

## MEETING MINUTES: ROBO SURVEILLANCE PANEL

**Meeting:** ROBO SP Meeting

**Date:** August 31, 2023

**Location:** WebEx (virtual)

**Minutes by:** Madeleine Dellinger – SP Chair

### Meeting Outcome and Actions:

1. Next meeting tentatively scheduled for November 9<sup>th</sup>, 2023

### Membership and Attendance:

ASTM TMC	*John Loop, *Sean Moyer
Afton	Shelia Thompson, Jeff Yang,
BG Products	*Madeleine Dellinger
Chevron Oronite	*Robert Stockwell
Evonik Oil Additives	*Justin Mills, *Gabe Walkup, Justin Kontra, *Jessica Marcanello
ExxonMobil	*Dennis Gaal
Infineum	Andy Richie
Intertek	Joe Franklin, Matt Schlaff, *Rachel Stone
Lubrizol	*Aimee Shinhearl, Jerimiah Westbrook, *Vince Donndelinger
SwRI	*Becky Grinfield, Joe De La Cruz, *Mike Birke, Yong-Li McFarland
Valvoline	Amol Savant, *Amy Ross, Bruce Tonkel
Vanderbilt Chemicals	Al Filho, Christine Katrenya
Ace Glass	Dave Lawrence, *Tom Petrocella
Koehler Instruments	Raj Shah, *Vincent Colantuini
Tannas/Savant	*Greg Miller
General Interest	*Alan Flamberg

\* Denotes attendance

### Summary:

- Meeting convened at 10:04 CST on August 31, 2023
- No modifications to the agenda
- ASTM Antitrust and Recording Policy reviewed.
- Membership review and update
  - Evonik – Jessica Marcanello added.
  - Evonik – Justin Kontra removed.
- Meeting minutes from April 27, 2023, SP meeting were accepted (Motion made by Gabe Walkup, Seconded by Alan Flamberg).
- Actions and outcome from the April 27<sup>th</sup> meeting were reviewed. Actions included:
  - Maddie Dellinger to put together a list of vacuum pumps, lead times, and rebuild kits. This has been completed and sent out to the panel.
  - TMC Surveillance Panel List still needs to be updated with Maddie's name.
    - Sean Moyer informed Maddie that the link on the PowerPoint slide for the TMC Surveillance Panel List is an old TMC link. The correct link is: <https://astmtmc.org/SurveillancePanelList.aspx>. Sean Moyer updated the Panel list after today's meeting.
- ROBO Status
  - Past Semester (October 1- March 31) finished slightly severe and precision close to target.
  - Current Semester (April 1 – Present) is running mild with precision close to target.
- LTMS Updates
  - None
- Edwards Vacuum Pump Availability
  - No comments on Pump Availability.
- Alan Flamberg mentioned that he was meeting with Koehler in New York today. Last meeting, we discussed briefly if they were still interested, they in fact are and want to remain on the panel. Alan stated that they are ready to take orders for ROBO rigs but haven't received any orders yet. Vincent Colantuini was able to call into the meeting today.
- No other additional business.
- Next meeting tentatively scheduled for November 9<sup>th</sup>, 2023 at 10 AM CST. The date may be postponed or moved up if necessary.
  - Denny Gaal stated there wasn't any conflicting meetings that he was aware of.
  - John Loop stated that the Semi-Annual Report should be completed by then.
- The meeting was adjourned at 10:15 AM CST.

-End report-

# ASTM D7528: Bench Oxidation of Engine Oils by ROBO Apparatus

ROBO Surveillance Panel Meeting

August 31, 2023

Madeleine Dellinger

# Agenda

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- Welcome, ASTM statement
- Review of surveillance panel membership
- Minutes and actions from prior meeting (April 27, 2023)
- Current status of ROBO including statistics
- Vacuum Pump Availability Update
- Additional Business
- Set next meeting

# ASTM Antitrust and Recording Policy

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ASTM International is a not-for-profit organization and developer of voluntary consensus standards. ASTM's leadership in international standards development is driven by the contributions of its members: more than 30,000 technical experts and business professionals representing 135 countries.

