EH&S NA TC Chapter

Meeting Summary and Minutes

NA Summer Standards Meeting

Thursday, July 22, 2021

9:00 AM – 3:00 PM Pacific

Web Conference

**TC Chapter Announcements**

Next TC Chapter Meeting

Thursday, December 9, 2021 in conjunction with SEMICON West. Check [www.semi.org/en/standards](http://www.semi.org/en/standards) for the latest update.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Meeting Attendees  **Co-Chairs:** Chris Evanston (Salus Engineering International), Sean Larsen (Lam Research), Bert Planting (ASML)  **SEMI Staff:** Kevin Nguyen (SEMI), Thai Nguyen (SEMI), Laura Nguyen (SEMI) | | | | | |
| Company | Last | First | Company | Last | First |
| *KLA* | *Brick* | *Clifton* | *Lam Research* | *Larsen* | *Sean* |
| *TUV* | *Chan* | *Lennard* | *Tokyo Electron* | *Mashiro* | *Supika* |
| *Tokyo Electron* | *Crane* | *Lauren* | *Tokyo Electron* | *Petraszak* | *Andrew* |
| *Salus Engineering* | *Evanston* | *Chris* | *GlobalFoundries* | *Petry* | *William* |
| *Cymer, ASML* | *Frankfurt* | *Mark* | *ASML* | *Planting* | *Bert* |
| *Nikon Precision* | *Girlea* | *Lucian* | *Texas Instruments* | *Schwab* | *Paul* |
| *Edwards Vacuum* | *Gordon* | *Michael* | *Safety Guru* | *Sklar* | *Eric* |
| *Safety Maven* | *Greenberg* | *Cliff* | *Salus Engineering* | *Visty* | *John* |
| *Ebara Technologies* | *Kavanaugh* | *Christy* | *Cymer, ASML* | *Yakimow* | *Byron* |

*Italic* indicates online participant

| Leadership Changes | | |
| --- | --- | --- |
| WG/TF/SC/TC Name | Previous Leader | New Leader |
| S1 Revision TF | Ed Karl (AMAT) stepped down. | Eric Sklar (Safety Guru) |
| S2 Mechanical TF | Ed Karl (AMAT) stepped down. |  |
| S10 Revision TF | Mark Fessler (ASM) stepped down. |  |

Committee Structure Changes

| New WG/TF/SC Name or Status Change |
| --- |
| S2 Interlocks Design Task Force (**New TF**), Leaders:   * Clifton Brick (KLA) * Lucian Girlea (Nikon Precision) * Tara Collins (ASM) |
| S2 Korean High Pressure Safety Gas Task Force (**Disbanded TF**) |
| Restriction of Materials Task Force (**Disbanded TF**) |

Ballot Results

|  |  |  |
| --- | --- | --- |
| *Document #* | *Document Title* | *Committee Action#1,#2* |
| 6781 | Line Item Revision of SEMI S5-0616 - Safety Guideline for Sizing and Identifying Flow Limiting Devices for Gases |  |
| Line Item 1 - Clarification of a NOTE in the Scope section | Passed as balloted |
| Line Item 2 - Editting §3 for Clarity | Passed as balloted |
| Line Item 3 - Updating the Address of NFPA in a footnote. | Passed as balloted |
| Line Item 4 - Updating the URL for GHS in a NOTE | Passed as balloted |
| Line Item 5 - Editting §6 for Clarity and for Conformance to SEMI Style Manual | Passed with editorial changes |
| Line Item 6 - Editting Table 1 Headers and ¶¶7.3, 7.4, 7.5 for Clarity | Passed as balloted |
| Line Item 7 - Editting ¶8.1, the Headers of Table 3, ¶8.2.2 and two NOTEs for Clarity and for Conformance to SEMI Style Manual | Passed as balloted |
| Line Item 8 - Updating the Address of CGA in a Footnote. | Passed as balloted |
| Line Item 9 - Adding Data to Table R1-1 | Passed as balloted |
| 6717B | Line Item Revision to SEMI S2-0818Eb, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment |  |
| Line Item 1 - Revision Related to Oxygen Deficiency Assessment Criteria | Passed with editorial changes |

