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Meeting Minutes of the Technical Guidance Committee In-Person Meeting

Southwest Research Institute Building 209, San Antonio, TX

May 4, 2023

10:30 – 12:00 PM CDT

Reply to: Patrick Lang

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

Phone: 210-522-2820, patrick.lang@swri.org

The meeting was called to order at 1:00 PM by Pat Lang.

Agenda:

The meeting agenda can be found as Attachment #1.

Membership Review:

The attendance list can be found as Attachment #2.

Review and Acceptance of Minutes:

Pat Lang requested approval of the December 5, 2022, meeting minutes (Orlando). A motion for approval was made by Adrian Alfonso. No objections were voiced; the minutes were approved as written.

Action Item List:

Review of the action item list was skipped in the spirit of saving time for other discussions.

Old Business:

DACA III Task Force:

George Szappanos from Lubrizol brought up an additional item that falls under the DACA III Task Force. In the DACA II document there is a table (see Attachment #3) that outlines the recommendations for "Measurement System Capabilities". The question he has brought to the group is to clarify if the information shown in that table is considered a requirement. As an example, if measuring engine Load with a strain gauge, the stated system accuracy in the table shows +/- 0.25% of full scale. If you choose a load cell that is rated for much higher than where you run vs. one that is closer to where you run, the value 0.25% of full-scale value will be different. Best practice is to cater the range to where you operate during the test, but that choice actually will give you a tighter requirement. It is not likely the intent of the table to create stricter requirements for sizing the device in a narrower range. However, one could interpret it that way.

Randy Harmon of SwRI stated that the table is showing a minimum requirement for the measurement system. It is essentially what you would expect a typical accuracy to be for that type of instrument. The respective test procedure may also have a requirement that could be more stringent than what is shown in the DACA document.

Amol commented that the test procedure supersedes what is stated in the DACA document. Andrew Stevens stated that the accuracy that has been written into any specific test procedure is likely the result of determining the threshold of where test results may be affected.

There was confusion on whether the table in DACA II was actually applicable to the device that is used to calibrate the specific test channel at the test stand, i.e., the standard for checking calibration or if it is for the device to that is doing the measurement at the test stand. Andrew advised that there is confusion on how to use this table and we need to clarify it.

George asked about the requirement for calibration points for a given measurement type. Do you need to calibrate the full range of the instrument, or should you choose points in a narrow range close to where you actually run that parameter in the test.

It was recognized after this discussion that this item needs to be further addressed by the DACA III Task Force.

Action Item:

Pat Lang will call another session of the DACA III Task Force to discuss this item.

New Business:

Surveillance Panel Chairman Handbook (SPC Handbook):

Andrew Stevens provided a brief update on the status of the Surveillance Panel Chairman Handbook. He advised that he has divided the tasks up into several different working groups. Those groups will be reporting to him with their progress.

A discussion ensued regarding the statistics portion of the handbook. Travis Kostan reported that within his working subgroup under the surveillance panel handbook task force, they discussed what would be the best way to handle how the information will be prepared. His group realized that there isn't a one size fits all approach that will work with this information. They were entertaining a training class that would be offered once a year.

Pat Lang commented that this would be a thorough approach but the questions becomes who will be responsible for the ownership of this task well into the future when the current members move on or have changes in responsibilities.

As far as what needs to be in the training, Andy Ritchie commented that he thinks it is very important that we have a training session/document on precision matrix design.

This led into a discussion on how the responsibilities of the stats group get prioritized. Right now, tasks are assigned to the group but there is no defined mechanism to prioritize them. Pat Lang advised that there was some consideration on putting the stats group under the TGC. Todd from Infineum commented that in the past, they just seemed to be able to work out the priorities amongst the group. Jo Martinez reminded the group that requests also come in from ACC and ASTM for statistical analyses. Amanda Stone from Afton commented that she thought that having a list of the tasks and who is assigned to them would be very useful, so everyone knows who is involved. It was noted that there is a list of names on the TMC website for the members of the stats group identified as the "Data Analysis List". The link is on the home page of the TMC website located on the right side of the page under "Website Links". At the end of this discussion, it didn't seem that there was consensus on the need for additional direction for the stats group to prioritize their efforts.

Rich commented that a potential way to help manage the stats requests is to have the surveillance panel chairs submit official requests when they have items that require the attention of the stats group.

Travis commented that there are three things that put on the table during this meeting regarding the stats group. The first was already talked about which was the priorities of the stats group assignments. The second is how the stats training, as part of the surveillance chair handbook, will be handled. The third was the general outline on what specific topics should be covered by the stats group for the surveillance panel handbook.

