North America Physical Interfaces & Carriers TC Chapter
Meeting Summary and Minutes

North America Standards SEMICON West 2015 Meetings
Wednesday, July 15, 2015, 9:00 AM to 12:00 Noon (0900-1200) Pacific Time
San Francisco Marriott Marquis Hotel in San Francisco, California

TC Chapter Announcements
Next TC Chapter Meeting
NA Standards Fall Meetings
Tentative: Wednesday, November 4, 2015; 0900 – 1200 Pacific Time
Tentative: SEMI Headquarters in San Jose, California or Intel (Robert Noyce Building) in Santa Clara, California

Table 1 Meeting Attendees
Italics indicate virtual participants
Co-chairs: Matt Fuller (Entegris), Stefan Radloff (Intel)
SEMI Staff: David L. Bouldin

<table>
<thead>
<tr>
<th>Company</th>
<th>Last</th>
<th>First</th>
<th>Company</th>
<th>Last</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Acteon</td>
<td>Komatsu</td>
<td>Shoji</td>
<td>Muratec</td>
<td>Yamamoto</td>
<td>Makoto</td>
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<td>Brooks Automation</td>
<td>Babbs</td>
<td>Daniel</td>
<td>Muratec</td>
<td>Fukushima</td>
<td>Masazumi</td>
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<tr>
<td>Consultant</td>
<td>Crockett</td>
<td>Alan</td>
<td>Shin-Etsu Polymer</td>
<td>Hiroyuki</td>
<td>Shida</td>
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<td>Daifuku</td>
<td>Kenji</td>
<td>Yamagata</td>
<td>Sinfonia Technology</td>
<td>Mikio</td>
<td>Otani</td>
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<tr>
<td>Entegris</td>
<td>Fuller</td>
<td>Matt</td>
<td>SUMCO</td>
<td>Nakai</td>
<td>Tetsuya</td>
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<td>Intel</td>
<td>Jung</td>
<td>Melvin</td>
<td>Tokyo Electron</td>
<td>Sensho</td>
<td>Kobayashi</td>
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<td>Intel</td>
<td>Radloff</td>
<td>Stefan</td>
<td>U.A. Associates</td>
<td>Hartsough</td>
<td>Larry</td>
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<tr>
<td>KLA-Tencor</td>
<td>Johanson</td>
<td>Eric</td>
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<tr>
<td>Miraial</td>
<td>Nagashima</td>
<td>Tsuyoshi</td>
<td>SEMI</td>
<td>Bouldin</td>
<td>David</td>
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Table 2 Leadership Changes

<table>
<thead>
<tr>
<th>Group</th>
<th>Previous Leader</th>
<th>New Leader</th>
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</thead>
<tbody>
<tr>
<td>None</td>
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Table 3 Ballot Results

Passed ballots and line items will be submitted to the ISC Audit & Review Subcommittee for procedural review.

Passed ballots and line items with technical changes will be submitted to the ISC Audit & Review Subcommittee for initial procedural review and a Ratification Ballot will be issued.

Failed ballots and line items were returned to the originating task forces for rework and rebaloting.

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<tr>
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<tr>
<td></td>
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<td>Passed, Superclean</td>
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<td></td>
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<td>Line item revision to SEMI E22-0697 (Reapproved 0309), Cluster Tool Module Interface: Transport Module End Effector Exclusion Volume Standard with title change to: Specification for Cluster Tool Module Interface: Transport Module End Effector Exclusion Volume and SEMI E22.1-0309, Cluster Tool Module Interface 300 mm: Transport Module End Effector Exclusion Volume Standard with title change to: Specification for Cluster Tool Module Interface 300 mm: Transport Module End Effector Exclusion Volume</td>
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</tr>
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<td></td>
<td>Line Item 1: Correct title and concomitant text of SEMI E22</td>
<td>Passed, Superclean</td>
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Table 4 Authorized Activities

<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>SC/TF/WG</th>
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</tr>
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<tbody>
<tr>
<td>None</td>
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Note: SNARFs and TFOFs are available for review on the SEMI Web site at: http://downloads.semi.org/web/wstdsbal.nsf/TFOFSNARF

Table 5 Authorized Ballots

<table>
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Table 6 New Action Items