#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.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Activities Approved by the GCS between meetings of the TC Chapter | | | | | --- | --- | --- | --- | | # | Type | SC/TF/WG | Details | | None |  |  |  |   Authorized Activity |

| *#* | *Type* | *SC/TF/WG* | *Details* |
| --- | --- | --- | --- |
| 6822 | SNARF | S12 (Equip Decon) TF | Reapproval of SEMI S12 - Environmental, Health and Safety Guideline for Manufacturing Equipment Decontamination |
| 6823 | SNARF | S7 Revision TF | Reapproval of SEMI S7 - Safety Guideline for Evaluating Personnel and Evaluating Company Qualifications |

#1 SNARFs and TFOFs are available for review on the SEMI web site at: [http://downloads.semi.org/web/wstdsbal.nsf/tfofsnarf](http://downloads.semi.org/web/wstdsbal.nsf/TFOFSNARF)

Authorized Ballots

| *#* | *When* | *TF* | *Details* |
| --- | --- | --- | --- |
| 6049C | Cycle 6,7,8, or 9 | S10 Revision TF | Line-Item Revision to SEMI S10, Safety Guideline for Risk Assessment and Risk Evaluation Process |
| 6822 | Cycle 6,7,8, or 9 | S12 (Equip Decon) TF | Reapproval of SEMI S12, Environmental, Health and Safety Guideline for Manufacturing Equipment Decontamination |
| 6823 | Cycle 6,7,8, or 9 | S7 Revision TF | Reapproval of SEMI S7, Safety Guideline for Evaluating Personnel and Evaluating Company Qualifications |
| 6651B | Cycle 6,7,8, or 9 | S2 Pressure Guideline TF | Line Item Revision to SEMI S2, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (Re: Addition of Pressure section) |
| 6830 | Cycle 6,7,8, or 9 | S3 Revision TF | Revision of SEMI S3, Safety Guideline for Process Liquid Heating Systems |
| 6831 | Cycle 6,7,8, or 9 | S1 Revision TF | Revision of SEMI S1, Safety Guideline for Equipment Safety Labels |

SNARF(s) Granted a One-Year Extension

| # | TF | Title | Expiration Date |
| --- | --- | --- | --- |
| 5996 | S8 Ergonomics TF | Line Item Revision to SEMI S8, Safety Guideline for Ergonomics Engineering of Semiconductor Manufacturing Equipment | July 2022 |

SNARF(s) Abolished

| # | TF | Title |
| --- | --- | --- |
| None |  |  |

| Standard(s) to receive Inactive Status | |
| --- | --- |
| Standard Designation | Title |
| None |  |

| New Action Items | | |
| --- | --- | --- |
| Item # | Assigned to | Details |
| July22-2021#1 | Kevin Nguyen  (SEMI Staff) | Kevin Nguyen to ask Sean Larsen to email TF leaders for EH&S SEMICON West schedule confirmation by early November, 2021. |
| July22-2021#2 | Kevin Nguyen  (SEMI Staff) | Kevin Nguyen to ask SEMI IT to look into SVM. In custom motion, it appears the discussion box was not displayed and captured. |

| Previous Meeting Action Items | | |  |
| --- | --- | --- | --- |
| Item # | Assigned to | Details | Status |
| May06-2021#1 | Kevin Nguyen  (SEMI Staff) | Send revised TFOF (addition of new TF members) for S5 and S12 TFs to Eric Sklar | Completed |

1. **Welcome, Reminders, and Introductions**
   1. Sean Larsen 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. Kevin Nguyen was not able to launch SEMI Virtual Meeting (SVM) software as the website was down. It appears to be due to a widespread issue reported at the time of this meeting started, all members were not able to log in SVM. SEMI IT was not able to provide a definite time when it will back online.
      1. Supika Mashiro said SVM failure is deemed as a force majeure, and the meeting can be postponed. However, for the next TC Chapter meeting, members must be informed 30 days in advance.
      2. Since everyone is here, the committee’s general interest was to proceed with reduced items on the agenda without SVM and without official voting. A straw poll was conducted:

* Proceed with reduced items on the agenda without SVM and without official voting
  + 13 yes
* Adjourn the meeting
  + 6 yes
    1. Based on results of the poll, the TC Chapter meeting proceeded to section 4.1 (Manufacturing Equipment Safety Subcommittee (MESSC) report) until SVM was back online, which happened 20 minutes later.

