

Cummins Surveillance Panel Meeting Minutes

September 25, 2025, 09:00-12:00 CST

Participants:

Afton – Amanda Stone, Joe Hoehn

Chevron Oronite – Walter Hartgers, Marnix Torreman, Jo Martinez

Cummins – Phil Shelton

Exxon Mobil –

Infineum – Andrew Smith, Todd Dvorak

Intertek – Josh Ward

Lubrizol – Johnathan Bolaney, Robert Slocum

SwRI – Joe Moore, Bob Warden, Jose Starling, Travis Kostan

TEI – Dan Lancotot

TMC – Sean Moyer,

Agenda:

- ISB camshaft inventory
- ISB camshaft rejection criteria
- ISBV procedure for oxidation measurement
- ISBV LTMS critical vs non-critical parameters for level 3 Ei alarms
- ISM hardware status

ISB Camshaft Inventory:

- Still rejecting around 90% of cams.
 - Estimated 7 remaining cams with no pits, 75 with 1 pit, 300 with 1 pit on intake and 1 on exhaust.

ISB Camshaft rejection criteria:

- Currently rejecting for pits within 0.5" of the lobe
 - Pits around 10 degrees from lobe are probably not consequential.
 - Pits around 5 degrees from lobe more serious

- Will convert 5 and 10 degrees from lobe to linear measurement.
- Pit size is difficult to measure, and depth is even worse.
 - Preliminary depth measurements range from around 40 microns down to 10 microns.
- Southwest is going to run a cam with 3 pitted intake and 3 pitted exhaust lobes.
 - Lobes have been photographed pre-test for comparison.

ISBV procedure for oxidation measurement:

- Procedure and report/data dictionary are calling for different IR oxidation methods.
- SwRI has been reporting integrated rather than peak IR as the report calls for.
 - Peak IR is used in the T13 test.
 - Integrated IR is used in the T11 test.
- Since it is not a required reference parameter, we could make it optional to report.
- Some labs have to outsource this test, making it cumbersome to run.
- Formulators/technology groups may or may not need this value, panel members to ask.
 - Reference data may not be repeatable/reliable due to low values.

Motion: Update section 11.1.3 of the procedure, making the calculation of oxidation optional and changing from peak IR to integrated IR.

Sean Moyer motions, Joe Hoehn seconds

For: Afton, Chevron Oronite, Infineum, IAR, Lubrizol, SwRI, TMC

Against:

Waive: TEI

Motion carries.

ISBV LTMS critical vs non-critical parameters for level 3 Ei alarms:

- The LTMS states that level 3 Ei alarms apply to all reported parameters, but the ISBV section doesn't apply that to non-critical parameters.
- Currently if a non-critical parameter trips a level 3 alarm, severity adjustments would not be calculated.
 - Normally would require a follow-on test to calculate severity adjustments.
- TMC is working on updating their system to address this, for now they are using a work around that makes the Ei alarms on the TCR look odd.
- Currently there is no action needed. Depending on the outcome of other industry decisions we will need to revisit this item.

ISM hardware status:

- TEI received some more rockers, around 7 kits.
- Only 2 kits worth of shaft supports are available, more should be coming soon.
- Cummins had an accounting error that slowed supply.
 - Rockers, pushrods and oil coolers supply at TEI are low but should be coming soon.
- Pistons might be short soon, Phil is working on it.
- Blocks are short, but 5 new blocks are being machined now.
 - Phil can have more started depending on demand.

Next Steps:

- Review the results of SwRI's ISB run on the pitted cam.
- Josh to look into status of ISB and ISM ECM orders
- Josh to plot ISBV oxidation data for the next meeting.

Next Meeting: After SwRI finishes the test on the pitted cam.