MEMORANDUM: 07-003

DATE: February 2, 2007

TO: D02.B07 TEOST Mailing List

FROM: Tom Schofield

SUBJECT: MTEOS Technical Update: Updated Test Method D7097-06a

A revised version of the MTEOS test method (D7097 Determination of Moderately High Temperature Piston Deposits by Thermo-Oxidation Engine Oil Simulation Test – TEOST MHT) is available from ASTM (www.astm.org). Effective immediately, the TMC will begin monitoring ASTM Standard Test Method version **D7097-06a** for future MTEOS calibrations. This test method replaces D7097-06 that the TMC has previously been monitoring.

Please remember to correctly report the new method-version (METHVER) in your data flatfiles to the TMC. The correct field name-variable designation should now be:

METHVER D7097-06a

There is a summary of changes included in the new test method. Of particular note for TMC monitored tests is a revision/clarification of section 10.7. For test method version D7097-06 the TMC had previously issued technical memo 06-052 (July 18, 2006) that allowed two alternative interpretations of section 10.7. Those ambiguities have been cleared up in D7097-06a and the TMC will evaluate operational validity per the new section 10.7. Specifically, once the mass of the catalyst that is added to the sample flask is determined, the target amount of neat sample required must be recalculated based on the ACTUAL mass of catalyst used, and the neat sample mass to be added must be within +/- 0.01 g of the amount needed to retain the target catalyst-to-sample ratio. Also, the final catalyzed sample weight (SAMINJWT) must now be 8.5 +/- 0.05 g.

The TMC's electronic review program will apply the following formulas, using the data dictionary field names as variables, to verify that section 10.7 is correctly followed:

- SAMWT = CATWT/CSTARRAT +/- 0.01

- SAMINJWT = 8.50 +/- 0.05

As an aid to the users of the test method, there is a catalyst/sample mass "calculator", in Excel format, available for ftp download on the TMC's website; a number of labs have found this calculator tool to be useful:

ftp://ftp.astmtmc.cmu.edu/refdata/bench/mteos/data/Catalyst-Sample_Calculator/

Any MTEOS tests that are presently pending (assigned as of February 1, 2007, but not yet reported to the TMC) may be evaluated under the D7097-06 specifications if reported with a test method-version D7097-06. Later TMC oil assignments must be run (and reported as) using the D7097-6a test method.

Please contact me if you have any questions.

Tom Schofield
ASTM Test Monitoring Center
Carnegie Mellon University
6555 Penn Avenue
Pittsburgh, PA 15206-4489
Voice: 412-365-1011
Fax: 412-365-1049
Email: tms@astmtmc.cmu.edu

TMS/tms

c: ftp://ftp.astmtmc.cmu.edu/docs/bench/mteos/memos/mem07-003.pdf
    M. Lane, TMC
    J. Zalar, TMC

Distribution: Email