



EHS NA TC Chapter Meeting Summary and Minutes

NA Fall Standards Meetings
Thursday, November 7, 2019
9:00 AM – 6:00 PM
SEMI HQ, Milpitas, California

TC Chapter Announcements

Next TC Chapter Meeting
Thursday, April 2, 2020 Milpitas, CA in conjunction with the NA Spring Standards Meeting 2020. Check www.semi.org/en/standards for the latest update.

Table 1 Meeting Attendees

Co-Chairs: Chris Evanston (Salus Engineering International), Sean Larsen (Lam Research), Bert Planting (ASML)

SEMI Staff: Kevin Nguyen (SEMI HQ)

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
Axcelis	Brick	Clifton	ESTEC Solutions	Mills	Ken
Tokyo Electron	Crane	Lauren	TEL FSI	Petraszak	Andrew
Salus Engineering	Evanston	Chris	ASML	Planting	Bert
<i>Cymer, ASML</i>	<i>Frankfurt</i>	<i>Mark</i>	Safety Guru	Sklar	Eric
Nikon Precision	Girlea	Lucian	Valin	Sullivan	Brian
Applied Materials	Karl	Ed	Tokyo Electron	Tsuru	Mark
Lam Research	Larsen	Sean	Salus Engineering	Visty	John
Tokyo Electron	Mashiro	Supika	KLA	Walker	Carlisle
KLA	McDaid	Raymond	<i>MURATA MACHINERY</i>	<i>Tominaga</i>	<i>Tadamasa</i>

Italic indicates remote participant

Table 2 Leadership Changes

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>

Table 3 Committee Structure Changes

<i>Previous WG/TF/SC Name</i>	<i>New WG/TF/SC Name or Status Change</i>
Pressure Guidelines for S2 Task Force • Leader – Bert Planting (ASML)	New Task Force

Table 4 Ballot Results

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
6171A	Line Item Revisions to SEMI S2-0818E, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (Oxygen Deficiency)	

Line Item 1	Revisions Related to Oxygen Deficiency Assessment Criteria	Failed and returned to TF for rework
6551	Line Item Revisions to SEMI S2-0818E, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (Mechanical Handling)	
Line Item 1	Deletion of criteria titled Subsequently Produced Lifting Equipment as noted in Section 18.7.5 in its entirety	Failed and returned to TF for rework

#1 **Passed** ballots and line items will be submitted to the ISC Audit & Review Subcommittee for procedural review.

#2 **Failed** ballots and line items were returned to the originating task forces for re-work and re-balloting or abandoning.

Table 5 Activities Approved by the GCS between meetings of the TC Chapter

#	Type	SC/TF/WG	Details
None			

Table 6 Authorized Activities

#	Type	SC/TF/WG	Details
6439	SNARF	Restriction of Materials TF	SNARF was revised from “New Standard: Specification for PFOA Restriction in Fluoromaterials” to “ New Standard: Practice for PFOA Restriction in Fluoromaterials”
6593	SNARF	S2 Mechanical Design TF	Line Item Revision to SEMI S2 Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (Revision to Section 18 Mechanical Design)
6594	SNARF	Fire Protection TF	Line Item Revision to SEMI S2 Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (Adding Guidance for Materials of Construction Evaluation Related to Fire Risk Assessment)
6595	SNARF	Fire Protection TF	Line Item Revision to SEMI S14 Safety Guidelines for Fire Risk Assessment and Mitigation for Semiconductor Manufacturing Equipment (Risk Ranking Criteria and Title)

#1 SNARFs and TFOFs are available for review on the SEMI web site at: <http://downloads.semi.org/web/wstdsbal.nsf/tfocsnarf>

Table 7 Authorized Ballots

#	When	TF	Details
6354A	Cycle 9-19, 1 or 2-20	S2 Korean High Pressure Gas Safety TF	Line Item Revision to SEMI S2, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment · Addition of related information
6049B	Cycle 9-19, 1 or 2-20	S10 Revision TF	Line Item Revision to SEMI S10-0815E, Safety Guideline for Risk Assessment and Risk Evaluation Process
6171B	Cycle 9-19, 1 or 2-20	Chemical Exposure TF	Line Item Revision to SEMI S2, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment · Chemical exposure



