



EHS Taiwan TC Chapter Meeting Summary and Minutes

Taiwan Spring Standards Meeting 2018

Thursday, March 22, 2018, 14:00 – 16:00

SEMI Taiwan Office, Zhubei City, Hsinchu County, Taiwan

TC Chapter Announcements

Next TC Chapter Meeting

October 4, 2018

Venue: SEMI Taiwan Zhubei City, Hsinchu County, Taiwan

Table 1 Meeting Attendees

Co-Chairs: Shuh Woei Yu (SAHTECH)

SEMI Staff: Dean Chang

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
TSMC	Hsu	Fang-Ming	NCREE	Chai	Juin-Fu
MXIC	Shen	Colin	UMC	Cheng	Emily
Safe World Engineering	lim	Bruce	TUV	Wang	Vincent
Flagship International	Tuan	Andy	TUV	Jow	Vincent N.C.
Innolux	Yang	Vincent	RCI	Jang	Shawn
ITRI	Suen	Theresa	SGS	Lu	Chungyin
ITRI	Wu	Yuhsin	Applied Materials	Liu	Shane
Gallant Precision Machining	Hsiao	Stone	FTIS	Wang	Bernt
Gallant Precision Machining	Chang	Shu Sheng	CHiFF Technology	Wei	Chih-An
Neo Solar Power	Hsieh	Ken	Hermes	Huang	Stanley
Edwards	Liu	Ariel			

Table 2 Leadership Changes

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>
None.		

Table 3 Committee Structure Changes

<i>Previous WG/TF/SC Name</i>	<i>New WG/TF/SC Name or Status Change</i>
None	

Table 4 Ballot Results

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
None.		

#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

Listing of all revised or new SNARF(s) approved by the Originating TC Chapter.

#	Type	SC/TF/WG	Details
None			

#1 SNARFs and TFOFs are available for review on the SEMI Web site at:

<http://downloads.semi.org/web/wstdsbal.nsf/TFOFSNARF>

Table 7 Authorized Ballots

#	When	TF	Details
None			

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

#	TF	Title	Expiration Date
None			

Table 9 SNARF(s) Abolished

#	TF	Title
None		

Table 10 Standard(s) to receive Inactive Status

Standard Designation	Title
None	

Table 11 New Action Items

Item #	Assigned to	Details
1	Dean Chang	SEMI Taiwan will support FTIS to promote Taiwan IDB's project "Industrial Green Growth Promotion Plan" and will held a Circular Economy Seminar on April 16 at Hsinchu.
2	Vincent Wang	The EHS training course with TUV for SEMI members will be held on April 27 at SEMI Taiwan office
3	Dean Chang	2018 SEMI Taiwan Sustainable Manufacturing Forum will be held on September 5.
4	Dean Chang	EHS Taiwan Chapter would like to get the authorization from headquarter to translate the S2 Standards (latest version) to Chinese version.

Table 11 New Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
5	Dean Chang	Study how to promote the SEMI EHS Standards in school.

Table 12 Previous Meeting Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
1	Dr. Juin-Fu Chai (NCREE)	Suggest Juin-Fu Chai (NCREE) to contact the leader of Japan Seismic Protection Task Force to discuss how to protect mobile robots and equipment such as quartz tubes when earthquake takes place before attending SEMICON Japan 2017

1 Welcome, Reminders, and Introductions

Committee Co-Chair Shuh Woei Yu (SAHTECH) called the meeting to order at 14:00. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

Attachment: SEMI Standards Required Elements

2 Review of Previous Meeting Minutes

The TC Chapter reviewed the minutes of the previous meeting.

Motion: Approve previous meeting minute

By / 2nd: Colin Shen(MXIC) / Juin-Fu Chai (NCREE)

Discussion: After review, all TC members agreed to approve it

Vote: 18-0 in favor. Motion passed

Attachment: 20171025_EHS Meeting Minutes

3 Liaison Reports

3.1 EHS Japan TC Chapter

Dean Chang (SEMI TW) reported for the EHS Japan TC Chapter. Of note:

Action Item:

- Passed as balloted
 - Doc6288 Line Item Revision to SEMI S21-1106E, SAFETY GUIDELINE FOR WORKER PROTECTION
 - SEMI S21-1106E, SAFETY GUIDELINE FOR WORKER PROTECTION
- Authorized Ballots
 - Doc6289 Revision to SEMI S18-0312: ENVIRONMENTAL, HEALTH AND SAFETY GUIDELINE FOR FLAMMABLE SILICON COMPOUNDS
- Five-year review
 - SEMI S13-0113 Environmental, Health and Safety Guideline for Documents Provided to the Equipment User for Use With Manufacturing Equipment
 - SEMI S17-0113 Safety Guideline for Unmanned Transport Vehicle (UTV) Systems



- SEMI S23-1216 Guide for Conservation of Energy, Utilities and Materials Used by Semiconductor Manufacturing Equipment
- SEMI S26-0516 Environmental, Health, and Safety Guideline for FPD Manufacturing System
- Next TC Meeting will be held on April 24, 2018 at SEMI Japan Office, Tokyo, Japan

Attachment: EHS Japan_NATW_20180316_v1.0

3.2 EHS NA TC Chapter

Dean Chang (SEMI TW) reported for the EHS NA TC Chapter. Of note:

Action Item:

