NA Facilities and Gases Committees Meeting Minutes

NA Fall Standards Meetings 2013
Tuesday, 29 October, 2013, 09:00 AM - 12:00 PM
SEMI HQ, San Jose, CA

Next Committee Meeting
April 1, 2014, SEMI HQ, San Jose, CA in conjunction with NA Spring Standards Meetings. Check www.semi.org/standards for latest update.

Attendees:
SEMI Staff
Kevin Nguyen – SEMI North America

Co-chairs – Steve Lewis (DPS Engineering) and Mohamed Saleem (Fujikin)

Table 1 – Meeting Attendees

Last Name	*First Name*	*Company*
Chen	Yanli	UCT
Kiikvee	Bill	AP Tech
Lewis	Steve	DPS Engineering
Milburn	Matt	UCT
Mohammed	Bala	Applied Materials
Ripkowski	Mark	CONSCI*
Saleem	Mohamed	Fujikin
Sanders	Chris	MTECH

*Attended via teleconference

Table 2 – Leadership Changes

Group	*New Leader*
Materials of Construction of Gas Delivery Systems Task Force	Bill Kiikvee (AP Tech) is the co-leader. Tim Volin (Parker Hannifin) is the other leader.

Table 3 – Ballot Summary
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.

Document #	*Document Title*	*Committee Action*
5577A	Revision of SEMI F105-0708, Guide for Metallic Material Compatibility in Gas Distribution Systems	Passed as superclean
5444	Revision of SEMI F72-0309, Test Method for Auger Electron Spectroscopy (AES) Evaluation of Oxide Layer of Wetted Surfaces of Passivated 316L Stainless Steel Components	Passed as balloted
5611	Revision of SEMI C3.20-0309, Specification for Helium (He), in Cylinders, 99.9995% Quality	Passed as balloted
5609	Revision of SEMI C3.24.0309, Specification for Sulfur Hexafluoride (SF6) in Cylinders, 99.97% Quality	Passed as superclean
5571A	Revision of SEMI E56-0309, Test Method for Determining Accuracy, Linearity, Repeatability, Short-Term Reproducibility, Hysteresis, and Dead Band of Thermal Mass Flow Controllers	Passed as superclean
5610	New Auxiliary Information: Codes for Referencing Gases, Gas Mixtures and Vaporizable Materials Used In Digital Mass Flow Controllers	Approved

Table 4 – Authorized Ballots

#	*When*	*SC/TF/WG*	*Details*
3440A	Cycle 1-2014	Pressure Measurement TF	New Standard: Test Method For Pressure Transducers In Gas Delivery Systems
5667	Cycle 1-2014	Filters and Purifiers TF	Revision to SEMI F112-0613, Test Method for Determination of Moisture Dry-Down Characteristics of Surface-Mounted and Conventional Gas Delivery Systems by Cavity Ring Down Spectroscopy (CRDS)
5668	Cycle 1-2014	Mass Flow TF	Withdrawal of SEMI E52, Practice for Referencing Gases, Gas Mixtures and Vaporizable Materials Used in Digital Mass Flow Controllers
5669	Cycle 1-2014	Mass Flow TF	Line Item Revisions of: SEMI E6-0303, Guide for Semiconductor Equipment Installation Documentation SEMI E54.18-1106 (Reapproved 1211), Specification for Sensor/Actuator Network Specific Device Model for Vacuum Pump Device SEMI E54.22-0613, Specification for Sensor/Actuator Network Specific Device Model for Vacuum Pressure Gauges SEMI F79-0710, Guide for Gas Compatibility with Silicon Used in Gas Distribution Components SEMI F105-0708, Guide for Metallic Material Compatibility in Gas Distribution Systems
5670	Cycle 1-2014	Mass Flow TF	Reapproval for SEMI E12, Standard for Standard Pressure, Temperature, Density, and Flow Units Used in Mass Flow Meters and Mass Flow Controllers
5671	Cycle 1-2014	Gases Specifications TF	Reapproval of SEMI C3.12-1109, Specification for Ammonia (NH3) in Cylinders, 99.998% Quality
5672	Cycle 1-2014	Gases Specifications TF	Reapproval of SEMI C3.32-1109, Specification for Chlorine (Cl2), 99.996% Quality
5673	Cycle 1-2014	Gases Specifications TF	Reapproval of SEMI C3.34-1109, Specification for Disilane (Si2H6) in Cylinders, 97% Quality
5674	Cycle 1-2014	Gases Specifications TF	Reapproval of SEMI C3.37-1109, Specification for Hexafluoroethane (C2F6), 99.97% Quality

