ASSET PERFORMANCE MANAGEMENT

ISO 18436-4 CATEGORY I MACHINE LUBRICANT ANALYST (MLA I)

As a basic training on machinery lubrication and lubricant analysis, this course covers fundamental concepts including lubricating oil, grease, lubricant storage and handling, lubricant application, filtration, and lubricant analysis. Additionally, this training prepares learners for the ICML Machine Lubricant Analyst Level I (MLA I) certification exam.

Format

Duration: 28 hours **Schedule:** 4 Day(s) **Delivery:** Classroom

Who should attend

- Maintenance engineers and technicians
- Reliability engineers
- Condition monitoring professionals
- Lubricant analysts and engineers

Objectives

- Learn the fundamental concepts of machinery lubrication.
- Learn the fundamentals concepts of effective of oil sampling.
- Learn the basics of lubricant analysis and result interpretation.
- Understand the importance of lubricant analysis in machine reliability.
- Prepare for ICML Level I Machine Lubricant Analyst: MLA I (ISO 18436-4, I) certification exam.

*ICML Partner

4 days ILT (28 hours) +1 day for the ICML exam

Required Prerequisites

12 months of experience in lubricant analysis–based condition monitoring.

Program Outline

Day 1:

- Maintenance strategy and machine failure
- Tribology and functions of lubricants
- Lubrication regimes (HD, EHD, mixed)

- Base oils, additives, oil & grease fundamentals

Day 2:

- Viscosity, base oil & additive selection
- Machine-specific lubricant requirements
- Environmental & application adjustments
- Lubricant application methods
- Oil vs grease, quantities & relube intervals

Day 3:

- Manual and automatic lubrication
- Single-point & centralized systems
- Lube storage, handling & safety.
- Selection, operation & basic maintenance

Day 4:

- Contamination & filtration control
- Filtration system selection
- Oil sampling practices
- Lubricant health monitoring & testing
- Viscosity, Viscosity Index, Acid Number (TAN)
- Base Number (TBN), FTIR, RPVOT, Elemental Analysis
- Wear debris monitoring

Day 5 Exam

ICML Exam: The certification exam consists of 100 multiple-choice questions administered over three hours. A score of 70% is required to pass.

CERTIFICATION

ICML

ISO Certification

Global Partner: International Council for Machinery Lubrication (ICML)