- Leadership Changes
 - Changed from Mark Fessler (ASM) to Glenn Holbrook (ASM)
- New SNARF
 - #6309: Line Item Revision to S8-0915, Safety Guideline for Ergonomics Engineering of Semiconductor Manufacturing Equipment
 - #6310: Reapproval of SEMI S28-1011, Safety Guideline for Robots and Load Ports Intended for Use in Semiconductor Manufacturing Equipment
- Ballot review
 - Doc# 5761B & Doc# 6204: Failed and returned to TF for rebalot.
 - LI1 & LI2 & LI3 & LI4: Passed as balloted.
- Ballots Authorized
 - R6204: Ratification Ballot - Line Item Revisions to SEMI S6-0707E Environmental, Health, and Safety Guideline for Exhaust Ventilation of Semiconductor Manufacturing Equipment
 - 6309: Line Item Revision to S8-0915, Safety Guideline for Ergonomics Engineering of Semiconductor Manufacturing Equipment
 - 5761C: New Standard: Safety Guideline for Use of Energetic Materials in Semiconductor R&D and Manufacturing Processes
 - 6310: Reapproval of SEMI S28-1011 Safety Guideline for Robots and Load Ports Intended for Use in Semiconductor Manufacturing Equipment
 - 5969A: Line Item Revisions to SEMI S2, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment (pertaining to Fire)
- Next TC Meeting will be held on April 12, 2018 at SEMI HQ, Milpitas, California

Attachment: NA EHS TC Chapter Liaison report Nov 2017 v1

3.3 SEMI Staff Report

Dean Chang (SEMI TW) gave the SEMI Staff Report. Of note:

- Report the SEMI Global 2018 Calendar of Events.
- Report the 2018 Critical Dates for SEMI Standards Ballots. http://www.semi.org/en/Standards/P_000788
- Taiwan OSHA revised the “Standards for Hazard Prevention of Industrial Robot” for employee safety.

Attachment: EHS TC Staff report_20180322

4 Ballot Review

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.

None.

5 Task Force Reports

5.1 Seismic Task Force

Dean Chang (SEMI TW) reported for the Seismic Task Force. This report contained information on:

- Chai Juin-Fu (NCREE) will contact SEMI Japan TF leader to discuss the following issue:
 - In addition to preventing the process equipment and stocker systems from sliding, rocking and overturning by adequate design of anchorages, the design requirement for the structural integrity and functionality of such equipment and systems should be considered in the SEMI Standards.
 - The design requirement of the architecture components (such as ceiling, raised floor and partition wall) in a clean room and other critical areas should be considered in the SEMI Standards.
 - In addition to the seismic demand on the floor of a clean room, the in-cabinet seismic demand and design requirement for critical electrical and mechanical components within an equipment (e.g. the design of boat and tube in a furnace equipment) should be considered in the SEMI Standards.

5.2 Equipment Safety Task Force

Dean Chang (SEMI TW) reported for the Equipment Safety Task Force. This report contained information on:

- Robot Safety
 - Taiwan OSHA (Occupational Safety and Health Administration) announced Industrial Robots Hazard Prevention Standards" was updated by additional requirements for collaborative robots safety on Feb. 14, 2018.
 - This updated standard was adopted from ISO 10218-1 and ISO 10218-2.
 - Detailed safety guideline will be proposed by the end of year.
- Lithium battery safety
 - Safety standard for the Thermal runaway control of lithium batteries for OHT(Overhead Hoist Transfer), AGV(Automated Guided Vehicle) or collaborative robots suggested to be proposed.
 - Theresa Suen (ITRI) will study the Lithium battery safety issue.

6 Old Business

- Co-chair Fang-Ming Hsu (TSMC) suggested to study the feasibility of the following topics in the future:
 - Establish earthquake-related standards in consideration of manufacturing process:
 - suggest Juin-Fu Chai (NCREE) to contact the leader of Japan Seismic Protection Task Force to discuss how to protect mobile robots and equipment such as quartz tubes when earthquake takes place before attending SEMICON Japan 2017
 - Establish mobile robot related safety standards combining S17 and SEMI S28 in consideration of
 - clean/non-clean room circumstances



- room with or w/o people circumstances
- lithium batteries used in robots(on going)
- Modify energy conservation standards for ventilation equipment used in clean rooms in view of the power waste established by SEMI S2 and SEMI S23(under study)
- In order to establish standards for recycling different chemical substances from wet process tank, separate collection drains are suggested to be installed(under study)

7 New Business

- SEMI Taiwan will support FTIS to promote Taiwan IDB’s project “Industrial Green Growth Promotion Plan” and will held a Circular Economy Seminar on April 16 at Hsinchu.
- The EHS training course with TUV for SEMI members will be held on April 27 at SEMI Taiwan office.
- 2018 SEMI Taiwan Sustainable Manufacturing Forum will be held on September 5.
- EHS Taiwan Chapter would like to get the authorization from headquarter to translate the S2 Standards (latest version) to Chinese version.
- Study how to promote the SEMI EHS Standards in school.

8 Next Meeting and Adjournment

The next meeting is scheduled for October 4, 2018 at SEMI TW Office. See <http://www.semi.org/standards-events> for the current list of events.

Adjournment was at 16:00.

Respectfully submitted by:

Dean Chang
 Senior Executive Consultant
 SEMI Taiwan
 Phone: 886-3-560-1777 #801
 Email: dchang@semi.org

Minutes tentatively approved by:

Shuh Woei Yu (SAHTECH), Co-chair	2018/10/04
<Name> (<Company>), Co-chair	<Date approved>

Table 13 Index of Available Attachments#1

<i>Title</i>	<i>Title</i>
1_SEMI Standards Required Elements	3.2_NA EHS TC Chapter Liaison report Nov 2017 v1
2_20171025_EHS Meeting Minutes	3.3_EHS TC Staff report_20180322
3.1_EHS Japan_NATW_20180316_v1.0	

#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.