Record of Letter Ballot Review by TC Chapter for Procedural Review

Region/Locale: North America
Global Technical Committee: Gases
TC Chapter Cochairs: Mohamed Saleem / Fujikin
Standards Staff: Laura Nguyen

	Scheduled in Background Statement	Actual
Date	11/09/2016	11/09/2016
Location	SEMI HQ, San Jose, CA	SEMI HQ, San Jose, CA
Reason for Change of Date and/or Location (if changed)		

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

I. Document Number and Title

Document Number	Document Title
5816B	Revision to SEMI F30-0710, Start-Up and Verification of Purifier Performance Testing for Trace Gas Impurities and Particles at an Installation Site

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* ¶ 9.7.1.1)

Voting Tally (with example values):

Voting Interest:	Returned Votes		Distribution		Return Rate	
Letter Ballot	39	÷	63	=	61.9%	≥60%
Intercommittee Ballot	13					
Voting Interest Reject(s)	1		Total Voters with Rejects			1
Voting Interest Accept(s)	25					

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

III. Rejects

Voting Interest Reject 1 (Voting Interest Name: Entegris)

Voter Reject 1 (Voter: Jurgen Lobert / Entegris)

Negative 1

	Negative Text	This method is about 'trace gas impurities', which can be anything under the sun. Suggesting that only APIMS and CRDS are good methods for detection is misleading at best. There is a host of many methods to detect impurities, many of which can NOT be detected with current CRDS technology. This needs to be revised. If you send me a copy of the full method, I'll be happy to go through it and suggest corrections.					
TF input (optional)		TF leader to make section 3 clear in that the test methods are not limited to APIMS, CRDS but other Ultra Trace Analytical techniques as well.					
Withdrawal (check one)		X	No Negative withdrawal made by Voter.				**GO TO "Related" subsection**
			Withdrawal document received by Standards staff on MM/DD/YYYY.				**GO TO "Final" subsection → (A)**
Related	**Motion and Reason (check one)**	X	'Related' is mutually agreed upon. **(Needs no motion.)**				**GO TO "Persuasive" subsection**
			Negative is not related. **(Needs ≥2/3 votes to pass.)**				
			Reason	XXXX			
Persuasive	**Motion and Reason (check one)**	X	Negative is related and persuasive. **(Needs >1/3 votes to pass.)**				
			Negative is related and not persuasive. **(Needs ≥2/3 votes to pass.)**				
			Reason	XXXX			
	Motion by/ 2nd by	Mohamed Saleem (Fujikin) / Thomas Fritz (WIKA)					
	Discussion	None.					
	Result of Vote (check one)	12 **Y** 0 **N**; Motion passed.					
		X	[Negative is related and persuasive.] > 1/3	**Is a technical change recommended? (check one)**	X	**Y**	**GO TO "Address by Technical Change Option" subsection**
			[Negative is related and not persuasive.] < 2/3			**N**	**GO TO "Final" subsection → (E)**
Address by Technical Change Option	**Technical Change Recommendations**						
	Technical Changes	**1**	**FROM: Section/Paragraph Section 3.1** Detection of ppb and sub-ppb gaseous impurity levels are achievable using atmospheric pressure ionization mass spectrometry (APIMS), Cavity Ring Down Spectroscopy (CRDS) and the reduction gas detector (RGD)-gas chromatograph. APIMS is currently not available for oxygen service. A partial list of non-APIMS measuring equipment for use in oxygen service is in Appendix 1 for commonly measured impurities.				
			TO: Section/Paragraph Section 3.1 Detection of ppb and sub-ppb gaseous impurity levels are achievable using atmospheric pressure ionization mass spectrometry (APIMS), Cavity Ring Down Spectroscopy (CRDS), ~~and~~ the reduction gas detector (RGD)-gas chromatograph~~.~~ or any other similar Ultratrace Analytical Instruments. The trace gas impurities can be Moisture, Methane, Carbon Monoxide, Carbon Dioxide, Oxygen and Hydrogen. ~~APIMS is currently not available for oxygen service. A partial list of non-APIMS measuring equipment for use in oxygen service is in Appendix 1 for commonly measured impurities.~~				