#	When	TF	Details
6439	Cycle 9-19, 1 or 2-20	Restriction of Materials TF	New Standard: Practice for PFOA Restriction in Fluoromaterials
6593	Cycle 9-19, 1 or 2-20	S2 Mechanical Design TF	Line Item Revision to SEMI S2 Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (Revision to Section 18 Mechanical Design)
6594	Cycle 9-19, 1 or 2-20	Fire Protection TF	Line Item Revision to SEMI S14 Safety Guidelines for Fire Risk Assessment and Mitigation for Semiconductor Manufacturing Equipment (Risk Ranking Criteria and Title)
6595	Cycle 9-19, 1 or 2-20	Fire Protection TF	Line Item Revision to SEMI S2 Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (Adding Guidance for Materials of Construction Evaluation Related to Fire Risk Assessment)

Table 8 SNARF(s) Granted a One-Year Extension

#	TF	Title	Expiration Date
5957	Control of Hazardous Energy (CoHE) TF	Line Item Revision of S2, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment. (Re: Control of Hazardous Energy	Nov 7, 2020
6049	S10 Revision TF	Line-Item Revision to SEMI S10-0815E Safety Guideline for Risk Assessment and Risk Evaluation Process	Nov 7, 2020

Table 9 SNARF(s) Abolished

#	TF	Title
6551	S2 Mechanical Design TF	Line Item Revisions to SEMI S2-0818E, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (Mechanical Handling)
5970	Fire Protection TF	Line Item Revisions to SEMI S14, Safety Guidelines for Fire Risk Assessment and Mitigation for Semiconductor Manufacturing Equipment (pertaining to alignment with SEMI S10)
6099	S22 Revision TF	Line Item Revisions to SEMI S2, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment, and SEMI S22, Safety Guideline for the Electrical Design of Semiconductor Manufacturing Equipment

Table 10 Standard(s) to receive Inactive Status

Standard Designation	Title
None	

Table 11 New Action Items

Item #	Assigned to	Details
Nov07-2019#1	Kevin Nguyen (SEMI Staff)	To provide all TF leaders an updated TF roster

Table 12 Previous Meeting Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>	<i>Status</i>
July11-2019#1	Kevin Nguyen (SEMI Staff)	To ask the Regs SC to come to EHS committee for interpretation on Trademarks procedure	Pending

1 Welcome, Reminders, and Introductions

1.1 Bert Planting called the meeting to order at 9:00 AM. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

2 Review of Previous Meeting Minutes

2.1 The TC Chapter reviewed the minutes of the previous meeting. Minor corrections were made.

- Motion:** Accept the minutes as amended
- By / 2nd:** Eric Sklar/John Visty
- Discussion:** None
- Vote:** 8-0. Motion passed.

3 Ballot Review

Passed ballots and line items will be submitted to the ISC Audit & Review Subcommittee for procedural review.

Failed ballots and line items were returned to the originating task forces for re-work and re-balloting.

NOTE 1: TC Chapter adjudication on ballots reviewed is detailed in the Audits & Review (A&R) Subcommittee Forms for procedural review. The A&R forms are available as attachments to these minutes. The attachment number for each balloted document is provided under each ballot review section below.

3.1 Doc. 6171A, Line Item Revision to SEMI S2-0818E, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (Oxygen Deficiency)

- Line Item 1 - Revisions Related to Oxygen Deficiency Assessment Criteria
 - Failed and returned to TF for rework

Attachment: 6171A ballot Compiled Responses_TF copy failed

3.2 Doc. 6551, Line Item Revisions to SEMI S2-0818E, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (Mechanical Handling)

- Line Item 1 - Deletion of criteria titled Subsequently Produced Lifting Equipment as noted in Section 18.7.5 in its entirety
 - Failed and returned to TF for rework