Mike Birke from SwRI commented on precision statements. Coming from the ASTM bench test world, the term “Precision Statement” means something different than what it does in tests owned by B0.07. For example, a round robin conducted under non B0.07 tests follow ASTM D6300 protocol and require a minimum of 30 degrees of freedom for determining repeatability and reproducibility. Usually there are far more since quite a bit of the data gets dropped in the statistical process. From there, repeatability and reproducibility statements are generated, assuming there is enough valid data. Anything short of the requirements results in an invalid round robin. Although TMC monitored tests are part of ASTM, they don’t follow the same rules as outlined in D6300.

The point in bringing this up is that when we work towards potential documentation of a precision matrix design protocol for the surveillance panel handbook, we need to be aware that the bench tests and the engine tests do things differently. Specifically, the number of tests run in a precision matrix is drastically different.

The meeting was stopped at this point due to time.

Next Meeting:

The next meeting is planned to be Monday June 26, 2023, at the Denver ASTM Meetings.

The meeting adjourned at 12:00 CDT.

Attachment #1

Agenda

May 4, 2023

AGENDA

ASTM Technical Guidance Committee Meeting San Antonio, TX

Patrick Lang – Chairman

Thursday May 4, 2023–10:30 AM to 12:00 PM (CDT)

Location: SwRI Building 209 or Teams Meeting

1. Attendance
2. Chairman's Comments
3. Review & Acceptance of Minutes
 - 3.1. Acceptance of the December 5, 2022, meeting minutes (Orlando).
Minutes are posted to the TMC website
4. Review Action Item List (Pat Lang)
5. Old Business
 - 5.1. DACA II Review Task Force
 - 5.1.1. New Item for DACA: Out-of-Tolerance (George Szappanos)
6. New Business
 - 6.1. Surveillance Panel Chair Handbook (Andrew Stevens)
 - 6.1.1. Working meeting to discuss handbook topics as time permits
7. Next Meeting: June ASTM meetings in Denver, CO
8. Adjournment

Attachment #2

Attendance List

May 4, 2023

TGC Attendance List 5/4/23

<u>Name</u>	<u>Company</u>	
WILLIAM BUSCHEN	INTERTEK	WAB
Tony Catanese	LZ	Tony
Geo. Szappanos	LZ	
Andrew Stevens	LZ	
RANDY HARMON	SWRI	Andrew
John White	SWRI	John White
Ah Lopez	InterTek	
Yangli McFarland	SWRI	Yangli
Amol Savant	Valvoline	Amol
Khaled Rais	SWRI	Khaled
Travis Kostan	SWRI	T. Kostan
ROBERT STACKWELL	IIIH GRANITE	R. S.
DAVE PASSMORE	IMTS	Dave
Mike Pirke	SWRI	
Joe Franklin	Inter tek	
WILLIAM HAIRSTON	HALTZMANN SOLUTIONS	
Andrew Smith	Inter tek	
Jacob Goodale	Infinium	Jacob
Rich Grundza	ASTM TMC	Rich
Andrew Rohlfing	Atton	
Bob Campbell	Atton	
Amanda Stone	Atton	
Ben Maddock	Atton	
Jason Lelovich	Atton	
Jade Dvorak	Infinium	
Analy Ricketts	"	
SAMUEL SEITH DENEZ	SHELL	
Adrián Alfonso	InterTek	

TGC MTG 5-4-23

Participants on Teams Call-in

- ① Amy Ross Valvoline
- ② Mike Degan Ford
- ③ Sean Meyer TMC
- ④ Dylan Berk TMC
- ⑤ Jeff Clark TMC
- ⑥ John Leap TMC
- ⑦ Jo Martinez Oranite
- ⑧ ~~Shawn~~ Whitacre Chevron

Attachment #3

**Measurement System Capabilities Table from
DACA II Document**

May 4, 2023

Table from DADA II Document:

Current Measurement System Capabilities

Measurement Type	System Type	System Accuracy
Temperature	Thermocouple	0-200° ± 0.50 °C 200-1000° ± 2.00 °C
	RTD	± 0.12 °C
Pressure High (> 6.9 kPa)	Capacitive	± 0.2 % of Full Scale
	Strain	± 0.25 % of Full Scale
Pressure Low (0 - 6.9 kPa)	Capacitive	± 15 Pa
	Strain	± 14 Pa
Flow	Orifice Venturi	0.75% of reading
	Vortex (Liquid)	± 0.75 % of reading
	Vortex (Gas)	± 3.0 % of Full Scale
	Magnetic	± 1 % of reading
	Coriolis	± 0.25 % of reading
Speed	Frequency	± 1 rpm
Load	Strain Gage	± 0.25% of Full Scale