Procedural Review Voting Sheet
2014 Cycle 5

REGION: China
COMMITTEE: Photovoltaic
EVENT: SEMI China PV Standard TC 2014 Q3 Meeting
DATE OF MEETING: Sep 12, 2014
PLACE OF MEETING: Shangri-La Hotel Dalian
COMMITTEE CO-CHAIRS: Liu Jun/CESI, Zhang Guangchun/CSI
SEMI STAFF: Kris Shen

A&R Voter: Name/Company
Date: 2014/09/11

I. Document Number & Title

Document	Document Title
5564B	New Standard: Test Method for the Measurement of Chlorine in Silicon by Ion Chromatography

II. Tally (Staff to fill in)

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

A minimum of 60% of the voting interests that have voting members within the technical committee must return votes. (Regulations ¶ 9.6.1)

	Return		Distribution		Return Rate	
Yellow	90	÷	149	=	60.4%	>=60%
Lilac & Others	76					
Total Vote	166					
Reject	3					
Accept	35					

A&R		Not approved
		Reason:

III. Rejects

Reject 1 (Gotts, Hugh, Air Liquide)

Negative 1 of Reject 1

Negative	Referenced Section	*TF/Committee to fill in if necessary		
	Reason	*This standard specifies a unique IC system and may suggest that other equivalent IC systems or IC systems from alternate manufacturers may not be used*		
Withdrawal		X	No withdrawal made	GO TO "Related" section
			Withdrawal document received by staff on XXXX	GO TO "Final" → (A)
Related	Motion and Reason		"Related" is mutually agreed upon.	
			*This motion can be appended to the motion for Persuasive (See Persuasive Section)	
			Negative is related (needs over 1/3 votes to pass)	
			Negative is not related (needs 2/3 or more votes to pass)	
			Reason	
	Motion by/2nd by			
	Discussion			
	Result of Vote (check ONE)			
			[Negative is related] > 1/3	GO TO "Persuasive"
			[Negative is not related] < 2/3	
			2/3=< [Negative is not related]	GO TO "Final" → (B)
Persuasive	Motion and Reason		Negative is related and persuasive (needs over 1/3 votes to pass)	
		x	Negative is related and not persuasive (needs 2/3 or more votes to pass)	
			Reason	The document does not define the exact type of the instrument. All the equivalent IC can be used.
	Motion by/2nd by	Wenfeng Lu (GCL)/Xinwei Niu (Astronergy)		
	Discussion			
	Result of Vote (check ONE)	5-2		
			[Negative is related and persuasive] > 1/3	GO TO "Final" → (E)
			[Negative is related and not persuasive] < 2/3	
		x	2/3=<[Negative is related and not persuasive] <90%	GO TO "Final" → (C)

			90% =< [Negative is related and not persuasive]	**GO TO "Not Significant Finding Option"**

Not Significant Finding Option

This option can only be used "if the committee finds a negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (Regulations ¶ 9.5.3.3.2)

		It is mutually agreed upon to term the negative "not significant"	**GO TO → (D)**
		It is mutually agreed upon to term the negative "significant"	**GO TO → (C)**
Motion		The negative is "not significant".	
Motion by/2nd by		Name (Company)/Name (Company)	
Vote		XX-XX Motion passed with simple majority	**GO TO → (D)**
		XX-XX Motion failed with simple majority	**GO TO → (C)**

Final	Negative is:			
		(A)	withdrawn (counted under **h** in disposition)	
		(B)	not related (counted under **i** in disposition)	
	x	**(C)**	related and not persuasive (significant)	
		(D)	not significant (counted under **j** in disposition)	
		(E)	related and persuasive	**DOCUMENT FAILS**
			Comment generated. See comment #x	

A&R		**Not approved**
		Reason:

Negative 2 of Reject 1

Negative	**Referenced Section**	***TF/Committee to fill in if necessary**		
	Reason	*Section 16 of the method is not sufficiently general.*.		
Withdrawal		X	No withdrawal made	**GO TO "Related" section**
			Withdrawal document received by staff on XXXX	**GO TO "Final" → (A)**
Related	**Motion and Reason**		"Related" is mutually agreed upon.	
			***This motion can be appended to the motion for Persuasive (See Persuasive Section)**	
			Negative is related **(needs over 1/3 votes to pass)**	
			Negative is not related **(needs 2/3 or more votes to pass)**	
			Reason	

