SYMPOSIUM ON FIRE RESISTANT FLUIDS

Sponsored by ASTM D02.N06 Fire Resistant Fluids

June 24, 2103
Fairmont Q.E. Montreal
Montreal, QC

Symposium Co-chairs: John Sherman
BASF Corporation
Canton, MI, USA

Betsy Butke
Lubrizol Corporation
Wickliffe, OH, USA

About the Symposium
Fire is a major hazard in many industrial, transportation and military applications. Fire-resistant fluids are an essential component for the safe operation of systems in these applications where there is a risk of fire. The purpose of this symposium is to hold a technical forum for papers related to fire-resistant fluids and their development, testing, classification, regulation, application, use and monitoring. The fluid types discussed in the papers to be presented include polyalkylene glycol, phosphate ester, water glycol and thickened high water hydraulic fluids and fire-resistant diesel fuel. Topics presented in the papers include test methods for evaluation of fluid fire-resistance, properties, performance, contamination and purification of fire-resistant fluids. Those who should attend include:

- Original manufacturers of any stationary system or mobile vehicles that use fire-resistant fluids.
- Suppliers and formulators of fire-resistant fluids.
- Original manufacturers of hydraulic components used in stationary system or mobile vehicles that use fire-resistant fluids.
- Testing laboratories that test fire-resistant fluids.
- Research scientists and engineers of systems and components for stationary and motive systems requiring fire-resistant fluids.
- Major users of stationary or motive equipment that use fire-resistant fluids.

The language of the symposium will be English.
MONDAY, JUNE 24, 2013

8:00 AM
Opening Remarks
J. Sherman, Symposium Co-chair

8:05 AM
Keynote: A Structured Approach to the Selection of Hydraulic Fluids
S. F. Jagger, Health & Safety Laboratory, Health & Safety Executive, Harpur Hill Buxton, UK

8:45 AM
Evaluation of Fire Resistance of Industrial Fluids
C. A. Spencer, FM Approvals, West Glocester, RI, USA

9:10 AM
Using the Soaked Cube Fire Test for Comparing the Thermo-Oxidative Stability of Hydraulic Fluids
E. W. Burkhardt and A. Mustafaj, ICL Industrial Products, Ardsley, NY, USA

9:35 AM
Phosphate Ester-Based Fluid Specific Resistance: Measurement, Effects of Outside Contamination and Improvement Using Novel Media
M. G. Hobbs, and P. T. Dufresne, EPT, Calgary, Alberta, Canada

10:00 AM BREAK

10:15 AM
Anhydrous Fire Resistant Hydraulic Fluids using Polyalkylene Glycols
M. R. Greaves, The Dow Chemical Company, Horgen, Switzerland; and K. Kumarasekaran, and A. Larson, The Dow Chemical Company Midland MI, USA

10:40 AM
Performance Comparison of Fire-Resistant Fluid Types
S. Rea, Anderol Specialty Lubricants, Hanover, NJ, USA; and D. Barker, Chemtura Europe Langley, Surrey, UK

11:05 AM
Property and Performance Evaluation of Water Glycol Hydraulic Fluids
P. Cusatis, P. Fasano and R. Bishop, BASF Corp. Tarrytown, NY, USA; and J. Sherman, BASF, Wyandotte, MI, USA

11:30 AM
Ion Exchange Purification Treatment for Fire-Resistant Phosphate-Ester Fluids Used in Steam Turbine Control Systems
W. D. Phillips, W. David Phillips & Associates, Manchester, UK; G.J.W. Staniewski, OPG, Pickering, ON, Canada; and S. Suryanarayan, Kinectrics Inc., Toronto, ON, Canada
11:55 AM  Lunch (On your own)

1:30 PM  
**Polyether Polyol Hydraulic Fluids – Twenty Years of Fire-Resistance**  
K. P. Kovanda and M. D. Latunski, American Chemical Technologies, Inc., Fowlerville, MI, USA

1:55 PM  
**Fire-Resistant Fuel for Military Compression Ignition Engines**  
S. R. Westbrook, B.R. Wright, E. A. Frame, Southwest Research Institute, San Antonio, TX, USA; and J. Schmitigal, U.S. Army TARDEC, Warren, Michigan, USA

2:20 PM  
**37 Years of Fleet Operating Experience Using Phosphate Ester Fluids for Bearing Lubrication on Gas Turbine/Turbo Compressor Applications**  
P. Dufresne, EPT, Calgary, Alberta, Canada; H. Ong, TransCanada, Calgary, Alberta, Canada

2:45 PM  BREAK

3:15 PM  
**Use of Thickened High Water Hydraulic Fluid in Flat Rolled Steel Production**  
P. Cusatis, and P. Fasano, BASF Corporation Tarrytown, NY USA; J. Sherman, BASF, Wyandotte, MI, USA

3:40 PM  
**Panel Discussion Presenters will participate in discussion based on questions from Symposium co-chairs and audience.**

4:25 PM  
**Closing Remarks**  
Betsy Butke, Symposium Co-Chair

4:30 PM  SYMPOSIUM ADJOURNS