

North America Facilities & Gases Technical Committee Chapters Meeting Summary and Minutes

N.A. Standards Meetings at SEMICON West 2014
Tuesday, July 08 2014, 9:00 AM – 12:00 PM PDT
San Francisco Marriott Marquis Hotel in San Francisco, California

Next Facilities & Gases TC Chapter Meetings

The next N.A. Facilities & Gases TC Chapters meetings are tentatively scheduled for November 4, 2014 at SEMI Headquarters in San Jose, California in conjunction with the N.A. Standards Fall 2014 meetings. See § 10 of these minutes for full tentative schedule of all N.A. Facilities & Gases standards meetings. Exact meeting date and details will be announced when finalized and available at <http://www.semi.org/en/node/50511>.

Table 1 Meeting Attendees

Italics indicate virtual participants

Facilities Co-Chair: Steve Lewis (DPS Engineering)

Gases Co-Chairs: Tim Volin (Parker Hannifin), Mohamed Saleem (Fujikin)

SEMI Staff: Michael Tran

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
Air Liquide	Mitchell	Don	Hitachi High-Tech	Enami	Hikomichi
AP TECH	Kiikvee	Bill	Nikon	Ersan	Faith
Applied Seals N.A.	Vernikovskiy	Dalia	Parker Hannifin	Volin	Tim
Applied Seals N.A.	Gu	Fang	Swagelok	Ishida	Seiji
Brooks Instrument	Savadkouhi	John	Swagelok	Balson	Scott
CARTEN CONTROLS	Katz	Paul	Ultra Clean Technology (UCT)	Chen	Joyce
CONSCI	Ripkowski	Mark	Ultra Clean Technology (UCT)	Milburn	Matt
DPS Engineering	Lewis	Steve	WIKA	Christian	Jeff
Entegris	Lobert	Jurgen			
Fujikin	Saleem	Mohamed	SEMI N.A.	Tran	Michael

Table 2 Leadership Changes

There were no leadership changes.

Table 3 Ballot Results

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.

<i>Document #</i>	<i>Document Title</i>	<i>TC Chapter Action</i>
5080	Revision of SEMI F51-0200, Guide for Elastometric Sealing Technology	Failed committee review and returned to the TF for rework
5714	Reapproval of SEMI F19-0304 (Reapproved 0310): Specification for the Surface Condition of the Wetted Surfaces of Stainless Steel Components	Failed TC Chapter review and returned to the TF for rework.
5715	Reapproval of SEMI F77-0703 (Reapproved 0310), Test Method for Electrochemical Critical Pitting Temperature Testing of Alloy Surfaces Used in Corrosive Gas Systems	Failed TC Chapter review and returned to the TF for rework.
5712	Revision to SEMI F73-0309, Test Method for Scanning Electron Microscopy (SEM) Evaluation of Wetted Surface Condition of Stainless Steel Components	Passed TC Chapter review. Superclean.
5445	Revision of SEMI F60-0306 (Reapproved 0611), Test Method for ESCA Evaluation of Surface Composition of Wetted Surfaces of Passivated 316L Stainless Steel Components	Passed TC Chapter review with editorial changes.

Document #	Document Title	TC Chapter Action
5721	Revision to SEMI C71-0611, Specification and Guide for Boron Trichloride (BCI3) with title change to: Specification for Boron Trichloride (BCI3)	Failed TC Chapter review and returned to the TF for rework.
5722	Line item revision to SEMI E56-0314, Test Method for Determining Accuracy, Linearity, Repeatability, Short-Term Reproducibility, Hysteresis, and Deadband of Thermal Mass Flow Controllers	
Line Item 1	Correction to Equation 5	Failed TC Chapter review and returned to the TF for rework.

Table 4 Authorized Activities

There were no new activities.