Table 5 – Authorized Activities

#	***Type***	***SC/TF/WG***	***Details***
5667	SNARF	Filters and Purifiers TF	Revision to SEMI F112-0613, Test Method for Determination of Moisture Dry-Down Characteristics of Surface-Mounted and Conventional Gas Delivery Systems by Cavity Ring Down Spectroscopy (CRDS)
5668	SNARF	Mass Flow TF	Withdrawal of SEMI E52, Practice for Referencing Gases, Gas Mixtures and Vaporizable Materials Used in Digital Mass Flow Controllers
5669	SNARF	Mass Flow TF	Line Item Revisions of: SEMI E6-0303, Guide for Semiconductor Equipment Installation Documentation SEMI E54.18-1106 (Reapproved 1211), Specification for Sensor/Actuator Network Specific Device Model for Vacuum Pump Device

#	Type	SC/TF/WG	Details
			SEMI E54.22-0613, Specification for Sensor/Actuator Network Specific Device Model for Vacuum Pressure Gauges SEMI F79-0710, Guide for Gas Compatibility with Silicon Used in Gas Distribution Components SEMI F105-0708, Guide for Metallic Material Compatibility in Gas Distribution Systems
5670	SNARF	Mass Flow TF	Reapproval for SEMI E12, Standard for Standard Pressure, Temperature, Density, and Flow Units Used in Mass Flow Meters and Mass Flow Controllers
5671	SNARF	Gases Specifications TF	Reapproval of SEMI C3.12-1109, Specification for Ammonia (NH3) in Cylinders, 99.998% Quality
5672	SNARF	Gases Specifications TF	Reapproval of SEMI C3.32-1109, Specification for Chlorine (Cl2), 99.996% Quality
5673	SNARF	Gases Specifications TF Gases Specifications TF	Reapproval of SEMI C3.34-1109, Specification for Disilane (Si2H6) in Cylinders, 97% Quality
5674	SNARF	Gases Specifications TF	Reapproval of SEMI C3.37-1109, Specification for Hexafluoroethane (C2F6), 99.97% Quality

Note: SNARFs and TFOFs are available for review on the SEMI Web site at:
http://downloads.semi.org/web/wstdsbal.nsf/TFOFSNARF

Table 6 – Previous Meeting Actions Items

Item #	Assigned to	Details	Status
0713-1	Kevin Nguyen (SEMI Staff)	To ask Dalia Vernikovsky (Applied Seals) for the F51 Elastometric Sealing Revision TF meeting minutes	Closed
0713-2	Kevin Nguyen (SEMI Staff)	To ask Ben Bruce (Applied Seals) for the Building Information Modeling (BIM) TF meeting minutes	Closed

