

HEAVY-DUTY ENGINE OIL CLASSIFICATION PANEL
OF
ASTM D02.B0.02
June 21, 2005
Pittsburgh Hilton Hotel – Pittsburgh, PA

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ACTION ITEMS

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|---|-----------------|
| 1. Request “B” ballot of D4485 for using ISM results as an alternative to M-11EGR. | McGeehan |
| 2. Request “B” ballot of D4485 for using T-10 results in lieu of T-9 results. | McGeehan |
| 3. Send letter to API requesting input on the T-10 for T-6 issue. | McGeehan |
| 4. Form Sulfated Ash Task Force. | HDEOCP |
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MINUTES

- 1.0 Call to Order
- 1.1 The Heavy Duty Engine Oil Classification Panel (HDEOCP) was called to order by Chairman Jim McGeehan at 1:10 p.m. on Tuesday, June 21, 2005, in Grand Ballroom 4 of the Pittsburgh Hilton Hotel. There were 20 members present or represented and approximately 56 guests present. The attendance list is shown as Attachment 2.
- 2.0 Agenda
- 2.1 The published agenda (see Attachment 1) was reviewed. Review of the ISM was requested during the matrix test status reports and agreed upon.
- 3.0 Minutes
- 3.1 The minutes of the March 31, 2005 meeting were approved as issued.
- 4.0 Membership
- 4.1 There were no membership changes.
- 5.0 C13 1st Round Results
- 5.1 Tom Franklin and Abdul Cassim presented the results from the first six C13 matrix tests. See Attachment 3.
- 5.2 Jim Rutherford presented his statistical analysis of the C13 testing thus far. See Attachment 4. At this time, there is statistically significant discrimination between oils of interest, on oil consumption, but not on piston deposits.
- 5.3 Abdul Cassim moved that C13 matrix testing continue, seconded by Greg Shank. The motion passed with 18 for, 0 against, 0 abstain

6.0 PC-10 Matrix Status

6.1 John Zalar reported on the status of PC-10 matrix tests, along with projected matrix completion dates. See Attachment **5**. There have been aborted tests in each of the test types, delaying their projected matrix completion dates. Of most significance overall, the C13 abort occurred in a proposed 4 run matrix stand at a lab that has both a 4 run stand and a 3 run stand. If that stand could be switched to the 3 run designation, then no overall matrix completion time would be lost. The C13 Surveillance Panel and statisticians should consider this possibility.

7.0 ISM Merit System

7.1 Jim Rutherford presented a proposed "merit" system for use with the ISM in PC-10. See Attachment **6**. The "anchor" points shown were arrived at in consultation with Cummins and are intended as initial proposals.

8.0 PC-10 Program Timeline

8.1 Bill Runkle presented the current PC-10 timeline (Attachment **7**) which shows API first licensing occurring in early 2007. The ACC analysis of time required after matrix completion is shown as Attachment **8**.

9.0 Sulfated Ash

9.1 Bill Kleiser presented concerns with method D874 and sulfated ash limits for PC-10. See Attachment **9**. Discussion from the floor indicated this matter was already thoroughly discussed by the Chemical Limits Task Force and no better solution found, but Sub-Committee 3 has not yet been asked to refine D874. Jim McGeehan showed D874 results he had obtained from 3 labs on the same oil. See Attachment **10**.

9.2 Bill Kleiser moved and Greg Shank seconded that a task force be formed to develop an improved procedure for obtaining "bias free" D874 sulfated ash results. The motion passed with 16 for, 1 against and 1 abstain.

10.0 Exit Ballot Review

10.1 Jim McGeehan displayed the ISM for M-11 EGR exit ballot results. See Attachment **11**.

10.1.1 Lew Williams and Phil Scinto presented the reasons for their negative vote on the proposed ISM limits for demonstrating M-11 EGR equivalency. See Attachment **12**. Lubrizol and Cummins feel the balloted crosshead wear limits would let oil 1004 pass most of the time and are thus, too mild. Lew indicated Lubrizol would drop their negative if the crosshead wear limits were revised to values which oil 1004 would not likely pass. Lew moved and Dave Stehouwer seconded a proposal that the ISM crosshead wear limits, to qualify an oil as passing the M-11 EGR, be established at 6.7 for one test, 7.37 for two tests and 7.67 for three tests. After much discussion those 1, 2 & 3 test limits were revised to 7.5, 7.8 & 7.9. The revised motion passed with 18 for, 0 against, 0 abstain.

10.2 Jim McGeehan displayed the 13% Noack exit ballot results. See Attachment **13**.

10.2.1 Although there were no negatives, there was some discussion on why the 10W-30 grade is allowed up to 15% and not all 10W-X grades.

10.3 The T-10 for T-6 exit ballot results were shown, see Attachment **14**.

10.3.1 Bill Kleiser stated that since there is no direct data available for the same oil in both tests, there is no technical justification for establishing a correlation. He then moved that we do not have an established correlation between the T-10 and T-6. Robert Stockwell seconded the motion, which failed with a 2 for, 4 against,

12 abstention vote. A letter will be sent to API, requesting their position on the T-10 for T-6 issue.

- 10.4 The T-10 for T-9 exit ballot results were shown, see Attachment **15**. There was no discussion.
- 10.5 Exit Ballots, General
 - 10.5.1 Tom Cousineau raised the issue of significant digits used in the ISM exit ballot limits. Charlie Passut moved and Dave Stehouwer seconded that oil filter delta pressure (OFDP) and sludge rating limits be rounded as follows: OFDP to 55, 67, 74 for 1, 2 & 3 tests; Sludge to 8.1, 8.0, 8.0 for 1, 2 & 3 tests. The motion passed unanimously, via voice vote.
 - 10.5.2 Tom Cousineau has requested that all exit ballot tally sheets and comments be incorporated in future HDEOCP minutes.
 - 10.5.3 ISM limits will be balloted in Sub-Committee B, for inclusion in D4485 as an alternative to the M-11 EGR.
 - 10.5.4 For completeness, Exit ballot results for the ISB and T-12 matrix readiness are included as Attachments **18** and **19**.
- 11.0 Valve Train Wear Task Force
 - 11.1 Heather Kelly reported on the VTWTF efforts to date. See Attachment **16**.
- 12.0 Oxidation Test
 - 12.1 Jim McGeehan reviewed a chart of potential PC-10 tests (see Attachment **17**) and in particular the Sequence IIIF & IIIG tests. EMA agreed to not consider the IIIF test for PC-10 and they may be able to decide on the oxidation requirements by the September meeting.
- 13.0 Other Business
 - 13.1 Patrick Lai announced that the 6V92 test may soon become unavailable and thus put the CF-2 category in jeopardy.
 - 13.2 Doug King of Dupont was introduced as the new "Vamac" contact.
- 14.0 Next Meeting
 - 14.1 The next meeting will likely be held toward the end of September, probably in Chicago.
- 15.0 Adjournment
 - 15.1 The meeting was adjourned at 4:29 p.m.

Submitted by:

Jim Wells
Secretary to the HDEOCP