Attachment: 6551 ballot Compiled Responses rev2

4 Liaison Reports

4.1 *Japan TC Chapter*

4.1.1 Supika Mashiro reported. Of note:

- Last Meeting
 - August 29 at the Japan Summer 2019 Meetings
 - SEMI Japan office, Tokyo
- Next Meeting
 - December 13 at the Japan Winter 2019 Meetings in conjunction with SEMICON Japan 2019

- Tokyo Big Sight, Tokyo
- Global Seismic Protection TF
 - Approved
- STEP/SEMI S2 was held on November 1, 2019 at SEMI Japan office
 - Excellent attendance with over 70 people presented.

Attachment: 201910_EHS Japan_forNATW_v2.0

4.2 Taiwan TC Chapter

4.2.1 No report. Lauren Crane was curious on any seismic issues that need to be discussed. According to Supika Mashiro, Taiwan is only interested in facilities seismic rather than equipment. She added that they are concerning with facilities gas distribution to equipment more so than equipment related to S2 seismic. Chris Evanston also chimed in that Taiwan's seismic topic may not be best to be dealt in S2.

4.3 Korea Liaison

4.3.1 No official report. However, Sean Larsen said there is an EHS CFG meeting planned for during SEMICON Korea. Details will be revealed. Any questions, please contact to Natalie Shim.

4.4 ICRC Liaison

4.4.1 Lauren Crane reported on the following topics. Of note.

- Discussed some working group status,
- Received liaison report from Japan Chapter.
- Invited Japan Chapter to consider SEMICON Japan meeting a Japan chapter meeting rather than a joint meeting. This leaves SEMICON West meeting as the one joint ICRC meeting.
- Reviewed Dashboard – Key AI – Get hold of 60204-33 CD and see if it can be shared with ICRC.

4.5 RSC / Committee Leadership Report

4.5.1 Sean Larsen reported. Of note.

- SEMI management transferred the Manufacturing Ownership Diversity (MOD) activity to SEMI Workforce Development group.
- *Regulations and Procedure Manual*
 - Some changes are in works, with intent to submit to ISC and publish in time that they will be in effect for Spring Meetings
 - Changes under discussion include
 - Defining more formal liaison process
 - Lots of miscellaneous clean-up
 - Also looking to change the Trademark rules after the grief of the 100 item editorial changes to S2 to support the existing rules
 - There were some requests in RSC to lower perceived administrative burden.



- How to address when regulations changes drive non-technical changes in documents
- Looking for ways to ease IP checks when small changes are being made to the document with no impact to existing IP

Attachment: TF Presentation Template 2017

5 Subcommittee & Task Force Reports

5.1 Manufacturing Equipment Safety Subcommittee (MESSC)

5.1.1 Tara Collins reported. Of note:

- SEMI S2 improvement High pressure
 - The TFOF was presented for approval.

Motion: To approve the TFOF for S2 Pressure Guideline

By / 2nd: Bert Planting/Lauren Crane

Discussion: Lauren Crane asked if design criteria will be included. According to Bert Planting, there will be some guidance associated. The goal is to start at a high level. The intent is either to add a new section or expand current mechanical section in S2. More details will be available once the TF starts having meetings.

Vote: 9-0. Motion passed.

- SEMI S2 improvement Explosive materials
 - May be useful, but there are concerns with overlapping other ongoing work.
 - To table item for future review by MESSC. No action at this time.
- Safety interlock x 2 – design, fail-safe vs. fault tolerant
 - Might be able to solve via editorial change. However, no significant problem identified with the current wording.
 - Additional work needed (11.5 vs 11.5.1 vs new #)
 - Table item – no action for now
- Safety interlock
 - Should both these sections 6.6 and 11.5 include both fail-safe and fault-tolerant?
 - Agreed it is a valid request, will pursue.
 - Tara Collins will plan to submit a TFOF
- Equipment compliance to newest standards
 - Refer to SEMI S2 3.3 ; no other actions available.
 - No action – item closed.
- “Self-certifying” still leading to “safe design”?
 - MESSC assessment: the situation for SEMI is as effective as realistically achievable.
 - No action – item closed.