The purpose of antitrust laws is to preserve economic competition in the marketplace by prohibiting, among other things, unreasonable restraints of trade. In ASTM activities, it is important to recognize that participants often represent competitive interests. Antitrust laws require that all competition be open and unrestricted.

It is ASTM's policy, and the policy of each of its committees and subcommittees, to conduct all business and activity in full compliance with international, federal and state antitrust and competition laws. The ASTM Board of Directors has adopted an antitrust policy which is found in Section 19 of ASTM Regulations Governing Technical Committees. All members need to be aware of and compliant with this policy. The Regulations are accessible on the ASTM website (<http://www.astm.org/COMMIT/Regs.pdf>).

Electronic recording of ASTM meetings is prohibited.

# Membership

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ASTM TMC	<b>John Loop, Sean Moyer</b>
Afton	Shelia Thompson, Jeff Yang
BG Products	<b>Maddie Dellinger</b>
Chevron Oronite	<b>Robert Stockwell</b>
Evonik Oil Additives	<b>Justin Mills, Gabe Walkup, Justin Kontra, Jessica Marcanello</b>
ExxonMobil	<b>Dennis Gaal</b>
Infineum	Andy Richie
Intertek	Joe Franklin, Matt Schlaff, <b>Rachel Stone</b>
Lubrizol	<b>Aimee Shinhearl, Jeremiah Westbrook, Vince Donndelinger</b>
SwRI	<b>Becky Grinfield, Joe De La Cruz, Mike Birke, Yong-Li McFarland</b>
Valvoline	Amol Sawant, <b>Amy Ross, Bruce Tonkel</b>
Vanderbilt Chemicals	Al Filho, Christine Katrenya
Ace Glass	Dave Lawrence, <b>Tom Petrocella</b>
Koehler Instruments	Raj Shah, <b>Vincent Colantuini</b>
Tannas/Savant	<b>Greg Miller</b>
General Interest	<b>Alan Flamberg</b>
Guests	

## Summary of changes:

1. Added Jessica Marcanello with Evonik
2. Justin Mills requested Justin Kontra be removed



# Motion to accept April 27, 2023 meeting minutes

## MEETING MINUTES: ROBO SURVEILLANCE PANEL

Meeting: ROBO SP Meeting  
Date: April 27, 2023  
Location: WebEx (virtual)  
Minutes by: Madeleine Dellinger – SP Chair

### Meeting Outcome and Actions:

- Maddie Dellinger to put together a list of vacuum pumps, lead times, and rebuild kits.
- Next meeting tentatively scheduled for August 24<sup>th</sup>, 2023

### Membership and Attendance:

ASTM TMC	*John Loop, Sean Moyer
Afton	Shelia Thompson, Jeff Yang,
BG Products	*Madeleine Dellinger
Chevron Cronite	*Robert Stockwell
Evonik Oil Additives	*Justin Mills, *Gabe Walkup, Justin Kontra
ExxonMobil	*Dennis Gaal
Infinium	Andy Richie
Intertek	*Joe Franklin, Matt Schlaif, *Rachel Stone
Lubrizol	*Aimee Shinhearl, Jeremiah Westbrook, *Vince Donndelinger
SwRI	*Becky Grinfield, Joe De La Cruz, Mike Birke, *Yong-Li McFarland
Valvoline	Amol Savant, *Amy Ross, Bruce Tonkel
Vanderbilt Chemicals	Al Filho, Christine Katrenya
Ace Glass	Dave Lawrence, *Tom Petrocella
Koehler Instruments	Raj Shah, Vincent Colantuoni
Tannas/Savant	*Greg Miller
General Interest	*Alan Flamberg