Table 5 Authorized Ballots

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

#	When	SC/TF/WG	Details
5671A	Cycle 5 or 6, 2014	Gas Specifications TF	Revision of SEMI C3.12-1109, Specification for Ammonia (NH3) in Cylinders, 99.998% Quality
5673A	Cycle 5 or 6, 2014	Gas Specifications TF	Revision of SEMI C3.34-1109, Specification for Disilane (Si2H6) in Cylinders, 97% Quality

Table 6 New Action Items

Item #	Assigned to	Details
2014Jul#01	Michael Tran	To contact David Colquhoun (BriskHeat) to see if he wishes to continue as the leader of the Heater Jacket TF.
2014Jul#02	Michael Tran	To coordinate a telecon between Joyce Chen, Jeff Christian and Justin Hough (AMAT) regarding Document 3440 (Test Method for Pressure Transducers in Gas Delivery Systems) before the N.A. Standards Fall 2014 Meetings.
2014Jul#03	Tim Volin	To provide Michael Tran an updated figure as an editorial change to Document 5445 as approved by the N.A. Facilities & Gases TC Chapter.
2014Jul#04	Tim Volin	To follow up with Daniel Mudd of Reno-Subsystems regarding a contact to help revise SEMI F16, F13, and F14.
2014Jul#05	Michael Tran	To send out the documents that are due for five year reviews to the assigned reviewers.

Table 7 Previous Meeting Actions Items

Item #	Assigned to	Details	Status
2014Apr#01	Michael Tran	To send Chris Sanders SEMI E72 and SEMI E6 for review.	CLOSED.
2014Apr#02	Michael Tran	To ask Justin Hough to step down and ask for the status Document 3440 for Joyce Chen and Jeff Christian.	CLOSED.
2014Apr#03	Filters and Purifiers TF	To ask Tiger Optics and Paul Katz from Carten Controls to volunteer and run some tests.	CLOSED.
2014Apr#04	Tim Volin	To check with Bob Irwin about status of SEMI F6-92, SEMI F13-1101, and SEMI F14-93 (Reapproved 0699).	Open
2014Apr#05	Tim Volin	To report the possibility of a chemical critical pitting test based on ASTM G48.	Open
2014Apr#06	Mark Ripkowski	To draft a SNARF to revise SEMI C71-0611 (Boron Trichloride (BCI3)).	CLOSED.
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 9:04 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 Spring 2014 Meetings.

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

By / 2nd: Steve Lewis (DPS Engineering) / Mark Ripkowski (CONSCI)

Discussion: None.

Vote: 12-0 in favor. Motion passed.

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

3 Liaison Reports

3.1 Japan Facilities TC Chapter

3.1.1 Hiromichi Enami (Hitachi-Hi Tech) 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
- 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 Manufacturers 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 other will be involved at next meeting.

Discussion: None.

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

3.2 Europe Gases and Liquid Chemicals TC Chapter

3.2.1 Michael Tran (SEMI N.A.) reported for the Europe Gases and Liquid Chemicals TC Chapter. Of note:

- Meeting Information

- Last Meeting
 - October 8, 2013 at SEMICON Europa in Dresden, Germany
- Next Meeting
 - October 7, 2014 at SEMICON Europa in Grenoble, France
- Ballot results from the Last Meeting
 - All passed as balloted:
 - Doc. 5496, Revision to SEMI C80: Guide for Tetrakis(Dimethylamino) Silane (TDMAS)
 - Doc. 5324, New Standard: Guide for Cyclopentanone
 - Doc. 5326, New Standard: Guide for Methyl Isobutyl Carbinol (MIBC) or 4-Methyl 2-Pentanol
 - Doc. 5635, Withdrawal of SEMI C61: Specification for Bar Code Container Identification
- New SNARFs from the Last Meeting
 - Doc. 5658, New Standard: Guide for PDMAT (pentakis dimethyl amino Tantalum)
 - Doc. 5656, Revision to SEMI C65: Guide for trimethyl silane (3MS)
 - Doc. 5657, Revision to SEMI C66: Guide for trimethyl Aluminium (TMAI)
- Existing SNARFs
 - Doc. 5495, New Standard: Guide for Cyclo Hexanone
 - Doc. 5491, New Standard: Guide for Titanium Tetrachloride (TiCl₄)
 - Doc. 5492, New Standard: Guide for Ethylene Glycol
 - Doc. 5493, New Standard: Guide for Octa Methyl Cyclo Tetra Siloxane (OMCTS)
 - Doc. 5494, New Standard: Guide for Tetra Methyl Cyclo Tetra Siloxane (TMCTS)
 - Doc. 5325, New Standard: Dimethyl Dimethoxy Silane (DMDMOS)
- Upcoming Ballots
 - Doc. 5492, New Standard: Guide for Ethylene Glycol
 - Doc. 5656, Revision to SEMI C65-0308 With Title Change To: Guide for Trimethylsilane (3MS), 99.995% Quality
 - Doc. 5657, Revision to SEMI C66-0308 With Title Change To: Guide for Trimethylaluminium (TMAI), 99.5% Quality
 - Doc. 5658, New Standard: Guide for Pentakis (Dimethylamino) Tantalum (PDMAT)
- SEMI Europe Contact: Andrea Busch, abusch@semi.org

Discussion: None.