Attachment: TFOF-SEMI S2 section Pressure requirements rev1

Attachment: MESSC Fall 2019 Notes

5.2 S6 Revision TF

5.2.1 John Visty reported. Of note:

- New IEC 62990-1 – Published June 2019
- Reviewed standard criteria & application to establish minimum criteria
- Plan – Continue to hold a gas detector supplier work group conf call / meeting
 - Application for paper tape question ??
 - IEC meeting is happening this week in Oregon. One of the member in attendance will verify and provide an answer by the next meeting.
 - Ability / willingness to list to selected IEC 62990 criteria standard
 - Sensitivity / handling of gases not in Table A-1

Attachment: 2019 Fall S6 rpt out

5.3 S3 Revision TF

5.3.1 Andy Petraszak reported. Of note:

- Current topics list, in the order in which TF intends to address them.
 - Reordering list of topic list
 1. Heating of chemicals obtained as solids, liquids, gases, or combinations thereof
 2. Chemicals obtained as liquids that contact substrates as liquids, gases, or combinations thereof
 3. Chemicals used directly for processing and for such purposes as in situ chamber cleaning and seasoning
 4. Heating to maintain the temperature of piping and other components to manage the risks resulting from condensation (upstream and downstream of process chamber) (including feedback to address loss of heating, such as in effluent lines)
 - Item 4 will be prioritized to item 1.
 5. Corrosion, including by novel process chemicals
 6. Chemical reactions used for, or incidentally resulting in, heating
 7. Use of heaters for energetic materials
 8. Other improvements that might be found appropriate for EHS Committee consideration.
 - Development of terms
 - Maintain separate terms base on phase and then determine where it may be beneficial to combine them
 - Developing types of heaters for solids

Attachment: S3TF_Report_07NOV2019

5.4 Energetic Materials (S30) TF

5.4.1 Eric Sklar reported. Of note:

- No immediate revision is needed. The TF plans to remain active to monitor implementation of S30.

Attachment: EnergeticMatlsTF_es07nov119a

5.5 Fire Protection TF

5.5.1 Eric Sklar reported. Of note,

- S14 Ranking Criteria
 - We've been waiting for S10 TF to finish its work on risk ranking criteria, so we could match the S10 criteria
 - The poll option indicates to replace S14 ranking criteria with a pointer to S10, which removes mismatch risk, but cedes control of the S14 criteria to S10 (effects include adding injury to S14, removing loss of use of both equipment and facility)

Motion: To approve the S14 SNARF

By / 2nd: Eric Sklar/Lauren Crane

Discussion: None

Vote: 9-1. Motion passed

- S2 Fire Protection
 - The previous related DR included instructions to evaluate the materials of construction to determine if a full S14 review is needed. This effort is to provide guidance on how to review materials of construction consistently.

Motion: To approve the S2 SNARF

By / 2nd: Sean Larsen/Andy Petraszak

Discussion: None

Vote: 8-0. Motion passed

Attachment: FPTFreportF19__es06nov19a

Attachment: SNARF_S2 FP MoC_07nov19

5.6 S10 Revision TF

5.6.1 Bert Planting reported. Of note.

- Ballot 6049B
 - 2 line items passed and being published
 - 2 line items failed and returned to TF
 - LI2 ("Property", environmental effects)
 - Still open, lot of discussion no consensus yet - Future work
 - LI3 (Equipment/Facility)
- Going forward
 - Teleconferences on the two open LIs Tues or Thurs
 - Send out a ballot with line items that are completed

- Make separate RI including Machine damage
- Improve RI based on negatives

Attachment: S10 TFreport 19_6_nov1

5.7 S8 (Ergonomics) TF

5.7.1 No report. Sean Larsen said there seems to be a lack of consensus on S8 revision. The status for ballot authorization is unclear.