Table 7 – New Actions Items

Item #	Assigned to	Details
1013-1	Kevin Nguyen (SEMI Staff)	To inform European Liquid Chemicals leaders on requesting for Gases codes (if needed) for inclusion in SEMI E52
1013-2	Kevin Nguyen (SEMI Staff)	To verify if SEMI F80 Test Method for Determination of Gas Change/Purge Efficiency of Gas Delivery System was published by the US region. If yes, inform Japan that the reviewing should be done by the NA Purifier and Filter Task Force.
1013-3	Kevin Nguyen (SEMI Staff)	To email Japan staff for additional information on Standardization of Live Gas Flow Rate Study Group. If there is any information such as presentation or meeting minutes, send prospective materials to Mohamed Saleem and Bala Mohammed
1013-4	Kevin Nguyen (SEMI Staff)	To email Justin Hough for the progress of doc. 3440B, Test Method for Pressure Transducers in Gas Delivery Systems
1013-5	Kevin Nguyen (SEMI Staff) and others	To provide guidance on 5 year review to Chris Sanders and Yanli Chen for: • SEMI F107-0309 Guide for Process Equipment Adapter Plates (Chris Sanders) • SEMI F73-0309 Test Method for Scanning Electron Microscopy (SEM) Evaluation of Wetted Surface Condition of Stainless Steel Components (Yanli Chen)

1.0 Call to Order

Steve Lewis called the meeting to order and welcomed everyone who attended. A round of self introduction was made. All SEMI standards meetings are subjected to SEMI Anti-Trust Reminder and Guidelines concerning Patentable Technology. SEMI Regulations now require all attendees to be members of SEMI standards. If anyone is not a member of SEMI Standards, please enroll at www.semi.org/standardsmembership. Contact SEMI Staff for a copy of meeting required elements. Agenda was reviewed and proceed as written.

2.0 Review and Approval of Meeting Minutes from West, July 9, 2013.

The minutes were reviewed.

In reviewing the previous minutes, particularly in the Europe Gases and Liquid Chemicals liaison report section, Bala Mohammed stated these new standards (see below) were published by the Europe committee. Per Bala, regardless of their states(liquid, gases, solid, vaporizeable), when delivered to MFC devices, if they are in the gases, gas mixtures, and vaporizable materials forms, these chemicals should have codes assigned in SEMI E52. Action Item 1 – Kevin will relay this message to the European leaders.

- SEMI C65 Guide for TriMethylSilane (3MS)
- SEMI C66 Guide for TriMethylAluminium (TMAl)
- SEMI C67 Guide for Hafnium Amides
- SEMI C68 Guide for Zirconium Amides
- SEMI C73 Guide for Hafnium Tetrachloride
- SEMI C74 Guide for Hafnium t-Butoxide
- SEMI C75 Guide for Tetrakis(Dimethylamino)Titanium (TDMAT)
- SEMI C76 Guide for Zirconium t-Butoxide
- SEMI C80 Guide for Tetrakis(Dimethylamino) Silane (TDMAS)
- SEMI C81 Guide for Tris(Dimethylamino) Silane (3DMAS)

Motion: To accept the minutes of the previous meeting as submitted
By / 2nd: Chris Sanders (MTECH)/Bala Mohammed (Applied Materials)
Discussion: None
Vote: 7-0. Motion passed

Attachment – 1, NAFac&Gases Minutes20130709

3.0 Staff Report

Report was given by Kevin Nguyen. Highlights.

- 2013 & 2014 Event

Event Name	*Event Details*
PV Taiwan	**October 30 – November 1, 2013 Taipei**
SEMICON Japan	**December 4-6, 2013 Chiba**
SEMICON Korea	**February 12-14, 2014 Seoul**
LED Korea	**February 12-14, 2014 Seoul**

Event Name	*Event Details*
SEMICON China	**March 18-20, 2014 Shanghai**
SEMICON Singapore	**April 23-25, 2014 Marina Bay Sands**
SEMICON West	**July 8-10, 2014 San Francisco, California**