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<td>Follow-up with Chie Yanagisawa on English translation of Assembly &amp; Packaging Global Technical Committee slides discussing backend alignment issues with introducing backside fiducial mark on notchless wafers.</td>
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<td>David Bouldin</td>
<td>Send the list of PIC Standards needing their five-year reviews to Larry Hartsough and Shoji Komatsu, coleaders of the Global PIC Maintenance Task Force.</td>
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<td>David Bouldin</td>
<td>Send a copy of the Negatives from the Reject vote submitted by Eric Sklar (SafetyGuru) on prior failed E72 Reapproval ballot 5711 to Alan Crockett.</td>
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<td>Alan Crockett</td>
<td>Prepare an initial revision draft for E72 to address Eric Sklar’s Negatives.</td>
</tr>
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<td>2015July#06</td>
<td>James Amano</td>
<td>Investigate possibility of holding all of the PIC Fall meetings on a single day and provide the cochairs with options.</td>
</tr>
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</table>
Table 7  Previous Meeting Actions Items

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<td>Send Larry Hartsough the latest list of PIC Standards due for 5-Year Review.</td>
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<td>Closed</td>
</tr>
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<td>2015Apr#03</td>
<td>Michael Tran</td>
<td>Compile list of NA PIC Standards that have nonconforming titles per Appendix 4 of the Procedure Manual.</td>
<td>Closed</td>
</tr>
<tr>
<td>2015Apr#04</td>
<td>James Amano</td>
<td>Follow up with Lin Tso and Ray Morgan on Supika Mashiro’s participation in the SEMI SCIS Special Interest Group.</td>
<td>Closed</td>
</tr>
<tr>
<td>2014Nov#01</td>
<td>Michael Tran</td>
<td>Send Larry Hartsough (U.A. Associates) SEMI E21 and SEMI E22 for his five year reviews.</td>
<td>Closed</td>
</tr>
<tr>
<td>2014Jul #05</td>
<td>Jan Rothe</td>
<td>Draft a SNARF to revise SEMI E84 for error handling and follow up with the Japan PI&amp;C TC chapter meeting.</td>
<td>Closed</td>
</tr>
</tbody>
</table>

1 Welcome, Reminders, and Introductions

Matt Fuller, TC Chapter cochair, called the meeting to order at 9:05 AM. After welcoming all attendees, a round of introductions followed. The SEMI meeting reminders on membership requirements, antitrust, patentable technology, and meeting guidelines were then presented and explained.

Attachment: 01, SEMI Standards Required Meeting Elements

2 Review of Previous Meeting Minutes

The TC Chapter reviewed the minutes of the previous meeting held April 1 in conjunction with the NA Standards Spring 2015 meetings.

Motion: Accept the minutes of the previous meeting as written.
By / 2nd: Larry Hartsough (U.A. Associates) / Alan Crockett (consultant)
Discussion: None
Vote: 10-0 in favor. Motion passed.

Attachment: 02, NA PIC Fall 2014 meeting (April 1) minutes

3 Liaison Reports

3.1 Japan Physical Interfaces & Carriers Committee

Tsuyoshi Nagashima presented the Japan PIC liaison report. The key items were as follows:

- Leadership and Structure Change - None
- Leadership
NA PIC Committee
Meeting Minutes

July 15, 2015
Marriott Marquis Hotel in San Francisco, California

- TC Chapter Cochairs
  - Tsuyoshi Nagashima (Miraial)
  - Tsutomu Okabe (TDK)
  - Kenji Yamagata (DAIFUKU)
- Technical Architect
  - Shoji Komatsu (Acteon)

Next Meeting: July 30, 2015 in conjunction with the Japan Summer 2015 Meetings (SEMI Japan Office, Tokyo)
- Document Review Summary (Japan Spring 2015 Meetings) - None
- Approved SNARFs (Japan Spring 2015 Meetings) – None
- Authorized Ballots (Japan Spring 2015 Meetings)

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* Ballot #5869 submission was approved at the NA PIC TC Chapter meeting on April 1, 2015. As SEMI E84 was originated from Japan region, however, the decision should have been made by JA PIC TC Chapter with additional GCS agreement per Procedure Manual § 2.7.1.2.3.1. Accordingly, the Japan PIC TC Chapter made a decision to authorize this ballot submission at the Japan PIC TC Chapter meeting on April 15, 2015.

