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Reply to:

Scott Parke ASTM Test Monitoring Center 6555 Penn Avenue Pittsburgh, PA 15206

January 18, 2005

To: Engine Oil Elastomer Compatibility Surveillance Panel

Enclosed are the minutes of the EOEC Surveillance panel teleconference held January 6, 2005. Please forward any corrections or additions to my attention.

Scott Parke Secretary EOEC Surveillance Panel

Attachments

cc: ftp://ftp.astmtmc.cmu.edu/docs/bench/eoec/minutes/TELECONFERENCE%202005-01-06.pdf

distribution: Email

#### **TELECONFERENCE MINUTES**

#### ENGINE OIL ELASTOMER COMPATIBILITY SURVEILLANCE PANEL

#### HELD JANUARY 6, 2005

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#### 13:00cst CALL TO ORDER

The teleconference began at 13:00 cst; the participants are listed in attachment 1. The agenda is shown as attachment 2. Scott Parke (TMC) prefaced the meeting by noting the need to keep more formal record of the panel's activity. He offered to serve as panel secretary. The panel enthusiastically accepted the offer.

#### 13:03cst LIMITS CALCULATIONS

Scott Parke (TMC/secretary) reported that there has been some confusion on the part of all parties as to exactly how all the various limits used by this test are to be calculated. The documented instructions provided to date have all been correct but they been carried out with varying degrees of accuracy. After being made aware of the mistakes they were making, all labs are now confident that they have corrected their respective problems.

#### 13:05cst PUBLICATION AND UPDATING OF THE STANDARD DEVIATION FIGURES

Scott Parke provided plots showing the change over time in the standard deviation figures published by TMC for use in the limits calculations (attachment 3). He noted that, with the exception of Vamac, enough data now exists that the figures change very little from update to update. He suggested that the update interval could perhaps be lengthened. Scott felt that a six month or even a year interval looked reasonable.

Mark Sutherland (Chevron) was reluctant to accept any interval as great as six months. He fears an elastomer batch change that significantly shifts test results. He cited tensile strength and elongation for Vamac. Scott noted that, other than Vamac (which is still in its early stages of data gathering), such instances appear to be rare and that even when they do occur, the panel always has the ability to make an immediate update irrespective of the calendar. Becky Grinfield (Southwest Research/chairman) felt that Vamac-like variability was possible at any time on any of the elastomers.

Mark was asked what the shortest update interval was that he could accept; he replied that he would not object to quarterly updates provided that there was continuous monitoring to look for severity shifts. Becky Grinfield moved and Joe Franklin (PerkinElmer) seconded that the Standard Deviation figures be updated by TMC quarterly and computed test-by-test for monitoring. The motion was unanimously approved 6-0-0 (for-against-waive).

#### 13:40cst REFERENCE TEST ACCEPTABILITY CRITERIA

In consideration of previous discussions that the panel has had regarding reference test acceptability criteria, Scott Parke proposed that the panel adopt control charting using only Shewhart values and a K value equivalent to the current adjusted specification limit.

Joe Franklin felt that that approach might be a bit too lenient. Others weren't so sure that would be the case. Joe requested that Scott provide control charts "showing 95% confidence intervals". Not quite sure of what Joe meant by that, Scott agreed to try to come up with something for the next teleconference.

#### 14:15cst REPORT FORMS

Scott Parke reminded the test labs that standardized report forms for EOEC were approved in March of 2004. He has not yet seen any test results reported using them. The labs all assured Scott that it was their intention to begin using the forms beginning when telecomming tests becomes mandatory with the first test starting after December 1, 2004.

#### 14:20cst NEXT TELECONFERENCE

The panel agreed to meet again on January 17, 2005.

The teleconference ended at 14:20cst.

Attachment: 1 Page: 1/1

### Attendance:

Representative

Organization

Becky Grinfield Joe Franklin Gil Reinhard Diane Misich Lew Williams Jason Bowden Mark Sutherland Scott Parke Southwest Research PerkinElmer PerkinElmer Lubrizol Lubrizol OHT Chevron Test Monitoring Center

### **AGENDA:**

1. clarification of procedure for limits calculations (all published documentation is correct and no changes are being made but there has been some confusion in following the documentation)

2. publication and updating of the standard deviation figures (data generated to date is attached)

- 3. acceptability criteria for reference tests
- 4. report forms
- 5. other business?





**emuloV** 

## Volume elastomer = FKM



## Volume elastomer= MAC



**emulov** 

## Volume elastomer = NBR







emulov









# 

![](_page_12_Figure_1.jpeg)

# Hardness elastomer = NBR

![](_page_13_Figure_1.jpeg)

![](_page_14_Figure_0.jpeg)

![](_page_14_Figure_1.jpeg)

![](_page_15_Figure_0.jpeg)

**Tensile** elastomer= ACM

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