

North America Facilities Technical Committee Chapter Meeting Summary and Minutes

N.A. Standards Fall 2014 Meetings
Tuesday, November 03, 2014, 9:00 AM – 12:00 PM Pacific Time
SEMI Headquarters in San Jose, California

Next Facilities TC Chapter Meeting

The next N.A. Facilities TC Chapter meeting is tentatively scheduled for March 31, 2015 at SEMI Headquarters in San Jose, California in conjunction with the N.A. Standards Spring 2015 meetings. See § 9 of these minutes for full tentative schedule of all N.A. Facilities standards meetings. Exact meeting date and details will be announced when finalized and available at: <http://www.semi.org/node/54226>

Table 1 Meeting Attendees

Italics indicate virtual participants

Facilities Co-Chair: Steve Lewis (DPS Engineering)

SEMI Staff: Michael Tran

| <i>Company</i> | <i>Last</i> | <i>First</i> | <i>Company</i> | <i>Last</i> | <i>First</i> |
|---------------------------|--------------------|--------------|------------------------------|-------------|--------------|
| AP TECH | Kiikvee | Bill | Parker Hannifin | Volin | Tim |
| <i>Applied Seals N.A.</i> | <i>Vernikovsky</i> | <i>Dalia</i> | Ultra Clean Technology (UCT) | Chen | Joyce |
| <i>CARTEN CONTROLS</i> | <i>Katz</i> | <i>Paul</i> | Ultra Clean Technology (UCT) | Milburn | Matt |
| <i>CONSCI</i> | <i>Ripkowski</i> | <i>Mark</i> | WIKA | Christian | Jeff |
| Fujikin | Saleem | Mohamed | | | |
| Pall | Barth | Douglas | SEMI N.A. | Tran | Michael |

Table 2 Leadership Changes

There were no leadership changes.

Table 3 Ballot Results

None.

Table 4 Authorized Activities

None.

Table 5 Authorized Ballots

Listing of documents approved by the TC Chapter for letter ballot.

| <i>#</i> | <i>When</i> | <i>SC/TF/WG</i> | <i>Details</i> |
|----------|------------------|-------------------------|---|
| 5080A | Cycle 8, 2014 | SEMI F51 Revision TF | Revision of SEMI F51-0200 - Guide for Elastometric Sealing Technology |

Table 6 New Action Items

| <i>Item #</i> | <i>Assigned to</i> | <i>Details</i> | <i>Status</i> |
|---------------|--------------------|--|---------------|
| 2014Nov#01 | Alan Crockett | To follow up with the BIM TF for new members and current BIM activities. | |
| 2014Nov#02 | Michael Tran | To follow up with Steve Lewis regarding SEMI F97 for five year review. | |

Table 7 Previous Meeting Actions Items

| <i>Item #</i> | <i>Assigned to</i> | <i>Details</i> | <i>Status</i> |
|---------------|--------------------------------|--|---------------------|
| 2014Apr#07 | Michael Tran and Chris Sanders | Michael Tran to work with Chris Sanders to form the potential TF for tool templates. | Open |
| 2014Apr#08 | Michael Tran | To send out the updated list of documents due for five year review to everyone who attended this NA Facilities and Gases TC Chapter meeting. | Open and recurring. |

1 Welcome, Reminders, and Introductions

1.1 Tim Volin (Parker Hannifin) called the meeting to order at 9:03 AM. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

Attachment: 01, SEMI Standards Required Meeting Elements

2 Review of Previous Meeting Minutes

2.1 The TC Chapter reviewed the minutes of the previous meeting held during the N.A. Standards Meetings at SEMICON West 2014.

Motion: To approve the minutes of the previous meeting as written.

By / 2nd: Bill Kiikvee (AP TECH) / Joyce Chen (Ultra Clean Technology)

Discussion: None.

Vote: Unanimous in favor. Motion passed.

Attachment: 02, N.A. Facilities and Gases TC Chapters Meeting Minutes (West 2014)

3 Liaison Reports

3.1 Japan Gases & Facilities TC Chapter

3.1.1 Michael Tran (SEMI N.A.) reported for the Japan Facilities TC Chapter. Of note:

- Last Meeting
 - July 4, 2014 during Japan Summer Meetings 2014 at SEMI Japan, Tokyo, Japan
- Next Meeting
 - December 2, 2014 in conjunction with SEMICON Japan at SEMI Japan, Tokyo, Japan
- Doc. #5686, *Reapproval of SEMI F80-0309, Test Method for Determination of Gas Change/Purge Efficiency of Gas Delivery System (with Editorial Changes)*
 - Pending publication
- No new activities in these Task Forces:
 - F1 Revision TF
 - Gas Panel Test Method TF
 - Five Year Review TF
- Standardization of live Gas Flow Rate Study Group (SG)
 - The SG shared and discussed the result of the survey about calibration of Live Gas Flow Rate which was made to Mass Flow Manufactures in April 2014.