- NA Standards 2014 Meetings
  - NA Standards Spring 2014 Meetings, Standards Meetings,
    - March 31 – April 3, 2014
    - SEMI HQ in San Jose, California
  - NA Standards Meetings at SEMICON West 2014, Standards Meetings,
    - July 7-10, 2014
    - San Francisco, California
  - NA Standards Fall 2014 Meetings, Standards Meetings,
    - November 3-6, 2014
    - SEMI HQ in San Jose, California
- Technical Ballot Critical Dates
  - Cycle 8, 2013
    - Ballot Submission Date: Nov 15, 2013
    - Voting Period Starts: Nov 29, 2013
    - Voting Period Ends: Dec 31, 2013
  - Cycle 1, 2014
    - Ballot Submission Date: January 3, 2014
    - Voting Period Starts: January 14, 2014
    - Voting Period Ends: February 13, 2014
  - Cycle 2, 2014
    - Ballot Submission Date January 31, 2014
    - Voting Period Starts: February 14, 2014
    - Voting Period Ends: March 17, 2014
- September 2013 Cycle
  - New Standards: 3
  - Revised Standards: 2
  - Reapproved Standards: 6
  - Withdrawn Standards: 0
- Total SEMI Standards in portfolio: 892
  - Includes 98 Inactive Standards

Attachment – 2, SEMI Staff Report (Fall 2013)

4.0 Liaison Reports

4.1 SEMI Japan

Report was presented by Kevin Nguyen. Highlights.

- Last Meeting
  - September 27, 2013 during Japan Fall Meetings 2013 at SEMI Japan, Tokyo, Japan

- Next Meeting
  - December 4, 2013 in conjunction with SEMICON Japan 2013, Makuhari Messe, Chiba, Japan
- 5-year-review Task Force
  - Will start to review SEMI F80-0309, Test Method for Determination of Gas Change/Purge Efficiency of Gas Delivery System for the 5-year-review procedure
  - Mohamed informs that F80 should be reviewed by NA since it was published by the US region. Action Item #2 – Kevin to verify if this standard is published by the US region. If yes, Kevin will inform Japan that the reviewing should be done by the NA Purifier and Filter Task Force.
- New Business
  - Standardization of live Gas Flow Rate Study Group
    - A study group was newly set up to explore the possibility of the Standardization of live Gas Flow.
    - The first meeting was held on September 27, and what standardization of live gas flow is realistic was discussed.
    - Will ask to provide the data about gases to some Mass Flow Controller Manufacturers.
  - This topic is unclear on its objective. Many in attendance are interested in the details.
  - Action Item #3 – Kevin will email Japan staff for additional information. If there is any information such as presentation or meeting minutes, Mohamed Saleem and Bala Mohammed are interested in meeting materials.

Attachment – 3, 1310_JA_G+F_LiaisonR_for_NAFall_r0.0

4.2 SEMI Korea

Report was presented by Kevin Nguyen. Highlights.

- Last meeting
  - Jan 30, 2013 @ Coex, Seoul, Korea in conjunction with SEMICON Korea 2013
- Next meeting
  - TBD

- Equipment Cleanness TF
  - 4771C, New Standard, Particle Removal Test Method for Equipment Fan Filter Unit, EFFU Passed committee review on Feb 28, 2013.
  - 4922C, New Standard, Guide for Equipment Fan Filter Unit (EFFU) Performance needs to be reballoted for the next committee meeting.

Attachment – 4, KR_Facilities_committee_July

4.3 SEMI Europe

Report was not available at the time of this meeting. See attached for liaison report that was submitted after the meeting.

Attachment – 5, EU_GasChem__October_2103_v2

5.0 Ballot Review

5.1 Doc. #5577A, Revision of SEMI F105-0708, Guide for Metallic Material Compatibility in Gas Distribution Systems

5.1.1 Document passed technical review as superclean and was forwarded to the ISC Audits and Reviews Subcommittee for procedural review. See attachment below for detail of ballot adjudication.

Attachment – 6, 5577AProceduralReview

5.2 Doc. #5444, Revision of SEMI F72-0309, Test Method for Auger Electron Spectroscopy (AES) Evaluation of Oxide Layer of Wetted Surfaces of Passivated 316L Stainless Steel Components

5.2.1 Document passed technical review as balloted and was forwarded to the ISC Audits and Reviews Subcommittee for procedural review. See attachment below for detail of ballot adjudication.

