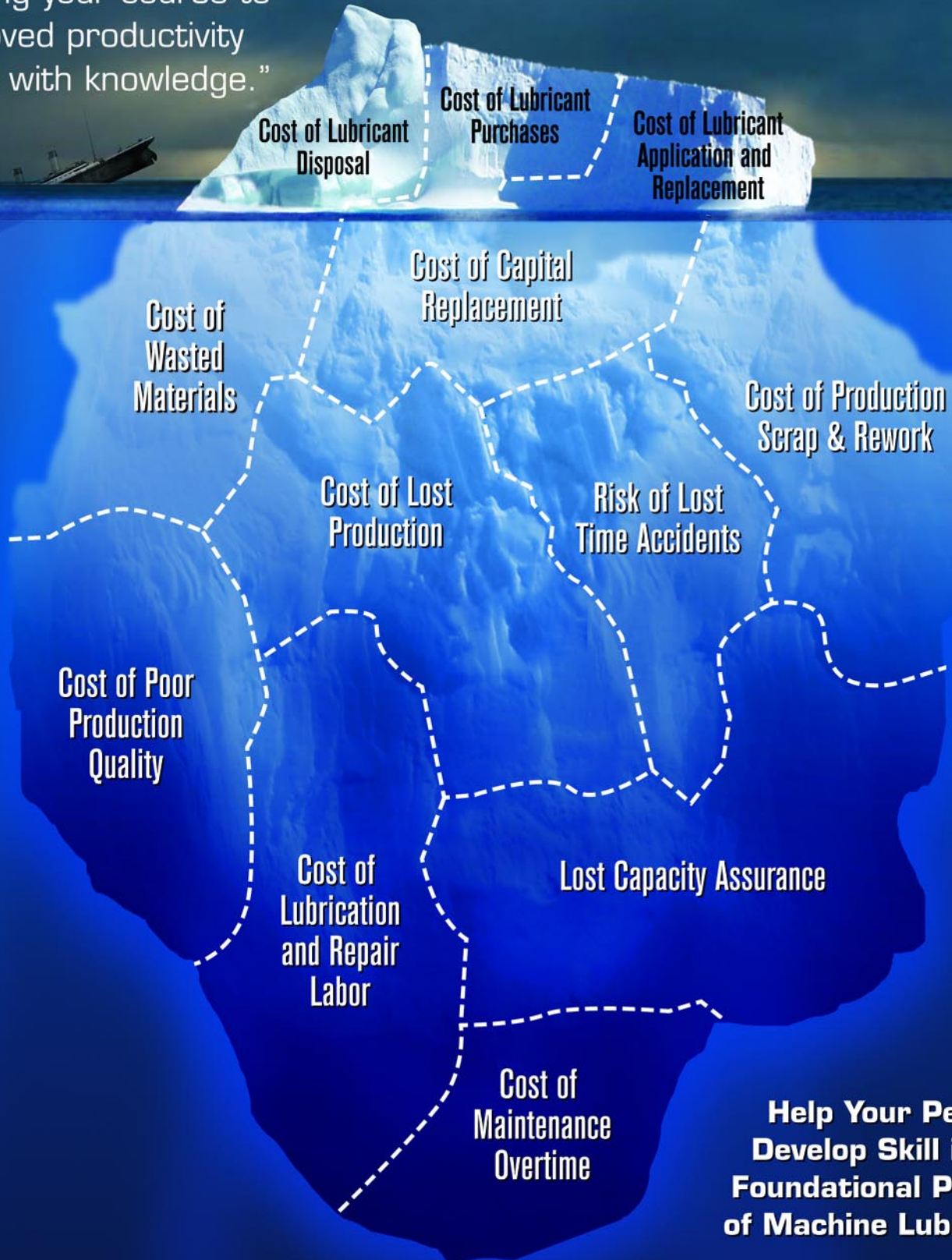


The Real Cost of Poor Machine Lubrication Lies Just Below The Surface!

“Charting your course to improved productivity begins with knowledge.”



**Help Your People
Develop Skill in the
Foundational Practice
of Machine Lubrication**

See Inside...



3-Day

Precision Lubrication Training Seminar

REGISTER TODAY!
Baltimore: August 24-26, 2010

If you have any of the following equipment, you should attend this course:

- Blowers/Fans
- Compressors
- Gas turbines
- Gearboxes
- Hydraulic systems
- Motor bearings
- Paper machines
- Process pumps
- Rolling mills
- Steam turbines

Who should attend?

- Equipment Operators
- Lubrication Technicians
- Lubrication Engineers
- Machine Reliability Technicians
- Equipment Operators
- Maintenance Managers
- Maintenance Supervisors
- Reliability Engineers
- Operations Managers
- Oil Sampler

Customers who have benefited from seminar:

- Anhueser-Bush Inc.
 - Bower Paper Inc.
 - Buzzi Unicem USA
 - Citgo Corporation
 - Coors Brewing Company
 - Electric Energy, Inc.
 - General Physics
 - Georgia Pacific
 - Getrag
 - Irving Tissue
 - Kimberly-Clark
 - McCain Foods
 - Mosaic Incorporated
 - Rayonier Paper Co.
 - Suncor
 - Sunocco
 - Valero Refining
- and more...

Do you arrive at your site each day and first check to see what failed during the night?

Do you arrive each day expecting that the work that is planned will be replaced by the tyranny of the moment?

