00pm

Tuesday

Wednesday

Thursday

## Show Stoppers

This year's Show Stoppers are an eclectic mix of products from the expo floor. Some are brand new; others boast interesting, recently introduced new features or technologies; while others are tried-and-true tools with a market following. All of these products have one thing in common: They provide functionality that helps professionals be more productive.

### Clearly a Winning Combination

A clear grease gun for easy visual ID, combined with high-performance grease, creates a competitive advantage you can rely on every single day. Lubrication Engineers – a long-time leader in lubrication reliability – offers grease delivery and grease performance which comes together in one complete, lubrication reliability package.



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### Des-Case Extreme Duty Breathers: Ideal for Harsh Environments

The Des-Case Extreme Duty disposable breathers are designed to take contamination control to a whole new level. An automotive grade housing and solid standpipe design offer increased vibration resistance and temperature range while three layers of particulate filters give 0.3μ protection. The optional check valve system extends product life even further. Visit [www.descase.com/extreme](http://www.descase.com/extreme) to sample the latest in breather technology.

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### Filter Buddy™ Handheld Filtration System

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## Tuesday, September 1

11:00–10:50am

### 7 Tools for Developing an Effective Lubrication Program

*Wayne Ferguson, Eli Lilly, and Tom Hiatt, Covance Inc.*

In this case study session, two industry veterans will walk you through lessons they have learned while building a world-class lubrication program at Eli Lilly and Company. You'll learn how they effectively used recognition and reward, lubrication procedures, lubricant testing, and audits and training as key components in the program. They will also discuss the importance of the development of a lube team and the necessary sub-teams to enhance program development.

11:00–10:50am

### Wear Debris Analysis for Early Warning Fault Detection

*Martin Lucas, Kittiwake*

To minimize the cost of repair and overall business interruption resulting from machine failure, problems need to be detected at the earliest possible stage. Early detection of failure at its incipient stage makes a low-cost, planned and manageable remedy possible. Wear debris analysis is one of the most incisive early warning predictive maintenance methods, and plant personnel are increasingly conducting wear debris analysis onsite for rapid diagnosis. In this session, you'll learn a strategy for combining lab and onsite wear debris analysis and learn about the options available to users in the field and in the laboratory.

1:30–2:20pm

### How to Cut Lubricant Consumption by More Than 50%

*Jim Fitch, Noria Corporation*

The math is pretty simple: Cutting your lubricant purchases in half = big savings. But what's the best method? Lubricant consolidation? Extending drain intervals? Economy brands? Contamination control? Oil analysis? In this session, Jim Fitch outlines a proven plan for safely squeezing maximum life out of lubricants and drastically cutting new lubricant purchases without sacrificing machine health.

1:30–2:20pm

### Are You Sanitizing Your Equipment To Death?

*Jason Kopschinsky, Noria Corporation*

Washdown and sanitation are a fact of life in food and beverage production. And while there's no doubt that washdown can have a serious impact on machine life, there are a few simple tips that can help mitigate the effects of sanitation. In this session, you'll learn simple yet effective ways to prevent contamination-related failures.

2:30–3:20pm

### Electric Motor Lubrication

*Jeremy Wright, Noria Corporation*

Have you ever had an electric motor failure? Poor lubrication may be the primary cause of this failure. In this session you'll learn how to determine the correct type of lubricant, calculate the correct amount of lubricant to use, calculate time intervals for re-lubrication, and much more. Armed with this new information, you will be able to immediately make a difference in your lubrication program.

2:30–3:20pm

### Are your Machines Designed for Lubrication Maintainability and Reliability?

*Mark Barnes, Noria Corporation*

Reliability experts recognize that a large portion of life cycle costing is affected by basic design. Yet OEMs continue to design and deliver equipment that is often difficult or cumbersome to maintain. In this session, you'll learn what it takes to make a machine "maintainable and reliable" from the outset.

4:30–5:20pm

### RCM for Lubricants

*Darrin Clark, Timken Reliability Solutions*

When you consider the cost of lubricants and the length of time they are in service, many of them should be treated as an asset and not as a consumable. In this session you'll learn how to apply the RCM methodology to lubricants as an asset. You'll learn how to analyze lubricant functions, failure modes and failure effects, and then create a maintenance strategy to maintain the lubricant function. This learning exercise will help you establish technically-based oil analysis test packages and specific criteria for condition based oil changes.

4:30–5:20pm

### How to Implement an Operator-assisted Lubrication Program

*Jarrold Potteiger, Noria Corporation*

With 43% of U.S. companies pursuing a form of lean manufacturing, operators are increasingly being asked to assume some or all of a plant's maintenance activities. And while Toyota is living proof that operator involvement can and does work, there are a few simple rules that will help you avoid problems in the future. In this session, you'll learn how to implement operator-assisted lubrication right!

## Wednesday, September 2

8:00–8:50am

### Case Study: Lubrication Program Transformation at Albemarle

*Kirk Williams, Albemarle*

In the last 5 years, lubrication went from "necessary evil" to "must have" at Albemarle. In this session, you'll hear how they implemented 5S visual systems for lube points, transitioned from time-based to condition-based oil changes with quantifiable savings, use lubricant usage trending as a predictive tool for mechanical seal failures, empowered lubrication technicians to order parts and implement reliability in the field, implemented 5S organization of lubricant storage areas, and where they aspire to be in the coming years. This is a can't-miss session for anyone wanting to improve their lubrication program.

8:00–8:50am

### Can Premium Lubricants Really Reduce Energy Costs?

*Jeremy Wright, Noria Corporation*

With increasing energy costs, companies are focusing on ways to reduce overall energy consumption. One train of thought is to use synthetics and other premium lubricants to reduce friction and energy losses. But is this really effective? In this session you'll discover the truth about energy reduction through lubricant upgrades.

9:00–9:50am

### How to Fix a High Particle Count

*Jim Fitch, Noria Corporation*

Diagnosing and correcting a high particle count can result in a lot of wasted time and money. Whether you've just begun a lubricant contamination control program or you've been monitoring contaminant levels for years, you know how disturbing it is to discover a high particle count. Acting quickly is important, but troubleshooting without a plan often results in unnecessary work and wasteful lubricant and filter use. Instead of throwing time and money at the problem, learn Jim Fitch's specific steps to fixing a high particle count in this informative session.

9:00–9:50am

### Beyond the 250 Hour Oil Change

*Stacy Heston, Noria Corporation*

Most manufacturers of off road mobile equipment suggest 250 hour oil changes as a starting point. But through the application of oil analysis, precision lubrication and contamination control, many companies are extending both oil and engine life, even in the most extreme environments. In this session, you'll discover ways of achieving triple-digit return on a couple of straightforward initiatives.

11:00–11:50am

### Dry Air Purging for Water Contamination Control

*William M. Needelman, Donaldson*

Water is a frequent and damaging contaminant in hydraulic and lubrication systems. Water contamination causes a host of problems, including: corrosion, component seizure, microbial growth, additive dumping, and accelerated oil oxidation. The Active Reservoir Vent (ARV) is a novel and effective dry air purging system for minimizing water contamination in fluids. This system continuously supplies dry air to reservoirs and other vented components. Slight pressurization of the reservoir headspace with dry air prevents ingress of humidity, thereby eliminating a common source of water contamination. In addition, as dry air sweeps over the surface of the oil, water evaporates and the oil dries to beneficial low levels. This session describes the modes of operation, explains water evaporation from oil, quantitatively models drying rates, and discusses data from lab testing and field application.

