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**COMMITTEE D02 on PETROLEUM PRODUCTS, LIQUID FUELS, AND LUBRICANTS**

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Unapproved Meeting Minutes of the Technical Guidance Committee Virtual Meeting

Hyatt Regency, Seattle, WA

June 27, 202

2:30 – 4:00 PM PST

**Reply to:** Patrick Lang

Southwest Research Institute, 6220 Culebra Road San Antonio, TX 78228

Phone: 210-522-2820, [patrick.lang@swri.org](mailto:patrick.lang@swri.org)

The meeting was called to order at 2:30 PM Pacific time by Pat Lang.

**Agenda:**

The meeting agenda can be found as Attachment # 1.

### **Membership Review:**

The attendance list can be found as Attachment #2. Pat commented that a thorough review of the attendance list was done prior to this meeting. He encouraged the audience to review the list as it is passed around to ensure accuracy. Pat also reminded the group that the membership list for the TGC is comprised of the surveillance panel chairs of the TMC monitored tests and test developers/sponsors.

### **Review and Acceptance of Minutes:**

Pat Lang requested approval of the December 6, 2021 meeting minutes. Receiving no comments or changes the chairman moved for approval; there were no objections.

### **Action Item List:**

The action item list was reviewed and can be found as Attachment #3. The status of each action item is listed.

### **Fuels Task Force Update:**

Pat advised that all of the action items on the fuels task force list are complete. As a result, there was no formal report provided. If there are any new requests for the fuels task force to handle, the group will reconvene.

### **Rating Task Force:**

Bob Campbell provided the rating taskforce update. The report can be found as Attachment #4. A summary is as follows:

- 1) TMC manuals 20 and 21 are now available for purchase; ordering information can be found in the report.
- 2) Combined rating workshop was conducted the week of February 14, 2022 in San Antonio.
  - Data indicates that raters are in a good spot
  - LED lights, JMP software for real-time evaluations and a new web-based system utilized during this workshop.
- 3) The rater calibration extensions have now been terminated since there was an in-person workshop was held.
- 4) A Heavy Duty (HD) workshop is planned on September 18<sup>th</sup> in San Antonio.

### **Old Business:**

#### **DACA II Review Task Force:**

Pat Lang reported that the task force that is reviewing the DACA II document has continued to be active during this period with three virtual meetings held. A summary report can be found as Attachment # 5. The current goal is to have the review completed by the December 2022 TGC meeting during ASTM week.

### **Part numbers in ASTM Procedures:**

A quick refresher on the background for this item is that there has been a request to consider relocating the parts lists that currently reside in the ASTM test procedures to a document that resides on the TMC website. The thought behind this is that it will afford the ability of making changes or updates to part numbers without having to make changes to the test procedure. Making changes to the test procedure can be a very lengthy process and this would eliminate the burden that is put on the information letter approval process, which requires balloting through Subcommittee B. The procedure would reference the document and where it is located for an interested party to access.

The new information on this topic, as discussed during this meeting, is that the Sequence VI Surveillance Panel has been working on reviewing the part numbers in the test procedures. They have thoroughly reviewed the part numbers to make the lists/tables more concise and accurate. They were also contemplating moving the parts list out of the procedure and having a separate document reside on the TMC website. During the Sequence VI Surveillance Panel vote on what to do with their lists, their panel agreed that they would not remove the list from the procedure. The voting members echoed the same concerns voiced earlier at the previous TGC meeting about ensuring that any changes get the proper review outside of just the surveillance panel. Additionally, there are concerns about having too many alternate documents that the TMC will have to ensure get maintained/updated appropriately.

As a result of this, Pat Lang advised that he would like for this item to be removed from the TGC action item list. It is clear through the vote taken at the Sequence VI Panel that the overall consensus is the need to keep the part lists in the test procedures. Surveillance Panels are at liberty to move part lists to an annex in the ASTM test procedures or rearrange the lists as they see appropriate, but the list will remain in the procedure. There were no objections from the panel on calling this TGC action item done.

