Gases & Facilities Japan TC Chapter
Meeting Summary and Minutes

SEMICON Japan 2014 Meetings
Tuesday, December 2, 2014, 15:00-17:00
SEMI Japan, Tokyo, Japan

Next TC Chapter Meeting
Friday, April 24, 2015, 15:00-17:00
SEMI Japan, Tokyo, Japan

Table 1 Meeting Attendees
Co-Chairs: Hiromichi Enami (Hitachi High Technologies), Isao Suzuki (MKS Japan)
SEMI Staff: Naoko Tejima (SEMI Japan)

<table>
<thead>
<tr>
<th>Company</th>
<th>Last</th>
<th>First</th>
<th>Company</th>
<th>Last</th>
<th>First</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hitachi High Technologies</td>
<td>Enami</td>
<td>Hiromichi</td>
<td>Hitachi Kokusai Electric</td>
<td>Matsuda</td>
<td>Mitsuhiro</td>
</tr>
<tr>
<td>Swagelok</td>
<td>Ishida</td>
<td>Noritsugu</td>
<td>Tokyo Electron Yamanashi</td>
<td>Moriya</td>
<td>Shuji</td>
</tr>
<tr>
<td>Flow Techno Service</td>
<td>Ishihara</td>
<td>Seiji</td>
<td>Tokyo Electron Tohoku</td>
<td>Okabe</td>
<td>Tsuneyuki</td>
</tr>
<tr>
<td>HORIBA STEC</td>
<td>Imamura</td>
<td>Koji</td>
<td>HORIBA STEC</td>
<td>Shimizu</td>
<td>Tetsuo</td>
</tr>
<tr>
<td>HORIBA STEC</td>
<td>Isobe</td>
<td>Yasuhiro</td>
<td>MKS Japan</td>
<td>Suzuki</td>
<td>Isao</td>
</tr>
<tr>
<td>ITW Japan Brooks Instruments</td>
<td>Kashiwazaki</td>
<td>Hokuto</td>
<td>Nissan TANAKA</td>
<td>Takamizawa</td>
<td>Kazuhiko</td>
</tr>
<tr>
<td>Fujikin</td>
<td>Machii</td>
<td>Yoshifumi</td>
<td>SEMI Japan</td>
<td>Naoko</td>
<td>Tejima</td>
</tr>
</tbody>
</table>

* alphabetical order by last name

Table 2 Leadership Changes
None.

Table 3 Ballot Results
None.

Table 4 Authorized Ballots
None.

Table 5 Authorized Activities
None.

Table 6 New Action Items

<table>
<thead>
<tr>
<th>Item #</th>
<th>Assigned to</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>G+F141202-01</td>
<td>Co-chairs and SEMI staff</td>
<td>To consider the meeting operation and the agenda of joint meeting of the Gases Japan TC Chapter and the Facilities Japan TC Chapter.</td>
</tr>
</tbody>
</table>

1 Welcome, Reminders and Introductions

Hiromichi Enami, committee co-chair, called the meeting to order at 15:00. Self-introductions were made followed by the agenda review.
2 Required Meeting Elements
The meeting reminders on program membership requirement, antitrust issues, intellectual property issues and international effective meeting guidelines, were reviewed by SEMI staff, Naoko Tejima.

3 Technical Committee Award
Technical Committee Awards were given to the below member to appreciate his outstanding efforts and leadership.
- Shuji Moriya, Tokyo Electron Yamanashi
- Yoshifumi Machii, Fujikin

4 Review of Previous Meeting Minutes
The committee reviewed the minutes of the previous meeting held on July 4, 2014.

Motion: To approve the minutes of the previous meeting as written.
By / 2nd: Isao Suzuki (MKS Japan) / Seiji Ishihara, (Flow Techno Service)
Discussion: None
Vote: 11 in favor and 0 opposed. Motion passed.
Attachment: 01_JA_G+F_Previous_Mtg_Minutes_141202

5 SEMI Staff Report
New Regulations and Procedure guides effective December 2014 were explained by Mitsuhiro Matsuda, Hitachi Kokusai Electric, Co-chairs of JRSC.
Attachment: 02_SEMI_Staff_Report_141202