\* Denotes attendance

## MEETING MINUTES: ROBO SURVEILLANCE PANEL

### Summary:

- Meeting convened at 10:05 CST on April 27, 2023
- No modifications to the agenda
- ASTM Antitrust and Recording Policy reviewed.
- Membership review and update
  - Infinium – Removed Sapna Eticala
  - Valvoline – Bounce back email from Amol Sawant (had incorrect email).
  - Lubrizol – Added Vince Donndelinger
  - Koehler – Are they still active?
    - Alan Flamberg via email says he meets with them on and off and will ask what their interest is.
- Meeting minutes from January 19, 2023 SP meeting were accepted (Motion made by Justin Mills, Seconded by Becky Grinfield)
- Actions and outcome from the January 19<sup>th</sup> meeting were reviewed. Actions included:
  - Maddie Dellinger stepping up as new Surveillance Panel Chair
- ROBO Status
  - Past Semester (October 1- March 31) finished slightly severe and precision close to target.
  - Current Semester (April 1 – Present) is running mild with precision close to target.
  - Discussed what positive and negative means for severity as well as the current targets for precision. Justin Mills stated that the precision targets updates as new reference oils are introduced.
  - Justin Mills provided a CUSUM analysis, stating that it appeared the ROBO is seeing a leveling off period due to the severity going from mild to severe. This is a good thing; the test should oscillate between mild and severe. Justin also explained that low activity can impact the CUSUM chart meaning that we might not see a downward (severe) trend due to the lack of runs.
  - John Loop stated that he's working on the TMC Semi-Annual report, and we can expect it within a week to 10 days. The CUSUM plot in the presentation today was missing the trend lines but John said he would make sure they are in the Semi-Annual Report
  - Justin Mills stated they used to have statisticians interpret results to find correlations for certain trends.
  - Amy Ross stated that she has lines on her NOACK plot, and it helps her understand CUSUM better.
- LTMS Updates
  - None
- Edwards Vacuum Pump Availability
  - The Edwards RV8 pumps are on back order taking anywhere from 20 – 70 weeks.
  - Denny Gaal emailed with concerns about how this could affect the GF-7 timeline.
  - Gabe Walkup handles a large amount of Edwards RV8 vacuum pump but says he hasn't had to order one in a while. Evonik has attempted to rebuild them but has been unsuccessful. Justin Mills states maybe they should try again.
  - Maddie Dellinger stated she has been successful in rebuilding the Edwards RV8
  - Rachel Stone with Intertek states that they use US Vacuum and rebuild their vacuums.
  - Aimee Shinhearl asked Maddie how she knew when to rebuild them.
    - Maddie and Justin both answered stating they start to sound bad.
  - Joe Franklin stated that since the Edwards Pumps aren't the only pumps available that this is a non-issue for the panel.
  - Yong-Li wanted to confirm that this isn't going to cause an issue with any labs regarding delays to customer samples.

## MEETING MINUTES: ROBO SURVEILLANCE PANEL

- Maddie said she would put together a list of alternative vacuum pumps to the Edwards RV8.
- TMC Semi-Annual Report
  - John Loop to differentiate between dilute and concentrated NO2 on the TMC Semi-Annual Report.
- ASTM in Denver
  - Reviewed summary slide.
- Next meeting tentatively scheduled for August 24<sup>th</sup>, 2023 at 10 AM CST. Date may be postponed or moved up if necessary.
- The meeting was adjourned at 10:40 AM CST.

-End report-

## Actions from April 27, 2023 Meeting

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■ Maddie Dellinger to put together a list of vacuum pumps, lead times, and rebuild kits.

■ TMC Surveillance Panel List still needs to be updated with new ROBO chair

– <https://astmtmc.org/SurveillancePanelList.aspx>



Vacuum Pump  
Options



# Current status of ROBO

# ROBO Industry Statistics

Period	N-size	Degrees of Freedom	Pooled s	Mean $\Delta/s$
Current Targets	80	77	0.1551	-----
4/1/19 through 9/30/19	95	91	0.2492	-0.32
10/1/19 through 3/31/20	158	153	0.2723	-0.10
4/1/20 through 9/30/20	119	113	0.2264	-0.76
10/1/20 through 3/31/21	113	108	0.3188	-0.11
4/1/21 through 9/30/21	116	110	0.1992	-0.37
10/1/21 through 3/31/22	106	102	0.2103	-0.35
4/1/22 through 9/30/22	105	101	0.1868	-0.06
10/1/22 through 3/31/23	94	91	0.2000	0.11
4/1/2023 through 8/30/23	78	75	0.2427	-0.0942

