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), Steven Rogers (KMG Chemicals), Laura Ledenbach (PeroxyChem/Evonik), Koh Murai (MegaFluid Systems)
Standards Staff: Laura Nguyen

	Scheduled in Background Statement	Actual
Date	TBD	02/17/2021
Location	TBD	OVTCCM
Reason for Change of Date and/or Location (if changed)	COVID-19	

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

I. Document Number and Title

Document Number	Document Title
6603	Revision to SEMI F98-0618, Guide for Water Reuse in Semiconductor Industry

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 Votes		Distribution		Return Rate	
Letter Ballot	65	÷	106	=	61.3%	≥60%
Intercommittee Ballot	47					
Voting Interest Reject(s)	0		Total Voters with Rejects			0
Voting Interest Accept(s)	48					

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

III. Rejects
None

IV. Other Technical Issues
None

V. Comments
V- (i) Voters' Comments
Commenter 1 (Mike Knapp/Samsung) - Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.		
	Section 7.1 - Figure 1 to be updated to correct figure(s)		
Action	**The TC Chapter agreed to do one of the following actions.**		
	*No motion is required in this step.		
		Already addressed by Commenter #, Comment #	
		No further action was taken by the TC Chapter.	
		Refer to the TF for more consideration.	
		New Business	
	X	Editorial Change	
	Options for editorial change (check one)		**Case 1: No vote in this section:**
			To be included and voted on as a group in § VI. *Editorial Changes Other than Those Voted on in § V.*
		X	**Case 2: Voted in this section:**
			Original section number and at least one full sentence are required in "FROM" and "TO" fields.
Editorial Changes	1	**FROM: Section/Paragraph 7.1** 7.1... Separate holding tanks are used for each grade of water so routing of the effluent streams to specific types of treatment and reuse can be matched to specific needs (see Figure 1).	
		TO: Section/Paragraph 7.1 7.1... Separate holding tanks are used for each grade of water so routing of the effluent streams to specific types of treatment and reuse can be matched to specific needs (see ~~Figure 1~~ Figure A1-3).	
		Justification (If necessary) Clarifying correct Figure number. There is no Figure 1.	

Motion	To approve above editorial change(s)
Motion by/2nd by	Koh Murai (Mega Fluid Systems) / Slava Libman (FTD Solutions)
Discussion	None
Vote	14 ***Y****-0* ***N****; Motion passed.*

This table is needed for each Comment accompanied a Vote

Commenter 1 (Mike Knapp/Samsung) - Comment 2

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.	
	Section 8.2.1 UPW recycling - To be italicized	
Action	**The TC Chapter agreed to do one of the following actions.**	
	*No motion is required in this step.	
		Already addressed by Commenter #, Comment #
	X	No further action was taken by the TC Chapter.
		Refer to the TF for more consideration.
		New Business
		Editorial Change

This table is needed for each Comment accompanied a Vote

Commenter 1 (Mike Knapp/Samsung) - Comment 3

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.		
	8.2.2.1 Cooling Tower Makeup - mojor to be changed to major. Additionally, the word “some” can be removed from this sentence: ' In general, a cooling tower system would prefer water with some small amount of hardness, alkalinity, free chlorine, and low conductivity to control corrosion and scale.'		
Action	**The TC Chapter agreed to do one of the following actions.**		
	*No motion is required in this step.		
		Already addressed by Commenter #, Comment #	
		No further action was taken by the TC Chapter.	
		Refer to the TF for more consideration.	
		New Business	
	X	Editorial Change	
	Options for editorial change (check one)		**Case 1: No vote in this section:**
			To be included and voted on as a group in § VI. *Editorial Changes Other than Those Voted on in § V.*
		X	**Case 2: Voted in this section:**
			Original section number and at least one full sentence are required in “FROM” and “TO” fields.
Editorial	1	**FROM: Section/Paragraph 8.2.2.1** 8.2.2.1... This demand varies seasonally and in some areas the variation can be significant and have a mojor impact on the water balance. In general, a cooling tower system would prefer water with some small amount of hardness, alkalinity, free chlorine, and low conductivity to control corrosion and scale. ...	

		TO: Section/Paragraph 8.2.2.1 8.2.2.1... This demand varies seasonally and in some areas the variation can be significant and have a ~~major~~ major impact on the water balance. In general, a cooling tower system would prefer water with some small amount of hardness, alkalinity, free chlorine, and low conductivity to control corrosion and scale. ...
		Justification (If necessary) Fix typographical error.

