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

**CHAIRMAN** – Andrew Stevens, Lubrizol

## Group 3 Handbook Surveillance Panel

*Date – 13 October 2023*

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**BG PRODUCTS**  
**INTERTEK**  
**LUBRIZOL**  
**OHT**  
**VALVOLINE**

Maddie Dellinger  
Bill Buscher  
Andrew Stevens  
Jason Bowden  
Amy Ross

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**1. Attendance. See table above.**

**2. Meeting Started at 09:00 CST.**

**3. New business**

**3.1 New Oils**

- Amy stated that the overall topic of this meeting is the guidelines for reference oils including, new oils, reblends, and oil retirement. Additionally, saying that we need to include guidance for when things go wrong. Starting with new oils, Amy stated that in this section we should include recommendations regarding:

- Scope.
- rational (why we need a new oil).
- explanation of desired targets (low, mid, high).
- SP agreement on targets.
- TMC working with the oil supplier.
- TMC execution of the round robins.
- Coordination with stats group for the targets.
- SP voting to accept.
- LTMS update with bulletin.
- Monitoring with stats group as appropriate.

- Amy asked the group if we like this list or if we want to add or change anything.

- Bill Buscher stated that it looked good from an engine standpoint.

- Maddie Dellinger stated that it looked good from the bench standpoint.

- Andrew Stevens stated that he agreed with Bill, that it looked good from an engine standpoint. He asked if we wanted to add guidelines based around what the SP chair should look out for in these situations and maybe some general guidelines about what kind of data typically needs to be gathered.

- Amy Ross stated that yes, we could do an example of when we introduced a new oil or an example of fluid/component monitoring.

- She added performance degradation, precision, CUSUM performance, unequal variability, severity shifts, and reduction in lab status (increase fail rate) to the excel document that group was looking at.

- Jason Bowden suggested including rational as to why an oil can't be reblended and why we need a new oil due to new technologies or a new category. He also suggested that the bullet point "SP vote to accept" needs clarification and that we should change it to "SP vote to accept proposed targets and oil." Amy made the change to the spreadsheet.

- Bill Busher added that there is always a potential need for updating targets. Should the Surveillance panel or the stats group be responsible for that?

- Amy Ross stated that she's working through target review right now, but the stats group is saying it's not appropriate.

- Bill Buscher gave an example during GF-6 PCMO. He said that up until GF-6, they always updated targets. During the first 4 categories engine tests targets got updated after 30 runs. The stats group claims this is no longer accurate and that targets need to be initially set with a precision matrix with no intent on changing them. He said that because of this they've had to throw out or change reference oils. It's created a lot of problems. He says that all tests drift over time, and so do oils and that there should be a review of that.

- Maddie Dellinger stated that the HTCBT surveillance panel just introduced an oil 44-5. They did the initial round robin, made targets, then after 30 industry runs those targets get updated again. She said it's sometimes hard for stands that aren't included in those targets to run and pass calibrations.