Attachment: 04, Europe Gases & Liquid Chemicals TC Chapter Report (West 2014)

3.3 Korea Facilities TC Chapter

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

3.4 North America Standards Staff Report

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

- Upcoming SEMI Global Events in 2014
 - SEMICON Taiwan
 - September 3-5, 2014 in Taipei
 - Strategic Materials Conference
 - September 30 – October 1, 2014 in Santa Clara, California
 - SEMICON Europa Plastic Electronics
 - October 7-9, 2014 in Grenoble, France
 - SEMICON Japan
 - December 3-5, 2014 in Tokyo
- Standards Workshop at SEMICON West 2014
 - Wafer Geometry Control for Advanced Semiconductor Manufacturing
 - Important developments and future needs in wafer geometry for advanced semiconductor manufacturing.
 - Presenters from IBM, Intel as well as key equipment companies.
 - Proposals discussed during this workshop will be considered for standardization by the Advanced Wafer Geometry TF under the Silicon Wafer Committee.
- Standards Update at SEMICON West 2014
 - Semiconductor Technology Symposium (STS) Session
 - Metrics Standards Activities Update
 - Topic: Challenges, Innovations and Drivers in Metrology
 - 3DS-IC Standards Activities Update
 - Topic: Embracing what's NEXT – Devices & Systems for Big Data, Cloud and IoT
 - TechXPOT Session
 - Facilities & Gases Standards Activities Update
 - Topic: Subcomponent Supply Chain Challenges for 10 nm and Beyond
 - Compound Semiconductor Materials Standards Activities Update
 - Topic: Disruptive Compound Semiconductor Technologies
 - SEMI Standards Publications Stats
 - April 2014 – June 2014
 - New Standards: 6
 - Revised Standards: 20
 - Reapproved Standards: 4
 - Withdrawn Standards: 0

- Total SEMI Standards in portfolio: 909
 - Includes 106 Inactive Standards
 - Upcoming NA Standards Meetings
 - NA Standards Fall 2014 Meetings
 - November 3-6, 2014 in SEMI HQ in San Jose, California
 - NA Standards Spring 2015 Meetings
 - (Tentative) March 30 – April 2, 2015 SEMI HQ in San Jose, California
 - NA Standards Meetings at SEMICON West 2015
 - (Tentative) July 13-16, 2015 in San Francisco, California
 - SEMI N.A. Standards staff contact: Michael Tran, mtran@semi.org

Discussion: None.

Attachment: 05, N.A. Standards Staff Report (West 2014)

4 Ballot Review

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

<i>Document #</i>	<i>Document Title</i>	<i>TC Chapter Action</i>
5080	Revision of SEMI F51-0200, Guide for Elastometric Sealing Technology	Failed committee review and returned to the TF for rework
5714	Reapproval of SEMI F19-0304 (Reapproved 0310): Specification for the Surface Condition of the Wetted Surfaces of Stainless Steel Components	Failed TC Chapter review and returned to the TF for rework.
5715	Reapproval of SEMI F77-0703 (Reapproved 0310), Test Method for Electrochemical Critical Pitting Temperature Testing of Alloy Surfaces Used in Corrosive Gas Systems	Failed TC Chapter review and returned to the TF for rework.
5712	Revision to SEMI F73-0309, Test Method for Scanning Electron Microscopy (SEM) Evaluation of Wetted Surface Condition of Stainless Steel Components	Passed TC Chapter review. Superclean.
5445	Revision of SEMI F60-0306 (Reapproved 0611), Test Method for ESCA Evaluation of Surface Composition of Wetted Surfaces of Passivated 316L Stainless Steel Components	Passed TC Chapter review with editorial changes.
5721	Revision to SEMI C71-0611, Specification and Guide for Boron Trichloride (BCI3) with title change to: Specification for Boron Trichloride (BCI3)	Failed TC Chapter review and returned to the TF for rework.
5722	Line item revision to SEMI E56-0314, Test Method for Determining Accuracy, Linearity, Repeatability, Short-Term Reproducibility, Hysteresis, and Deadband of Thermal Mass Flow Controllers	Failed TC Chapter review and returned to the TF for rework
	Line Item 1: Correction to Equation 5	

Motion: Document 5080 failed TC Chapter review and will be returned to the TF for rework.