Motion	To approve above editorial change(s)
Motion by/2nd by	Paul Kerr (Intel) / Slava Libman (FTD Solutions)
Discussion	None
Vote	12 **Y**-0 **N**; Motion passed

This table is needed for each Comment accompanied a Vote

Commenter 1 (Mike Knapp/Samsung) - Comment 4

Comment		***TF/TC Chapter to fill in section/paragraph #, if necessary.**
		9.6.2 - Might be better to refers to 'section 9.6.1' rather than the 'three above' if the three systems change or are updated in later revisions.
Action		**The TC Chapter agreed to do one of the following actions.**
		***No motion is required in this step.**
		Already addressed by Commenter #, Comment #
	X	No further action was taken by the TC Chapter. (TF to address in further revision)
		Refer to the TF for more consideration.
		New Business
		Editorial Change

This table is needed for each Comment accompanied a Vote

Commenter 1 (Mike Knapp/Samsung) - Comment 5

Comment		***TF/TC Chapter to fill in section/paragraph #, if necessary.**
		12.1.2 Type 2 — Water Conservation - meter cubed to be super-scripted.
Action		**The TC Chapter agreed to do one of the following actions.**
		***No motion is required in this step.**
		Already addressed by Commenter #, Comment #
		No further action was taken by the TC Chapter.
		Refer to the TF for more consideration.
		New Business
	X	Editorial Change

	Options for editorial change **(check one)**		**Case 1: No vote in this section:**
			To be included and voted on as a group in § VI. *Editorial Changes Other than Those Voted on in § V.*
		X	**Case 2: Voted in this section:**
			Original section number and at least one full sentence are required in "FROM" and "TO" fields.
Editorial Changes	**1**	**FROM: Section/Paragraph 12.1.2** Q_{MBDF} = Minimum Brine Disposal Flowrate (m3/hr or gpm) – is the lowest possible discharge from the site within the boundaries of the economics, rational energy use, and environmental compliance. Under certain condition and changes implemented, this parameter may change. Q_{MAH} = Makeup Air Handler Condensate Flowrate (m3/hr or gpm) – is the total flowrate of water that is condensed in all air handling units used on site.	
		TO: Section/Paragraph 12.1.2 Q_{MBDF} = Minimum Brine Disposal Flowrate (~~m3~~m^3/hr or gpm) – is the lowest possible discharge from the site within the boundaries of the economics, rational energy use, and environmental compliance. Under certain condition and changes implemented, this parameter may change. Q_{MAH} = Makeup Air Handler Condensate Flowrate (~~m3~~m^3/hr or gpm) – is the total flowrate of water that is condensed in all air handling units used on site.	
		Justification (If necessary) Fix typographical error.	

Motion	To approve above editorial change(s)
Motion by/2nd by	Paul Kerr (Intel) / Slava Libman (FTD Solutions)
Discussion	None
Vote	12 **Y**-0 **N**; Motion passed.

This table is needed for each Comment accompanied a Vote

V-(ii) Comments Created by Handling Negative

None

VI. Editorial Changes Other than Those Voted on in § V

None

VII. Approval Conditions Check

VII. - (i). Approval Rate

APPROVAL CONDITION 1: All Negatives have been discussed and were withdrawn, found not related, found not persuasive, or addressed by a technical change. (*Regulations* ¶ 9.6.2.1.2)

APPROVAL CONDITION 2: At least 90% of the sum of valid Voting Interest Accept and Voting Interest Reject Votes must be Accept. (*Regulations* ¶ 9.6.2.1.3)

Note: If both approval conditions are not satisfied, the Document fails.

		Accepts		(Accepts + Valid Rejects)				
Approval Rate	=	48	/	48	=	100.0%		≥90%

VII. – (ii) Approval Level (check one)

Note: See *Regulations* § 9.6.2 for further information.

X	**Globally Approved (No Ratification Ballot needed):** **The Letter Ballot meets the Letter Ballot approval conditions for the global technical committee.**
	Need a Ratification Ballot: **The Letter Ballot meets the Letter Ballot approval conditions for the TC Chapter and a Ratification Ballot will be issued to validate technical changes.**

VIII. Safety Check

Note: See *Regulations* § 15 for further information.

Motion	X	**This is not a Safety Document**, when all safety-related information is removed, the Document is still technically sound and complete. (*Regulations* ¶ 8.7.1)
		This is a Safety Document, when all safety-related information is removed, the Document is not technically sound and complete. (*Regulations* ¶ 8.7.2)
		Safety Checklist (*Regulations* ¶ 15.3) is complete and has been included with the Document throughout the balloting process. (*Regulations* ¶ 15.1.2)
Motion by/2nd by		Koh Murai (Mega Fluid Systems) / Chuck Dale (Suez)
Discussion		None
Vote		12 **Y**-0 **N**; Motion passed

IX. Intellectual Property (IP) Check

Note: This Letter Ballot may cover all or part of a Standard or Safety Guideline. Regardless of the coverage, this IP check applies to the entire Standard or Safety Guideline*. See *Regulations* § 16 for further information.

X	The TC Chapter meeting chair asked those participating, if they were aware of any patented technology that might be relevant (see *Regulations* ¶ 16.3.1.1) to the Standard or Safety Guideline; or, any copyrighted items or trademarks that are used/reproduced (see *Regulations* ¶ 16.4.1.2) in the Standard or Safety Guideline. (Also see, *Regulations* § 8.8)					
	X	The question is NOT answered in affirmative (No potentially material patented technology or use/reproduction of copyrighted items/trademarks is known.)	**GO TO SECTION X.**			
		The question is answered in affirmative	Is any of the known IPs a patented technology?		**Yes, at least one of them is a patented technology**	**GO TO IX (a) "Patented Technology" subsection**
					No	**GO TO IX (b) "Copyright items" subsection**

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.
	X	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.
		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		Slava Libman (FTD Solutions) / Paul Kerr (Intel)
Discussion		None
Vote		13 **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.