11:00–11:50am

### Benchmarking Your Plant's Lubrication Performance for Reliability

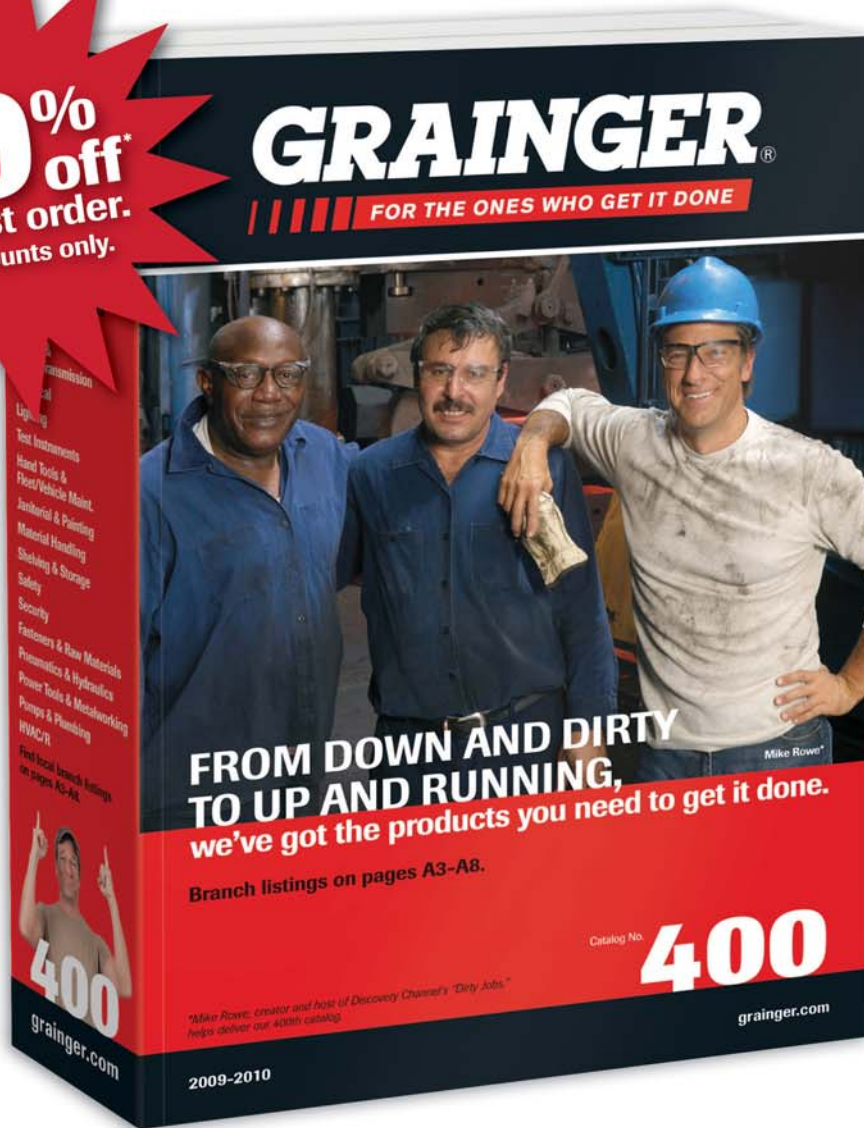
*Jason Kopschinsky, Noria Corporation*

Benchmarking is the practice of establishing goals and targets for process performance levels and identifying required improvement areas based on the published or known best practice or industry specific preferred practice. In simple terms, benchmarking is a continuous improvement tool that, in the case of lubrication, allows you to rate your company's practices against those of the front-runners in the industry or those that are considered "world-class". This paper will discuss how to effectively benchmark your facility's lubrication practices to define opportunities for improvement, setting up performance metrics, financial benchmarking and laying down a plan to become world-class.

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1:30–2:20pm

### RCM Defines the 100 Failure Modes of Lubrication

*Terry Harris, Reliability Process Solutions*

Understanding failure modes of equipment, processes and individual components in the equipment is an important function. Every manufacturing or processing plant has rotating equipment that performs plant functions. When this equipment stops working, processes cease to perform their designed expectations. The negative impacts are operations downtime, reduced capacity, lower quality, and EH&S incidents. RCM can be used to define these failure modes. Lubricants and lubrication programs have over 100 failure modes that can be defined and controlled. Understanding each failure mode helps the plant decide how to prevent and eliminate each of them.

1:30–2:20pm

### Extending the Life of Rolling Element Bearings with Precision Lubrication

*Jeremy Wright, Noria Corporation*

According to bearing manufacturers, there should be a 90% probability of the bearing lasting for as long as 10-12 years in many circumstances. Yet in practice, fewer than 10% of all bearings actually reach their true potential. In this paper, we'll examine the profound influence lubrication can have on the longevity of element bearings and how to drastically extend bearing life.

2:30–3:20pm

### Building a Business Case for Lubrication Excellence

*Jarrold Potteiger, Noria Corporation*

Most maintenance professionals understand the vital role precision lubrication plays in machinery reliability; but does management? More than ever, managers are simply in cost avoidance mode - eliminating every cost that's rightly or wrongly perceived to be superfluous. But with a solid business case, there's no reason why lubrication improvement can't continue and thrive. We just need to speak their language!

2:30–3:20pm

### Oil Color – The Cinderella Test

*Dave Wooton, Wooton Consulting*

Like Cinderella doing all the work for her evil step-sisters, color tests are telling us great information about the sample – and we are ignoring the results. Most in-service analytical test packages include at least one color measurement. In addition, most new oil specifications include color specifications. The limits for many of these do exist. The real question is: "How many users actually read and understand this test?" Fluids are known to change color while in service, but this information is often ignored on reports – even though it may help explain other information on the report. In this session, you'll learn the different types of color tests available and how to understand the color results presented on your fluid analysis report.

4:30–5:20pm

### How Much Did We Save Anyway?

*Mark Barnes, Noria Corporation*

Oil analysis is a vital part of any predictive maintenance program. But like any other predictive technology, managers often cannot see the financial benefits oil analysis is providing. Faced with tough economic challenges, the temptation is to eliminate or cut back on oil analysis because of lack of understanding. In this session, you'll learn how to fight back by building a probabilistic approach to assessing the true value of an oil analysis "save".

4:30–5:20pm

### Is World-class Contamination Control Possible in Gearboxes?

*Jason Kopschinsky, Noria Corporation*

Gearboxes are commonplace throughout industry, yet very few people truly understand how to achieve the level of cleanliness most experts agree is necessary to optimize gearbox life. In this session, you'll discover simple ways to achieve world-class contamination control targets for extending the life of gearboxes and their lubricants.

## Thursday, September 3

8:00–8:50am

### Doing More with Less: Increasing Wrench Time through Dynamic Work Management

*Mark Barnes & Michael Collins, Noria Corporation*

If you've ever felt like you have twice as much work to do and half the resources necessary, this session is for you. Learn how to get more from your precious resources by applying a new approach to work management.

9:20–10:10am

### Using Antioxidant Fingerprints as a Key Quality Control Method for New Lubricants

*Dave Wooton, Wooton Consulting, and Jo Aমেয় and Greg Livingstone of Fluitec International*

Linear sweep voltammetry (LSV) is a proven test for measuring remaining useful life of lubricants. It is also proving to be an invaluable quality control tool for assessing the brand and quality of new lubricants deliveries at plants. In this session, you'll learn how end-users are using LSV to confirm the right lubricant was received and is being put into the right application.

10:20–11:10am

### Drips, Spills, and Leaks – Hydraulic Blunders That Are Taking Money Out of Your Pocket!

*Stephen Sumerlin, Noria Corporation*

Just a single drip every 5 seconds can cost thousands of dollars in wasted oil. A catastrophic failure or injury due to leakage could have a devastating impact at your facility. In this session you'll learn how to avoid the pitfalls of hydraulic fluid leaks through simple yet effective techniques.

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## Tuesday, September 1

11:00–10:50am

### The Five Fundamentals of Implementing a Reliability Program

*Dan Roberts, MillerCoors*

This session will focus on the five fundamentals of implementing a reliability program, and the foundations of World-Class Manufacturing that will sustain this investment. These fundamentals are implementing equipment-specific reliability strategies; developing a rigorous planning and scheduling program; managing a focused program to ensure technical competencies; implementing a structured continuous improvement program; and ensuring spare parts availability through a sound materials management program. The presenter will explore these topics, and provide a road map for implementing a world-class reliability improvement program.

11:00–10:50am

### The Business of Maintenance

*Terry Wireman, Vesta Partners*

Most companies today do not see their maintenance function as a true business, yet a considerable amount of a company's budget is allocated to the maintaining function. In addition, much of the company's ability to produce a product or provide a service is enabled by the maintenance function. This presentation focuses on how to help your company view maintenance as a big business and understand how to establish good maintenance business processes. You'll also learn how to explain the return on investment to senior executives with a goal of gaining support to take your company's maintenance business from being "just good" to achieving greatness.

1:30–2:20pm

### Holcim's Maintenance & Reliability Training Program

*Bill Lyons, Holcim (US) Inc.*

In recent years, Holcim (US) has expanded its training program to focus on front-line workers. Technicians and front-line workers form the foundation of any maintenance and reliability program. They must be able to collect predictive maintenance data with a high degree of accuracy and repeatability. If the raw data that is collected is of poor quality, any resulting analysis and decision-making will be flawed. Recognition of the importance of this "people foundation" is at the heart of Holcim's development of the Maintenance Reliability Training Program (MRTP). This program focuses on individuals who have the most contact with equipment on a daily basis. When they are equipped with the tools to succeed, Holcim plants succeed. The MRTP is a multi-disciplinary program with specialties in lubrication, vibration, thermography, EMD and inspections. This presentation will cover the development and initiation of the program, and the results to date.