6 Liaison Reports
6.1 North America Facilities and Gases Committee
Naoko Tejima briefly reported for the North America Facilities and Gases Committee.
Facilities Committee report included Leadership, Current Committee Organization, Meeting Information, Ballot Review Summary, Upcoming Ballot, Task Force Reports and Next NA Facilities Meeting Schedule.
Gases Committee report included Leadership, Current Committee Organization, Meeting Information, Ballot Review Summary, Upcoming Ballot, Task Force Reports, Next NA Gases Meeting Schedule and Contact Information.
Attachment: 03_NA_Facilities_&_Gases_Report_November2014_141202

6.2 Europe Gases and Liquid Chemicals Committee
Naoko Tejima briefly reported for the Europe Gases & Liquid Chemicals Committee. This report included Leadership, Current Committee Organization, Meeting Information, Leadership Changes, Ballot Results from Oct 2014 TC Meeting, New SNARFs from Oct 2014 TC Meeting, Existing SNARFs, Upcoming Ballots for 2014, Task Force Reports and Contact Information.
Attachment: 04_EU_Gases_&_Liquid_Chemical_Report_October2014_141202

6.3 Korea Facilities Committee
No report was provided.
7 Task Force Reports

7.1 F1 Revision Task Force
Yoshifumi Machii reported for the F1 Revision Task Force that there were not particular activities.

7.2 Gas Panel and Metal Seal Test Methods Task Force
Shuji Moriya reported for the Gas Panel and Metal Seal Test Methods Task Force that there were not particular activities.

7.3 5-year-review Task Force
Yoshifumi Machii reported for the 5-year-review Task Force that there were not particular activities.

7.4 Standardization of Live Gas Flow Rate Study Group
Shuji Moriya reported for the Standardization of Live Gas Flow Rate Study Group. The Study Group met earlier in the day. Of note:

- Discussed what contents should be included to the standards about the technology of the live gas measurement method.
  - Types of the live gas flow rate measurement method, temperature range, flow rate range and so on.
  - SEMI E56-0314, “Test Method for Determining Accuracy, Linearity, Repeatability, Short-Term Reproducibility, Hysteresis, and Deadband of Thermal Mass Flow Controllers” will be reviewed referencing JIS B7556, “Procedures of calibration and testing for gas flowmeter”, and the result of review will be included the draft documents.
  - Hearing to some manufacturers about the live gas flow rate measurement method which they are doing within their company, and the results will be included the draft documents.

8 Old Business

8.1 Previous Meeting Action Items
Naoko Tejima reviewed the previous meeting action items.

Table 7 Previous Meeting Actions Items

<table>
<thead>
<tr>
<th>Item #</th>
<th>Assigned to</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>G+F140704-01</td>
<td>Standardization of Live Gas Flow Rate SG</td>
<td>To hold the seminars inviting speakers from AIST and Mass Flow Manufacturers. ... Close</td>
</tr>
</tbody>
</table>

9 New Business

9.1 The operation of the Gases & Facilities Committee in future
Mitsuhiro Matsuda, Co-chairs of JRSC, advised that the operation of Gases Japan TC Chapter meeting and Facilities Japan TC Chapter meeting should be divided clearly.

Action Item: Co-chairs and SEMI staff to consider the meeting operation and the agenda of joint meeting of the Gases Japan TC Chapter and the Facilities Japan TC Chapter.

10 Action Item Review

10.1 New Action Items
Naoko Tejima reviewed the new action items. These can be found in the New Action Items table at the beginning of these minutes.

11 Next Meeting and Adjournment

The next meeting of the Japan Gases & Facilities Committee is scheduled for Friday, April 24, 2015, 15:00-17:00, at SEMI Japan, Tokyo, Japan. Prior to the Committee meeting, Standardization of Live Gas Flow Rate SG will be held on the same day.
Respectfully submitted by:
Naoko Tejima
Manager, Standards
SEMI Japan
Phone: +81.3.3222.5804
Email: ntejima@semi.org

Minutes approved by:
Hiromichi Enami (Hitachi High Technologies), Co-chairs
February **, 2015
Isao Suzuki (MKS Japan), Co-chairs
February 13, 2015

Table 8 Index of Available Attachments #1

<table>
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<tr>
<th>#</th>
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<tbody>
<tr>
<td>1</td>
<td>JA_G+F_Previous_Mtg_Minutes_141202</td>
</tr>
<tr>
<td>2</td>
<td>SEMI_Staff_Report_141202</td>
</tr>
<tr>
<td>3</td>
<td>NA_Facilities_&amp;_Gases_Report_November2014_141202</td>
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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 Naoko Tejima at the contact information above.