By / 2nd: Dalia Vernikovsky (Applied Seals N.A.) / Tim Volin (Parker Hannifin)

Discussion: None.

Vote: 14-0 in favor. Motion passed.

Attachment: 06, Ballot Review Summary for Document #5080

Motion: Document 5714 failed TC Chapter review and will be returned to the TF for rework.
By / 2nd: Mohamed Saleem (Fujikin) / Steve Lewis (DPS Engineering)
Discussion: None.
Vote: 13-0 in favor. Motion passed.

Attachment: 07, Ballot Review Summary for Document #5714

Motion: Document 5715 failed TC Chapter review and will be returned to the TF for rework.
By / 2nd: Mohamed Saleem (Fujikin) / Steve Lewis (DPS Engineering)
Discussion: None.
Vote: 13-0 in favor. Motion passed.

Attachment: 08, Ballot Review Summary for Document #5715

Motion: Document 5712 passed TC Chapter review as balloted and will be forwarded to the A&R SC for procedural review.
By / 2nd: Tim Volin (Parker Hannifin) / Steve Lewis (DPS Engineering)
Discussion: None.
Vote: 13-0 in favor. Motion passed.

Attachment: 09, A&R SC Procedural Review for Document #5712

Motion: Document 5445 passed TC Chapter review with editorial changes and will be forwarded to the A&R SC for procedural review.
By / 2nd: Tim Volin (Parker Hannifin) / Steve Lewis (DPS Engineering)
Discussion: None.
Vote: 13-0 in favor. Motion passed.

Attachment: 10, A&R SC Procedural Review for Document #5445

Motion: Document 5721 failed TC Chapter review and will be returned to the TF for rework.
By / 2nd: Mark Ripkowski (CONSCI) / Steve Lewis (DPS Engineering)
Discussion: None.
Vote: 12-0 in favor. Motion passed.

Attachment: 11, Ballot Review Summary for Document #5445

Motion: Line Item 1 of Document 5722 failed TC Chapter review and will be returned to the TF for rework.
By / 2nd: Mohamed Saleem (Fujikin) / Steve Lewis (DPS Engineering)
Discussion: None.
Vote: 14-0 in favor. Motion passed.

Attachment: 12, Ballot Review Summary for Document #5722

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 7, 2014

Attachment: 13, F51 TF Report (West 2014)

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

5.2.1 [No new update since Spring 2014] 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/>
- 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

6 Gases Task Force Reports

6.1 Heater Jacket TF

6.1.1 There was no report given.

Action Item: 2014Jul#01, Michael Tran to contact David Colquhoun (BriskHeat) to see if he wishes to continue as the leader of the Heater Jacket TF.

6.2 *Mass Flow Controller (MFC) TF*

6.2.1 Mohamed Saleem (Fujikin) reported for the Task Force. Of note:

- Update on Document 5722 (Thermal Mass Flow Controllers) to correct an equation typo
 - It was failed by the NA Gases TC Chapter because the TF discovered more equation errors elsewhere in the document
 - The TF will correct the equations and provide more definitions and clarifications for some of the terms in the equations

Attachment: 14, MFC TF Report (West 2014)

6.3 *Pressure Measurement TF*

6.3.1 Joyce Chen (UCT) and Jeff Christian (WIKA) reported for the Task Force. The former TF leader Justin Hough (AMAT) was not present at SEMICON West 2014 to provide an update and materials for Document 3440, *New Standard: Test Method for Pressure Transducers in Gas Delivery Systems*. Joyce and Jeff will hold a telecon with Justin to discuss Document 3440 and provide an update at the N.A. Standards Fall 2014 Meetings.

Action Item: 2014Jul#02, Michael Tran to coordinate a telecon between Joyce Chen, Jeff Christian and Justin Hough (AMAT) regarding Document 3440 (Test Method for Pressure Transducers in Gas Delivery Systems) before the N.A. Standards Fall 2014 Meetings.