1:30–2:20pm

### Using Root Cause Analysis to Boost Your Bottom Line

*Chris Eckert, Apollo Associated Services*

Root cause analysis is a powerful tool for finding cost savings, improving performance and avoiding costly

problems. When budgets are cut, reliability professionals must get creative in problem-solving and corrective actions. Often, the tools that are probably already at their disposal can help. By performing dynamic analysis where the causes and solutions of multiple RCAs are analyzed, and by conducting proactive RCAs, companies find savings they never before knew were available. This presentation will demonstrate how organizations use these tools to improve performance and their bottom line in times of economic hardship.

2:30–3:20pm

### Planned Work Predominance over Reactive Work – Contribution to the Bottom Line

*Mike Shekhtman, Goodyear Tire & Rubber Company*

Maintenance costs and efficiency are always on managers' minds. In this session, you'll learn how to show them tangible maintenance cost reductions that are delivered by reallocating resources to planned maintenance work. Shekhtman starts with the well-known statement that each hour of properly performed planned maintenance avoids more than one hour of repair or any other failure-induced work. The avoidance may be a twofold, threefold or even more. Through a few simple calculations, you'll learn how the margin of decrease of maintenance labor costs per unit of product can be expressed as a function of that planned work factor, the increase in planned maintenance hours and the total maintenance work hours prior to planned work increase. You'll also learn how to calculate the dollar values for reduction in maintenance labor costs per unit due to the planned work increase.

2:30–3:20pm

### Vibration Analysis Basics – A Machinery Health Primer

*Robert Skeirik, Emerson Process Management*

This session is a short survey course about vibration analysis and how it can be effectively applied to monitor machinery health on rotating equipment. It starts with a basic introduction to vibration theory, sensor selection and proper data collection techniques. It will then explore different methods to filter through the mounds of data to extract diagnostic information and compare it against pre-defined alarm levels. The goal is to identify the candidates for further examination so that the analyst can focus his or her efforts on the most important machines.

4:30–5:20pm

### Highwall Miner Reliability – From Rags to Riches

*Terry Taylor, Arch Coal*

At Arch Coal's Cumberland River Mine, one of the primary pieces of equipment in the extraction of coal is the Highwall Miner. The reliability of the Highwall Miner was poor, which played a key role in the actual production of this mining machine being at 50 percent of the targeted tonnage. Local management made a decision to do "whatever it takes" to reach the targeted tonnage for this machine. It was well-known by all that improvements in the reliability of this equipment would have to be made to improve production. In this session, you'll learn about this company's journey from a clean sheet of paper to reliability.

4:30–5:20pm

### Principles of Maintenance Planning and Scheduling

*R. D. (Doc) Palmer, Richard Palmer and Associates*

In this session, Doc Palmer, author of McGraw-Hill's Maintenance Planning and Scheduling Handbook, presents a case study for turning around a mechanical maintenance planning department. The resulting organization had crews working down their entire backlogs. This freed up the workforce for other work, including the replacement of contract labor and assisting other stations. You'll learn how planning leverages maintenance productivity and how to quantify its effect. Certain guiding principles make planning and scheduling effective. The case study identifies each underlying principle.

## Wednesday, September 2

8:00–8:50am

### Improving Planned Work in a 24/7 Work Environment

*Walt Lynch, Coca-Cola North America*

Increasing planned work in a 24/7 production environment is a challenging task and, if accomplished without additional line downtime, will improve labor utilization and increase your odds of improving asset reliability. In this session, Walt Lynch will review Coca-Cola North America's maintenance improvement process, justify the company's need to improve planned work and, most importantly, will discuss its strategy for increasing planned work without additional production line downtime. You'll gain valuable insights into how to analyze your current maintenance performance and learn successful techniques for increasing your team's labor utilization and reduce asset downtime.

8:00–8:50am

### Are Your PMs Working For or Against You?

*Drew Troyer, Noria Corporation*

Preventive maintenance should, as the name implies, prevent failure. Unfortunately, this isn't always the case. Many PMs fail to add value because they're ambiguous, poorly designed and/or performed at an inappropriate interval. Worse yet, some PMs inadvertently induce equipment failure. In this presentation, we'll discuss why PMs sometimes don't work, provide a framework for estimating the value your getting from your PM investments – in dollars and cents, and discuss various methodologies for maximizing the return on investment of your preventive maintenance policies.

9:00–9:50am

### Solutions to Technical Skill Challenges

*Gary Pelini and Bill Woodruff, Strategic Services Group*

A graying workforce, emerging skills shortage and global recession are challenges facing every advanced manufacturing workplace today. Business success in this environment requires effective execution of a skills development strategy that fully engages the workforce and includes continuous improvement efforts to reduce training time, lower training costs and improve retention of essential knowledge and skills. This case study examines the proactive use of shared effort, process mapping, collaboration and a continuous Plan-Do-Check-Action cycle



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to meet these challenges. By engaging maintenance and technical leaders at Honda in this ongoing process, the presenters produced an integrated skills learning system that combined blended Web-based training and hands-on practice with mentored on-the-job training to reinforce the learning of fundamental, repair and analysis level skills. This presentation reveals the obstacles, successes and opportunities for continued improvement discovered by this team.

**9:00–9:50am**

### **The Maintenance Excellence Audit**

*Terry Harris, Reliable Process Solutions*

How do we really achieve “maintenance excellence”? This interactive session covers a 22-step Maintenance Excellence Audit form. Each participant receives a copy of the audit form to take back to his or her plant to use in daily progress. You’ll learn each of the steps in detail and the questions that are asked during the audit. You’ll be able to rate yourself during the session and re-evaluate areas of weakness and get points on how to improve operations in each area. The audit covers everything from management and leadership to reactive maintenance management. It covers the use of CMMS systems, lubrication excellence, PdM and many more important topics.

**11:00–11:50am**

### **What Really Was the Cause of That Failure?**

*David Rodgers, John Morrell and Company*

What was the true cause of a failure? Does anybody really know? This is a surprising situation to ask operators, mechanics and managers. Everyone will have an opinion or assumption to the cause, but very few really know. In an effort to improve reliability, many times we create a form for identifying the effects of what happened, but not what caused it to occur. For the most part, the created form does not add value; it only creates a false sense that we are doing something to stop an event from occurring again. In many cases, we throw fixes at failures. It is like closing your eyes and hoping it goes away. In this session, you’ll learn how to remove the guesswork through a basic cause-and-effect analysis and focus on six key areas. Manpower, materials, methods and machinery are usually the base, but Rodgers prefers to add Mother Nature and management, narrow the possible causes and then use the five-whys problem-solving methodology to make a decision without the guessing.

**11:00–11:50am**

### **Using Infrared Thermography to Inspect Mechanical Equipment**

*Harold Van De Ven, The Snell Group*

Infrared thermography (IR), traditionally the technology of choice for scanning electrical systems, is also successfully applied across a number of applications in industry, including inspecting mechanical/rotating equipment. Maintenance professionals today are using IR more frequently to help diagnose mechanical problems in conjunction with other testing technologies, including vibration analysis, oil analysis, ultrasonics and motor circuit analysis. This session will give an overview of the use of

IR for inspecting mechanical/rotating equipment as well as discuss the benefits and limitations of the technology. You’ll learn how mechanical IR inspections can be integrated with an existing program and hear real-world examples that demonstrate the success of using infrared in mechanical maintenance applications.

**1:30–2:20pm**

### **Reliability – The Human Element**

*Ted Melencheck, Cargill Deicing Technology*

Reliability is a cross-functional process that cannot be solely owned by one group, requiring involvement of all personnel at a site to become instilled as the cultural norm. We can use all of the available technologies to identify impending failures, but without the commitment from each individual, progress will be negligible. Individual commitment is achieved through a combination of training, apprenticeships, personal development, safety and involvement – all of which fall under the umbrella of employee engagement. Cargill’s Cleveland mine has tapped into the human element through employee engagement to create major improvements in both safety and productivity. Reliability is generally measured as a negative impact. We cannot measure how many issues we prevent; we can only use the indicators for progress. The ultimate indicator is the net productivity increase. Over the past 10 years, we were able to increase productivity 73 percent. This was attained through cross-functional department involvement while utilizing the two cornerstones of reliability: lubrication and the human element.