5.8 S23 Global TF

5.8.1 Lauren Crane reported. Of note,

- 5 telecons since West 2019.
- Main focus is on ECFs for H2 and Natural Gas, and a factory infrastructure model for a system of 3 temperature bands of process cooling water related ECFs.
- Working out details is more work than originally anticipated, but still moving forward.
- Aiming for a ballot ready for final review by Spring standards meetings.

5.9 PFOA Specification TF

5.9.1 Lauren Crane reported. Of note,

- Aiming for Cycle 1 ballot.
- Still working on wording
- Seeking opinion of EHS Committee – Would including a list of some known tradenames for some fluoromaterials as related information be appropriate?
 - Some said it may be a good idea to include trademark for recognition.
 - Some expressed opposition on trademark should be removed since it creates unfair advantages. Generic terms should be used instead.
- The SNARF was intended to be a specification, but it is now revised to be a practice.

Motion: To approve the revised SNARF

By / 2nd: Lauren Crane/Brian Sullivan

Discussion: None

Vote: 9-0. Motion passed

Attachment: PFOA SNarf revised rev1

5.10 Control of Hazardous Energy (CoHE) TF

5.10.1 Sean Larsen reported. Of note:

- Activities have been more focused on OSHA Request for Input lately
- Discussed what should compliance to SEMI S2 section 17 mean and how to proceed.
- List of problems
 - Reevaluate “readily accessible”
 - Location of LOTO devices



- Clarify what we mean by energy isolation device/energy isolating device
 - Clarify/emphasize verification steps, methods, etc.
 - Align electrical and non-electrical isolation devices or agree on rationale for differences
 - Explicitly address alternative methods/alternative means
 - How to address liquid valves claiming to be “LOTO” valves that use a compressible member to close and remain closed.
- Get teleconferences going to start to develop materials

Attachment: S2 C0HE TF Presentation

5.11 S22 TF

5.11.1 Sean Larsen reported. Of note,

- Task Force has been dormant for a while
- No interest at this time to take up S2/S22 alignment efforts for sections 11, 12 and 13 of S2
- Some interest in addressing some specific topics in S22
 - 9.1.6.4 – Phase Designations (align with IEC 60204-33)
 - 9.3.8 – Tool to override (align with many external standards to explicitly allow tool main power box interlock to be overrideable)
 - 18.1 240VA limit – align motor criteria to 240VA limit
 - S22 does not consider TT systems which are common in Japan – suggest asking Japan EHS committee if they would like them included in S22
 - International standards 60204-1 and 60204-33 has found that large systems 0.1 ohms ground requirement is not workable – they have an alternative method of compliance that involves switching speed of main CB S22 should consider incorporating this alternative approach – align?
 - Other alignments with NFPA 79?
 - Integrated LOTO hardware?
 - Not allow safety circuit override features?
 - Expand Hi-pot test for normal operating voltages that are different from normal line voltages – properly testing components
- Reestablish teleconferences and develop line item changes

Attachment: S22 TF

5.12 S22 Chemical Exposure TF

5.12.1 John Visty reported. Of note,

- Total of 4 Negatives
- Review Fail Ballot – LamRC2
 - Vote for finding negative R&P
- Rework the ballot for Spring with intent to re-ballot

Attachment: 2019 Fall Chem Expos TF_rpt out

5.13 S2 Korean High Pressure Gas Safety TF

5.13.1 Sean Larsen reported. Of note,

- The TF is continuing working on ballot 6354A, Line Item Revision to SEMI S2, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (Addition of related information). The TF will have teleconferences in coming weeks. The goal is to issue for ballot for review at the next meeting.
- Eric Sklar asked if the effort is for conformance or compliance?
- Sean Larsen said the goal is to provide guidance to Korean regulator and hopefully establish some credibility.
- Lauren Crane inquired if this document is mixed with Bert Planting's new effort on pressure guideline. It was not clear, but time will tell.

5.14 Other Interest Documents

5.14.1 Sean Larsen reported Power Harmonic TF, under NA Facilities, was abandoned as Alex McEachern is retired.

5.14.2 Raymond McDaid said equipment users are asking compliance with IEEE 519. He was not sure if anyone is aware of it.

