

LDEOC/EOEC SURVEILLANCE PANEL

A LDEOC/EOEC conference call was held on February 27, 2014, at 9 am central standard time. The following members were on the call:

Rick Hartman - Lubrizol
Mike Kasimirsky – TMC
Gil Reinhard – Intertek
Mike Lopez - Intertek
Mike McMillan – Infineum
Doyle Boese - Infineum
Andy Ritchie - Infineum
Geifu Wu – Ashland
Kaustav Sinah - Oronite
Mike Birke – SwRI
Becky Grinfield - SwRI

Due to the fact that there is not unanimous consent to approve VMQ-1 test targets for the new EOEC silicone material, Mike Kasimirsky of TMC will draft an information letter to be balloted at subcommittee B. There is a question on how the new EOEC VMQ-1 will be identified for TMC data submission. Mike Birke will contact OHT to get their input on whether the part number should change for ease of identification. Mike Birke sent out elastomer slabs for baseline hardness, tensile, and elongation measurements. A teleconference will be held once all the data has been submitted. A question was raised as to whether or not any certificate of analysis, which would include the physical properties data, is sent out with the elastomers. The answer is no. Mike Birke sent the group data taken from the TMC website to show the lab to lab variation between all four recorded properties. Several members viewed the variation as acceptable, while TMC statistics show the results are statistically different lab to lab. Doyle Boese volunteered to perform statistics on data going back several years. Mike Birke made a motion to put an effective date of March 3rd, 2014 for the new EOEC limits to be put into place. No one opposed the motion.

The teleconference adjourned at 10 am.

{Mike Kasimirsky's letter, explaining the TMC's negative vote, is attached.}



Test Monitoring Center

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February 24, 2014

Mr. Mike Birke
Chairman, EOEC & LDEOC Surveillance Panel
Southwest Research Institute
6220 Culebra Rd
San Antonio, TX 78238

Dear Chairman Birke:

The purpose of this letter is to detail the reasons for the Test Monitoring Center's (TMC) recent negative vote on the Motion to approve new test targets for the replacement Silicone elastomer material in the EOEC test, being considered by the Surveillance Panel via email ballot.

The TMC voted against approving these new test targets because there are significant differences in the performance levels of the various laboratories in the industry. These differences make it impossible to determine the appropriate performance level for the test, given the large differences in laboratory performance. Furthermore, the unbalanced nature of the data set used for these proposed targets all but guarantees that the targets will not be correct.

These differences were most recently brought to the attention of the EOEC and LDEOC Surveillance Panels by the TMC in June 25, 2012, at the B07 Bench Test Surveillance Meeting held in San Francisco, California. At that time, the TMC presented a large amount of data, detailing how laboratory differences appear to be driving the differences in elastomer batches that the Surveillance Panel had been investigating.

To address these problems, the EOEC/LDEOC Surveillance Panel agreed to conduct a workshop on November 12, 2012 to review the operations and practices of one of the test laboratories, with representatives from the other test labs invited to participate. The TMC, the Parts Distributor (PD), and representatives from four of the test labs were in attendance for the workshop.

At that workshop, several differences between laboratories were identified, including significant differences in the configuration, maintenance, and operation of the baths themselves. Both the TMC and PD thought that the bath issues were the most significant items uncovered in the workshop, but the lab participants stated, unequivocally, that no bath changes would be considered due to the costs associated with such changes.

On February 26, 2013, the EOEC/LDEOC Surveillance Panel held a teleconference to discuss the status of the Batch 10 elastomer materials and to review the results of the November 2012 workshop. The workshop results were reviewed and plans were made to conduct a Hardware Survey of the test labs, send out some elastomer materials to be used for a round robin of Baseline Measurement processes, and finally a survey of Bath Hardware and Configurations was to be conducted. All these items were to be completed before the issue of laboratory variability in the test was communicated to the Passenger Car Engine Oil Classification Panel or to the Heavy Duty Engine Oil Classification Panel.

The Bath Survey was completed and sent out to the Surveillance Panel in May 2013. To date, the Baseline Measurement Round Robin has yet to be completed. No review of the Bath Survey was ever done by the Surveillance Panel and no actions on it were ever taken by the panel.

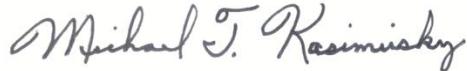
Since that February 2013 teleconference, the EOEC & LDEOC Surveillance Panel has conducted teleconferences on June 19, 2013, and July 23, 2013. The only topics of discussion on those teleconferences were regarding the approval of new elastomer batches. Addressing the ongoing laboratory severity issues were not on the agenda for either meeting. Nor were they brought up as part of this most recent replacement Silicone elastomer letter ballot.

On the February 26, 2013 teleconference, there was some discussion as to whether or not the Classification Panel needed to be made aware of this test variability issue. From those minutes: *"Before the class panel is contacted, the surveillance panel will attempt to reduce test variability by addressing the bath issues."* Since these issues have not been corrected, I think the Classification Panel needs to be notified.

Since there seems to be some disagreement within the Surveillance Panel as to the presence of significant laboratory differences in the reference oil data, I would like to formally request that the Surveillance Panel form a Task Force of industry statisticians to review the EOEC & LDEOC reference oil data for significant laboratory and bath differences in the data.

Second, assuming that the industry statisticians come to similar conclusions regarding the existence of significant laboratory and bath differences in the industry, I would like to formally request that the Surveillance Panel address the bath configuration and operational differences identified in the bath survey.

Sincerely,



Michael T. Kasimirskey
Senior Project Engineer

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c: Frank Farber, TMC
Jeff Clark, TMC
EOEC/LDEOC Surveillance Panel