1. **Review of Previous Meeting Minutes**
   1. The TC Chapter reviewed the minutes of the previous meeting. Several typographical changes were suggested by Lauren Crane and Eric Sklar who sent markup PDF files to Kevin Nguyen.

|  |  |
| --- | --- |
| **Motion:** | Accept the minutes as amended. |
| **By / 2nd:** | Lauren Crane/Eric Sklar |
| **Discussion:** | Lauren Crane: it would be great if the minutes were published in MS Word instead of PDF file, so anyone can provide tracking changes.  Kevin Nguyen: minutes are published in PDF, but staff can accommodate by publishing MS Word format in the future. |
| **Vote:** | 13-0. Motion passed. |

Attachment: EHS NA TC Minutes 05062021 amended

1. **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.

* 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.
  2. ***Doc. 6781, Line Item Revision of SEMI S5-0616 - Safety Guideline for Sizing and Identifying Flow Limiting Devices for Gases***
* Line Item 1 - Clarification of a NOTE in the Scope section
  + Passed as balloted
* Line Item 2 - Editting §3 for Clarity
  + Passed as balloted
* Line Item 3 - Updating the Address of NFPA in a footnote.
  + Passed as balloted
* Line Item 4 - Updating the URL for GHS in a NOTE
  + Passed as balloted
* Line Item 5 - Editting §6 for Clarity and for Conformance to SEMI Style Manual
  + Passed with editorial changes
* Line Item 6 - Editting Table 1 Headers and ¶¶7.3, 7.4, 7.5 for Clarity
  + Passed as balloted
* Line Item 7 - Editting ¶8.1, the Headers of Table 3, ¶8.2.2 and two NOTEs for Clarity and for Conformance to SEMI Style Manual
  + Passed as balloted
* Line Item 8 - Updating the Address of CGA in a Footnote.
  + Passed as balloted
* Line Item 9 - Adding Data to Table R1-1.
  + Passed as balloted

Attachment: 6781 A&R

Attachment: Doc6781(S5(FLD))\_TFreport+Adjud\_es20jul21e

* 1. ***Doc. 6171B, Line Item Revision to SEMI S2-0818Eb, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment***
* Line Item 1 - Revision Related to Oxygen Deficiency Assessment Criteria
  + Passed with editorial changes

Attachment: 6171B A&R

Attachment: 6171B Consolidated TF Comments\_072121\_update

1. **Subcommittee & Task Force Reports**
   1. ***Manufacturing Equipment Safety Subcommittee (MESSC)***
      1. Lucian Girlea reported:

* S2 “Health Check”
  + S2 continues to be active and requested with all other SEMI reports by customers, for proof of compliance.
  + Proposal – gather a team (5) of equipment suppliers to compile all typical requests from customers. Discuss input and identify what Sxx documents each item belongs to, then work on addressing items left.
  + Concerns that it would be a very challenging task and discussion. S2 was meant for semiconductors, and it is out of scope to extend to various industries globally. However, it is agreed there could be such reports on important items to address. Additional concerns with IP contained in specific customer requests – Cliff Greenberg can help scrubbing input as non-affiliated with any equipment manufacturer.
  + Other approach – work on specific issues, as they come to attention. This could benefit from more active SEMI participation from end users.
  + Korea situation – S2 not always sufficient. However, the “gaps” are not all hazards. So, this is not a safety issue, more of compliance issue.
  + Observation in recent evaluations – while S2 are still important, SEMI reports are apparently of a lesser value compared to certifications of compliance.
  + Will continue to reach out and bring reported issues for discussion in MESSC. Updating an RI in S2 as result may not be effective when an RI has high chance of being ignored; will look to other methods.
* S2 Explosive Materials
  + Agenda feedback from the TF – Equipment not intended to work in explosive environment, explosive environments were not in the scope of SEMI S2 when it was developed.
  + SC concerned with the “Explosive” term; discussed alternatives (flammable materials, ignitable atmosphere) but “explosive atmosphere” (*not* “explosive materials”) is the term used in other documents and IEC standards
  + This topic is not in relation to or scope of S30.
  + Activities were already in progress but got delayed due to COVID-19; they are restarting and MESSC hopes to make progress
  + This is an example of issues to monitor and report back MESSC (as discussed under the S2 “health check” topic)
* S2 Safety Interlocks
  + Discussed concerns with definitions, situations where reliability *vs* failure mode are compared, situations where an S2-compliant interlock system could not meet safety requirements.
  + Concerns with interpretation difficulties, lack of consistency, issues with increased risk automatically assumed unacceptable.
  + Concerns with interlock requirements during maintenance modes, when the equipment is still capable of running wafers.
  + A TFOF for S2 Interlocks Design was presented.

