

Oil Seal Compatibility Test (OSCT) Surveillance Panel Meeting Minutes

03/11/2009

D. Bell

Meeting Attendance:

D. Bell (Afton)	J. Gropp (Lz)
T. Marougy (Eaton)	D. Misich (Lz)
J. Keiter (Lz)	J. Mattern (Lz)
M. Kasimirsky (TMC)	

The last two lots of Nitrile (NI-333 and NI-334) were rejected because the volume change percentage and percent elongation measured in reference oil 168 were below the acceptance bands. An investigation was undertaken to determine the root cause of the failures. After several discussions with the seal supplier, Freudenberg-NOK, we found that no changes were made to the NI elastomer process, personnel, or equipment. However, we did discover that the last several batches of NI were most likely from only a single lot of base polymer. Therefore, it appears that the current acceptance bands were set too tight and only representative of the variation from one batch of base polymer.

A motion made by J. Gropp and 2nd by T. Marougy passed unanimously (4 approved) to have the Test Monitoring Center (TMC) adjust reference oil 168 acceptance bands using the standard deviation from the previous discontinued reference oil 162 with data generated from calendar year 2000 onward. Reference oil 162 data set consists of ~138 data points and ~12 lots of NI, which is believed to be representative of at least six different lots of base polymer. Based on this, the new NI acceptance bands are significantly wider and thus the NI-333 and NI-334 data are within these new limits.

A motion made by J. Gropp and 2nd by D. Bell passed unanimously (4 approved) to approve NI-333 and NI-334 based upon the new NI acceptance bands established by TMC using reference oil 162 standard deviation. The approval is effective immediately and Test Engineering Institute (TEI) was instructed to release NI-333 and NI-334 for sale as orders are received. Lz and Afton will re-test several mineral oil and synthetic based gear oils that have previously passed the NI elastomer ASTM D5662 test in either NI-333 and NI-334 to compare the results from these lots versus previous data generated from earlier lots of NI. The data will be reviewed by the Surveillance Panel.

Freudenberg wants to transition to a new kneader (blender) for mixing the NI elastomer during processing. They have prepared a lot of NI labeled as NI-exp, and shipped 30

slabs of it to TEI where it has been in storage awaiting instruction from the Surveillance Panel.

A motion made by J. Gropp and 2nd by D. Bell passed unanimously (4 approved) to have TEI distribute the 30 slabs of NI-exp to Lz and SWRI for qualification testing. When the data is generated, an OSCT meeting will be held to review the data for acceptance of the new kneader.

Motion to adjourn was unanimously approved on 3/12/09 at 2:40 pm.