- Andrew Stevens referenced the Pittsburgh Meeting and stated that we need to relook at the way we monitor these things and make these decisions.
- Amy Ross stated that it depends on the system the chair is working with, the Shewhart system or LTMS. She said that maybe we need to clearly explain what the systems are and how they work, we could go as basic as including the definition for degrees of freedom for example.
- Andrew Stevens stated that this is probably under the scope of Travis's group.
- Jason Bowden stated that a lot of this stuff falls under the stats group. He said that on the topic of assigning statisticians to specific panels, usually the statisticians are employed by a company that sits on or runs the surveillance panel. For example, on the elastomer panel, a member company of that panel offered their statistician services for that specific panel.
- Amy Ross said that engine test panels typically get a stats team while bench test panels get assigned one statistician and that there are more member companies on the engine side willing to offer up their statisticians.
- Andrew Stevens agreed with both Jason and Amy stating that it's a good idea to have both of their recommendations: SP chairs conducting regular reviews with a statistician and chart monitoring. He wondered if that is enough to prevent large reference oil issues.
- Jason Bowden said that SP chairs should inquire with members of the panel to see if there is someone willing to be a statistician for the group. He says we could add the following statement to the SP handbook: "Surveillance Panel Chairs should make every effort to have membership companies offer a statistician to their panel."
- Amy suggested adding a recommendation about when to get a statistician involved. For example, "if oil performance degrades by X amount for 4 periods, consult a statistician." Or "if 4 or more alarms are hit per quarter per test by more than one lab consult a statistician." She suggests that we could leave it up to the panels to decide what they're comfortable with regarding the number of alarms for example.
- Bill Buscher asked if there was a section of the SP Handbook that covers the LTMS.
- Jason Bowden stated that he thought Travis's group was handling that.
- Andrew Stevens confirmed that this topic is a part of Travis's group.
- Bill Buscher stated that we will still need to tie reference oils to Travis's group somehow. He said that when a test hits an LTMS alarm that a task force is going to form to investigate. For example, what is going on in Seq VIII and Seq X where one oil was shifting, and the others weren't. He states that would be an oil problem and not necessarily a stats problem where new targets would need to be made.

### **3.2 Reblends**

- Moving on to the reblend section of this topic. Amy laid out the following bullet points:
  - Scope
  - Rational
  - Confirmation of Targets
  - TMC confirmation of supplier renewal
  - TMC estimation of the timeline
  - TMC execution of the round robin
  - Stats group establishing targets for the SP to vote on and accept (targets and oil)
  - LTM update bulletin
  - Monitoring with the stats group as appropriate
- Jason Bowden suggested taking out "new targets," stating that the intent is to have the same oil with the same targets.

### **3.3 Retirement**

- Moving on to the Retirement section of this topic. Amy laid out the following bullet points:
  - Scope
  - Presentation of evidence to SP
  - SP needs to vote on validation of request

- Do we do reblend the oil or formulate a new oil
- TMC contacts suppliers
- TMC estimation of timeline for obsolescence
- LTMS update/bulletin
- Monitoring with stats group

- Bill gave an example of reference oil 1006-2 and its introduction into GF-2 for the Seq VIE which was then carried over and used in many tests for GF-3. It was used continuously for Seq IVA and Seq VIII. For both test types, the oil showed a shift in severity. The original supplier of the oil did an analysis of the oil and deemed it unusable. Bill said this is a case where we didn't run out of an oil but still needed to retire it because it wasn't fit for use and couldn't be reblended.

- Amy Ross said that we need to ask TMC what the limits of P&C requests are from suppliers or by a third party to verify a fluid and its components.

- Andrew Stevens that they don't perform independent monitoring because we aren't technically supposed to. He says that monitoring oils would be very dependent on the type of tests that are run because suppliers are sensitive about their oils.

- Amy asked what tests are okay to run. Suggesting that it's okay to run tests involving kinematic viscosity (KV), cold cranking simulator (CCS), and mini-rotary viscometer (MRV). She asked what tests the TMC performs for monitoring. The TMC has a maintenance schedule for how often they monitor and what tests they perform. Amy wondered if we could have access to that information.

- Andrew Stevens wondered if there could be a regular report on the oils regarding whether they're "good" or not. Oils are donated to the TMC and we are their customers, the information would have to be coded.

- Jason Bowden said there is potentially room for improvement in the TMC.

- Amy Ross stated that a statistical analysis of the oils included in the report would be a good idea. She wondered if we should normalize the data.

- Andrew Stevens said it's worth having that discussion because of the 1006-2 example.

### ***3.4 When reblend/retired oils go wrong***

- Amy Ross asked if we should include a reference to the stats guide if a reblended oil goes wrong.

- Bill Buscher said that if things are way off then the oil will get rejected by the panel, so he believes this topic is handled within the other sections.

## **4. Meeting adjourned 9:57 CST**