### **New Business:**

#### **Method Used to Determine Test Weighting during Precision Matrix:**

Andy Ritchie prepared a presentation which can be found as Attachment #6. In this presentation, he shares some of the recent learnings associated with VH rocker cover sludge (RAC) relative to the targets that were set during the precision matrix. It appears that the targets may have been set too severe from the start, which could partially explain why reference oil results on RAC are very mild. He further explained that during the precision Matrix in 2017, there were four labs that participated in the matrix. An equal weighting approach was used despite the fact that there were a different number of tests provided by each lab. In the current LTMS system, the EWMA's are actually weighted by test lab frequency. Additionally, the VH RAC issue may have been mitigated if the targets were updated at 10, 20, and 30 tests like we typically did in the past as outlined in Appendix F of the LTMS document.

As a result of this, Andy is advising that the issues raised with the VH target setting and target updating are relevant to all of the sequence tests. He is recommending that the TGC take the action item of convening the group in the fall of 2022 and discussing the following items:

- Future Precision Matrix (PM) designs and analysis approaches, including the use of ‘equal weighting’ of data from each lab participating in a PM.
- Review of LTMS Appendix F recommendation to reset targets after 10, 20, and 30 tests.

Mike Deegan commented that the OEM’s are not as familiar with the LTMS system and the target setting process as the others involved in the surveillance panels. As an example, when a Cusum plot is at 45 degrees, what is it actually telling us?

Frank Farber stated that we need more data to set targets than just the precision matrix data. The process of updating targets at 10/20/30 data points addresses this need.

Bob Campbell cautioned that with three reference oils, we would need 90 tests to review and reset the targets for the final time. This could take a long time to acquire the data. Jeff Clark agreed that it would take a long time to get 30 engine tests.

Andy Ritchie commented that more data provides a better chance of getting the targets correct.

Yong-Li McFarland called up the LTMS Appendix F document during the meeting. The wording in Appendix F is such that updating the targets at 10/20/30 is not mandatory.

Travis Kostan commented that each surveillance panel needs to consider the number of tests required to set the stake in the ground after the precision matrix.

Mike Deegan feels that there may be situations where specific parameters may need target resets as opposed to all of them.

Mike Lochte commented that we need to come up with a frame work on setting targets and document it so that future stewards of the test have guidelines.

Robert Stockwell stated that there was a lot going on with the VH test and we did the best that we could at the time when we set the targets. Now that we look back, we could have benefitted from a target reset for RAC in the VH which supports the 10/20/30 test target updates.

Bob advised that the surveillance panels need to keep their eye on the ball and watch the tests closer. There were some warning signs in the charts that something wasn’t on track.

Frank Farber advised the group that in the VH precision matrix were tests that were invalid but the results were extrapolated based on that labs’ performance with the other oils.

**Action Item:**

The TGC is to initiate a meeting in the fall of 2022 that will consist of the surveillance panel chairs and OEMS. The purpose of the meeting will be to discuss precision matrix target setting, the target update frequencies as outlined in the LTMS document Appendix F and best practices for control chart monitoring. The bench test and gear test SP chairs will also be invited to this meeting.

**TGC Objectives:**

Frank Farber prepared a document that outlines the objective of the TGC; refer to Attachment #7. This will be posted to the TMC website as a document to define the mission of the committee as well as the membership. This is an important item that, in order to get things accomplished, the core group needs to be the decision makers. Andy Ritchie emphasized that it is imperative that the core group, i.e. SP chars and OEM participate in the meetings.

**Next Meeting:**

The next meeting is planned to be in the fall of 2022; location and date to be determined.

The meeting adjourned at 3:40 PST.

# **Attachment #1**

## **Agenda**

**June 27, 2022**

**Attachment #2**

**Attendance List**

**June 27, 2022**

# **Attachment #3**

## **Action Items List**

**June 27, 2022**



# **Attachment #4**

## **Rater Task Force Report**

**June 27, 2022**

**Attachment #5**  
**DACA II Review Task Force Report**  
**June 27, 2022**

**Attachment #6**  
**Precision Matrix Target Setting**  
**June 27, 2022**

**Attachment #7**  
**Technical Guidance Committee Objectives**  
**June 27, 2022**