

**Draft Minutes**  
**ILSAC/OIL MEETING**  
**January 23, 2008**  
**GM Worldwide Travel Services**  
Romulus, MI

Bob Olree, Chair

**1. Introduction of Attendees**

Sign-In and Introductions: ILSAC/Oil Chair Bob Olree called the ILSAC/Oil Committee Meeting to order and asked attendees to introduce themselves and sign the committee roster included as Attachment 1.

Review Minutes from November 27 Meeting: There were no changes to the November 27, 2007, ILSAC/Oil minutes.

Membership Changes: Lew Williams reported that Chris Castanian would be the new Lubrizol representative on the ILSAC/Oil Committee. Mr. Williams added that he would continue in his role as an Oil-side representative on the committee.

**2. Final GF-5 Needs Statement**

The ILSAC/Oil Committee reviewed the Oil-side's response to the draft ILSAC GF-5 Needs Statement issued at the November 27 ILSAC/Oil meeting (see Attachment 2). Oil-side members accepted the Needs Statement with one small change: replace the adjective "quality" with "performance." No members of the committee objected to the change.

To finalize the GF-5 Needs Statement, members made a motion to accept the paragraphs in Attachment 3 as the GF-5 Needs Statement. The motion passed unanimously [**6 for, 0 against**].

**3. ROBO Update**

Bernie Kinker provided an update on ROBO (see Attachment 4). Testing with matrix oil 435 is about to begin, and planning for round-robin testing continues. Mr. Kinker estimates that the test method for ROBO will be ready for ASTM ballot in June.

**4. GF-5 Emissions System Compatibility Improvement Task Force (ESCIT)**

Hannah Murray reported to the ILSAC/Oil Committee that ESCIT recommends using the Sequence III engine test as the test method for measuring the phosphorus impact on emissions systems in spark-ignited engines. Her letter reporting the ESCIT recommendation is included as Attachment 5. Ms. Murray also summarized the ballot results that prompted the recommendation (see presentation under Attachment 6).

At the conclusion of her report, Ms. Murray made a motion for the committee to accept both the ESCIT recommendation and her summary presentation. Both items were accepted unanimously by the committee [6 for, 0 against].

Ms. Murray then reported that ESCIT would now focus on developing an equation for phosphorus volatility. ACC statisticians will provide a report on the phosphorus volatility equation at the February 11 ESCIT meeting.

## 5. Sequence VID Consortium Update

Jim Linden briefed the committee on the efforts of the Sequence VID Consortium. His presentation is included as Attachment 7.

In his report, Mr. Linden reported that the consortium had completed the first three matrixes planned and had initiated the fourth matrix. He also reported that the consortium expected to complete its work by April 2008. This bit of news prompted a discussion on when the Sequence VID would be turned over to ASTM for precision testing and test method review and approval. The timeline provided in Mr. Linden's presentation indicates that precision testing would begin in May. Some questioned whether this date is accurate. Others reminded ILSAC/Oil that ASTM needs to be asked to establish a task force charged with developing a Sequence VID test matrix and funding plan. Jim Linden agreed to discuss the issue of timing at the next Sequence VID Consortium face-to-face meeting and provide a more detailed, revised timeline for ILSAC/Oil Committee consideration.

**ACTION: Jim Linden will review the Sequence VID development timeline with the VID Consortium and provide an update to ILSAC/Oil. This update will address the steps in the VID development process attributable to ASTM.**

## 6. TEOST 33 Presentation

Glenn Mazzamaro delivered a presentation on a study of the TEOST 33 response to Molybdenum. His presentation is included as Attachment 8. In the presentation, Mr. Mazzamaro provided background information on moly and its use in engine oils, a description of the TEOST 33 procedure, and a proposal to modify the procedure.

Several comments were shared during and after Mr. Mazzamaro's presentation:

- The TEOST 33C is designed to correlate to an internal Chrysler dynamometer test.
- The test temperatures in the TEOST 33C mimic the turbo temperatures seen in the field.
- Chrysler has no concern with molybdenum amounts in an engine oil as long as the oil passes the TEOST 33C.
- Two SAE papers on the TEOST 33C are worth noting: SAE 962039 and SAE 932837.
- The Institute of Materials (IOM) database shows that nearly all passing ILSAC oils contain something less than 600 ppm moly (see Attachment 9).