**Motion:** Approve the TFOF for S2 Interlocks Design TF  
**By:** Eric Sklar / Safety Guru, LLC  
**Second:** Lauren Crane / TEL  
**Discussion:** Lauren Crane: Informative to have “S2” added to the title of the TF.  It's narrower and more focus, easier to achieve consensus.   
Lucian Girlea:  Will look into expanding the scope in the future as needed  
Chris Evanston: For the charter of the TFOF, how interlock system is inadequate? Interlock has not changed over the years. End users have not expressed this concern.  
Eric Sklar: Responded by stating that these were mentioned in the MESSC report.  
Sean Larsen:  Better alignment on functional safety is needed.  
Clifton Brick: Third party interpretations are varied, so alignment is needed.  
**Result**: 9-Y 1-N

**Voting Result**: Pass - 90.00%

**Attachment: TFOF SEMI S2 Interlocks Design\_lg21jul21\_es22jul21a rev1**

**Attachment: MESSC Summer 2021 Notes 210721**

* 1. ***S10 Revision TF***
     1. Bert Planting reported.
* S10 TF has been holding telecons
* Mark Fessler has stepped down as a co-leader of the task force
* Continuing work on developing Severity Groups for assessing environmental risk

**Attachment: S10(Risk)\_TFreport\_es22jul21a**

* 1. ***S2 Pressure Guideline TF***
     1. Bert Planting reported.
* Reviewed the prepared document 6651B, Line Item Revision to SEMI S2 Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (Re: Addition of Pressure section), for ballot.
* Requested to send updated document for Letter Ballot.

**Attachment: SEMI S2 pressure addition summer 2021**

* 1. ***S1 (labels) Revision TF***
     1. Eric Sklar reported.
* TF leadership change:
  + Ed Karl has relinquished his position as a co-leader of this task force.
  + Eric Sklar has offered to fill the vacancy.
  + Andrew Petraszak remains a co-leader of this task force.
* TF co-leaders have found it appropriate to change from a Line Item to a "major revision" ballot.
  + Submitted, 20 July, a draft SNARF for a "major revision" ballot, in time for GCS to approve on 03 August, the Cycle 6 ballot submission date
* The TF leaders have prepared a draft ballot for adjudication at Fall Meetings
  + Discussion:
    - Sean Larsen – Will there teleconferences be held before the ballot is issued?
    - Eric Sklar – The TF will likely have teleconferences. If no one has any comment, then the TF will proceed.
    - Lauren Crane is interested in this task force and requested to be added to the roster.

**Attachment: S1(Labels)\_TFreport\_es22jul21a**

* 1. ***S12 Equip Decon TF***
     1. Eric Sklar reported.
* SEMI S12 is due for 5-year review (last modified Nov. 2015), so we need to do one of the following, based on what changes, if any, we think are appropriate:
  + “Major Revision”
  + Line Item revision(s)
  + Reapproval Ballot (with or without permitted editorial changes)
  + Let it go “inactive”
* We could do a Reapproval Ballot on next cycle to see what responses it gets.
* No telecons until we have Reapproval Ballot responses.

**Motion:** Approve the SNARF for S12 reapproval  
**By:** Eric Sklar / Safety Guru, LLC  
**Second:** Lauren Crane / TEL  
**Discussion:**  
**Result:** 10-Y 0-N

**Voting Result**: Pass - 100.00%

**Attachment: S12\_ReApp\_SNARF\_es21jul21a**

**Attachment: S12(EquipDecon)\_TFreport\_es21jul21c**

* 1. ***S3 Revision TF***
     1. Andy Petraszak reported.
* TF Progress
  + TF continues to hold telecons and work through the topic list.
  + Focus in recent meetings has been on heating of gases.
    - Defining Method Classifications
    - Selection of Safety Features
    - Design and Performance of Safety Features
  + Work has uncovered various changes for the current liquid heating sections that may be appropriate.
* TF Next Steps
  + Continue work on Safety Practices and Interlocks for the process gas heating systems
  + Prepare a draft ballot – expect to require a “major” revision but, if necessary, may also pursue a more narrowly defined set of revisions using a Line Item revision.
* TF leaders request that NA EHS TCC authorize, conditional on GCS's approval of the proposed SNARF, a "major revision" ballot in Cycle 7 or 8 for adjudication at Fall Meetings.
  + If line item revision were ultimately required, the TF leaders would amend the SNARF.