**1:30–2:20pm**

### **Operational Risk Management as a Component of Reliability Excellence**

*Mike Poland, Life Cycle Engineering*

Most asset management strategies contain a complex maintenance and operational plan and completely overlook the third key element, the risk plan. The risk plan is the product of operational risk management and is intended to provide the business processes, procedures and infrastructure to identify and then mitigate risk. Without a risk plan, corporations rely on the experience level of individuals to identify risks rather than a culture of risk management with the formal processes to support it. Unfortunately, this tends to focus on the hazard or accident at hand and, therefore, is frequently reactive. Understanding the concepts of reliability excellence and the supporting processes such as loss elimination and root cause analysis will provide a pre-emptive and, therefore, proactive approach to risk management.

**2:30–3:20pm**

### **Reliability Improvement: What Works and What Doesn’t**

*John Crossan, Manufacturing Solutions International*

In this session, you’ll learn why reliability improvement efforts often fail to deliver ongoing results and several mechanisms that are keys to success. The speakers draw on their 70-plus years in industry (Clorox, General Mills, Kellogg, Johnson & Johnson, BP Amoco, Burndy, etc.) to explain in detail how safety, housekeeping, prod-

uct quality, equipment care and a permanent routine problem-solving/improvement process are the elements of an initiative that works

**2:30–3:20pm**

### **How Should You Manage Maintenance?**

*R. D. (Doc) Palmer, Richard Palmer and Associates*

In this session, Doc Palmer, author of McGraw-Hill’s Maintenance Planning and Scheduling Handbook, describes when the various methods of maintenance management are appropriate. When do you use direct supervision? When do you use KPIs? How is training related? When are procedures appropriate? Using the wrong control techniques at the wrong times frustrates and hinders success. Palmer illustrates and explains a framework for how the various mechanisms of maintenance control fit together. This is a good session for a beginner through advanced practitioner of maintenance management.

**4:30–5:20pm**

### **Word on Reliability: Teachings from a Life Spent in M&R**

*Richard Word, Catalyst Consulting & Reliability*

Richard Word, a 35-plus-year veteran of the maintenance and reliability field, provides this presentation, which he subtitled, “Reliability 101: Reviewing the What, Where, When, How, Who and Why of Reliability Methods, Techniques and Principles”. Richard draws upon his career with Whirlpool and General Electric and explains what you need to know in order to succeed in your reliability efforts.

**4:30–5:20pm**

### **The Importance of Alignment and Reliability**

*Philip McCarthy, PRUFTECHNIK Service Inc.*

Roll alignment is at the core of reliability. Ensuring proper roll alignment allows for better production, planning and cost-effectiveness, especially in regard to downtime. Your product depends on sound alignment. Your machine depends on true alignment. Your parts need solid alignment. Alignment greatly affects reliability, and a reliable process eliminates headaches, problems, waste and unscheduled downtime. Needless to say, good alignment saves time and money, which are two things that are crucial in today’s economy. There are several methods of alignment and it is important to know them and the differences of alignment methods.

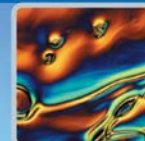
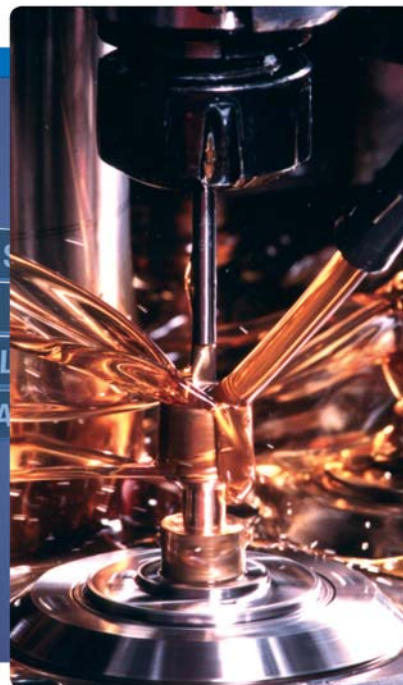
## **Thursday, September 3**

**8:00–8:50am**

### **Maintenance Goals: Three Simple Tools to Attain Engagement**

*Mike Gehloff, General Physics*

The most valuable resource within any maintenance organization leaves the facility at the end of each day. The challenge facing the leaders of these organizations is how to keep them engaged toward a common goal. This session will illustrate the use of three simple tools that can



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be used to focus the attention of personnel at all levels of the maintenance organization toward a common purpose. These three simple tools are annual improvement planning, visual management and accountability through the PDCA cycle. The session will give practical examples of the application of these tools within the maintenance process, as well as proven methods for motivating and engaging people through non-financial means. Attendees will gain the insight needed to leverage these techniques within their own organization in order to produce their own sustainable improvements.

**8:00–8:50am**

### Elements of Root Cause Analysis

*Andy Page and Bill Keeter, Allied Reliability*

With so many methods available for root cause analysis, it's easy to lose sight of its purpose. Too often, people spend more time learning the method and not enough time learning the concepts of RCA or the reasons for the analysis to begin with. This session will focus on the essential RCA elements that help keep the focus on identifying and eliminating all of the causes, especially the root cause. You'll learn the different roots, their effects and their telltale signs or markers that make it easier to identify which root you may be dealing with, making the entire RCA process much easier.

**9:20–10:10am**

### How to Build Contamination Control into Your Reliability Program

*Trigg Minnick, Des-Case Corporation*

Maintaining clean oil is one of the best investments a company can make, yet contamination often remains an overlooked factor behind premature machinery failure and diminished lubricant life. With increases in the cost of oil, increased desire to minimize usage and waste, and the need to prolong the life of equipment, the economic case for protection – from the time oil enters a facility until it leaves – is stronger than ever. This session will help you learn simple things to build into your reliability program that can pay big dividends – and how you can build a business case for your company's situation.

**9:20–10:10am**

### Zero Breakdown Strategies

*Terry Wireman, Vesta Partners*

The concept of zero breakdowns is derived from the zero defect philosophy in Total Quality Management. If zero defects can be a goal, why can companies not also achieve zero breakdowns? If Six Sigma quality can be achieved, can Six Sigma reliability likewise be achieved? This session details a straightforward five-step approach to achieving zero breakdowns. Each of the steps is presented in a format that will allow participants to make immediate application at their company.

**10:20–11:10am**

### Recruit, Train and Assess Your Maintenance Organization of Tomorrow

*David A. Crockett, CenTec Inc.*

Three factors have combined to create a brewing crisis for all manufacturers: the growing shortfall of skilled

workers, the accelerating number of retiring Baby Boomers and the burgeoning costs related to corporate human resource departments in the attempt to handle these issues. In this session, Dave Crockett will discuss how companies are addressing this crisis and provide a structured process to develop a more diversified maintenance organization for tomorrow. You'll learn how to set clear direction and objectives (where does the company want to go), define the strategy to get there (how does the company get there), define job roles and responsibilities (who is responsible for what), define desired results and track the progression (measurements), and recruit tomorrow's technicians today (aptitude).

**10:20–11:10am**

### Maintenance and Reliability Benchmarking

*Jerry Putt, Noria Corporation*

A self-administered benchmarking process is being developed by The Society for Maintenance & Reliability Professionals. The survey will align with the five pillars of knowledge within the Body of Knowledge as developed by SMRP and also features many of the metrics defined by the SMRP Best Practice Committee. This presentation will outline how the process was developed, how the document will be structured as well as some of the benefits a participant may expect from participation.

## Tuesday, September 2

11:00–10:50am

### Transform Your Company through Operational Excellence

*Bill Kimbro, Lean Enterprise Office, Kennametal Inc.*

Operational Excellence is a business condition desired by many executives. The journey a business takes toward this condition is one that requires a new age of leadership. Leadership begins by creating a safe environment that encourages employees to become leaders and leaders to become teachers and share learning through gemba walks. This discussion will be a reflection of lessons learned during Kennametal's 12-year journey toward Operational Excellence, reviewing our road map, and distinguishing what has and has not worked.

1:30–2:20p

### Lean's Inseparable Link to Reliability (and Vice Versa)

*Rich Hirsh, Novelis*

Normally when we think about the subject "reliability", our minds conjure up images of vibration analysis, infrared thermal imaging, preventive and predictive maintenance, and scheduled work outages. In the world of lean, similarly, people often think about the tools of kaizen, pull systems, kanban and value stream mapping. In this session, the presenters will explore how reliability and lean are inseparably linked and will go beyond the discussions of tools into how Novelis is building its "renewed" manufacturing company around these systems. Since 2002, Novelis was spun off from Alcan, acquired by Hindalco (India) and has endured the global economic downturn. During this period, the emphasis of the business has centered in the financial world, but as Novelis knows, it will be manufacturing excellence that will enable it to survive.

