LRI Gear Lubricants Review Committee
Intertek AR – Plymouth, Michigan
May 9, 2024
Meeting #213 Minutes
UNCONFIRMED

OPEN COMMITTEE MEETING

1.0 QUORUM / INTRODUCTIONS

1.1 Opening Comments, Call to Order / Quorum Check

The meeting was called to order by Chairman, Troy Muransky. A quorum was established with the following representatives present. NOTE: Some members attended in-person, and some attended via WebEx/Telecon only and are noted with an "*".

ATTENDANCE – LRI Review Committee Members:

Dylan Beck	ASTM/TMC
Jessica Carowick	Cummins Meritor
Steve Carr	Dana Corporation
Allen Comfort	U.S. Army
Bruce McGlone	Retired – Cummins Meritor
Jeanelle Morris *	Navistar
Troy Muransky	American Axle & Mfg. - Chairperson
Suzanne Neal	Daimler Trucks North America
Eric Sattler (Alt)	U.S. Army
Khaled Zreik	General Motors
Amy Zyski	Dana Corporation – Vice Chairperson

LRI Committee Members:

Nick Ariemma	The Lubrizol Corporation
Rob Banas	ExxonMobil
Don Bell	Afton Chemical Corporation
Tobias Bender *	Fuchs
Margaret Caridi	BASF Corporation
Jason Gingerich	The Lubrizol Corporation
Arjun Goyal	BASF Corporation
Dan Horvath	Afton Chemical Corporation
Alexander Jackson	Chevron Oronite
Brad Jordan *	Shell International
Percy Kanga *	Retired ExxonMobil
Anthony Lange *	Intertek AR
Donna Mosher	BASF Corporation
Caroline Mueller	Southwest Research Institute
Matt Sangpeal	Afton Chemical Corporation
Nick Schaup	The Lubrizol Corporation
Addison Schweitzer *	Shell International
Dairene Uy *	Shell International
Wes Venhoff	The Lubrizol Corporation
Rebecca Warden	Chevron Oronite
Fatih Yucebilgic *	Fuchs

Guests:

Bob Campbell	Afton Chemical Corporation
Hailey Catania	Cummins Meritor

PRI Staff

Wendy Grubbs

1.2 Review Code of Ethics and Conflict of Interest

The meeting attendees were reminded of their Code of Ethics and Conflict of Interest responsibilities and Anti-Trust notification which are intended to guide all in their participation in the meeting. They were posted at the bottom of the meeting agenda.

1.3 Confirmation of Guests – Determine Membership

The attendees recognized as Guests were acknowledged.

1.4 Review Members Completion of Confidentiality Forms

Hailey Catania from Cummins Meritor provided a signed Confidentiality Form. This will be considered Hailey's first of the required in person attendance for training at two (2) LRI Meetings.

1.5 Request for Membership

No guests requested membership at this time.

1.6 Annual Review of Membership Status

The following people were identified as possibly being removed from the LRI Committee Roster: Melinda Bartlett, Kristijan Drlja, Jacob Huxford, Bob Mlachakm, Arthur Sanchez, Daniel Schwenk, Angela Willis.

ACTION ITEM: PRI to remove the following from the LRI Meeting Attendance List and the Outlook Distribution List for the Lubricant Review Institute: Melinda Bartlett, Kristijan Drlja, Jacob Huxford, Bob Mlachak, Arthur Sanchez, Daniel Schwenk, Angela Willis.

ACTION ITEM: PRI to email those members listed on the Meeting Attendance list that have not participated in a meeting in quite some time to determine if they want to maintain their membership on the LRI Committee.

T. Muransky made a motion, 2nd by R. Warden to designate George Zarins of American Axle as an Alternate Voting Member representing American Axle Manufacturing. Motion Approved

2.0 Approval of Previous Meeting #212 Minutes

A. Zyski made a motion, 2nd by A. Comfort to approve the LRI Meeting Minutes for meeting #212 as written. Unanimously approved.

3.0 Summary of ASTM Meetings

3.1 Report of Summary of ASTM Meetings – N. Ariemma

N. Ariemma presented a summary report of the ASTM meetings conducted Wednesday, May 8th. (Attachment 1).

4.0 Action Item Review

4.1 PRI to develop a Letter to Industry regarding changing "Initial Boiling Point" replacing "1% @ °C". "ASTM D2887" replaces "ASTM D6417" and noting the revision of GL Form 4. **OPEN**
UPDATE: PRI to forward the draft Letter to Industry to T. Muransky for review and final approval for distribution.