Does the term 'Daily Grind' have real meaning for your lubricated machines?

In the modern hyper-competitive manufacturing environment even highly efficient organizations must figure out how to do more work in less time. With the current, and escalating, labor short-fall, the struggle to 'cover all of the bases' will intensify. One obvious option is to limit the size and scope of machine care, but accomplishing this without sacrificing reliability requires both **advanced knowledge** and **practical expertise**. A better option is to improve machine health by implementing *Precision Lubrication Practices*.

In this course maintenance personnel will consider the impact that high quality lubrication practices can have on machine health and reliability. Managers, Engineers and Technicians will see why machine lubrication activities should move from 'something that must be done' to 'The Leading Edge of Machine Reliability', and will begin to understand how to transform the existing lubrication program from modest and reactive to thorough, accurate and proactive.

Gain control over the lubrication process and you will begin to gain control over your daily routine.



Course Outline

Precision Lubrication and Machine Management Strategies

- Traditional Equipment Maintenance Strategies
- Modern, and Future, Maintenance Strategies
- Machine Lubrication Practices for each Strategy
- The Concept of Precision Lubrication
- The Role of Lubrication in Machine Reliability

Applied Tribology: The Science of Precision Lubrication

- Friction, Motion, Lubrication, and Wear
- Surface Interaction Modes – Sliding and Rolling
- Surface Damage: Abrasive, Adhesive, Cavitation, Corrosion
- Lubricants, Lubricant Films and Surface Protection
- Stribeck Curve – Phase Changes

Lubricant Construction

- Lubricant Categories
- Base Oils
- Additives
- Thickeners

Performance Properties

- Oil Performance Criteria
- Grease Performance Criteria
- Loss of Additive Performance

Lubricant Selection Practices

- Bearings
- Gearing and Couplings
- Hydraulics
- Compressors
- Turbines
- Wire Rope, Chain and Miscellaneous
- Combustion Motors

Lubricant Application – Grease

- Dispensing Tools
- Dispensing Metrics – Frequency and Volume
- Automation
- Practice for Maintaining Automatic Systems

Lubrication Application – Oil

- Dispensing Tools

Lubricant Condition and Contamination Control

- Sump Management: The Heart of Precision Lubrication
- Types of Contaminants
- Contaminant Exclusion
- Contaminant Removal

Lubricant Storage and Handling

- Lubricant Consolidation
- Bulk and Packaged Product Receipt and Storage
- In Plant Handling Management
- Lubricant Handling Tools
- In Plant Handling Management

Introduction to Oil Analysis

- Lubricant Sampling Tools and Methods
- Properties Analysis
- Solid Contaminant Analysis
- Wear Debris Analysis
- Test Slate, Alarms and Limits Development





3-Day

Precision Lubrication Training Seminar

Registration Policy

REGISTER NOW! If your schedule changes, you may attend a different seminar or send a substitute at no charge. Cancellations received up to 14 calendar days before the seminar are refundable. After that, seminar fees will be credited to your account for use at another seminar.

Seminar Schedule

All sessions are scheduled from 8:00 am - 4:00 pm. A continental breakfast is provided as well as coffee and beverages. Lunch is from 12:00 pm - 12:45 pm and is included in the seminar fee.

Hotel Accommodations

Suggested hotels for each location are listed at the right. Please make your reservations directly with the hotel. Hotel accommodations are not included in course fee. Be sure to register under the Precision Lubrication group.

Test Preparation

This course provides pre and post comprehensive preparation exams that are similar in length and structure to ICML's examination. Also, fill in-the-blank quizzes will be distributed following each completed section to help students verify and improve material comprehension.



Ways to Register:

Call Us 615.771.6030

Fax Us *Fill out this form and fax to:*
615.771.6030

Mail Us *this form with payment to:*
AMRRI
3978 East McEwen Drive
Franklin, TN 37067

Please Print

Name: _____

Title: _____

Company: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____

Fax: _____

Email: _____

Payment Information:

- Check Inclosed: Payable to **AMRRI**
- Register Online: **www.PrecisionLubrication.com**
- Invoice My Company - Attn: _____
- Credit Card: MasterCard Visa

Card # _____

Name on Card: _____

Signature: _____

Certification Available



The International Council for Machinery Lubrication (ICML) will conduct Level I Machine Lubrication Technician (MLT I) certification testing on the morning following the Precision Lubrication Training course from 8:00 am - 11:00 am. The testing will occur at the Admiral Fell meeting room. Certification is available to anyone for any of the certifications, but this must be arranged in advance with ICML.

ICML requires a minimum of two years post secondary education or on-the-job training, plus at least 16 hours offormal training in machinery lubrication in order to test for MLT I. Qualified candidates interested in testing for certification should contact ICML directly at 918.259.2950 or view the website (www.lubecouncil.org) for more information, or to register for examination. The exam fee is \$200.

3-Day Seminar: \$999
Baltimore: August 24-26, 2010

Group Rates
Group rates are available for three or more students from the same organization. Please call 615.771.6030 for more details.

Hotel Information
 ■ **BALTIMORE: Admiral Fell Inn**
 888 South Broadway
 Baltimore, Maryland 21231
866-583-4162

Register Online at:
www.PrecisionLubrication.com/
Online Purchases/Public Seminars

3-Day Seminar: \$999
(Multi-person discount is available; Contact AMRRI at 615.771.6030 for more details)