The discussion closed with Mr. Mazzamaro wondering aloud whether there would be value to running a field test with a turbo-equipped PT Cruiser. No one committed to running the test.

Mr. Olree thanked Mr. Mazzamaro for making the presentation, noting that this type of intellectual debate is of great value to the ILSAC/Oil Committee.

## 7. Draft GF-5 Specification

Review of draft GF-5 specification: Ron Romano reviewed changes made to the draft GF-5 specification. Changes of note include the following:

- Replaced “for gasoline-fueled passenger car engine oils” with “for spark-ignited internal combustion engines” in the first paragraph of the GF-5 preamble.
- Added a new sentence to the second paragraph of the preamble: Performance parameters other than those covered by the tests included or more stringent limits on those tests included in this standard may be required by individual OEMs.
- Added requirements for AEM elastomers under 3.o.

As Mr. Romano reviewed these changes, committee members noted other changes that should be made to the draft:

- Phosphorus volatility under 3.a should identify the test as “Sequence IIIG @ 100 hours.”
- Replace SAE in “mix with SAE reference oils” under 3.k with TMC.

Request for ASTM GF-5 seals group: The ILSAC/Oil Committee discussed the need to form an ASTM seals work group. This group would be charged with determining whether the proposed GF-5 limits for seals compatibility should be fixed or relative to a reference oil. Mr. Olree gave provisional endorsement of the idea to form a work group but withheld final commitment until he could review a description of the group’s objective. Lew Williams volunteered to prepare an objective for the group. Bill Buscher confirmed that Becky Grinfield would be available to chair the group. Tracey King volunteered to ask SAE’s Committee on Automotive Rubber Standards (CARS) if there is a qualification procedure for seal materials.

### **ACTIONS:**

- **Lew Williams will prepare an objective for the GF-5 Seals Compatibility Work Group and forward it to Bob Olree for consideration.**
- **Tracey King will ask the Chair of SAE CARS if there is a qualification procedure for seal materials.**

Issues and concerns about GF-5 draft: Harji Gill delivered a presentation on the Oil-side’s issues and concerns with the GF-5 draft (see Attachment 10). As Mr. Gill progressed through the presentation, committee members offered comments and suggestions:

- Toyota believes GF-5 is robust enough for its GDI engines, but the company is always willing to listen to any concerns oil marketers and additive companies might have.
- Bob Olree noted that there is not sufficient time in the GF-5 development process to consider new tests for the category. Additionally, he is not aware of any deficiencies that have not already been addressed in the draft specification.
- Bob Sutherland provided a chart (see Attachment 11) showing the types of base oils available in Asia. Many of these oils could not be used to manufacture 10W-30 oils meeting GF-5's proposed 0.5 sulfur maximum.
- Tracey King reminded the group that API owed the committee summary information on the sulfur level of 10W-30 GF-4 formulations licensed by API. Kevin Ferrick agreed to provide the information.

**ACTION: Kevin Ferrick will provide summary information on the sulfur level of 10W-30 oils licensed by API.**

Following Mr. Gill's presentation, Mr. Olree suggested that the group mark up the draft GF-5 specification to reflect Oil-side's positions on the tests and limits. This draft GF-5 mark-up is included as Attachment 12.

## **8. GF-5 Timeline**

Bill Buscher reviewed Ben Weber's latest version of the GF-5 timeline with the committee. The timeline is included as Attachment 13. In the course of the review, members offered the following comments:

- Members expressed a desire to see the IIIG plan for GF-5.
- The committee asked for a summary of the IVA parts issue. Bill Buscher agreed to prepare a summary.
- The ASTM PCEOCP needs to be asked to form a VID matrix design task force.
- The line for ROBO should reflect that it is expected to go to ASTM ballot in June.

### **ACTIONS:**

- **Bill Buscher will prepare a summary of the IVA parts issue.**
- **Bill Buscher volunteered to forward to Ben Weber the comments from the committee for inclusion in the GF-5 timeline.**

## **9. Next Meeting**

The ILSAC/Oil Committee will next meet from 10 a.m. to 3 p.m. on Thursday, February 28, 2008, in Detroit at the GM Worldwide Travel Services facility near Detroit-Wayne County Airport.