

ASTM Matrix Design Task Force (MDTF)

WHEN FORMED: May 2002

PURPOSE:

The group is charged with developing matrices for new engine tests to establish ASTM LTMS acceptance targets for reference oils and provide information to support API BOI/VGRA guidelines. The goal is to generate this information in the most cost effective and timely manner.

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MEMBERSHIP:

OEMs, oil companies, additive companies

Chairman: Don Marn, Lubrizol Tel. 440-347-1481

MEETINGS:

The MDTF has had the following meetings:

- May 8, 2002 in Reno, Nevada
- May 16, 2002 in Detroit, Michigan
- June 4, 2002 in Detroit, Michigan
- **August 6, 2002 in Detroit, Michigan - Cancelled**
- **November 8, 2002 – Telephone Conference**

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PROGRESS:

- The only new tests being considered for GF-4 are the Sequence IIIG and Sequence VIC. A decision by ILSAC/Oil on the need/justification for a VIC will not be made before mid-September **2002**; therefore, the MDTF has only been working on the IIIG at this time. Many IIIG matrix designs have been considered and debated. As of July 25, 2002 the following items have been decided:
 - Three IIIG calibration oils with individually different DI/VI technology will be included.
 - IIIG precision and calibration oil target setting will require a minimum of 20 tests run at two laboratories.
 - VGRA data tests will be included using a principle centered approach.
 - ASTM Test Monitoring Center Administrator John Zalar will be the matrix execution coordinator.

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December 2002

- The key issues still under study for resolution are:
 - Number of laboratories and engines required for most cost effective design
 - Selection of calibration oils
 - Final test design

- It is anticipated that the Sequence IIIG test matrix will begin during 4Q 2002 and be completed by early 2003.

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The Matrix Design Task Force is striving to get industry consensus on a final matrix design for the IIIG by mid-September. ILSAC is developing IIIG data on matrix oil candidates and expects to have three oils selected by early September.

The planned August 2002 meeting of the MDTF was cancelled as the group was still seeking required matrix design parameter input from several other industry groups (API, ACC, ASTM). A telephone conference was finally held on November 8 to review the input from other industry groups and the proposed matrices developed by the statistical sub-group. Some key decisions were:

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- **No matrix will be needed for the proposed VIC test since work on this test has been abandoned for GF-4 and the VIB will be carried forward.**
- **API input was that no BOI or VGRA data are needed since the IIIF read-across rules will be carried forward to the IIIG. This was possible because the maximum phosphorus limit for GF-4 is now expected to be 0.08% instead of the original proposal of 0.05%.**
- **Six test stands at two independent laboratories will be used – 3 each at SwRI and PE.**
- **Three matrix oils will be used. Matrix oil selection will be left to ILSAC/Oil and is not input needed for matrix design.**
- **The statisticians proposed a 24 test matrix as the most desirable and cost effective for a precision only matrix. The ILSAC member representative indicated funding was limited on their part. Consequently, an 18 test matrix was offered by the statistical group as a less desirable back-up in case funding for the 24 test matrix is not forthcoming.**

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Phosphorus Volatility Task Force

WHEN FORMED: July 10, 2002

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PURPOSE:

The group is charged with scoping the resources and timing required to develop a phosphorus volatility test procedure that correlates with field experience.

MEMBERSHIP:

OEMs, oil companies, additive companies

*Chairman: Charlie Sherwood, Ford Motor Company
Tel. 313-337-5440*

Meetings:

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The chairman has proposed the following as the group's charter:

- What do we know?
- What do we need to know?
- What will it take to find out those things we need to know?
- How long will it take to find out those things we need to know?
- How much will it cost to find out those things we need to know?
- How long will it take to make the Selby NOACK an approved ASTM procedure?

The group met once in May 2003.

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The general consensus appears to be that a phosphorus volatility test procedure cannot be developed and approved in time to meet expected GF-4 specification timing. Work on developing a phosphorus volatility test is expected to continue as a longer term project for the next specification beyond GF-4. **The work group is considering bench and engine tests.**

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