Record of Letter Ballot Review by TC Chapter for Procedural Review

Region/Locale: North America
Global Technical Committee: Liquid Chemicals
TC Chapter Cochairs: Don Hadder (Intel), Laura Ledenbach (PeroxyChem), Steven Rogers (KMG Chemicals), Koh Murai (MegaFluid Systems)
Standards Staff: Laura Nguyen

	Scheduled in Background Statement	Actual
Date	TBD	08/20/2020
Location	SEMI HQ, Milpitas, CA/USA	SEMI Japan Office, Tokyo, Japan
Reason for Change of Date and/or Location (if changed)	Force majeure caused by the corona virus.	

Note: See *Regulations* ¶ 9.5 Exceptions for allowable reason to change.

I. Document Number and Title

Document Number	Document Title
6645	Revision to SEMI F40-0699E (Reapproved 0918), Practice for Preparing Liquid Chemical Distribution Components for Chemical Testing, with title change to: Practice for Preparing Liquid Chemical Distribution Components and Neat Polymers for Chemical Testing

II. Tally

Standards staff to fill in.

Voting Tally: As-cast tally after close of voting period

Note: A minimum of 60% of the Voting Interests that have TC Members within the global technical committee that issued the Letter Ballot must return Votes. (*Regulations* ¶ 9.6.2.1.1)

Voting Tally (with example values):

Voting Interest:	Returned Vote		Distributio		Return Rate	
Letter Ballot	65	÷	106	=	61.3%	≥60%
Intercommittee Ballot	20					
Voting Interest Reject(s)	1		Total Voters with Rejects		1	
Voting Interest Accept(s)	42					

Note: See *Regulations* § 3.2.1 for definition of Voting Interest.

III. Rejects

Voting Interest Reject 1 (Voting Interest Name: Guru)
Voter Reject 1 (Voter: Eric Sklar/Safety Guru)

Negative 1

<table>
<tr>
<td rowspan="4">Negative</td>
<td rowspan="2">Referenced Section/ Paragraph</td>
<td colspan="4">*TF/TC Chapter to fill in, including text in the ballot if necessary.</td>
</tr>
<tr>
<td colspan="4">#SG42
¶ 10.6.4</td>
</tr>
<tr>
<td rowspan="2">Negative Text</td>
<td colspan="4">*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</td>
</tr>
<tr>
<td colspan="4">Negative: Change "or greater.   The equation to determine the ratio is 4L/D, where L is the length of the pipe or tubing and D is the diameter" to "or greater, i.e., the length be at least 2.5 times the diameter."

Reason/Justification: "4L/D" is not an "equation".   Furthermore, if we know what minimum we want for the value, it's easier for the user if we just state a minimum length to diameter ratio.   Derivation:
Internal pipe wall area = $\pi \times D \times L$
Internal pipe cross-section area = $\pi \times (D/2)^2$
Ratio = $[\pi \times D \times L] / [\pi \times (D/2)^2] = 4 \times L/D$
Setting that to be at least 10 yields: $10 \le 4 \times L/D$, which can be simplified to $L \ge 2.5 \times D$.</td>
</tr>
<tr>
<td colspan="2">TF input (optional)</td>
<td colspan="4"></td>
</tr>
<tr>
<td rowspan="2">Withdrawal (check one)</td>
<td>X</td>
<td colspan="2">No Negative withdrawal made by Voter.</td>
<td>GO TO "Related" subsection</td>
</tr>
<tr>
<td></td>
<td colspan="2">Withdrawal document received by Standards staff on MM/DD/YYYY.</td>
<td>GO TO "Final" subsection → (A)</td>
</tr>
<tr>
<td rowspan="8">Related</td>
<td rowspan="3">Motion and Reason (check one)</td>
<td>X</td>
<td colspan="2">'Related' is mutually agreed upon. (Needs no motion.)</td>
<td>GO TO "Persuasive" subsection</td>
</tr>
<tr>
<td></td>
<td colspan="3">Negative is not related. (Needs ≥2/3 votes to pass.)</td>
</tr>
<tr>
<td></td>
<td>Reason</td>
<td colspan="2">XXXX</td>
</tr>
<tr>
<td>Motion by/ 2nd by</td>
<td colspan="4">Name (Company)/Name (Company)</td>
</tr>
<tr>
<td>Discussion</td>
<td colspan="4"></td>
</tr>
<tr>
<td rowspan="3">Result of Vote (check one)</td>
<td colspan="4">XX Y-XX N; Motion passed/failed.</td>
</tr>
<tr>
<td></td>
<td colspan="2">[Negative is not related.] < 2/3</td>
<td>GO TO "Persuasive" subsection</td>
</tr>
<tr>
<td></td>
<td colspan="2">2/3 ≤ [Negative is not related.]</td>
<td>GO TO "Final" subsection → (B)</td>
</tr>
<tr>
<td rowspan="3">Persuasive</td>
<td rowspan="3">Motion and Reason (check one)</td>
<td>X</td>
<td colspan="3">Negative is related and persuasive. (Needs >1/3 votes to pass.)</td>
</tr>
<tr>
<td></td>
<td colspan="3">Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)</td>
</tr>
<tr>
<td></td>
<td>Reason</td>
<td colspan="2">XXXX</td>
</tr>
</table>

Motion by/ 2nd by	Takuya Nagafuchi (Nihon Entegris) / Kaoru Kondo (RION)	
Discussion	None	

3 **Y**-0 **N**; Motion passed.

Result of Vote (check one)	X	[Negative is related and persuasive.] > 1/3	**Is a technical change recommended?** (check one)		**Y**	**GO TO "Address by Technical Change Option" subsection**
		[Negative is related and not persuasive.] < 2/3		X	**N**	**GO TO "Final" subsection → (E)**
		2/3 ≤ [Negative is related and not persuasive.] < 90%	**GO TO "Final" subsection → (C)**			
		90% ≤ [Negative is related and not persuasive.]	**GO TO "Not Significant Finding Option" subsection**			

Final	**(check if applicable)**		**(A)**	Withdrawn **(counted under h in disposition)**	
			(B)	Not related **(counted under i in disposition)**	
			(C)	Related and not persuasive (significant)	
			(D)	Not significant **(counted under j in disposition)**	
		X	**(E)**	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
			(F)	Addressed by technical change **(counted under k disposition)**	
	(check if applicable)			*Comment generated. **See Section V-(ii) Comment #** X.*	

IV. Other Technical Issues
None

V. Comments
None

VI. Editorial Changes Other than Those Voted on in § V
None

VII. Approval Conditions Check
N/A – Document Fails

VIII. Safety Check
N/A – Document Fails

IX. Intellectual Property (IP) Check
N/A – Document Fails

X. Action for This Document

Motion		This Document passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review.
		This Document passed TC Chapter review with editorial changes and will be forwarded to the ISC A&R SC for procedural review.
		This Document passed TC Chapter review with technical changes and with or without editorial changes and will be forwarded to the ISC A&R SC for procedural review. A Ratification Ballot will be issued to verify the technical changes.
	X	This Document failed TC Chapter review and will be returned to the TF for rework.
		This Document failed TC Chapter review and work will be discontinued.
Motion by/ 2nd by		Takuya Nagafuchi (Nihon Entegris) / Kaoru Kondo (RION)
Discussion		None
Vote		3 Y-0 N
Final Action	X	Motion passed
		Motion failed

Note: If the use of PMPT or copyrighted item is justified by the TC Chapter, LOA or release form must be received before publication can proceed.