2:30–3:20pm

### Lean at Wausau Paper – A Comprehensive Case Study

*Terry A. Olson, Wausau Paper*

In this informative case study session, the presenters will share how and when they got started with lean implementation at Wausau Paper. They will share what they have done, the accomplishments that have been made and how they have used lean tools in areas other than operations. They will also explain how Wausau Paper has incorporated lean into its cost-savings efforts and outline the barriers that have been overcome.

4:30–5:20pm

### Accelerating MRO Continuous Improvement: Keys to Reducing Cost, Eliminating Waste and Adding Value

*Kevin A. Hartler, W.W. Grainger*

For most organizations, continuous improvement efforts originate in manufacturing- or production-related departments and are frequently associated with formal initiatives such as Six Sigma, lean manufacturing and/or Total Quality Management. However, increasing pressures to minimize expense and maximize effort at every level of an organization have driven the philosophy of continuous improvement into the area of maintenance, repair and operations (MRO). MRO supports an organization's primary activities by insuring its facilities, equipment and personnel perform at the optimal level of operations. Research conducted by Grainger indicates MRO offers a considerable opportunity for cost reduction, waste elimination and

risk mitigation. But adoption of a continuous improvement philosophy within MRO is challenged by the unique nature of material needs and process complexities. Organizations seeking to accelerate continuous improvement within MRO must ensure individual efforts utilize an approach capable of achieving the desired benefits.

## Wednesday, September 2

8:00–8:50am

### Why and How to Go Beyond Lean Six Sigma and the Balanced Scorecard

*Forrest W. Breyfogle III, Smarter Solutions*

In this session, you'll learn the best practices, common usages, advantages and issues in lean, Six Sigma and the use of the balanced scorecard. The relationship to business improvement efforts and Lean Six Sigma is built in a scenario called Integrated Enterprise Excellence (IEE). The IEE system combines the best practices of earlier tools and methods like Lean Six Sigma with innovative analytical techniques to drive financial and operational success at the enterprise level and achieve the three R's of business; i.e., everyone doing the Right things and doing them Right, at the Right time.

9:00–9:50am

### How You Can Apply Toyota's Zone Control System

*Sam McPherson, The Lean Leadership Academy*

The foundation of the House of the Toyota Production System is "Stability in the 4 Ms (man, machine, methods and materials)." Zone control is Toyota's little-understood territorial management system that provides machine-intensive operations the same breakthrough performance that cellular manufacturing provides assembly operations. Zone control is a "severe way", but it is the method for some companies to achieve basic stability in machine-intensive operations. During this session, lean enterprise transformation sensei Sam McPherson will share how to: organize your operations for zone control; organize zone control's "chain of responsibility"; organize the "chain of response" protocols; create zone leader roles and responsibilities; set progressive SMART goals for zones; and develop zone cadence management activities and zone leader standard work in support of zone control.

11:00–11:50am

### Curing the Firefighting Epidemic

*David Hicks, Auburn University*

First-line supervisors across the country spend as much as 90% of their workday in a "firefighting" mode. Dozens of mini-disasters keep supervisors running from problem to problem, interrupted only by meetings and paperwork. Even more disconcerting is the fact that many problems are repetitive. Hope is on the way for overloaded supervisors through proven techniques that make problems visible, stabilize the process, ensure effective training and develop improved methods. Using an integrated approach that involves workers, supervisors and technical departments, Hicks will provide a clear path for reducing defects, creating employee involvement and developing a stable basis for continuous improvement. Supervisors and managers from manufacturing, maintenance, engineering and support functions will all benefit from this proven approach.

1:30–2:20pm

### Impact Your Company's Bottom Line by Improving Process Changeovers

*Andrew Boger, NSK Corporation*

It's time to get back to the basics and focus on eliminating the waste in our manufacturing facilities. The cur-

rent state of our economy makes an effective lean strategy more important than ever. You could internally bail out your company during this financial crisis by eliminating wasted time during process changeovers. Time that is lost during a changeover is time that will never be recovered, and could be costing your company thousands of dollars ... dollars that could ultimately improve your company's overall bottom line and profitability. In this case study, you will learn how to overcome common challenges related to excessive changeover times by creating a systematic approach for standardizing changeover procedures, organizing changeover tooling, monitoring changeover times and improving changeover times.

2:30–3:20pm

### Accelerate Your Results by Utilizing Lean Sigma

*David Ward, Plexus Corporation*

Learn how Plexus, a company with facilities in five countries, combined separate lean and Six Sigma tools under one guiding philosophy to lead continuous improvement globally. Successes across multiple sites will be chronicled along with challenges specific to the Electronic Manufacturing Services (EMS) industry. The Plexus approach to development and deployment will be discussed along with specifics of deployment elements, including: 5S – deployment and management process; lean flow and focused factories – from push to pull; value stream management – the long-term goal; Lean Sigma health scorecard – measuring success; transactional Lean Sigma – Lean Sigma in the office; and supporting organizational structure – resources and steering teams. Plexus will talk candidly about the journey and give insight into the hurdles and successes throughout development and deployment processes.

4:30–5:20pm

### How to Use Lean Six Sigma to Rapidly Deliver Bottom-Line Impact

*Sandy Klaasse, Dynamic Business Solutions*

Why do you and other organizations pursue lean manufacturing and Lean Six Sigma? It's certainly not about the pursuit of the "perfect lean process"; it's about driving improved bottom-line performance for your business. And in today's challenging economy, more than ever, you need to rapidly deliver sustainable bottom-line results! How do you ensure that your Lean Six Sigma efforts are aligned with the strategic goals of the organization? How do you ensure that you are tactically executing with Lean Six Sigma principles to enable those goals to be achieved? And, how do you make sure that you are improving the right metrics, at the right pace, to deliver your business goals? This presentation will provide proven strategies for utilizing Lean Six Sigma tools and methodologies to achieve strategic business objectives and, most importantly, how to rapidly deliver sustainable bottom-line impact for your organization.

## Thursday, September 3

8:00–8:50am

### Policy Deployment & Lean Implementation Planning: A 10-Step Roadmap to Successful Policy Deployment Using Lean as a System

*Larry Rubrich, WCM Associates*

Lean is most effective in helping organizations improve when it is deployed throughout the organization as a "system." This presentation goes through the 10 steps toward integrating an organization's goals with lean and then deploying this "system" throughout the organization. The 10 steps include: Mission, vision and behavioral expectations; Organization's goals (operating income, cash flow, revenue,

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ROIC, safety, etc.); Brainstorm opportunities to achieve goals; Scope, value and prioritize opportunities; Rate and validate if opportunities will achieve company goals with available resources; Conduct a reality check; Develop lean implementation plan; Cascade company goals into operational metrics and develop "bowling" chart; Problem-solving, error-proofing and counter measures; and Deployment follow-up: How to conduct monthly business reviews.

**9:20–10:10am**

**Using Value-Added Flow Analysis to Zero in on Hidden Wastes:  
A Case Study with Results**

*Joseph Ziskovsky, Johnson Screens*

Value stream mapping gives you a good map of the flow, but it does not tell you what is value added or not value added in each process. VSM is system focused, a big picture, a tool designed to identify every step in an object's path across the entire system from the moment of order receipt to final product shipment. Value-Added Flow Analysis (VAFA) is a process-focusing tool that digs deeper into specific processes or functions. It allows you to follow and document every step, every minute of time used within a process. It forces the examination of every action or step that takes place in that process. VAFA is a focused and detailed value stream map that provides a 5-foot view. Johnson Screens uses both strategies. It is a great way to flush out all of the steps in a process and then define which steps add value and which ones are pure waste. The case study will focus on how the company's Wytheville, Va., facility used VAFA as a core tool during multiple kaizen events to bring an operation that was in the red to double-digit profitability in less than eight months.

**10:20–11:10am**

**Improvement Initiatives Live and Die  
with the Leadership**

*Doug Wilson, AbitibiBowater and Shon Isenhour, ABB Reliability Services*

Why do so many change initiatives fail to deliver long-term sustainability and the expected results? There are many underlining causes, but major improvement initiatives almost always live and die with the leadership. In this session, you'll learn the dynamics of successful and unsuccessful change and hear actual examples from various facilities and implementations to demonstrate the points. An adaptation of the Circle of Influence from Steven Covey's "Seven Habits of Highly Effective People" will be used to explain some of the leadership team dynamics that will affect your change initiative's profitability. You'll also take home the three key change elements that must be incorporated early and thoroughly to increase the probability of your success.