4.2 J. Clark to determine where we can publish the Field Trial test method in lieu of including it in SAE J2360 or PD4000 – i.e., an ASTM Test Method. **OPEN**
UPDATE: Following finalization of the next revision of PD4000, the LRI Committee needs to determine if they want to leave the Field Trial Test process in PD4000 or request that the TMC develop an ASTM Test Method for Field Trial Tests.

4.3 J. Carowick to contact Mike Johns (bearings) and Ron Noteboom (seals) from Cummins Meritor to see if they will be the SMEs to work with the Field Trial Replacement Sub-Team. S. Carr volunteered to be an SME for Seals. **OPEN**

4.4 A. Lange to coordinate the Intertek AR conference room for Tuesday, May 7, 2024, for the PD4000 Revision Meeting. **CLOSED**

4.5 A. Comfort to schedule a WebEx/Telecon with the Sub-Team to discuss how to address the Limited Slip Differential in both PD4000 and J2360 by possibly developing an Appendix to J2360. **CLOSED**

4.6 H. Hahn will schedule a conference call in the March/April timeframe with Field Trial Replacement Sub-Team. **CLOSED**

4.7 PRI to revise GL Form 0 to remove the Reference Tests at the top of the page. **UPDATE: T. Muransky will revise this form when combining GL Form 2 and GL Form 2a. See New Business Item #7.2**

4.8 PRI to review the Gear Lubricant Presenters Billing Form removing the Reference Test Fee. **CLOSED**

4.9 D. Beck to confirm that TMC has the ability to save the LRI Meeting candidate submittals for seven (7) years. **OPEN See New Business Item #7.3**

4.10 The LRI Review Committee to develop a list of required documents to be posted on the TMC website and what is to be provided during the in-person LRI Meetings. **CLOSED See Old Business Item #6.6**

4.11 Each Test Station LRI Review Committee Member is to identify what they want included in the documentation that they review during the LRI meeting (L-33, L-37, L-42, L-60, Seals) **CLOSED See Old Business Item #6.6**

5. LRI Meeting Attendance / Venue

5.1 Confirm Next LRI Meeting Venue (request status of field test presentations)
The next LRI Meeting #214 is scheduled for Thursday, August 8, 2024, at PRI Headquarters in Warrendale, Pennsylvania. No field tests presentations are scheduled for the August LRI Meeting.

6 Old Business

6.1 Limited Slip Differential Clutches Sub-Team Report Out
Allen Comfort, Troy Muransky, Arjun Goyal, Dan Horvath, Matt Sangpeal, Don Bell, Dairene Uy, Jessica Carowick, Amy Zyski, Anthony Lange, Jeanelle Morris, Wes Venhoff, Greg Hansen, Michael Portell

i. Review Proposed Verbiage for PD4000 New Section 3.13 (A. Comfort) The Action Item remains open.

It has been decided to include a "-A" at the end of the PRI GL number (i.e., PRI GL 1235-A) on the J2360 PRI-QPL for those products that meet the additional requirements for the Army Limited Slip Differential.
UPDATE February 9, 2023: The Action Item remains open.
UPDATE May 11, 2023: This topic and action item remains open.
UPDATE November 9, 2023: D. Mosher presented the June 2023 SAE Update article.
UPDATE May 9, 2024: A.Comfort reported that a new GL Form 3b will be developed to address the additional documentation required for the military Limited Slip Differential and an "-A" will be added to the applicable J2360 PRI-QPL listings.

ACTION ITEM: A.Comfort to confirm that the information is incorporated in the next revision of PD4000 to address the military Limited Slip Differential required information.

6.2 Review of DRAFT PD4000 by Sub-Team – T. Muransky

The Sub-Team consists of Jessica Carowick, Amy Zyski, Suzanne Neal, Khaled Zreik, Jeanelle Morris, Steve Carr, Dylan Beck, Allen Comfort, Eric Sattler, Troy Muransky, Margaret Caridi, Hyeok Hahn, Nick Ariemma, and Nick. Schaup.

On Tuesday, May 7, 2024, an in-person meeting was held at Intertek AR in Plymouth, Michigan to review PD4000 and prepare a draft.

UPDATE: PRI to sunset the PD4000 Revision Sub-Team.

ACTION ITEM: PRI to provide a copy of the proposed draft to T. Muransky and A. Zyski for a review prior to the draft document being distributed to the entire LRI Committee for review and request comments.

6.3 Field Trial Replacement (Light Duty) Sub-Team Update – H. Hahn

The Sub-Team consists of Hyeok Hahn (Lead), Don Bell, Anthony Lange, Donna Mosher, Allen Comfort, Amy Zyski, Nick Schaup, Eric Sattler, Rebecca Warden, Dairene Uy, Caroline Mueller, Troy Muransky, Matt Sangpeal, Jessica Carowick, Steve Carr - Guests: Michael Portell (Intertek), Michael Charron (SwRI)

R.Warden presented the update from the Field Trial Replacement Sub-Team. The sub-team is still interested in a company volunteering to install sensors on test vehicles. It was noted that this Field Trial Replacement is for light duty vehicles.