Attachment – 7, 5444ProceduralReview

5.3 Doc. #5611, Revision of SEMI C3.20-0309, Specification for Helium (He), in Cylinders, 99.9995% Quality

5.3.1 Document passed technical review as balloted and was forwarded to the ISC Audits and Reviews Subcommittee for procedural review. See attachment below for detail of ballot adjudication.

Attachment – 8, 5611ProceduralReview

5.4 Doc. #5609, Revision of SEMI C3.24.0309, Specification for Sulfur Hexafluoride (SF6) in Cylinders, 99.97% Quality

5.4.1 Document passed technical review as superclean and was forwarded to the ISC Audits and Reviews Subcommittee for procedural review. See attachment below for detail of ballot adjudication.

Attachment – 9, 5609ProceduralReview

5.5 Doc. #5571A, Revision of SEMI E56-0309, Test Method for Determining Accuracy, Linearity, Repeatability, Short-Term Reproducibility, Hysteresis, and Dead Band of Thermal Mass Flow Controllers

5.5.1 Document passed technical review as superclean and was forwarded to the ISC Audits and Reviews Subcommittee for procedural review. See attachment below for detail of ballot adjudication.

Attachment – 10, 5571AProceduralReview

5.6 Doc. #5610, New Auxiliary Information: Codes for Referencing Gases, Gas Mixtures and Vaporizable Materials Used In Digital Mass Flow Controllers

5.6.1 Document was approved by the technical committee and was forwarded to the ISC Audits and Reviews Subcommittee for procedural review. See attachment below for detail of ballot adjudication.

Attachment – 11, 5610ProceduralReview

6 Vice Chair Reports

6.1. Facilities Activities

6.1.1. ***F51 Revision TF/ Dalia Vernikovsky (Applied Seals North America)***

Task force has its 17th meeting. 3. The document was reviewed with input on the mission, scope and review of the new chart developed for rating the level of concern for each sector divided into Etch, CVD, PVD, Diffusion and Sub-fabs. Progress was made. See attached for report.

Attachment – 12, 17th Meeting Minutes 102813

6.1.2. *Building Information Modeling (BIM) for Semiconductor Capital Equipment/Ben Bruce (Applied Materials)*

Kevin confirmed the task force did meet, but no report was given. If report was submitted, it will be included as attachment.

6.2. Gases Activities - Components

6.2.1. *Heater Jacket TF/David Colquhoun (BH Thermal)*

No meeting was held. The TF will resume at the next Spring 2014.

6.2.2. *Mass Flow Controller TF/Mohamed Saleem (Fujikin)*

Mohamed Saleem reported doc. 5571A, Revision of SEMI E56-0309, Test Method for Determining Accuracy, Linearity, Repeatability, Short-Term Reproducibility, Hysteresis, and Deadband of Thermal Mass Flow Controllers, was approved by the committee.

Three new SNARFS are submitted revolving around SEMI E52 since it was converted to a SEMI Auxiliary Information.

Motion: To approve the SNARF for Withdrawal of SEMI E52, Practice for Referencing Gases, Gas Mixtures and Vaporizable Materials Used in Digital Mass Flow Controllers
By / 2nd: Mohamed Saleem (Fujikin)/Yanli Chen (UCT)
Discussion: None
Vote: 7-0. Motion passed

Motion: To approve the SNARF for Line Item Revisions of:

- SEMI E6-0303, Guide for Semiconductor Equipment Installation Documentation
- SEMI E54.18-1106 (Reapproved 1211), Specification for Sensor/Actuator Network Specific Device Model for Vacuum Pump Device
- SEMI E54.22-0613, Specification for Sensor/Actuator Network Specific Device Model for Vacuum Pressure Gauges
- SEMI F79-0710, Guide for Gas Compatibility with Silicon Used in Gas Distribution Components
- SEMI F105-0708, Guide for Metallic Material Compatibility in Gas Distribution Systems