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### Tuesday, September 2

11:00–10:50am

#### Energy Reduction as a Core Component of Cost Reduction

*Jerry Oshaka, PPG Industries Inc.*

In this session, you'll learn how PPG Industries secured management support and then designed the implementation process for their position on energy sustainability and climate change, followed by the creation of, and commitment to, energy reduction goals. PPG's strategy for energy reduction as a core component of cost reduction will be discussed in detail.

1:30–2:20pm

#### Reducing Energy and Emissions Saves Navistar Money

*Terry Sexton, Navistar*

As part of Navistar's sustainability initiatives, and to prepare for a "carbon constrained" future, Navistar developed internal energy conservation and greenhouse gas reduction goals in 2008 for its manufacturing facilities. Using the 2008 monthly energy consumption intensities as a baseline, facilities are challenged to annually reduce electricity consumption intensity during production periods and non-production periods between 2009 and 2013. Meeting the stated goals will reduce energy consumption, reduce greenhouse gas emissions and generate potentially millions in savings by the end of the fifth year. Simply setting energy and greenhouse gas reduction goals also can be a challenge. Should you utilize absolute values or normalization factors? What tracking mechanisms should be used? The tracking and reporting mechanisms and the action plan chosen by Navistar to meet such goals are discussed in detail in this presentation. An essential part of the action plan involves the successful use of a \$2 million "Energy Fund" for energy capital projects. A review of the journey to an approved, stand-alone energy fund also will be discussed.

2:30–3:20pm

#### Cutting Energy Costs with Airborne/Structure-borne Ultrasound

*Mark Goodman, UE Systems Inc.*

According to the U.S. Department of Energy, industry consumes one-third of the energy produced in the United States. Compressed air and steam are two of the most costly utilities; add to this the cost of inefficient motors and pumps, and the typical energy bills climb. Ultrasound technology is ideally suited to identify sources of energy waste and to improve asset availability through a comprehensive condition monitoring and energy conservation program. This presentation will review the basics of airborne/structure-borne ultrasound technology and how it is used to locate costly leaks in compressed air and steam systems. Strategies for conducting energy leak surveys along with methods of recording, analyzing and reporting results will also be discussed.

4:30–5:20pm

#### Optimized Boiler Package Evolves from the Super Boiler

*Earle Pfefferkorn, Cleaver-Brooks Package Boiler*

Cleaver-Brooks, in partnership with the U.S. Department of Energy and the Gas Technology Institute, developed the world's first Super Boiler. Roughly 40%, or more than 80,000 firetube boilers in the marketplace today, are more than 25 years old. The vast majority of these units are operating well below today's efficiency standards. The energy and emissions savings potential is significant when weighing the cost/price alternatives ranging from complete boiler replacement to retrofittable energy-saving options. This session will outline the history of the Super Boiler project, examine the efficiency/fuel and emission savings, and detail future developments of the project.

### Wednesday, September 2

8:00–8:50am

#### How Toyota Facility Became a Zero-Landfill Site

*Jef S. Friedman, Toyota Motor USA*

Toyota's Cincinnati Parts Distribution center is a 200,000-square-foot warehouse that receives and ships more than 12,000 line items daily. This facility warehouses service parts and accessories that are sent to 125 facing dealers in Michigan, Ohio, Kentucky, Tennessee and Southern Indiana. The facility has approximately 38 warehouse associates, 10 management/professional staff and 90 regional sales associates in an adjoining building. Prior to 2007, the facility had its 42-cubic-yard dumpster picked up about every three weeks and taken to the Mt. Rumpke landfill. The site investigated the alternatives to landfill and came up with incineration. Now, all waste is either recycled or incinerated; nothing is sent to the landfill. This session will share Toyota's methodology and game plan toward physical waste reduction and resource optimization. By following this model, your plant can reduce its environmental impact and attain production and cost benefits.

9:00–9:50am

#### Optimize Asset Performance at the Least Energy Cost

*Rod Ellsworth, INFOR*

Did you know that you can integrate energy demand management with asset management at your plant or facility to help maintain and extend the life of your assets by reducing your overall energy consumption? An energy and carbon management strategy combined with enterprise asset management functionality will let you identify, optimize and automate proactive maintenance, comparing both the asset performance and its energy usage across your enterprise. Numerous companies such as a high-profile paper manufacturer and a Tier 1 automotive manufacturer have integrated energy into their maintenance strategies and have reduced energy consumption by a minimum of 6 percent, consequently reducing their carbon emissions. In this session, you'll learn the strategy to improve the operational, financial and environmental performance of your assets while preserving capital and lowering energy costs.

11:00–11:50am

#### Save Big Bucks, Big Energy with Reliability Excellence

*Darrin Wilkoff, Life Cycle Engineering*

Reliability Excellence is the foundational step necessary to stabilize performance and remove variation. Practices aimed at improving reliability can pay big dividends in striving toward sustainability success. Regularly monitored and well-maintained equipment can save energy, increase uptime, drive profitability and advance core sustainability objectives. Armed with robust reliability systems, you can ensure sustainability of both manufacturing and the environment while saving big money that would have otherwise been lost on energy and waste. This presentation will show you how companies have successfully reduced energy and disposal costs through a focused effort on manufacturing process reliability.

1:30–2:20pm

#### Maintenance, Reliability and Transforming Waste into Green Energy

*Allan Trout, Wheelabrator Technologies*

This session will demonstrate how Wheelabrator Technologies transforms waste materials such as municipal solid waste (MSW), tires, wood chips and culm into green energy. This is energy in the form of steam and electricity that can be used to power homes and businesses and help

reduce America's dependence on foreign oil and fossil fuels. The presentation will also explore the ways good maintenance and reliability practices enable the green operation of the Wheelabrator facilities. This will include a discussion of the predictive and preventive maintenance methods and procedures used to monitor equipment condition and the key performance indicators and reports used to evaluate compliance to established maintenance goals.

2:30–3:20pm

#### Saving Energy & Earning Revenues through Regional Demand Response Programs

*Gregg Dixon, EnerNOC Incorporated*

Industrial facilities universally struggle with escalating energy costs. Today's energy crisis has led to rising peak demand, creating unprecedented challenges such as uncertain grid reliability and an increased risk of blackouts and brownouts. EnerNOC will demonstrate how commercial, industrial and institutional end-users can capitalize on regional demand response programs with no cost and no risk. Demand response, the voluntary reduction of electric demand in response to grid instability, provides financial incentives to participating facilities that agree to conserve energy. It acts as a cornerstone to total energy management, enabling facilities to optimize their energy consumption and make a sustainable impact on their energy bills. With demand response, facilities receive advance notice of potential blackouts and can proactively protect their equipment and machinery from sudden losses of power. Demand response is then put into action through simple and easy-to-perform load curtailment, backup generation, and/or a combination of the two.

4:30–5:20pm

#### Proven Strategies to Manage Energy Use in Buildings

*Kurt W. Paulus, Trane*

In this case study, you'll learn the energy management strategy that Ingersoll Rand employed in its Residential Systems facility in Tyler, Texas. The strategy is expected to net \$1.1 million in recurring annual energy cost avoidance for the next eight years. The analysis process and how the energy management program was implemented, including policy decisions, behavior changes, process changes, replacement projects, and improved operations and maintenance practices will be discussed.

### Thursday, September 3

8:00–8:50am

#### A Dynamic New Approach to Energy Management

*Christopher Russell, Energy Pathfinder Management Consulting*

Virtually all facilities have potential energy savings, and energy engineers can prove it. After the technology is settled, the budget and spending debates begin. For many organizations, energy performance depends more on money issues than on technical feasibility. Energy managers should be prepared to demonstrate the money impacts of energy improvements if they want to win greater organizational support for their initiatives. A strong justification addresses more than "payback." In addition to project cost, show how much it costs to reject a project. Show a break-even cost, which is the most that should be paid, given the facility's investment criteria. Provide a cost-benefit criterion that compares the cost to save vs. the cost to buy energy on a per unit basis. This discussion provides a dynamic new approach to capital budgeting and project justification.

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9:20-10:10am  
**SKF's Inside/Out Approach to Energy and Sustainability Management**

Mike Roberts, SKF

SKF's approach to energy and sustainability has five easily identifiable features, all essential in achieving its goals: commitment to a specific, quantifiable goal for CO2 reduction, identification and empowerment of facility energy "champions", comprehensive assessment of energy and sustainability status, visible project and program execution, and monitoring and tracking results. In this session, you'll learn how SKF executed this strategy in its plants, and hear a summary of the results of company assessments, the programs that have been initiated and the results achieved. Specific examples in the areas of employee awareness and compressed air system monitoring will be described.

