

Cummins Surveillance Panel Teleconference
July 15, 2020 10:00 – 15:30 EDT

Attendance:

Sean Moyer - TMC
Jim Matasic - LZ
Christian Porter, Bob Campbell, Abaigh Ritzenthaler, Todd Dvorak - Afton
Jose Starling, Bob Warden - SwRI
Andrew Smith - Intertek
Mark Cooper - Chevron Oronite
Dan Lanctot - TEI
Phil Shelton, Corey Trobaugh - Cummins
Elisa Santos, David Brass, Jim Gutzwiller - Infineum
Prasad Tumati - Haltermann Solutions
Jon VanScoyoc – CP Chem
Steve Jetter - ExxonMobil

Agenda:

- 1) Camshaft Wear Action Alarm Discussion**
- 2) Alternate Fuel Discussion (if time allows)**
- 3) Walk-ins**

Meeting Minutes:

1) Camshaft Wear Action Alarm Discussion

Elisa presented the attached analysis of ISB camshaft wear severity. Elisa pointed out that she used 95 tests 3 of which were valid but non-chartable. Elisa pointed out that oil reblend changes made at the same time as part changes are confounding the analysis. It was also pointed out that it has been confirmed that the exact same base oil and components were used for both reference oil 831-3 and 831-4. Elisa thought that maybe that allowed us to ignore the oil in this analysis. Elisa presented the results of a model that takes into account Lab/Stand and Oil/Hardware effects. This would result in a new CF of -18.68 which is essentially doing nothing. Elisa pointed out that she prefers not to use a simple average of cam wear in her analysis because that does not take into account the imbalance between the number of tests run in each lab/stand. LSMEANS attempts to account for this imbalance. Elisa then showed the output of a model using lab/stand and hardware disregarding the oil. This option would make the CF -22.5 for ACSW. Elisa also spoke about considering a transform.

Bob Campbell pointed out that the difference in ACSW between oil reblends of 7 microns is significant when the target is only 42 microns. The answer can't be to do nothing. Maybe the correction factor needs to become multiplicative instead of additive. Elisa explained that the model

taking into account the number of tests run at each lab is what drives the correction factor output of the model.

There was a discussion about the path forward. The panel agreed that a meeting of the statisticians to explore transformations and all available options and present a unified recommendation to the panel.

A future meeting time for the panel will be proposed once the statisticians group has been able to meet.

2) Alternate Fuel Discussion

Andrew Smith has put together an initial proposal for alternate fuel acceptance criteria and will send it out to the group after this meeting for discussion at a future meeting.

3) Additional Items

N/A

Meeting adjourned at 11:05 EDT.