By / 2nd: Mohamed Saleem (Fujikin)/Yanli Chen (UCT)
Discussion: These standards reference SEMI E52. Revisions are needed to reflect the newly approved SEMI Auxiliary Information
Vote: 7-0. Motion passed

Motion: To approve the SNARF for Reapproval for SEMI E12, Standard for Standard Pressure, Temperature, Density, and Flow Units Used in Mass Flow Meters and Mass Flow Controllers
By / 2nd: Mohamed Saleem (Fujikin)/Yanli Chen (UCT)
Discussion: None
Vote: 7-0. Motion passed

Motion: To authorize above documents for cycle 1-2014 ballots
By / 2nd: Mohamed Saleem (Fujikin)/Yanli Chen (UCT)
Discussion: None
Vote: 7-0. Motion passed

Attachment – 13, Task Force Reports_10_28_2013
Attachment – 14, Removal of E52 SNARF
Attachment – 15, SNARF Gas Code Standards

6.2.3. *Pressure Measurement TF/Justin Hough(Applied Materials), David Colquhoun (BH Thermal)*

The task force meeting was cancelled. The momentum is appeared to be losing traction. The progress of doc. 3440B, Test Method for Pressure Transducers in Gas Delivery Systems is in a limbo. Action Item #4 – Kevin to send Justin Hough an email for a follow-up on the progress.

6.2.4. *Surface Mount Sandwich Component Dimensions TF/ Matt Milburn (UCT)*

Matt Milburn reported the TF is reviewing dimensional constraint and flow limitation for surface mount. Feedback is being solicited with various members. The next meeting will be held in the Spring of 2014.

6.3. Gases Activities - Contamination

6.3.1. *Filters and Purifiers TF/Mohamed Saleem (Fujikin)*

Mohamed reported ballot for doc. 5244B, Revision of SEMI F21-1102, Classification of Airborne Molecular Contaminant Levels in Clean Environments, is being handled by Jurgen Lobert of Entegris and Mark Camenzind of Air Liquide. This document requires a complete rewrite and they are making progress on the revision. As per Jurgen Lobert, some examples of re-write include updating references; N2O, NH3 levels; definition of refractory compounds; addition of volatile condensable organics; metals and dopants; update units of data (ppbv); align with ITRS roadmap etc.

A SNARF for Revision to SEMI F112-0613, Test Method for Determination of Moisture Dry-Down Characteristics of Surface-Mounted and Conventional Gas Delivery Systems by Cavity Ring Down Spectroscopy (CRDS) was submitted.

Motion: To approve the SNARF for Revision to SEMI F112-0613,5667 Test Method for Determination of Moisture Dry-Down Characteristics of Surface-Mounted and Conventional Gas Delivery Systems by Cavity Ring Down Spectroscopy (CRDS), and authorize for cycle 1-2014 ballot
By / 2nd: Mohamed Saleem (Fujikin)/Bala Mohammed (Applied Materials)
Discussion: None
Vote: 7-0. Motion passed

Attachment – 16, SEMI F112 SNARFformrev1
For complete report, see Attachment – 13 above.

6.4. Gases Activities - Materials and Processes

6.4.1. *Materials of Construction of Gas Delivery Systems TF/Tim Volin (Parker Hannifin)*

The TF did not meet due to travel cancellation. The outstanding item is document 5444, Revision of SEMI F72-0309, Test Method for Auger Electron Spectroscopy (AES) Evaluation of Oxide Layer of Wetted Surfaces Of Passivated 316l Stainless Steel Components, which recently passed committee review.

To support Tim Volin, Bill Kiikvee (AP Tech) was nominated to be the co-leader of the task force.