10:20-11:10am  
**Improving Energy Efficiency and Productivity in Steelmaking**

Lawrence Boyd, Energy Industries of Ohio

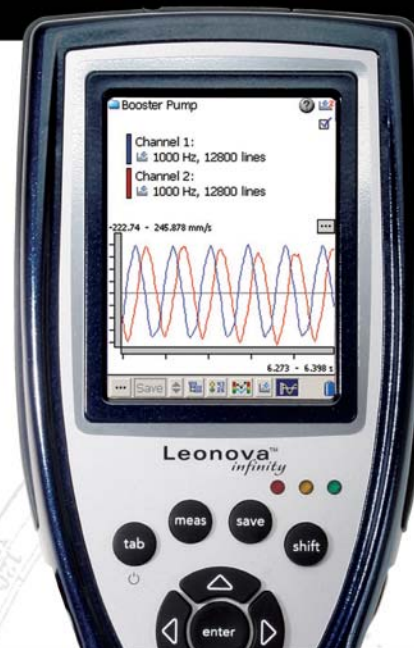
Energy Industries of Ohio (EIO) conducted a project titled "Improving the System Life of Basic Oxygen and Electric Arc Furnace Hoods, Roofs and Side Vents" under a U.S. Department of Energy grant at Republic Engineered Products, North America's leading supplier of special bar quality steel. This effort, which began in mid-2002 in that company's Basis Oxygen Shop, resulted in a 98% reduction in maintenance needs, saved energy and improved productivity. The equipment installed in this project recently surpassed 10,000 melting cycles, whereas the old design would have been replaced four times by now. Estimates on the remaining life of this equipment suggest that it may be in service for as long as 21,000 heats. This presentation will review the results of this project and its benefits to steel makers.

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## Tuesday, September 2

11:00–10:50am

### The Components for Creating an Ideal Electrical Safety Program

L. Rene' Graves, Texas Instruments

This presentation will discuss the steps you need to follow to create an exemplary team. This team will be responsible for initiating and accountable for implementing an ideal electrical safety program. The foundation for the success of this team will be demonstrated in this presentation by using an existing process model. The presentation will also discuss the collaborative benefits your company will experience as a result of the composition of this team.

1:30–2:20pm

### Honda's People-Based Approach to Safety

Joe Cicero, HR and Safety Resources LLC

This session will feature a case study on how Honda has approached health and safety in the same mind-set as it approaches manufacturing excellence by using the company's principles and operating priorities. Safety, Quality and Production are all partners in its everyday thinking and operations. Honda is committed and believes that every job must be performed safely at all times. And, it will conduct its operations with the highest regard to associate safety by continually improving the safety management system based on factual analysis, the leadership of management and the involvement of associates. At the conclusion of this session, it will be apparent that the success of safety is a holistic approach that works best when everyone is involved.

2:30–3:20pm

### NFPA and its Implications on Thermographic Inspections

Martin Robinson, IRISS Inc.

NFPA has had far-reaching impact on improving the safety of electrical equipment and establishing safe work practices, not only in the United States but throughout the world, where the standards are adopted in part or in whole. Companies looking to improve profitability, uptime and safety should study the recommendations in the NFPA 70B Standard for Electrical Preventive Maintenance. To further bolster safety and reduce risk to plant and personnel, the standard is all but required reading since OSHA regulators carry a copy of it with them as a reference for electrical safety in the workplace. IR windows will help companies to comply with standards and speed inspection time while improving the safety of thermographers as well as plant assets and processes.

4:30–5:20pm

### Best Practices in Pneumatics and Safety Systems

Eric O. Cummings, Ross Controls

A tremendous amount of time and effort has been allocated to creating and implementing processes that result in safe and effective lockout programs. The other side of lockout is the alternative measures that are used for issues that are routine, repetitive and integral to production. Pneumatics plays a critical role in machine function and, therefore, in lockout procedures and alternative measures. In this session, you'll learn the requirements, options and best practices that are occurring with respect to pneumatics and safety systems, and how to improve issues that are routine, repetitive and integral to production.

## Wednesday, September 2

8:00–8:50am

### Success Factors for Reliability & Maintainability: An Ergonomic Perspective

Klaus M. Blache, University of Tennessee

– Reliability & Maintenance Center

Process reliability is the probability that a process will operate as specified (without failure) for the specified period of time and under the stated conditions. This has implications to the equipment, the people involved, how they interact, and costs related to both. One of the key enablers of success in this entire process is the human factor. The reliability process, regardless of the type of industry, needs to be properly integrated with the people process for sustainable success. Discussed will be why ergonomics is important to safety, quality, throughput and cost. Also, included will be a review of ergonomic enablers for reliability/maintenance success, ergonomics and maintainability, and key learnings.

9:00–9:50am

### Boiler and Combustion Safety: What you Don't Know can Kill You!

John Puskar, Combustion Safety Inc.

Between 1999 and 2009, industrial plant explosions claimed more than 100 lives and caused numerous injuries in the U.S. alone. Many of these tragedies could have been prevented with proper combustion safety precautions. In this session, you'll learn the top 10 issues relating to combustion equipment safety as well as key lockout, tagout and verification issues involving natural gas and fuels. This session will also cover important natural gas lockout and tagout issues.

11:00–11:50am

### OSHA Regulations and Other Trends Changing Safety & Health Practices

Mary Beth Parker, W.W. Grainger

The Obama Administration has already made an impact on OSHA, changing its focus from cooperation and consultation to enforcement. The year 2011 will probably see the most standard-setting activity by OSHA in recent history. Also, by the year 2014, the number of people aged 55 and older is expected to increase by 49%. This older population will represent 21% of the civilian labor force, up from 15% in 2004. It is critical for manufacturers to understand how these trends will affect safety and health practices in the future. This presentation will cover what regulatory changes may be on OSHA's list of top priorities and what you should do now to prepare, including combustible dust, silica exposure, recordkeeping and ergonomics. Additionally, as the workforce ages, you'll learn what accommodations you will need to make in your environment to make sure it remains safe for all. Attend this session to understand the future of safety and health.

1:30–2:20pm

### Fusing Reliability and Process Safety Information: A Recipe for Success

Nick Revelas, AVEVA Inc.

It is getting harder each and every day to manage the sheer amount of data in our facilities, let alone transform that into actionable information. Today's reliability professionals are challenged to gather, interrogate, troubleshoot and fix process problems to improve operational

performance. This is coupled with the ever-growing importance of Process Safety Management (PSM), which is vital to a safe, reliable and profitable facility. In this session, the presenter will highlight the clear business value in fusing engineering, operations, reliability and process safety data together to enable today's professional to make timely and accurate decisions on a solid foundation and not one on shifting sand.

2:30–3:20pm

### Using Visuals to Drive Continuously Improving Safety Performance

Chris Rutter, Brady Corporation

Visuals such as safety signs, hazardous substance labels and lockout tags have always played an important role in promoting worker safety and regulatory compliance. But the adoption of visual workplace concepts within the lean manufacturing movement has led to an even clearer understanding of the critical role that visuals play in simplifying training, stabilizing the work environment and sustaining continuous improvement. When applied to workplace safety programs, these new visual techniques help to alleviate the ever-growing training requirements that result from a high-turnover, less-experienced workforce. Visuals also promote adherence to "best practice" safe work procedures, and facilitate the detection of potential hazards before they become a danger. In short, visuals help to sustain ever-improving safety performance. In this presentation, you'll learn how to use visuals to streamline your EHS program while reducing accident and injury rates, improving employee morale, and assuring regulatory compliance.

4:30–5:20pm

### PdM Integration for Electrical Distribution Safety and Reliability

Dale P. Smith, Predictive Service

Electricity is one of the safest and most versatile utilities available. Even so, we are experiencing an increase in electrical system failures and fires, arc flash incidents, injuries and deaths. Predictive maintenance (PdM) technologies such as infrared, ultrasound, motor circuit testing and transformer oil analysis serve as early warning tools and add layers of protection to facilities and personnel by monitoring assets' condition, performance, potential failure modes, and providing information for risk and safety mitigation strategies. In this session, you'll systematically walk through an electrical distribution system and review equipment-specific risk exposures, insurance and industry loss data, examples of real failures, applications of PdM technologies, and the use of key performance indicators (KPIs).

## Thursday, September 3

8:00–8:50am

### Worthington Steel Got Safe, and So Can You!

Ryan Lamb, Worthington Industries

In just one year, Worthington Steel's 185 employees in Delta, Ohio, decreased the plant's number of injuries from an average of more than 10 per year to zero, including a record 561 days injury-free. In this session, a safety leader from Worthington Industries will share details on implementing and sustaining the company's Safe-Works safety management program that has created a

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culture in which employees across the company now expect to finish each month with zero injuries. See what it took to virtually eliminate workplace injuries at WS Delta, including volunteer safety councils, a rigorous injury-reporting process and gaining buy-in from employees at all levels, from operator to senior executives.