6.4 *Surface Mount Sandwich Component Dimensions TF*

6.4.1 Matt Milburn (UCT) reported for the Task Force. Of note:

- Update on Document 5595, New Standard: Guide for the Development of Dimensional Standards for “Sandwich” Surface Mount Components
 - The TF is making good progress and all that is left is the space for the sandwich component
 - The TF will provide a working draft of Document 5595 at the N.A. Standards Fall 2014 Meetings

6.5 *Filter and Purifiers TF*

6.5.1 Mohamed Saleem (Fujikin) reported for the Task Force. Of note:

- Update on Doc. 5244B, Revision to SEMI F21-1102, Classification of Airborne Molecular Contaminant Levels in Clean Environments
 - The document is being drafted by Entegris and the first draft is expected after the N.A. Standards Fall 2014 Meetings
 - If the activity stretches to 2015, then SEMI F21’s status will be changed to inactive
- Update on Doc. 5667, Revision to SEMI F112-0613, Determination of Moisture Dry-Down Characteristics of Surface-Mounted and Conventional Gas Delivery Systems by Cavity Ring Down Spectroscopy (CRDS)
 - Cavity Ring Down Spectroscopy (CRDS) is perfectly fine to have a large bypass flow and have only 2 slm flow for sampling
 - Entegris recommended to make the document more generic and not limited to CRDS
 - Pall is introducing new technology for moisture dry down at the next meeting

- Carten Controls will run some tests with UCT and Semitrac to validate the test method in the document
- The TF agreed to remove extraneous valves V2a and V3a from the test setup
- Work will continue on Doc. 5667 and will be shared with others for feedback

Attachment: 15, Filter and Purifiers TF Report (West 2014)

6.6 *Materials of Construction Gas Delivery Systems TF*

- Tim Volin (Parker Hannifin) reported for the Task Force. Of note:
 - The TF reviewed the ballots results of documents balloted in Cycle 3 and 4, 2014 (see §4 of these minutes for TC Chapter adjudication details):
 - Document 5714, *Reapproval of SEMI F19-0304 (Reapproved 0310): Specification for the Surface Condition of the Wetted Surfaces of Stainless Steel Components*
 - Document 5715, *Reapproval of SEMI F77-0703 (Reapproved 0310), Test Method for Electrochemical Critical Pitting Temperature Testing of Alloy Surfaces Used in Corrosive Gas Systems*
 - Document 5712, *Revision to SEMI F73-0309, Test Method for Scanning Electron Microscopy (SEM) Evaluation of Wetted Surface Condition of Stainless Steel Components*
 - Document 5445, *Revision of SEMI F60-0306 (Reapproved 0611), Test Method for ESCA Evaluation of Surface Composition of Wetted Surfaces of Passivated 316L Stainless Steel Components*
 - The following documents have not been reviewed yet:
 - SEMI F6-92, Guide for Secondary Containment of Hazardous Gas Piping Systems
 - SEMI F13-1101, Guide for Gas Source Control Equipment
 - SEMI F14-93 (Reapproved 0699), Guide For the Design of Gas Source Equipment Enclosures
 - Daniel Mudd of Reno-Subsystems knows a contact that might be able to help revise SEMI F16, F13, and F14. Tim Volin will follow up with Daniel.
 - The possibility of a chemical critical pitting test based on ASTM G48 was discussed by the TF. A new Test Method will be drafted.

Action Item: 2014Jul#03, Tim Volin to provide Michael Tran an updated figure as an editorial change to Document 5445 as approved by the N.A. Facilities & Gases TC Chapter.

Action Item: 2014Jul#04, Tim Volin to follow up with Daniel Mudd of Reno-Subsystems regarding a contact to help revise SEMI F16, F13, and F14.

Attachment: 16, Materials of Construction Gas Delivery Systems TF Report (West 2014)

6.7 *Gas Specifications TF*

- The TF is revising the following documents that failed committee review:
 - The TF revised the previously failed documents and asked for feedback from the N.A. Gases TC Chapter:
 - Doc. 5671, Revision of SEMI C3.12-1109, Specification for Ammonia (NH₃) in Cylinders, 99.998% Quality

- Doc. 5673, Revision of SEMI C3.34-1109, Specification for Disilane (Si₂H₆) in Cylinders, 97% Quality
 - The revisions will be re-balloted as 5671A and 5673A in Cycle 5 or 6, 2014

Attachment: 17, Gas Specifications TF Report (West 2014)

7 Old Business

7.1 5-Year Review Update

7.2 The TC Chapters reviewed the list of documents due for five year reviews and assigned reviewers. Please see Attachment 18 for the list.