- Ballots to be reviewed at the Japan Standards Summer 2015 Meetings

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<tr>
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<th>Details</th>
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</thead>
<tbody>
<tr>
<td>5524A</td>
<td>Cycle 5, 2015</td>
<td>450 mm AMHS Task Force</td>
<td>Revisions to SEMI E156-0710, “Mechanical Specification for 450 mm AMHS Stocker to Transport Interface”, with title change to “Specification for Mechanical Interfaces between 450 mm AMHS Stocker and Transport Equipment”</td>
</tr>
</tbody>
</table>

- 450 mm AMHS Task Force
  - Ballot #5524A, Revision to SEMI E156-0710, “Mechanical Specification for 450 mm AMHS Stocker to Transport Interface”, with title change to “Specification for Mechanical Interfaces between 450 mm AMHS Stocker and Transport Equipment”
    - Submitted for Cycle 5-2015.
    - To be reviewed at PIC Japan TC Chapter meeting on July 30, 2015.

- Fiducial Mark Interoperability TF
    - Traceability Japan TC Chapter assigned following up activity for T7 to Fiducial Mark Interoperability TF.
      - Section 2.1 (T7 adoption of nonsilicon materials)
      - Figure 3: small modification
      - M20 coordinate system (based on Negative to 5752 [withdrawn])
    - TF decided to delete all position specifications from SEMI T7 because position specifications are also described on SEMI M1 and other related Silicon Standards.
    - SNARF was made and agreed to by TF members.
    - SNARF was already submitted for GCS approval and it has been approved.
    - To be submitted to Cycle 7 and to be adjudicated at the next Japan TC Chapter meeting of Traceability Global Technical Committee in conjunction with SEMICON Japan 2015.
o Others
  - Silicon: Developing new Standard for 450mm Development Wafer with fiducial Mark
  - Assembly and Packaging: Discussing backend alignment issues with introducing fiducial mark wafer.

- Global PIC Standards Maintenance Task Force (JA Side)
  - Ballot #5777, Reapproval of SEMI E92-0302E, “Specification for 300 mm Light Weight and Compact Box Opener/Loader to Tool-Interoperability Standard (Bolts/Light)”
    - Passed as balloted at the Japan TC Chapter meeting on Dec. 4, 2014 in conjunction with SEMICON Japan 2014, and also passed at A&R in Feb., 2015.
    - Published as SEMI E92-0302E (Reapproved 0615)
  - Ballot #5869, Line Item Revision to SEMI E84-1109 “Specification for Enhanced Carrier Handoff Parallel I/O Interface”
    - #5869 ballot submission was approved at the NA PIC TC Chapter meeting on April 1, 2015. As SEMI E84 was originated from Japan region, however, the decision should have been made by JA PIC TC Chapter with additional GCS Agreement per Procedure Manual ¶ 2.7.1.2.3.1. Accordingly, the Japan PIC TC Chapter made a decision to authorize this ballot submission at the Japan PIC TC Chapter meeting on April 15, 2015.
    - Submitted for Cycle 5-2015
    - To be reviewed at the Japan TC Chapter meeting on July 30, 2015

- International 450 mm Physical Interfaces & Carriers Task Force (JA Side)
  - Issues related to a door closing have been raised from G450C.
    - ITG started the tests.
  - To move KC chapter in SEMI M80 to SEMI E154 (Lord Port)

- International Process Module Physical Interface (IPPI) Task Force (JA Side)
  - The Document worked by this task force was published.
  - The disbandment of IPPI TF was approved, with pending the EU TC Chapter’s agreement, at the Japan TC Chapter meeting on April 15, 2015.

- International Reticle SMIF Pod and Load Port Interoperability Task Force (JA Side)
  - None

- Staff Contact: Chie Yanagisawa (cyanagisawa@semi.org)

Attachment: 03, Japan PIC Liaison Report

Action Item: 2015July#01, David Bouldin to follow-up with Chie Yanagisawa on English translation of Assembly & Packaging Global Technical Committee slides discussing backend alignment issues with introducing backside fiducial mark on notchless wafers.