9:20–10:10am

**Best Practices for Leak and Spill Control**

*Beth Powell and Tim McMillen, New Pig Corporation*

Companies have to protect employees, company assets and the environment. Working within this triangle of responsibility can be difficult, at times. When you work with liquids, however, the stakes can be much higher. If you have oil, flammables or other hazardous liquids in your plant, multiple regulations apply. This presentation will provide an overview of the most common areas of concern throughout the plant and provide the best practices to comply with OSHA, NFPA and EPA regulations. Stormwater regulations and the recent SPCC revisions will be covered as well.

10:20–11:10am

**Enforcement Update: An Interactive Session with OSHA**

*Deborah Zubaty, Occupational Safety and Health Administration*

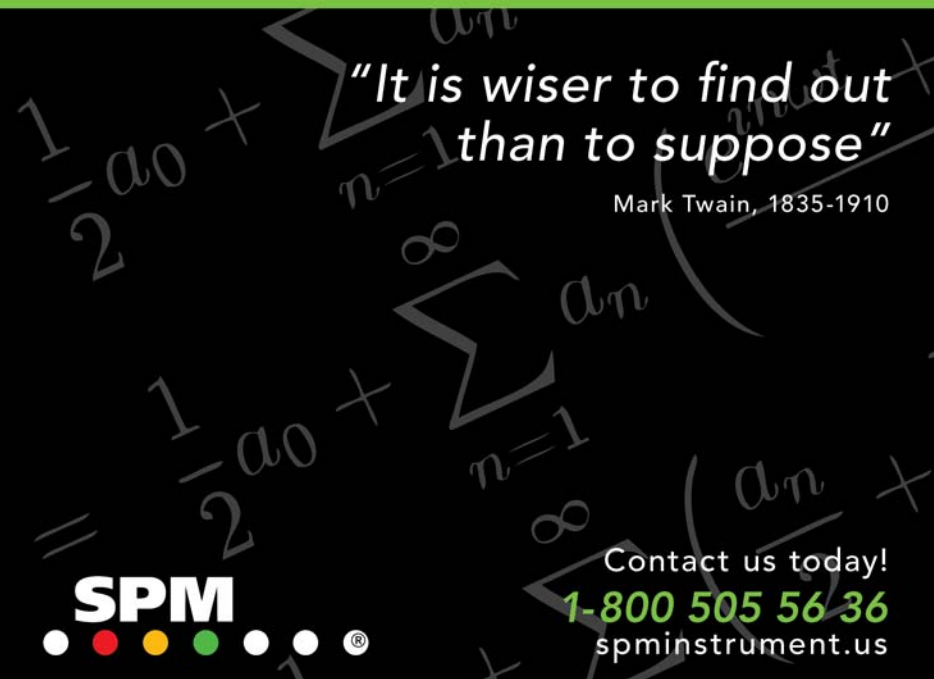
The director from OSHA's Columbus Area Office will review significant findings from enforcement actions within the past year and examine fatality trends that are affecting workplaces in Ohio and neighboring states. She will also provide program updates on the agency's existing enforcement programs and plans for future initiatives, including new focus areas for enforcement programs, cooperative programs and compliance assistance.

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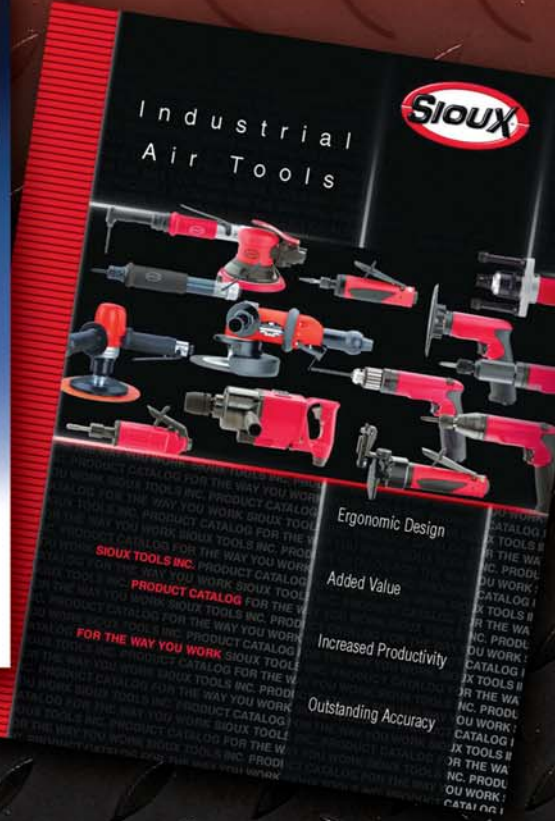
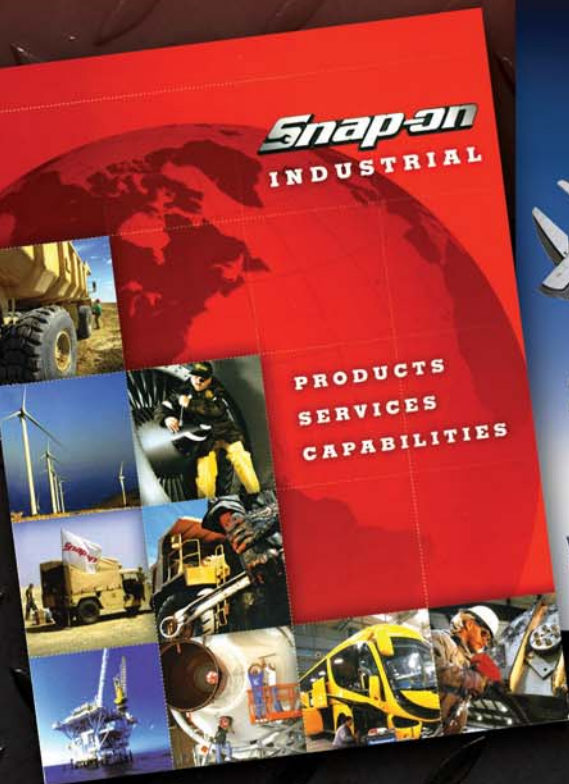
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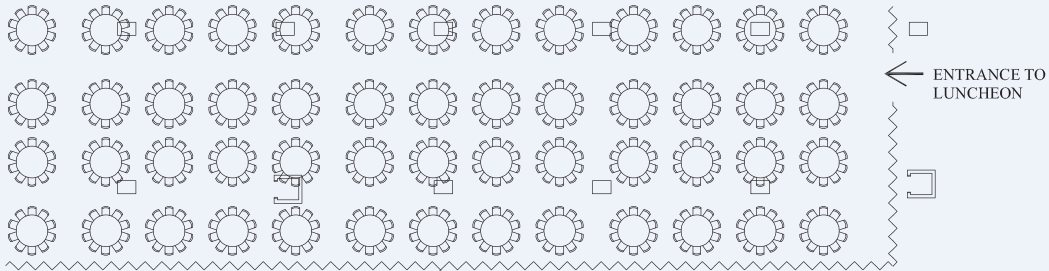
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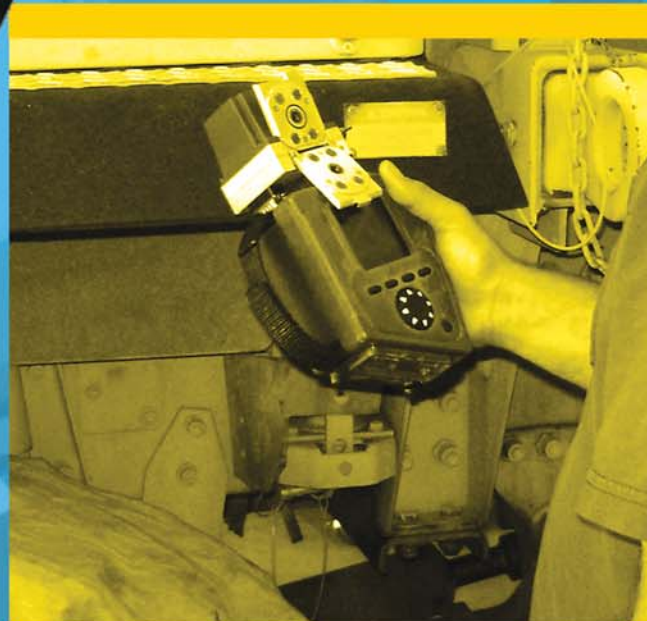
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