5.14.3 Sean Larsen mentioned an ongoing effort for three-phase voltage sags undertaken by the Voltage Sag Immunity Task Force under the Facilities NA TC Chapter. There are interests, but testing equipment, in the range of 600 lbs, is not portable.

5.14.4 Also, Sean Larsen said Building Information Modeling (BIM) activity is resurrected. The concept seems complex and it is a nightmare to maintain.

5.15 SEMI Staff Report.

5.15.1 Kevin Nguyen (SEMI) gave the SEMI Staff Report. Of note:

- Next meeting
 - March 30-April 2, 20
 - SEMI HQ in Milpitas, California
- 2020 Critical Dates for SEMI Standards Ballots
- SEMI Standards Publications
 - Total SEMI Standards in portfolio: 1010
 - Includes 269 Inactive Standards
- New Forms, Regulations & Procedure Manual
 - Regulations (Feb 28, 2019)
 - Latest version clarifies procedures applicable for Copyrighted Items and trademarks
 - Procedure Manual (Feb 28, 2019)
 - Style Manual Version 6 (March 25, 2019)

Attachment: Staff Report July 2019_v2 EHS

6 Old Business

6.1 SNARF Extension (older than 3 years).

6.1.1 The following SNARFs have reached 3 year project deadline. According to responsible TF leaders, SNARF 5970 and 6099 were no longer worth pursuing, so these should let go abandoned.



#	TF	Title	Expired Date
5970	Fire Protection	Line Item Revisions to SEMI S14, Safety Guidelines for Fire Risk Assessment and Mitigation for Semiconductor Manufacturing Equipment (pertaining to alignment with SEMI S10)	Nov 7, 2019
5957	CoHE	Line Item Revision of S2, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment. (Re: Control of Hazardous Energy	Nov 7, 2019
6049	S10	Line-Item Revision to SEMI S10-0815E Safety Guideline for Risk Assessment and Risk Evaluation Process	Nov 7, 2019
6099	S22	Line Item Revisions to SEMI S2, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment, and SEMI S22, Safety Guideline for the Electrical Design of Semiconductor Manufacturing Equipment	Nov 7, 2019

Motion: To extend one year for these projects for document 5957 and 6049 listed above.

By / 2nd: Bert Planting /Lauren Crane

Discussion: None

Vote: 5/0. Motion passed

7 New Business

7.1 Ed Karl presented SNARF for line item revision to S2 (Mechanical handling)

Motion: To approve S2 SNARF

By / 2nd: Ed Karl/Andy Petraszak

Discussion: None

Vote: 3/0. Motion passed

7.2 EHS Charter Review

7.2.1 The current charter of the EHS Global Technical Committee is available on the SEMI web page at <http://downloads.semi.org/web/wstdsbal.nsf/9c2b317e76523cca88257641005a47f5/c07e9799253c7c2f88256e700075c276!OpenDocument>, and is also listed below.

- To identify and develop international environmental, health and safety (EH&S) standards fulfilling the technical needs of the semiconductor, flat panel display and other related industries. The Committee will focus on:
 - Standards that promote safe and environmentally responsible design, selection, facilitization, operation, maintenance, service, decommissioning, and disposition of equipment and materials
 - EHS issues related to the SEMI Standards Program
 - EHS support for other technical committees and SEMI divisions
 - Promoting and facilitating the use of SEMI EHS documents
 - Supporting technical educational programs on EHS-related subjects.
 - Identify and consider non-SEMI documents as they relate to SEMI EHS documents.

7.2.2 The current charter does not define EHS. It appears there is a mismatch with current EHS activities. Thus, the charter should either

- a) Not dealing with risk
- b) Define EHS
- c) Or add risk assessment

- There are some interests in modifying the charter. Sean Larsen reminded all that changing the charter will need approval from Taiwan and Japan TC Chapter as well.