- The SG decided to re-survey focusing on the item which could be candidates to be standardized.
- The SG started to resurvey about calibration of Live Gas Flow Rate to Mass Flow Manufacturers, focusing on the item which could be candidates to be standardized.
- Companies such as Hirai and MKSJ were invited to discuss latest calibration capability as an action. AIST and others will be involved at next meeting.

Discussion: Bill Kiikvee had a question about the leak rate limits specifications in SEMI F1. Mohamed Saleem said they are not a requirement anymore and it's upon agreement between the user and suppliers.

Attachment: 03, Japan Facilities TC Chapter Report (Fall 2014)

3.2 *Korea Facilities TC Chapter*

3.2.1 There was no report given because the Korea Facilities TC Chapter has not met since January 2013.

3.3 *North America Standards Staff Report*

3.3.1 Michael Tran (SEMI N.A.) gave the N.A. Standards Staff Report. The key items were as follows:

- Remaining SEMI Global Events in 2014
 - International Technology Partners Conference (ITPC)
 - November 9-12 in Big Island, Hawaii
 - Collaborative Alliance for Semiconductor Test (CAST) Workshop: Implementing Next Generation Data Logging
 - November 12-13 in San Jose, California
 - SEMI South America Semiconductor Strategy Summit
 - November 18-20 in Buenos Aires, Argentina
 - SEMICON Japan
 - December 3-5 in Tokyo
- Early SEMI Global Events in 2015
 - Industry Strategy Symposium
 - January 11-14 in Half Moon Bay, California
 - European 3D TSV Summit
 - January 19-21 in Grenoble, France
 - SEMICON Korea and LED Korea
 - February 4-6 in Seoul
 - ISS Europe
 - February 22-24 in Amsterdam, Netherlands
 - SEMICON China and FPD China
 - March 17-19 in Shanghai
 - LED Taiwan
 - March 25-28 in Taipei
- SEMI Standards Publications Stats

- July 2014 – October 2014
 - New Standards: 8
 - Revised Standards: 29
 - Reapproved Standards: 2
 - Withdrawn Standards: 2
- Total SEMI Standards in portfolio: 917
 - Includes 108 Inactive Standards
- Upcoming NA Standards Meetings in 2015
 - NA Standards Spring 2015 Meetings
 - (Tentative) March 30 – April 2 at SEMI HQ in San Jose, California
 - NA Compound Semiconductor Materials TC Chapter Meeting at CS MANTECH 2015
 - (Tentative) May 20 in Scottsdale, Arizona
 - NA Standards Meetings at SEMICON West 2015
 - (Tentative) July 13-16 in San Francisco, California
- SEMI NA Standards staff contact: Michael Tran, mtran@semi.org

Discussion: None.

Attachment: 04, N.A. Standards Staff Report (Fall 2014)

4 Ballot Review

None.

5 Facilities Task Force Reports

5.1 SEMI F51 (Elastometric Sealing) Revision Task Force

5.1.1 Dalia Vernikovsky (Applied Seals N.A.) reported for the Task Force. Of note:

Update on Document 5080: Revision of SEMI F51-0200, Guide for Elastometric Sealing Technology

The TF reviewed the ballot results of Document 5080 and proposed the following changes:

- In Table 1, correct the referenced sections
 - Re-write the §6 “Measuring Methodology / Sample Preparation”
 - Specify sample preparation procedure and measuring methodology for each necessary test mentioned in Table 1
 - Review and update the definition “Outgassing” in §6.2.15 and “Particle Generation” in §6.2.18
- Document 5080 was failed by the N.A. Facilities TC Chapter so the changes could be implemented
 - Will be in balloted as Document 5080A in Cycle 8, 2014 (see § 7.1)

