

'Providing Tribological Solutions'

Eco Fluid Center Ltd (formerly Utility Service Associates and the Fluid Research Center) offer tribological trouble shooting services, training, testing, specialty lubes and high performance filters. Clients include hydro electric, fossil and nuclear power plants. Greases product include VSG which is a 'green' vegetable oil based grease primarily for hydro electric plants, MOV Long Life for motor operated valves used in nuclear power plants and MOV Extra for fossil plants. These are premium high performance products required when the traditional offerings were not suitable.

Services

- ✓ Specialized Lubricant Testing
- ✓ Second Opinions
- ✓ Interpretation of Lube Test Results
- ✓ Training For Technical Staff
- ✓ Root Cause Analysis on Lubes, EHC Fluids, Bearings, Filters, Gears, Couplings, & Seals
- ✓ Lube Surveys and Optimisation
- ✓ Setting Up Condition Monitoring Programs
- ✓ Day To Day Technical Support
- ✓ Reducing Tribological Losses & Waste

Specialty Products

- ✓ 'Green' Lubes, Procedures and Products
- ✓ Biodegradable, Coupling and MOV Greases
- ✓ Recycled Oils and Fluids
- ✓ Oil and Air Filter Elements
- ✓ Fire Resistant Fluids and EHC Control Fluids
- ✓ Purification Media for Phosphate Esters
- ✓ Energy Conserving and Long Life Lubes

VSG (vane spindle grease) uses a natural vegetable canola base oil combined with a state of the art calcium sulphonate thickener. This provides a biodegradable and potentially less harmful product that also performs. VSG provides excellent resistance to water washout, it has extreme pressure and anti-wear characteristics, and it has good pumpability. VSG was developed to meet the requirements of the established wicket gate bearing specifications and can also be used for many other applications including main bearings, stop log slides, regulating rings and wire ropes. In most cases it can be used now to directly replace existing mineral oil based products.

Users include Arizona Public Service, BC Hydro, Bureau of Reclamation, City of Seattle, Eastern Ontario Power, Hydro Quebec, Churchill Falls (Labrador) Corp., Landsvirkjun (Iceland), Manitoba Hydro, Newfoundland and Labrador Power, NS Power, Ontario Power Generation, Orillia Power Generation Corp., Ottawa City Center, Synex Wolverine LLC, TVA and the US Army Corps of Engineers.

Also available are other greases, oils and dielectric fluids that may be more 'environmentally friendly'. These have no added heavy metals, such as lead, zinc or antimony, nor added chlorinated compounds. MOV Long Life is a grease used in motor operated valves and is the only approved grease for Limitorque SMB actuators used in safety systems and their factory fill since 2002.

The principal of Eco Fluid Center Ltd. is Ken J. Brown. He is a registered Professional Engineer in Ontario with a BAsC (73) and MASc (76) in Mechanical Engineering from the University of Waterloo in Canada. Atomic Energy of Canada Limited funded his graduate work on the wear of nuclear reactor materials. Starting in 1976 Ken had a 17-year career with Ontario Hydro, initially with the Power Equipment Department of Design and Construction. At OH he attained the position of a Senior Design Specialist providing effective tribological solutions for wear reduction, condition monitoring, lubes, bearings and seals. Ken has been Vice Chairman of the Associate Committee on Tribology of the National Research Council of Canada, a representative on IEC and ISO committees and an active member of the Society of Tribologists and Lubrication Engineers. With the STLE Ken has twice been Chair of the Toronto Section, Chair of the Power Generation Council and a member of the Board of Directors. A member since 1976 and the first Canadian to be named a Fellow of the STLE. In 2004 he was presented with the STLE P.M. Ku Award for meritorious service. Ken is also a STLE Certified Lubrication Specialist (CLS).

For EPRI, Ken was the sole contractor who prepared their 2002 report titled 'Electrohydraulic Control (EHC) Fluid Maintenance Guide'. This benchmark work was on the fire resistant fluids used in the control systems of steam turbines contains photos, details and user reports to help prevent problems. A similar publication was prepared in 2005 titled 'Electrohydraulic Control Fluid and Elastomer Compatibility Guide'.