			Justification (If necessary) This method is about 'trace gas impurities', which can be anything under the sun. Suggesting that only APIMS and CRDS are good methods for detection is misleading at best. There is a host of many methods to detect impurities, many of which can NOT be detected with current CRDS technology. This is revised by removing references to APIMS and CRDS techniques in section 3 and including other Ultratrace Analytical Instrumentation Techniques. Also, an explanation for the type of trace gas impurities is also added, which further establishes that test method does not only rely on APIMS and CRDS which measure moisture impurity only.		
	Motion		Negative is addressed by the technical change(s).		
	Motion by/2nd by		Mohamed Saleem (Fujikin) / Thomas Fritz (WIKA)		
	Discussion		None.		
	Result of Vote (check one)		11 **Y** 0 **N**; Motion passed.		
		X	2/3 ≤ [Negative is addressed by the technical change(s).]	**GO TO "Incorporation of the Technical Change" subsection**	
			[Negative is not addressed by the technical change(s).] < 2/3	**GO TO "Final" subsection → (E)**	
	Incorporation of the Technical Change				
	Motion		To incorporate the technical change(s).		
	Motion by/2nd by		Mohamed Saleem (Fujikin) / Thomas Fritz (WIKA)		
	Discussion		None.		
	Result of Vote (check one)		11 **Y** 0 **N**; Motion passed.		
		X	90% ≤ [Agree to incorporate.]	**GO TO "Final" subsection → (F)**	
			[Disagree to incorporate.]>10%	**GO TO "Final" subsection → (E)**	
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)**	
			(E)	Related and persuasive and not addressed by technical change	**DOCUMENT FAILS**
		X	**(F)**	Addressed by technical change **(counted under k disposition)**	
	(check if applicable)		Comment generated. **See Section V-(ii) Comment #** X.		

Disposition of Voting Interest Reject 1

1	Original number (#) of Negatives			**(g)**
0	Number of Negatives withdrawn			**(h)**
0	Number of Negatives found not related			**(i)**
0	Number of Negatives found not significant			**(j)**
1	Number of Negatives addressed by technical change **(Negative becomes not significant)**			**(k)**
Final	X	**g** - (**h** + **i** +**j** + **k**) = 0	**Reject is Not Valid and is not included in the denominator of § VI. *Approval Conditions Check***	
		g - (**h** + **i** +**j** + **k**) >0	**Reject is included in the denominator of § VI. *Approval Conditions Check***	
		Reject without a Negative	**Not Valid**	

Note: If all of the Negatives included with a Reject Vote are withdrawn, determined to be not related, or determined to be not significant, the Reject Vote is not valid. (*Regulations* ¶ 9.4.3.3)
Note: A Negative addressed by a technical change is automatically considered to be not significant. (*Regulations* ¶ 9.6.4.4.2)

IV. Other Technical Issues

None

V. Comments

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* ¶ 9.7.1.2)

APPROVAL CONDITION 2: At least 90% of the sum of valid Voting Interest Accept and Voting Interest Reject Votes must be Accept. (*Regulations* ¶ 9.7.1.3)

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

		Accepts		(Accepts + Valid Rejects)				
Approval Rate	=	25	/	25	=	100.0%		≥90%

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

Note: See *Regulations* § 9.7.2 for further information.

	Globally Approved (No Ratification Ballot needed): The Letter Ballot meets the Letter Ballot approval conditions for the global technical committee.
X	**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		Mohamed Saleem (Fujikin) / Felix Shestatski (Ham-let)
Discussion		None.
Vote		11 **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. 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 potentially material patented technology or copyrighted items* in the Standard or Guideline. (*Regulations* ¶ 8.8.1)		
	X	No potentially material patented technology or reproduction of copyrighted items is known.	**GO TO SECTION X.**
		Potentially material patented technology or reproduction of copyrighted items is known, but a Letter of Assurance (LOA) or copyright release letter for such items has been obtained or presented to the TC Chapter.	**GO TO SECTION X.**
		Potentially material patented technology or reproduction of copyrighted items is known and use of such materials is technically justified by the TC Chapter, but an LOA or copyright release letter for some of the item(s) has NOT been obtained or presented to the TC Chapter.	
	Motion		Ask ISC for special permission to publish.
			Quit activity.
			Wait for LOA for patented technology or release of copyrighted items.
	Motion by/2nd by	Name (Company)/Name (Company)	
	Discussion	XXXX	
	Vote	XX **Y**-XX **N**	
	Final Action		Motion passed
			Motion failed

*** Note: Such potentially material patented technology or copyrighted items might have become known since the Standard or Safety Guideline was last reviewed, or might become relevant due to this Letter Ballot.**

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.
	X	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		Mohamed Saleem (Fujikin) / Joyce Chen (UCT)
Discussion		None.
Vote		11 **Y** 0 **N**
Final Action	X	Motion passed
		Motion failed

Standards staff to record the result of the A&R procedural review here:

A&R		**Approved for publication**
		Approved pending acceptance of the Ratification Ballot
		Not approved
	Reason:	