

**MOV LONG LIFE GREASE PRESENTATIONS (K. Brown et al)
MOTOR OPERATED VALVE USERS' GROUP (MUG)**

Year	Title and Summary
2019	Grease Lubrication of MOV Components <i>Proper greasing is not just with what, but how much, how and how often. This discusses grease characteristics and how to reduce the leading causes of bearing failures. It also discusses grease testing and some of the lessons learnt regarding the lubrication of MOVs.</i>
2017	What You Need to Know about Oil & Greases and Compatibility Testing <i>Sometimes you must mix products, or it might be inadvertent. This presentation covers why mix, what can you mix, possible consequences, viscosity basics, lube oil basics, grease basics and compatibility testing.</i>
2015	Understanding Low Temperature MOV Greases <i>For stations with MOV's located outdoors low temperatures can affect the operation of the actuators. This presentation discusses the effect of cold on typical greases, what is important and how to select the appropriate grease.</i>
2014	MOV Stem Nut Wear Testing – An Update <i>A previous MUG presentation showed severe wear on a stem nut that had been attributed to the use of an anti-seize paste. This were widely used at one time still are at some stations. This presentation shows data supporting why the use of such products is not generally been recommended because of their poor antiwear characteristics.</i>
2013	MOV Long Life Grease a Decade Later- Approvals and Lessons Learnt <i>This presentation reviewed the reasons for the change, the work for the approval, limit switch gearbox and stem approvals, other actuator approvals and some lessons learnt.</i>
2010	Semifluid Grease for Oil Filled MOV's <i>Introduction to a new product, MOV Long Life 9000 for use in oil filled actuators. If originally an oil was used, this can reduce oil leaks and/or allow for repairs at a more convenient time.</i>

- 2009 MOV Long Life – Reducing Oil Seepage**
Some stations had reported oil seepage through gaskets and plugs. This presentation discusses the root causes plus some of the practices to reduce such leaks.
- 2008 Commercial Grade Dedication and In-service MOV Long Life Grease Testing**
For nuclear applications testing is usually required on the delivery of each order. This is to ensure that it is as ordered. Care is required to pick the appropriate tests and limits. The same thing applies to in-service testing.
- 2007 MOV Stem Grease Wear Testing**
The use of the right grease is important to prevent wear of the actuator stem nut and of the threads on the valve stems. The use of some anti-seize pastes could be a problem.
- 2006 MOV Long Life Condition Monitoring Update**
Samples of grease had been aged twice as long as done by EPRI and were tested using a variety of procedures. A number were suggested as being appropriate for in-service testing. This time further testing was done, and these are appropriate for small In-service sample sizes.
- 2005 MOV Long Life Condition Monitoring**
The aging used by EPRI was 300 hours at 150°C (302°F). Samples were given further testing and tested to 600 hours. MOV Long Life still showed no significant degradation.
- 2004 MOV Long Life Limitswitch Applications**
Considerable data is available for the use of MOV Long Life in the gearboxes and on the stems. This presents data on use in the limit switch gearbox. It includes comparisons with the current grease.
- 2003 All-In-One, An Update on MOV Long Life**
This presents the testing done on MOV Long Life to show that it is suitable for the main gearboxes in Limitorque actuators as well as on the stems and limit switch gearbox.

Author changes: Ken Brown - Utility Service Associates is now Eco Fluid Center Ltd., Ted Austin – Forsythe Lubrication Associates is now with Canoil Canada, and Wayne Mackwood – Chemtura is now Lanxess. Of these only Canoil sells MOV Long Life and MOV Extra. This is either directly to customers or distributors as preferred.

Copies of most of the are available at either of the following websites;

www.canoilcanadaltd.com

www.fluidcenter.com