- Eric Sklar expressed his opinion that the charter should include non-EHS risks and explicitly list them out.
- There was discussion on moving non-EHS risks to other committee such as Metrics Committee. But there was opposition to removal since most wants non-EHS risks continue to be included in equipment design and evaluation.
- A session at the next meeting at Spring is needed as interesting discussion was generated and more time is needed to come up with a concrete proposal.

7.3 Task Force Rosters.

7.3.1 Many rosters appear to have the latest contact updated. Kevin Nguyen said the TF leaders should maintain the list. When an attendee signs up, it is the responsibility of the TF leader to maintain. However, the signed in roster are not provided to the leaders unless they are requested.

Action Item 1 – Kevin to provide updated roster to all TF leaders, so leaders and staff would have a synchronized list.

8 Upcoming Ballot Authorizations

8.1.1 The following ballots are authorized for the next meeting.

#	When	TF	Details
6354A	Cycle 9-19, 1 or 2-20	S2 Korean High Pressure Gas Safety TF	Line Item Revision to SEMI S2, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment Addition of related information
6049B	Cycle 9-19, 1 or 2-20	S10 Revision TF	Line Item Revision to SEMI S10-0815E, Safety Guideline for Risk Assessment and Risk Evaluation Process
6171B	Cycle 9-19, 1 or 2-20	Chemical Exposure TF	Line Item Revision to SEMI S2, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment Chemical exposure
6439	Cycle 9-19, 1 or 2-20	Restriction of Materials TF	New Standard: Practice for PFOA Restriction in Fluoromaterials
6593	Cycle 9-19, 1 or 2-20	S2 Mechanical Design TF	Line Item Revision to SEMI S2 Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (Revision to Section 18 Mechanical Design)
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6595	Cycle 9-19, 1 or 2-20	Fire Protection TF	Line Item Revision to SEMI S2 Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (Adding Guidance for Materials of Construction Evaluation Related to Fire Risk Assessment)

Motion: To authorize above documents for ballots for cycle 9 of 2019, cycle 1 or 2 of 2020.

By / 2nd: Eric Sklar/Sean Larsen

Discussion: None

Vote: 5/0. Motion passed

9 Fall Scheduling

9.1 The following is the draft schedule for the next set of meeting.

Attachment: Spring2020_Rev2



9.2 Next Meeting and Adjournment

9.3 The next meeting is scheduled for Thursday, April 2, 2020 at SEMI HQ, Milpitas, CA. See <http://www.semi.org/en/events> for the current list of meeting schedules.

Having no further business, a motion was made to adjourn. Adjournment was at 4:00 PM.

Respectfully submitted by:

Kevin Nguyen,
 SEMI Standards Operations Manager
 Phone: 408-943-7997
 Email: knguyen@semi.org

Minutes tentatively approved by:

Sean Larsen (Lam Research)	<Date approved>
Chris Evanston (Salus Engineering International)	<Date approved>
Bert Planting (ASML)	<Date approved>

Table 13 Index of Available Attachments^{#1}

<i>Title</i>	<i>Title</i>
6171A ballot Compiled Responses_TF copy failed	SNARF_S14rank+title_es07nov19a
6551 ballot Compiled Responses rev2	EnergeticMatlsTF_es07nov19a
201910_EHS Japan_forNATW_v2.0	S10 TFreport 19_6_nov1
TF Presentation Template 2017	PFOA SNarf revised rev1
TFOF-SEMI S2 section Pressure requirements rev1	S2 C0HE TF Presentation
MESSC Fall 2019 Notes	S22 TF
2019 Fall S6 rpt out	2019 Fall Chem Expos TF_rpt out
S3TF_Report_07NOV2019	Staff Report November 2019_v3
FPTFreportF19__es06nov19a	SNARF for SEMI S2 Revision to 18.7.4.5
SNARF_S2 FP MoC_07nov19	Spring2020_Rev2

#1 Due to file size and delivery issues, attachments must be downloaded separately. A .zip file containing all attachments for these minutes is available at www.semi.org. For additional information or to obtain individual attachments, please contact [SEMI Staff Name] at the contact information above.