August 18, 2000

Reply to: Pat Fetterman

Infineum USA L.P. P.O. Box 735 Linden, NJ 07036 Phone- (908) 474-3099 Fax- (908) 474-3363

E-mail- pat.fetterman@infineum.com

ASTM Mack T-10 Task Force Members,

Here are the unconfirmed minutes of the August 3, 2000 meeting of the Mack T-10 Task Force in Cleveland, Ohio. Please contact me regarding any questions or corrections to these minutes.

Regards,

Pat Fetterman

UCONFIRMED MINUTES OF THE ASTM MACK T-10 TASK FORCE MEETING CLEVELAND, OH AUGUST 3, 2000

This document is for ASTM committee use only. It shall not be reproduced, circulated, or quoted, in whole or in part, outside of committee activities, except with approval of the Chairman of the Committee with justification of the President of the Society.

1. Call to Order/ Membership

The start of the Mack T-10 Task Force meeting was slightly delayed from its scheduled 1:00 pm start to allow completion of the discussion of the T-10/M11-EGR lab visitations. At roughly 1:35 pm the meeting was called to order by the Chairman, Wim Van Dam.

The agenda is shown as attachment 1. The attendance list is shown as attachment 2. Wim greeted the members with the notation that this meeting was his first as Chair, and Pat Fetterman's first meeting as Secretary. He also asked that in the future all presentations/attachments should be available in electronic format for the minutes.

2. Approval of Minutes from previous meeting

The minutes of the previous meeting were approved as issued

3. Test sponsor comments (Greg Shank, no handout)

Greg reviewed test data showing discrimination with respect to liner wear, EOT lead, oxidation IR, and ring weight loss. In addition he indicated that repeat data is coming for oils A, B, and C. The Chairman asked Greg if there was any data indicating discrimination on oil consumtion, and he indicated that data would be coming.

There was an observation that the Matrix Funding MOU required at least two valid test results per lab under the same test conditions, and the group consensus was that this should not be a problem.

Jeff Clark agreed to document the results of the recent lab visitations to both TMC and the T-10 Task Force members by September 7th.

4. Chemical analysis sub group report (Mark Stevens reporting for Joe Franklin, no handout)

Used oils from nine tests are in hand, and there is basestock and chemical analysis data available for six of them. Five samples use Group I stock, one uses Group II, and three are unknown.

Samples have been sent to all labs (SwRI, PerkinElmer AR, ExxonMobil, and Lubrizol). If samples have not been received, check with Joe.

Desire is to look at 1) IR area increase, 2) Rate of increase at EOT, 3) TAN at EOT.

The group is looking for more samples.

Jeff Clark indicated that there are concerns about soot measurement at very high soot levels, and he requested that all T-10 drains should be saved for future round robins. Warren Totten agreed to supply a one gallon sample of an M11-EGR EOT drain to be added to the current round robin, and Jeff indicated that he would include it.

5. Operations and Hardware panel report (Jim Collum, no handout)

There was a discussion regarding the use of coolant additives. This resulted in a passing motion to standardize on the use of Pen-Ray 3000 at the recommended treat rate for each cooling system size.

Gary Tietze reported on the status of TEI's investigation into the use of stainless steel intake manifolds. This lead to a discussion regarding the acceptability or even need for such an expensive component. It was agreed that all labs should clean and inspect their manifolds after their next test to assess the condition of the existing components.

There was a wide-ranging discussion of alternative approaches to reducing corrosive and abrasive wear in the intake system, and Jim Collum agreed to convene and O&H teleconference to discuss these options in more detail.

Another discussion covered the method of cleaning the EGR system after each test, and it was agreed that the same procedure should be used for both the T-10 and the M11-EGR. There was a specific concern over cleaning of the Venturi, and Bob Campbell agreed to provide his procedure to the other labs.

Following queries about open loop versus closed loop operation of the O2 sensors, Ken Goshorn agreed to review all of his data and make a recommendation to the group during the planned teleconference.

The group agreed that 6 minute data accumulations should be used for the O2 sensors.

Jeff Clark reported that he is targeting September 7 for Draft one of the T-10 test procedure in order to insure that it is available for matrix start.

Wim Van Dam supplied the DaimlerChrysler procedure for bore polish rating (attachment 3), and Greg Shank indicated that he would like to collect this data at least throughout the matrix testing.

The group agreed that all used parts and oil drains from the matrix tests should be saved for future use.

There was an extensive discussion of the effects of inlet air humidity, culminating in Greg's agreement to look at wear severity shifts between January and August in the San Antonio labs, and a request for all Task Force members to bring any available humidity versus severity data to the next meeting.

6. Lab visitation report (Jeff Clark, no handout)

Jeff reported that all five lab visits are complete, and he will produce a summary report for each lab. Each lab will need to verify compliance with the recommended changes to the TMC with a target date of September 15th.

7. CPD report (Gary Tietze, no handout)

TEI have received 36 power kits and started distribution. The inspection data from these kits was not forwarded to the secretary for inclusion in the minutes as requested.

They are building three EGR units, and the desire is to have all engines using the same configuration by matrix start with a target of September 15.

TEI does not have venturis, small turbos, or EGR coolers on hand.

8. Scope and objectives (Wim Van Dam, no handout)

Wim observed that we are still awaiting repeat test data on several oils, and we need to review oil consumption data from all runs.

9. Next meetings

O&H teleconference planned for August 22, 2000 at 9:00 am CDT. Mack Surveillance panel meeting planned for September 7, 2000. O&H procedure review planned for September 7, 2000 at 7:30 am EDT

Mack T-10 Task Force meeting on September 19, 2000, if required.