Motion: To approve Bill Kiikvee (AP Tech) as the co-leader of the ***Materials of Construction of Gas Delivery Systems TF***
By / 2nd: Bala Mohammed (Applied Materials)/ Mohamed Saleem (Fujikin)
Discussion: None
Vote: 7-0. Motion passed

6.5. *Gases Specification Task Force / Mark Ripkowski (CONSCI)*

Mark Ripkowski reported the follow standards are due for 5 year review

- SEMI C3.12-1109 Specification for Ammonia (NH3) in Cylinders, 99.998% Quality
- SEMI C3.32-1109 Specification for Chlorine (Cl2), 99.996% Quality
- SEMI C3.34-1109 Specification for Disilane (Si2H6) in Cylinders, 97% Quality
- SEMI C3.37-1109 Specification for Hexafluoroethane (C2F6), 99.97% Quality

Motion: To send these standards for cycle 1-14 reapproval ballot
By / 2nd: Mark Ripkowski (CONSCI)/Mohamed Saleem (Fujikin)
Discussion: None
Vote: 7-0. Motion passed

In addition, Mark reported the acronym in SEMI C71-0611 Specification and Guide for Boron Trichloride (BCI3), appears to be incorrect. Boron Trichloride (BCI3) should be Boron Trichloride (BCL3)

See attachment for complete meeting minutes.

Attachment – 17, GasesSpec TF Minutes 10_28_2013

7 Old Business

See **table 6** above. Kevin Nguyen reported two ballots (below) failed from SEMICON West in July, 2013

- Doc. 5570, Revision of SEMI E51-0200, Guide for Typical Facilities Services and Termination Matrix
- Doc. 5572, Revision of SEMI E6-0303, Guide for Semiconductor Equipment Installation Documentation

Several rejects were cast by Alan Crockett. These ballots need to be resubmitted for future cycle. Per Steve Lewis, these ballots are tabled for future meetings.

8 New Business

Five Year Review Standards. The following standards are due for 5 year review.

- SEMI F107-0309 Guide for Process Equipment Adapter Plates
  - Chris Sanders (MTECH) volunteered to review F107. If the standard is current, it will be submitted for reapproval.
- SEMI F73-0309 Test Method for Scanning Electron Microscopy (SEM) Evaluation of Wetted Surface Condition of Stainless Steel Components
  - Although the review should be done by the Materials of Construction of Gas Delivery Systems Task Force, Yanli Chen (UCT) offered to review F73.
- Action Item #5 - Steve Lewis suggested Kevin and others to mentor Chris and Yanli on the revision process for both F73 and F107

9 Action Item Reviews

Action item was reviewed by Kevin Nguyen. See **table 7** above.

10 Next Meeting

The next meeting of the NA Facilities & Gases committee is scheduled for Tuesday, April 1, 2014 in San Jose, CA at SEMI HQ in conjunction with NA Spring Standards Meetings. Check www.semi.org/standards for the latest update.

11 Adjourn

Adjournment of the meeting was held at 11:00 AM

These minutes are respectfully submitted by:

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

Minutes approved by:

Steve Lewis (DPS Engineering) – Facilities Co-chair Date: November 6, 2013
Mohamed Saleem (Fujikin) – Gases Co-chair Date: November 6, 2013

Please email to Kevin Nguyen at knguyen@semi.org or phone at 408-943-7997 if you have any questions. All attachments available from www.semi.org/standards (meeting minutes section).

Table 8 – Index of Attachment Summary

#	*Title*		*Title*
1	NAFac&Gases Minutes20130709	10	5571AProceduralReview
2	SEMI Staff Report (Fall 2013)	11	5610ProceduralReview
3	1310_JA_G+F_LiaisonR_for_NAFall_r0.0	12	17th Meeting Minutes 102813
4	KR_Facilities_committee_July	13	Task Force Reports_10_28_2013
5	EU_GasChem__October_2103_v2	14	Removal of E52 SNARF
6	5577AProceduralReview	15	SNARF Gas Code Standards
7	5444ProceduralReview	16	SEMI F112 SNARFformrev1
8	5611ProceduralReview	17	GasesSpec TF Minutes 10_28_2013
9	5609ProceduralReview		

#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.