**Mean  $\Delta/s$   
(Severity)**

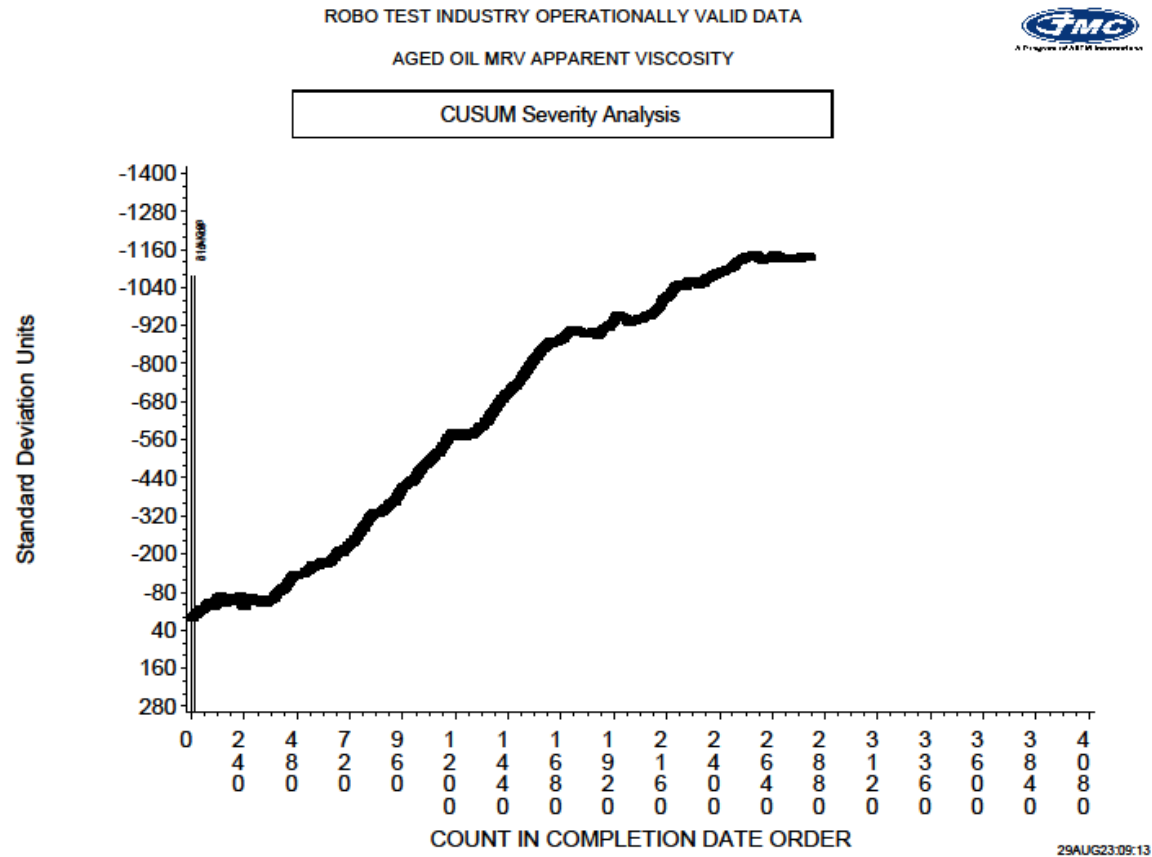
**+ Severe**

**- Mild**

Finished last semester with a slightly severe bias. Precision remains slightly higher than previous semester.

Source <https://www.astmtmc.org/ftp/refdata/bench/robo/data/statistics.txt> (April 25, 2023)

# CUSUM severity analysis



Graph Trend	Meaning
Flat	No bias
Upward	Mild Bias
Downward	Severe Bias

Source: <https://www.astmtmc.org/ftp/refdata/bench/robo/plots/mrv%20INDUSTRY.pdf> (August, 2023)

## LTMS updates

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- No updates to report since our last meeting.

<https://www.astmtmc.org/ftp/docs/ltms/ltms.pdf>

# Edwards Vacuum Pump Availability

**Any Additional Topics?**

# Next Meeting

## Next meeting???

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- Suggest ROBO SP meeting in November prior to ASTM.
- Thursday November 2<sup>nd</sup> 10 AM CST / 11 AM EST
- Thursday November 9<sup>nd</sup> 10 AM CST / 11 AM EST