Cummins Surveillance Panel March 23, 2016 Teleconference Meeting Minutes

Attendance:

Intertek – Jim Moritz, May Dewey SwRI – Jim McCord, Jose Starling Afton – Bob Campbell Lubrizol – Nick Secue, Pat Joyce, Kevin O'Malley, John Ahlborn Oronite – Mark Cooper, Jim Rutherford Infineum – Bob Salgueiro, Pat Fetterman TEI – Dan Lanctot TMC – Jeff Clark, Sean Moyer Cummins – Ryan Denton

<u>ISM Hardware Status</u> – The bulk of the meeting was spent review hardware supply status and developing preliminary plans to introduce new hardware batches.

Crossheads – Only 3 kits remain at TEI with batch E crossheads. Ryan Denton of Cummins will look into ordering history and measurements of crossheads to gage batch-to-batch similarity. One lab is close to running out of kits.

Main bearings -LZ is out, supplies are low at labs and dealers do not have supply. Ryan Denton was unsure of why they aren't available and will investigate and report back on a few days. If the bearings don't come available, then the panel will need to decide within a few weeks whether to allow re-use and/or aftermarket bearings.

Injector Pushrods and Cylinder Heads – It was noted that the panel should include these in any hardware introduction testing to avoid having to go through the same process in just a few months.

After further discussion, it was decided to pull all relevant information together and the reconvene to finalize a plan to run coordinated reference tests. Ryan Denton and Dan Lanctot will work together to pull the information. Another teleconference is tentatively set for April 1, 2016, 10:00 a.m. Eastern.

As part of the discussion, it was noted that it was unclear whether or not injector push rods are batch controlled. To remove the confusion, the following motion was passed:

Motion – Campbell, Cooper – For TEI to use batch control in supplying the injector pushrods. This motion passed without objection.

<u>ISB Hardware Supply</u> – TEI has one long block; currently > 500 kits of batch D tappets; currently ~ 60 kits of batch D crossheads; currently > 200 batch K camshafts; currently ~36 kits of pushrods. After some discussion, it was agreed that it would be a good idea to create a more proactive hardware reporting structure. Jim Moritz, Mark Cooper and TEI will lead this effort.

<u>ISM Test Numbering</u> – Current section 9.5.1 is inconsistent in indicating what the third part represents: stand run number or engine run number. The panel confirmed that intent has always been for the third part to represent stand run number. **Bob Campbell moved, Nick Secue seconded that the test method be corrected to indicate such.** The TMC will issue an Information Letter to correct section 9.5.1 accordingly.

Engine Serial Number Field Length – both the ISB and ISM data dictionaries use a field length of 8 for the engine block serial number. *The panel approved, without objection, a motion (Campbell, Secue) to increase the field length to 12 for the engine serial number for both the ISM and ISB.* The TMC will process the appropriate data dictionary revisions.

Next Meeting – Another teleconference is tentatively set for April 1, 2016, 10:00 a.m. Eastern.