**Attachment: S3reportS2021\_Final**

**Attachment: New\_S3\_SNARF\_R2\_AJP22JUL21 rev**

* 1. ***S2 Mechanical TF***
     1. Andy Petraszak reported.
* TF Leadership
  + Ed Karl has relinquished co-chair of the Task Force.
* TF Status
  + Delayed Revision 2 to S2 has been published.
  + Task Force identified a number of additional topics and alignment areas for discussion between sections 18.6 (Lifting Equipment) and 18.7 (Mechanisms Supporting and Moving Hinged Loads) as part of the previous work.
* TF Next Step
  + Will reconvene the task force after the new version of SEMI S2 is published to work on the additional identified topics.

**Attachment: S2Mechreport-AJP072221r1**

* 1. ***S23 Global TF***
     1. Lauren Crane reported.
* S23 Revision was approved at the previous meeting.
* The TF supported separating test method from SEMI S23.
* The TF is now in the rest mode, but plan to pick up at the Fall meeting.
  1. ***Restriction of Materials TF***
     1. Lauren Crane reported.
* Rationale for proposing to disband Material Restriction TF: The main basis for the proposal is:
  + Lack of strong interest among equipment suppliers in developing a practice;
  + The anticipated difficulty in reaching consensus about the details;
  + The ‘competition’ from similar declaration standards such as IEC 63000;
  + The observation that each company will have many different fine point details and stakeholders for their own purchasing processes; and
  + The observation that the semiconductor equipment sector does not have any unique consideration it needs to bring to the issue.

**Motion**: Disband the Material Restriction TF  
**By**: Lauren Crane / TEL  
**Second:** Clifton Brick / KLA  
**Discussion:**  
**Result**: 9-Y 0-N

**Voting Result**: Pass - 100.00%

* 1. ***S2 Korean High Pressure Gas Safety TF***
     1. Chris Evanston reported the history of how this effort started.
* Several years ago, Samsung brought up an issue on S2, thus a TF was formalized in NA.
* The RI was started for ballot 6354A, Line Item Revision to SEMI S2, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (Addition of related information).
* Several joint English/Korean meetings were held.
* The TF tried holding English speaker only meeting, but more questions than answers were raised.
* To date, most of relevant parties in Korea are no longer working in the industry. As a result, there is no reason to continue without them.

**Motion**: Disband the Material Restriction TF  
**By**: Lauren Crane / TEL  
**Second:** Chris Evanston / Salus Engineering International  
**Discussion:** Clifton Brick – it was disappointed that the TF did not progress as intended.  
**Result**: 10-Y 0-N

**Voting Result**: Pass - 100.00%

* 1. ***S7 Revision TF***
     1. Chris Evanston reported.
* S7 is due for 5 year review.
* Wide range of topics were discussed.
* TF would like to issue for reapproval ballot.
  1. ***Other Interest Documents***
     1. Power Harmonic.
* Sean Larsen reported Power Harmonic TF, under NA Facilities, is dormant.
  + 1. F47 TF
* Sean Larsen mentioned an ongoing effort for three-phase or multiphase voltage sags undertaken by the Voltage Sag Immunity Task Force under the Facilities NA TC Chapter. Test equipment is bulky. The TF is trying to collect data to determine the next steps.
  + 1. BIM TF
* Sean Larsen also shared the Building Information Modeling (BIM) activity in facilities. The concept is about 3D facility connection with customer’s recipe. It will involve lot of person’s hour, and it is not relevant to safety.

1. **Liaison Reports**
   1. *ICRC Liaison*
      1. Lauren Crane reported. .

* Reviewed the current charter.
* Will meet at face-to-face during SEMICON West on Monday during that week.
* Anyone is interested in being the second co-chair, please inform Lauren Crane.
  1. **SEMI Staff Report**
     1. Kevin Nguyen (SEMI) reported.
* SEMI upcoming event
  + SEMICON West, December 7-9, 2021
  + San Francisco, CA
* 2021 Critical Dates for SEMI Standards Ballots
  + <https://www.semi.org/en/collaborate/standards/ballots>
* SEMI Standards Publications
  + Total SEMI Standards in portfolio: 1,046
    - Includes 273 Inactive Standards

Attachment: Staff Report July 2021\_v1 re

1. **Old Business**
   1. SNARF Extension (older than 3 years).

