

Condition Monitoring II: Infrared Thermography, Oil Analysis, Motor Condition Assessment, and Ultrasonic Noise Inspection

*Learn how to monitor your equipment with the right technology
and prevent breakdowns before they happen.*

What You Can Expect From This Seminar

This seminar lets you examine four industry-proven condition monitoring technologies and determine how they fit into your industrial-maintenance program. You'll learn the use, capabilities, and limitations of each technology or monitoring approach. You'll see demonstrations of sample technologies and study options, tradeoffs, and expected costs. You'll leave the seminar with the expertise to select the right technology for the job, and you'll be able to make informed decisions about the condition monitoring approach that will benefit you most in your quest for improved reliability.

– **Albert M. Rose, Seminar Leader**

Seminar Content

DAY 1 AM

- Condition monitoring fundamentals
- Motor fundamentals
- Motor functions/failure modes
- Condition monitoring for small- and medium-sized motors: emphasis on electrical circuits
- Technology benefits/limitations
- Approach options; expected costs

DAY 1 PM

- Why perform machinery oil/fluid analysis
- Oil characteristics
- Tests and expected results
- On-site screening options
- Laboratory capabilities
- Benefits/limitations of oil/fluid analysis
- Expected costs

DAY 2 AM

- Heat-transfer and temperature-measurement fundamentals
- Temperature-monitoring devices
- Physics of radiation
- Infrared thermography
- Technology benefits/limitations
- Emissivity
- Instrument characteristics

DAY 2 PM

- Infrared inspections: qualitative vs. quantitative
- Industrial applications: electrical, mechanical, and structural
- Infrared approach options; expected costs
- Ultrasonic noise detection; industrial use
- Instrument characteristics; expected costs
- Group discussion: potential condition monitoring applications

Who Should Attend

Anyone considering condition monitoring technologies, including craftspeople, engineering managers, engineers, maintenance supervisors, and production managers; and those involved in reliability/maintenance improvement.

How To Get the Most From This Seminar

Be prepared to discuss plans for condition monitoring at your plant.

About the Seminar Leader:

Albert M. Rose is a consultant specializing in developing and implementing effective maintenance programs. He developed and managed the Predictive Maintenance Program at the Kennedy Space Center, which saved the agency \$2 million in the first two years. He also helped develop the space center's Reliability-Centered Maintenance program.