The issue of funding remains paramount. One option is to collaborate with CRC. The team is welcome to other suggestions for funding options.

The Sub-Team needs LRI Members to identify the following:

- What are the top 10 choices of vehicle/axle configuration from recent field trials (<5 years) that have been presented to the LRI for review?
- Would there be another source of market information/statistics where we can find such information outside LRI?

ACTION ITEM: LRI Committee Members to provide any field trial information to H. Hahn for use by the Field Trial Replacement Sub-Team.

6.4 Development of LRI Meeting CDs – Number Required

It was confirmed that only Troy Muransky and Allen Comfort/Eric Sattler require CDs be provided for the LRI Meeting documentation.

6.5 Standard Naming of LRI Meeting Documentation on the TMC Website

Presenters are to ensure that the documents posted on the TMC website are documented with the applicable LRI Meeting Number / Company Designations / Test Method or Candidate Program Number.

ACTION ITEM: D. Beck to update the “LRI Lab Submittal Website Instructions Updated March 1, 2022” and include more detail on the titling of the documents being posted on the website.

6.6 LRI Meeting Documentation – TMC Website vs LRI Meeting / Test Station

PRI spoke with each station LRI Reviewer and confirmed the following hardcopy documentation is required for their review. All GL Forms and evidence of waivers are to be provided and the following individual test station documentation:

Chemical & Physicals – SS&C Reports, Foaming Report and Shear Test
L-60 – L-60 Test Reports

L-33 – L-33 Test Reports
L-37 – Nothing Additional
L-42 – Nothing Additional
Seals – D5662 Test Reports

ACTION ITEM: PRI to distribute an email communication to all Presenting Companies informing them of the hardcopy documentation requirements for the LRI Committee Meetings for the Reviewers.

7.0 New Business / Open Discussion

7.1 Develop a Pass/Fail Criteria for the review of Field Trials
Criteria to include: no cracks, visual inspection, oil drain data, no candidate related issues.

A Field Trial Criteria Sub-Team was developed to include T. Muransky (Lead), Allen Comfort, Nick Ariemma, Amy Zyski, Jessica Carowick, Nick Schaup, Caroline Mueller, Jeanelle Morris, Anthony Lange.

ACTION ITEM: T. Muransky to schedule a WebEx or TEAMs Telecon Meeting to develop a field trial pass/fail criteria.

7.2 Combine GL Forms 2 and 2a – T. Muransky
Delete Boiling Point Distribution from GL Form 4
Add FTIR to the NEW GL Form 2

ACTION ITEM: T. Muransky to combine GL Forms 2 and GL Form 2a, correct the Boiling Point Distribution on GL Form 4 and FTIR to the NEW GL Form 2. Also remove the "M" and "Matrix" from GL Form 0 and change it to "W" "Waiver". On the GL Form 1 remove "M = Matrix" and change to "W = Waiver".

7.3 TMC Security – Users/Reviewers Access – Removing Access

ACTION ITEM: D. Beck to discuss with TMC management to confirm TMC's security/privacy and also confirm the data retention period of the requested seven (7) years of the LRI data posted on the TMC website.

7.4 GL Form 0 and GL Form 1 – Remove "Matrix" and change to "W" to stand for Waiver
See Item 7.2 above.

8.0 Parking Lot
- Following finalization of the next revision of PD4000, the LRI Committee needs to determine if they want to leave the Field Trial Test process in PD4000 or request that the TMC develop an ASTM Test Method for Field Trial Tests.

9.0 Adjournment

NOTE: 40-Day Corrections are due to PRI by Tuesday, June 18, 2024.

The next LRI Committee Meeting is scheduled for Thursday, August 8, 2024. A notification will be distributed three (3) weeks prior to that date.

Presenters are requested to provide an expected date of field test completion and presentation to the LRI Committee by contacting the PRI Staff (Wendy Grubbs – wgrubbs@p-r-i.org or 724/772-8647).

Minutes prepared by Wendy Grubbs

***** For PRI Staff use only: ******		
Are procedural/form changes required based on changes/actions approved during this meeting? (select one) YES* ☒ NO ☐ *If yes, the following information is required:		
Documents requiring revision:	Who is responsible:	Due date:
GL Forms	**T. Muransky**	**June 1, 2024**
PD4000	**PRI**	**TBD**