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Committee D02 on PETROLEUM PRODUCTS AND LUBRICANTS

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February 11th, 2010

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ASTM D02.B0.03 L-37 Surveillance Panel
Members and Guests:

Attached for your review and comment are the unconfirmed minutes of the:

- **February 10th, 2010 L-37 Surveillance Panel Meeting**

Please direct any corrections or comments to my attention.

Sincerely,

Galen Greene, Chairman
L-37 Surveillance Panel

**Report of Meeting
L-37 Surveillance Panel Meeting
BRTRC Facility, Warren, MI**

February 10th, 2010

Attendees:

Dana -	Miller (TC) , Guzikowski (TC)
SwRI -	Koehler
Lubrizol -	Greene (TC) , Graziano, Gropp
Afton -	Koglin
Intertek-Parc -	Smith
TMC -	Lind
AAM -	Dharte
US Army -	Comfort , Dwornick
Chevron -	Haire
Arvin Meritor	McGlone

Voting Members in **BOLD**

TC = Teleconference

The meeting was called to order at 9:10 am EST.

1.0 Approval of Minutes:

- **November 11, 2009 Surveillance Panel Meeting**
- **December 17, 2009 Surveillance Panel Teleconference**

Motion # 1 → Mr. Smith / 2nd Mr. Koglin to approve the minutes as presented. Motion for approval was passed with a vote of 8 for, 0 opposed, and 0 abstentions.

2.0 Summary of Meeting Discussions

2.1 Lubrited Reduced Load Data Review and Discussion

The group reviewed the lubrited test data and also reviewed the pinions from each lubrited test. Pitting/spalling appeared to be an issue with all of the pass oils, but TMC 152-1 had the highest percentage of tests with spalling. Mr. Lind mentioned that a correction factor could not be applied to pitting/spalling because it would make one of the fail oil tests pass (25% of the fail oil tests). It appeared that the hardware had little ability to discriminate as one of the discrimination runs almost passed (ridge, ripple were passes, failed on 8 pitting/spalling). At the lower temperature conditions, rippling appeared to be an issue as most pass oil runs failed on ripping.

The group discussed whether we should consider removing the test as it was far too variable and little information was gained from it. The question was raised as to why the lubrited test was added to the test method. Mr. Gropp commented that many manufacturers lubrite the ring, the pinion, or both and this why it was originally added. The idea was that the test would be representative of what was going into the field. Mr. Guzikowski mentioned that the lubriting was there to aid with break-in in the field, as without a proper break-in, failure could occur. He also commented that the test is fairly severe.

Mr. Miller mentioned that this test does not do a thorough break-in. Lubriting is used to prevent initial scoring on the gearset when it is brand new. It helps with the transition of the surface from as machined at the plant to run in. Lubriting is not a good thing for this test; the substrate is pitted during the etching process. Mr. Miller and Mr. Guzikowski were confident in their Lubriting process as they use a smaller supplier that they feel gives them better control. There was no further work that could be done to improve this process as it is considered optimal as is.

Mr. Lind commented on using this hardware for stand qualification. He mentioned it would not make sense to use this test at its current state to qualify the stands. The results are too variable and labs would be throwing out tests in order to maintain qualification.

Motion # 2 → Mr. Haire / 2nd Mr. Comfort - The surveillance panel has agreed to collect the necessary data to make a recommendation on possible elimination the lubrited test. The chairman is to compile a letter to the panel requesting data to support this. This would include non-lubrited test data, field data (lubrited), and lubrited failure data. The motion was passed with a vote of Yes-8, No-0, Abtain-2.

2.2 Rater Workshop Data

Mr. Lind reviewed the January rater workshop data with the panel. Overall, the data looked very good. There was general agreement on the ratings and no problems to note. The data is on the TMC website.

2.3 Contact Pattern Investigation

The labs have been compiling data regarding Mr. Fett's request to develop a method of analyzing contact pattern shift and determine if it provides a better wear measurement than the current method. However, the panel's efforts have been dedicated to obtaining approved batches of hardware. Due to this and the time constraints at the meeting, the discussion will take place in the future.

3.0 Adjournment

Motion by Dale Smith to Adjourn, Meeting Adjourned at 11:25 am EST

Respectfully submitted,

Galen Greene
L-37 Surveillance Panel Chairman