* Doc. 5996, Line Item Revision to S8-0915, Safety Guideline for Ergonomics Engineering of Semiconductor Manufacturing Equipment - Expiration date – July 2021

**Motion:** Approve a 1 year extension of the project period for the SNARF 5996  
**By:** Paul Schwab / Texas Instruments, Inc  
**Second:** Lucian Girlea / Nikon Precision Inc.  
**Discussion:**  
**Result:** 9-Y 0-N

**Voting Result**: Pass - 100.00%

1. **New Business**
   1. Upcoming Ballot Authorization
      1. The following ballots are authorized for the before next meeting.

| *#* | *When* | *TF* | *Details* |
| --- | --- | --- | --- |
| 6049C | Cycle 6,7 ,8, or 9 | S10 Revision TF | Line-Item Revision to SEMI S10, Safety Guideline for Risk Assessment and Risk Evaluation Process |
| 6822 | Cycle 6,7 ,8, or 9 | S12 (Equip Decon) TF | Reapproval of SEMI S12, Environmental, Health and Safety Guideline for Manufacturing Equipment Decontamination |
| 6823 | Cycle 6,7 ,8, or 9 | S7 Revision TF | Reapproval of SEMI S7, Safety Guideline for Evaluating Personnel and Evaluating Company Qualifications |
| 6651B | Cycle 6,7 ,8, or 9 | S2 Pressure Guideline TF | Line Item Revision to SEMI S2, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (Re: Addition of Pressure section) |
| 6830 | Cycle 6,7 ,8, or 9 | S3 Revision TF | Revision of SEMI S3, Safety Guideline for Process Liquid Heating Systems |
| 6831 | Cycle 6,7 ,8, or 9 | S1 Revision TF | Revision of SEMI S1, Safety Guideline for Equipment Safety Labels |

**Motion:**  To authorize above documents for letter ballot in cycle 6, 7, 8, or 9 of 2021.

**By:** Eric Sklar / Safety Guru, LLC

**Second:** Andrew Petraszak / TEL Technology Center America

**Discussion:** Lauren Crane requested all these ballots not to go in the same cycle.

**Result:** 9-Y 1-N

**Voting Result:** Pass - 90.00%

* 1. **SEMICON West Meeting Schedule.**
     1. The schedule for Dec 6-9, 2021 in conjunction with SEMICON West was reviewed and modified.
* ICRC will be on Monday afternoon.
* TFs will be on Tuesday and Wednesday.
* Committee will be on Thursday as usual.

Action Item # 1 – Kevin Nguyen to ask Sean Larsen for schedule confirmation with the TF leaders by early November.

Attachment: EHS SChedule Dec2021\_Draft2

1. **Next Meeting and Adjournment**
   1. The next meeting is scheduled for Thursday, December 9, 2021. Refer to <http://www.semi.org/standards> for the current list of meeting schedules.

There being 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](mailto: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> |

| Index of Available Attachments#1 | | |
| --- | --- | --- |
| Title | Title |
| EHS NA TC Minutes 05062021 amended | S1(Labels)\_TFreport\_es22jul21a |
| 6781 A&R | S12\_ReApp\_SNARF\_es21jul21a |
| Doc6781(S5(FLD))\_TFreport+Adjud\_es20jul21e | S12(EquipDecon)\_TFreport\_es21jul21c |
| 6171B A&R | S3reportS2021\_Final |
| 6171B Consolidated TF Comments\_072121\_update | New\_S3\_SNARF\_R2\_AJP22JUL21 rev |
| TFOF SEMI S2 Interlocks Design\_lg21jul21\_es22jul21a rev1 | S2Mechreport-AJP072221r1 |
| MESSC Summer 2021 Notes 210721 | Staff Report July 2021\_v1 re |
| S10(Risk)\_TFreport\_es22jul21a | EHS SChedule Dec2021\_Draft2 |
| SEMI S2 pressure addition summer 2021 |  |

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 Kevin Nguyen at the contact information above.