

ILSAC GF-5 – On Target for 2010

Andy Ritchie – Industry Liaison Advisor

Infineum USA L.P.

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At the April 18 ILSAC/Oil meeting held in Detroit, it was confirmed that timing for the new ILSAC GF-5 standard, targeted for implementation in the middle of 2010 and planned for use in 2011 model year vehicles, is tight but attainable. Some concerns had arisen earlier in the year when a previously scheduled ILSAC/Oil meeting was cancelled. The attitude at the April meeting though was one of optimism that the schedule could be met and the ILSAC GF-5 category delivered on time.

Key areas reported on at the meeting included ESCIT (the Emissions System Compatibility Improvement Team), Sequence VID (the new fuel efficiency test anticipated for ILSAC GF-5), the VID Precision Matrix Design Task Force, and ROBO (the new bench test for ageing oil prior to used oil low-temperature pumpability testing).

Hannah Murray, Chairman of the ESCIT group, reported that ESCIT had agreed on a test method to measure the volatility characteristics of Phosphorus in engine oil. She recommended that ILSAC/Oil adopt the measurement of Phosphorus retention in oil following a full length Sequence IIIG (100 hr) as the method for measuring Phosphorus volatility in ILSAC GF-5. The three trade organizations (API Oil, ACC and ILSAC) will review the recommendation from ESCIT and come ready to vote on the recommendations at the next ILSAC/Oil meeting.

Jim Linden, Chairman of ILSAC and the leader of the Consortium effort to develop a new Sequence VID engine oil fuel efficiency dynamometer engine test, reported on the progress of that effort. Matrix IV is currently underway to determine the ageing response and select the final stage conditions for FEI 1 and FEI 2*. Expected to be completed by the end of May, this testing has been added to try to reduce the variability of the test. The prove-out matrix, Matrix V, to verify that the final test conditions provide the desired precision and discrimination, is planned for June.

Once the development of the Sequence VID is completed and the test is turned over to ASTM, a design matrix will have to be run to establish the precision of the test as well as discrimination targets for the reference oils. Jerry Wang updated the ILSAC/Oil group on the status of this effort. A VID Precision Matrix Design Task Force, under the Passenger Car Engine Oil Classification Panel (PCEOCP), has already started to plan requirements for this matrix, including funding, selection of oils, number of laboratories, etc.

All stakeholders will need to approve the funding commitment to the matrix. It is anticipated that the VID precision matrix will be conducted during the third quarter of 2008. Analysis of precision matrix data and ASTM approval of the Sequence VID test must be completed in a timely manner to maintain the ILSAC GF-5 implementation timeline. Stakeholders will need to be convinced that this test will also provide the improvements many feel is needed over its predecessor the Sequence VIB.

Bernie Kinker of RohMax also reported on the progress being made to develop the ROBO test. The ASTM group handling this has encountered difficulties with the vacuum flow apparatus, and the testing is behind schedule. It appears that an ASTM ballot on the ROBO test method will be delayed until December.

There was also discussion on the Draft ILSAC GF-5 proposal offered by ILSAC. Oil had previously offered input on the original ILSAC proposal, and ILSAC presented its response to Oil's position. In doing so, ILSAC offered some concessions on their original draft but also reinforced some original positions.

All viewed the agreement of the Needs Statement and current progress on the Draft Specification (tests and limits) as positive. While there will certainly be much discussion, and likely disagreement, on tests and limits, it is clear that progress on establishing ILSAC GF-5 is being made. Adopting the Sequence VID as the next ASTM test to define Fuel Economy is a key component to meeting the ILSAC GF-5 implementation timeline. If on schedule, we can look forward to a new ILSAC GF-5 category in 2010.

*FEI = Fuel Economy Improvement