3.2 Europe Equipment Automation Committee (Information & Control, Metrics, Physical Interfaces & Carriers)
None.

3.3 SEMI Staff Report

- 2015/2016 Global Calendar of Events
  - SEMICON West (July 14-16, 2015, San Francisco, California, USA)
  - SEMICON Taiwan (September 2-4, 2015, Taipei, Taiwan)
  - European MEMS Summit (September 17-18, 2015, Milan, Italy)
  - Strategic Materials Conference [SMC] (September 22-23, 2015, Mountain View, California, USA)
  - SEMICON Europa (October 6-8, 2015, Dresden, Germany)
  - SEMICON Japan (December 16-18, 2015, Tokyo, Japan)
o European 3D Summit (Jan 18-20, 2016, Grenoble, France)
o Advanced Semiconductor Manufacturing Conference [ASMC] (May 16-19, 2016, Saratoga Spring, New York, USA)
o SEMICON West (July 12-14, 2016 [tentative] San Francisco, California, USA)

- NA Standards SEMICON West 2015 Meetings (July 13 to 16)
  o TC Chapters meeting at San Francisco Marriott Marquis Hotel (San Francisco, California, USA)
    ▪ 3DS-IC | EH&S | Facilities & Gases | HB-LED | Information & Control | Liquid Chemicals | MEMS/NEMS | Metrics | Microlithography | PV Materials | Physical Interfaces & Carriers | Silicon Wafer | Traceability

- Upcoming North America Standards Meetings (2015/2016)
  o 2015:
    ▪ NA Standards Fall 2015 Meetings (November 2-5, SEMI HQ, San Jose, California)
  o 2016:
    ▪ NA Standards Spring 2016 Meetings (April 4-7, SEMI HQ, San Jose, California)
    ▪ SEMICON West (July 11-14, 2016 [tentative] San Francisco, California)

- Letter Ballot Critical Dates for 2015 NA Fall Standards meetings
  o Cycle 6: due to Standards staff on July 22 / Voting Period: July 29 – August 28
  o Cycle 7: due to Standards staff on August 17 / Voting Period: August 31 – September 30

- Standards Publications Report

<table>
<thead>
<tr>
<th>Cycle</th>
<th>New</th>
<th>Revised</th>
<th>Reapproved</th>
<th>Withdrawn</th>
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<td>March 2015</td>
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<td>2</td>
<td>0</td>
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<td>April 2015</td>
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<tr>
<td>June 2015</td>
<td>4</td>
<td>3</td>
<td>15</td>
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- Total in portfolio – 937 (includes 110 Inactive Standards)

- New Requirements/Process Reminders for TC Chapter Meetings
  o Standards Document Development Project Period
    ▪ Project period shall not exceed three years (Regulations 8.3.2).
    ▪ SNARF approval to TC Chapter approval
    ▪ If document development activity is found to be continuing, but cannot completed within the project period, TC Chapter may grant one-year extension at a time, as many times as necessary.
  o SNARF Review Period
    ▪ A submitted SNARF for a new, or for a major revision to an existing, Standard or Safety Guideline is made available to all members of a TC Chapter’s parent global technical committee for two weeks for their review and comment. (Regulations 8.2.1).
    ▪ If the SNARF is submitted at a TC Chapter meeting, the TC Chapter can review and approve, but the SNARF will need to be distributed for two weeks and then approved via GCS.
  o New SNARF & TFOF forms [embedded in Staff Report, see Attachment 03 of these minutes]
o Procedures for Correcting Nonconforming Titles of Published Standards Document (Procedure Manual Appendix 4)
  • Some Standards qualify for a special procedure where a line-item change can be used to correct the titles. Otherwise, the corrective action will likely require a major revision.
  • List of PIC Standards in Staff Report [see Attachment 03 of these minutes]

o PIC Standards needing Five-Year Review [embedded in Staff Report, see Attachment 03 of these minutes]

Action Item: 2015July#02. David Bouldin to send the list of PIC Standards needing their five-year reviews to Larry Hartsough and Shoji Komatsu, coleads of the Global PIC Maintenance Task Force.

Attachment: 04, SEMI Standards Staff Report

4 Ballot Review

Passed ballots and line items will be submitted to the ISC Audit & Review Subcommittee for procedural review. Passed ballots and line items with technical changes will be submitted to the ISC Audit & Review Subcommittee for initial procedural review and a Ratification Ballot will be issued.

Failed ballots and line items were returned to the originating task forces for rework and reballoting.

NOTE 1: TC Chapter adjudication on Cycle 5, 2015 ballots is detailed in the Audits & Reviews (A&R) Subcommittee Forms for procedural review. The A&R form is available as an attachment to these minutes. The attachment number for each document is provided below the summary tables.