Action item: 2014Jul#05, Michael Tran to send out the documents that are due for five year reviews to the assigned reviewers.

Attachment: 18, Facilities & Gases Documents Due for Five Year Review List (West 2014)

8 New Business

8.1 New Ballots Authorizations

8.1.1 The following documents were submitted for letter ballot authorization:

#	When	SC/TF/WG	Details
5671A	Cycle 5 or 6, 2014	Gas Specifications TF	Revision of SEMI C3.12-1109, Specification for Ammonia (NH ₃) in Cylinders, 99.998% Quality
5673A	Cycle 5 or 6, 2014	Gas Specifications TF	Revision of SEMI C3.34-1109, Specification for Disilane (Si ₂ H ₆) in Cylinders, 97% Quality

Motion: To approve the letter balloting of Document 5671A in Cycle 5 or 6, 2014.

By / 2nd: Mark Ripkowski (CONSCI) / Tim Volin (Parker Hannifin)

Discussion: None.

Vote: 14-0 in favor. Motion passed.

Motion: To approve the letter balloting of Document 5673A in Cycle 5 or 6, 2014.

By / 2nd: Mark Ripkowski (CONSCI) / Tim Volin (Parker Hannifin)

Discussion: None.

Vote: 14-0 in favor. Motion passed.

9 Action Item Review

9.1 Open Action Items

9.1.1 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.

9.2 New Action Items

9.2.1 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.

10 Next Meeting and Adjournment

10.1 The next N.A. Facilities and Gases Standards Meetings are tentatively scheduled for November 3-4, 2014 at the SEMI Headquarters in San Jose, California in conjunction with the NA Standards Fall 2014 meetings. Exact meeting dates and details will be announced when finalized and will be available at <http://www.semi.org/en/node/50511>

Tentative Schedule:

Monday, November 3*

Gases TFs

- Materials of Construction of Gas Delivery Systems TF (8:00 to 9:30)
- Filters and Purifiers TF (9:30 to 11:00)
- Mass Flow TF (11:00 to 12:00)
- Gas Specifications TF (13:00 to 14:00)
- Surface Mount Sandwich Component Dimensions TF (14:00 to 15:00)
- Pressure Measurement TF (15:00 to 17:00)

Facilities TFs

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

Tuesday, November 4*

- 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.

For meeting details, registration, the latest schedule, and travel information please visit:

<http://www.semi.org/en/node/50511>

9.2 Having no further business, the N.A. Facilities & Gases TC Chapters meeting on July 08, 2014 at the San Francisco Marriott Marquis Hotel in conjunction with the N.A. Standards Meetings at SEMICON West 2014 held in San Francisco, California was adjourned.

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), Facilities chair	September 23, 2014
Tim Volin (Parker Hannifin), Gases Co-chair	September 23, 2014
Mohamed Saleem (Fujikin), Gases Co-chair	September 23, 2014

Table 8 Index of Available Attachments #1

#	Title	#	Title
01	SEMI Standards Required Meeting Elements	10	A&R SC Procedural Review for Document #5445
02	N.A. Facilities and Gases TC Chapters Meeting Minutes (Spring 2014)	11	Ballot Review Summary for Document #5721

Table 8 Index of Available Attachments #1

<i>#</i>	<i>Title</i>	<i>#</i>	<i>Title</i>
03	Japan Facilities TC Chapter Report (West 2014)	12	Ballot Review Summary for Document #5722
04	Europe Gases & Liquid Chemicals TC Chapter Report (West 2014)	13	F51 TF Report (West 2014)
05	N.A. Standards Staff Report (West 2014)	14	MFC TF Report (West 2014)
06	Ballot Review Summary for Document #5080	15	Filter and Purifiers TF Report (West 2014)
07	Ballot Review Summary for Document #5714	16	Materials of Construction Gas Delivery Systems TF Report (West 2014)
08	Ballot Review Summary for Document #5715	17	Gas Specifications TF Report (West 2014)
09	A&R SC Procedural Review for Document #5712	18	Facilities & Gases Documents Due for Five Year Review List (West 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.