5.2 Building Information Modeling (BIM) for Semiconductor Capital Equipment TF

5.2.1 Michael Tran (SEMI N.A.) reported for the Task Force. Of note:

- A 3-D model will work with multiple different software applications and needs to reflect true dimensions of the semiconductor fabrication tool with its location and interface point.
 - Drafting doc. 5155, Guide for Building Information Modeling (BIM) for Semiconductor Capital Equipment
 - Minutes posted on: <https://sites.google.com/a/semi.org/bim-tf/>
- Collaboration with the PI&C committee to update SEMI E72, *Specification and Guide for 300 mm Equipment Footprint, Height, and Weight*
 - SEMI E72 is long overdue for 5 year review
 - Future plans and activities to update SEMI E72:
 - Implementing Building Information Modeling (BIM) for tool modeling and floor plans
 - Future joint TF between the NA PIC TC Chapter and NA Facilities TC Chapter
 - Address issues such as variations in fab layout, factory, ceiling height, moving weight, and ergonomics for the equipment
 - Standardization of definitions, concepts, and interfaces with input from suppliers, vendors and end users
 - Revise SEMI E6 (Semiconductor Equipment Installation) and SEMI E52 (Facilities Services) at the same time

Action item: 2014Nov#01, Alan Crockett to follow up with the BIM TF for new members and current BIM activities.

6 Old Business

6.1 5-Year Review Update

6.2 The TC Chapters reviewed the list of documents due for five year reviews and assigned reviewers. Please see Attachment 06 for the list.

Action item: 2014Nov#02, Michael Tran to follow up with Steve Lewis regarding SEMI F97 for five year review.

Attachment: 05, Facilities & Gases Documents Due for Five Year Review List (Fall 2014)

7 New Business

7.1 New Ballots Authorizations

7.1.1 The following documents were submitted for letter ballot authorization:

| # | When | SC/TF/WG | Details |
|-------|---------------|-------------------------|---|
| 5080A | Cycle 8, 2014 | SEMI F51 Revision TF | Revision of SEMI F51-0200 - Guide for Elastometric Sealing Technology |

Motion: To approve the letter balloting of Document 5080A in Cycle 8, 2014.

By / 2nd: Dalia Vernikovsky (Applied Seals N.A.) / Joyce Chen (Ultra Clean Technology)

Discussion: None.

Vote: Unanimous in favor. Motion passed.

8 Action Item Review

8.1 Open Action Items

8.1.1 Michael Tran (SEMI N.A.) reviewed the open action items. These can be found in the Open Action Items table at the beginning of these minutes.

8.2 New Action Items

8.2.1 Michael Tran (SEMI N.A.) reviewed the new action items. These can be found in the New Action Items table at the beginning of these minutes.

9 Next Meeting and Adjournment

9.1 The next N.A. Facilities Standards Meetings are tentatively scheduled for March 30-31, 2015 at SEMI Headquarters in San Jose, California in conjunction with the NA Standards Spring 2015 Meetings. Exact meeting dates and details will be announced when finalized and will be available at <http://www.semi.org/node/54226>

Tentative Schedule:

Monday, March 30*

- SEMI F51 (Perfluoroelastomer) TF (10:00 - 12:00)
- Building Information Modeling (BIM) TF (15:00 - 17:00)

Tuesday, March 31*

- Joint N.A. Facilities & Gases TC Chapters (9:00 to 12:00)

*All times are in Pacific time. Times and dates are subject to change without notice.

9.2 Having no further business, the N.A. Facilities TC Chapter meeting on November 03, 2014 held at SEMI Headquarters in San Jose, California was adjourned at 11:33 AM.

Motion: To adjourn the N.A. Facilities TC Chapter meeting on November 03, 2014 held at SEMI Headquarters in San Jose, California.

By / 2nd: Bill Kiikvee (AP TECH) / Douglas Barth (Pall)

Discussion: None.

Vote: Unanimous in favor. Motion passed.

Respectfully submitted by:

Michael Tran
Senior Standards Engineer
SEMI North America
Phone: 1-408-943-7019
Email: mtran@semi.org

Minutes approved by:

| | |
|--|---------------|
| Steve Lewis (DPS Engineering), chair of the NA Facilities TC Chapter | March 8, 2015 |
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Table 8 Index of Available Attachments #1

| # | <i>Title</i> | # | <i>Title</i> |
|----|---|----|--|
| 01 | SEMI Standards Required Meeting Elements | 04 | N.A. Standards Staff Report (Fall 2014) |
| 02 | N.A. Facilities and Gases TC Chapters Meeting Minutes (West 2014) | 05 | Facilities & Gases Documents Due for Five Year Review List (Fall 2014) |
| 03 | Japan Facilities TC Chapter Report (Fall 2014) | | |

#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 Michael Tran at the contact information above.