4.1 Cycle 4, 2015 Ballots

<table>
<thead>
<tr>
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Attachments: 05, Ballot Review for Doc. 5867
              06, Ballot Review for Doc. 5868
5 Task Force Reports

5.1 Joint International 450 mm Physical Interfaces & Carriers Task Force (450 mm IPIC TF) / International Process Module Physical Interface Task Force (IPPI TF)

Shoji Komatsu presented the report. The key items were as follows:

- Move Kinematic Coupling Pin section to SEMI E154 (LP)
  - The TF will consider moving the KC Pin section and related dimensions from the 450 mm Carrier Standards (E158, E159) to E154 when the major revisions are done.
  - Waiting for the next major revision for discussion, revote, and volunteers.
- Doc. 5524A (AMHS Stocker) on target for Cycle 4 or 5, 2015
- The International Process Module Physical Interface Task Force (IPPI TF) has no report.

5.2 Global PIC Maintenance Task Force

Shoji Komatsu presented the report. The key items were as follows:

- Ballots 5867 and 5868 (correcting nonconforming titles for E21, E21.1, E22, and E22.1) were Superclean.
  - The TF will continue to review more nonconforming titles and Documents due for five-year review.
- Update for Doc. 5869, Revision to SEMI E84 (Specification for Enhanced Carrier Handoff Parallel I/O Interface)
  - Ballot received 2 Reject votes, 1 Accept with Comment, and 1 Abstain with Comment.
  - Adjudication will be on July 30.
- Document 5817, Revision to SEMI E72, with title change to: Specification and Guide for Equipment Footprint, Height, and Weight
  - Next steps for Document 5817:
    - Update to address the appropriate Reject vote Negatives from prior 5711 Ballot.
    - Prepare a SNARF revision to change the scope to include altering the footprint drawing to reference requirements of SEMI S8.
    - Update the Document to the current SEMI Standards Style Manual format.

Action Item: 2015July#03, David Bouldin to send a copy of the Negatives from the Reject vote submitted by Eric Sklar (Safety Guru) on prior failed E72 Reapproval ballot 5711 to Alan Crockett.

Action Item: 2015July#04, David Bouldin to send an editable Word version of E72 to Alan Crockett.

Action Item: 2015July#05, Alan Crockett to prepare an initial revision draft for E72 to address Eric Sklar’s Negatives.

Attachment: 08, Global PIC Maintenance Task Force Report

5.3 International / NA 450 mm Shipping Box TF

Shoji Komatsu presented the report. The key items were as follows:

- The TF reviewed Doc. 5877, Revision to SEMI M80 (Shipping Box), ballot results. Superclean
  - The Document will be reviewed and adjudicated by the Japan Silicon Wafer TC Chapter at meeting in the Fall.
- Work will continue on Document 5069B (450 mm Wafer Shipping System) at Fall 2015 meetings.

Attachment: 09, International / NA 450 mm Shipping Box Task Force Report
5.4  **International Reticle SMIF Pod and Load Port Interoperability TF**

Stefan Radloff (Intel) presented the report for Jan Rothe (GLOBALFOUNDRIES). The key items were as follows:

- TF is working on documenting current purge ports location/dimensions.
- A new SNARF was developed by the TF and presented. The scope includes adding a Related Information section to SEMI E111 to document all known purge port locations and adding Related Information sections to SEMI E19, E112, and E117 that reference the new Related Information section in E111. Since the SNARF had not been issued for TC Member review in accordance with § 8.2.1 of the SEMI Standards Regulations, it will be sent for TC Member review, a request to the GCS for final approval of the SNARF, and a request to the GCS to approve a Letter Ballot for Cycle 7. Note that the TF wants to ballot adding this new Related Information section rather than authorizing publication as unballoted additions.

**Motion:** Approve the new SNARF to revise SEMI E19, E111, E112, and E117 for sending to the PIC TC Members for review and then to the PIC GCS for final approval.

**By / 2nd:** Alan Crockett (consultant) / Eric Johanson (KLA-Tencor)

**Discussion:** A question was raised about whether the scope should only include locations vs. also including dimensions. The TC Chapter agreed the answer was no. Another question was raised about possible intellectual property issues, but the TC Chapter agreed that these will be addressed as required, if necessary.

**Vote:** 10-0 in favor. Motion passed.

- The TF requested approval to ballot the revisions included in the new SNARF in Cycle 7.

**Motion:** Approve a request be sent to the PIC GCS for approval of a letter ballot in Cycle 7, 2015 to revise SEMI E19, E111, E112, and E117 when the new SNARF receives final approval.

**By / 2nd:** Larry Hartsough (U.A. Associates) / Alan Crockett (consultant)

**Discussion:** None.

**Vote:** 8-0 in favor. Motion passed.

**Attachment:** 10, International Reticle SMIF Pods and Load Ports Interoperability Task Force Report

5.5  **EUV Reticle Handling Task Force**

No report received.

5.6  **450 mm Automated Test Die Prep Task Force**

Stefan Radloff reported that the NA 450 ATDP TF is inactive. Most of the activities are being driven from Japan, under the Assembly & Packaging Global Technical Committee. The Japan TF is discussing 450 mm notchless wafers and their impact on thinning process steps. NA has seen some preliminary proposals from Japan, but slides are in Japanese – awaiting an English translation of this information. *(Reference Action Item 2015July#01 in Section 3.1 of these minutes.)*

6  **Old Business**

6.1  **Status update on action items generated from the previous meetings:**

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</table>
6.2 Documents Due for 5-Year Review
The PIC Standards due for five-year review were reviewed during the SEMI Staff report (see section 3.3 of these minutes and Attachment 03 of these minutes). Also, see Action Item 2015July#02.

6.3 SNARFs Past Three Year Document Development Period
Per Regulations § 8.3.2, the Standard Document Development Project Period shall not exceed three years. The SNARF becomes invalid and the Document development activity defined by the SNARF must be discontinued after this period. The EXCEPTION for Regulations § 8.3.2 enables the TC Chapter to grant a one-year extension at a time if Document development activity is found to be continuing. No North America PIC ones are past due.

6.4 Published Standards with Nonconforming Titles
Many of the published SEMI Standards have titles that do not conform to the requirements specified in the SEMI Standards Regulations and Procedure Manual. Appendix 4 of the SEMI Standards Procedure Manual establishes a procedure for correcting nonconforming titles of published Standards Documents. A number of PIC Standards have been identified as having nonconforming titles that must be corrected. The list of these PIC Standards was reviewed in the SEMI Staff Report (see section 3.3 of these minutes and Attachment 03 of these minutes).

7 New Business
7.1 New SNARFs & TFOFs
7.1.1 (See section 5.3 of these minutes for a proposed new SNARF for GCS approval.)

7.2 Authorizations for Ballot Submission
7.2.1 (See section 5.3 of these minutes for a proposed Cycle 7, 2015 letter ballot for GCS approval.)

8 Action Item Review
8.1 Open Action Items
David Bouldin (SEMI NA) 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
David Bouldin (SEMI NA) 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

The next NA PIC TC Chapter meeting is scheduled for November 3, 2015 in conjunction with Fall NA Standards Meetings. Stefan Radloff reported that Intel may be able to host all of the PIC meetings. The TC Chapter expressed a preference to hold all of their meetings on a single day with the TC Chapter meeting being held later in the day.

Action Item: 2015July#06. James Amano to investigate possibility of holding all of the PIC Fall meetings on a single day and provide the cochairs with options.

The tentative schedule(s) and location(s) are provided below:

**Fall NA Standards Meetings**
November 2-5, 2015
Location (Tentative)
SEMI Headquarters or Intel (Robert Noyce Building)
3081 Zanker Road 2200 Mission College Blvd
San Jose, CA 95134 Santa Clara, CA 95054
U.S.A. U.S.A.

Wednesday, November 3 (Tentative)
- International Reticle SMIF Pod and Load Port Interoperability TF (8:00 AM to 9:00 AM)
- Global PIC Maintenance TF (9:00 AM to 10:00 AM)
- Joint International 450 mm PIC/International Process Module Physical Interface TFs (10:00 AM to 11:00 AM)
- NA 450mm Shipping Box TF (1:00 PM to 2:00 PM)

- Physical Interfaces and Carriers TC Chapter (2:00 PM to 5:00 PM)

The full meetings schedule and details, when available, will be posted at the SEMI Standards Calendar of Events: http://www.semi.org/en/Standards/CalendarEvents.

Having no further business, a motion was made to adjourn the NA PIC Committee meeting on July 15 in conjunction with the NA Standards SEMICON West 2015 Meetings. Adjournment was at 10:45 AM.

Respectfully submitted by:
David L. Bouldin
Contract Standards Engineer
SEMI North America
Phone: +1.972.965.0340
Email: dbouldin@semi.org

Minutes approved by:
Matt Fuller (Entegris) September 30, 2015
Stefan Radloff (Intel) September 28, 2015
Table 8 Index of Available Attachments #1

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#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 David Bouldin at the contact information above.