	Motion by/2nd by			
	Discussion			
	Result of Vote (check ONE)			
			[Negative is related] > 1/3	**GO TO "Persuasive"**
			[Negative is not related] < 2/3	
			2/3=< [Negative is not related]	**GO TO "Final" → (B)**
Persuasive	**Motion and Reason**		Negative is related and persuasive **(needs over 1/3 votes to pass)**	
		x	Negative is related and not persuasive **(needs 2/3 or more votes to pass)**	
			Reason	The parameters of IC mentioned in the Section 16 are sufficiently general, can be used in different kinds of IC and also they are just "for reference".
	Motion by/2nd by		Wenfeng Lu (GCL)/Xinwei Niu (Astronergy)	
	Discussion			
	Result of Vote (check ONE)		17-0	
			[Negative is related and persuasive] > 1/3	**GO TO "Final" → (E)**
			[Negative is related and not persuasive] < 2/3	
			2/3=<[Negative is related and not persuasive] <90%	**GO TO "Final" → (C)**
		x	90% =< [Negative is related and not persuasive]	**GO TO "Not Significant Finding Option"**
Not Significant Finding Option	**This option can only be used "if the committee finds a negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (Regulations ¶ 9.5.3.3.2)**			
		x	It is mutually agreed upon to term the negative "not significant"	**GO TO → (D)**
			It is mutually agreed upon to term the negative "significant"	**GO TO → (C)**
	Motion		The negative is "not significant".	
	Motion by/2nd by		Name (Company)/Name (Company)	
	Vote		XX-XX Motion passed with simple majority	**GO TO → (D)**
			XX-XX Motion failed with simple majority	**GO TO → (C)**
	Final		Negative is:	
			(A) withdrawn (counted under **h** in disposition)	
			(B) not related (counted under **i** in disposition)	
			(C) related and not persuasive (significant)	
		x	**(D)** not significant (counted under **j** in disposition)	
			(E) related and persuasive	**DOCUMENT FAILS**

		Comment generated. See comment #x
A&R		Not approved
		Reason:

Disposition of Reject 1

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

Note: If all of the negative material included with a reject vote is withdrawn, determined to be not related, or determined to be not significant, the reject vote is not valid. (Regulations ¶ 9.4.3.3)

A&R	Not approved
	Reason:

Reject 2 (Erich Dornberger, Wacker)

Negative 1 of Reject 2

gat	**Referenced Section**	***TF/Committee to fill in if necessary**

	Reason	*The proposed method is not adeqaute to measure Chlorine in Polysilicon in a meaningful way. Additionally, the description of the method is not appropriate. It should be also verified that the formal Semi requirements for a Semi norm are fullfilled. Below pleases see our technical comments:* *The detection limit (DL) depends on the amount of NaOH and HNO3 used, as well as the sensitivity of the ion chromatography instrument at the given salt concentration.* *• Electronic-grade NaOH contains less than 5 ppmw (i.e. 5 µg/g) Cl.* *Under the assumption that the Cl-content of HNO3 used for neutralization is negligible, the Cl-concentration may be calculated as follows:* *0.5 g Si are to be dissolved in 10 ml 50% NaOH. 10 ml 50% NaOH = 7.5 g NaOH (mass concentration = 0.75 g/ml). This results in a blank value of approximately 75 µg Cl / g Si. (5 µg/g Cl in NaOH * 7.5 g NaOH / 0.5 g Si)* *• In general, the concentration of an analyte in a sample should be at least twice as much as the blank (based on good laboratory practices); that is, in a sample of Si, the Cl concentration should be 2*75 µg/g = 150 µg/g = 150 ppmw in order to be clearly distinguished from the blank. This means that the Method Detection Limit (MDL) of Cl would be 100 to 150 ppmw in Si.* *• On the basis of the calibration points (Section 5.3.4), the Instrument Detection Limit (IDL) is roughly 0.1 ppmw Cl in NaOH. Under ideal conditions, a better detection limit (by a factor of 10) is possible. However, it must also be noted that because of the high salt concentration of these samples, the solutions must be diluted by at least a factor of 100 to 500 times.* *As preparation for measurement, the neutralized sample solutions will be diluted by a factor of 100 (see section 13). This means, depending on the weight of Si used, an IDL of 150 ppmw is to be expected (0.1 µg Cl / g NaOH * 7.5 g NaOH / 0.5 g Si *100 = 150 µg Cl / g Si = 150 ppmw).* *• The formula for evaluation of the results is currently unclear, according to the current description. Dimensional analysis affords mg/g without allowing for the dilution factor in the numerator and the factor 1E-6 in the denominator. In order to achieve the units mg/kg, a factor (in the denominator) of 1E-3 would be correct to use.* *• The method described does not differentiate between surface and bulk analysis.* *• Evidence to the detection limits, along with the variance of the method, is missing.* *Conclusion: Even under ideal conditions, we are of the opinion that it is not possible to measure less than 100 ppmw Cl in Si, using the method described here.*	
Withdrawal		X	No withdrawal made	**GO TO "Related" section**
			Withdrawal document received by staff on XXXX	**GO TO "Final" → (A)**
Related	**Motion and Reason**		"Related" is mutually agreed upon.	
			***This motion can be appended to the motion for Persuasive (See Persuasive Section)**	
		X	Negative is related **(needs over 1/3 votes to pass)**	
			Negative is not related **(needs 2/3 or more votes to pass)**	
			Reason	
	Motion by/2nd by	Wenfeng Lu (GCL)/Xinwei Niu (Astronergy)		
	Discussion	The reject is related to the document.		
	Result of Vote (check ONE)	6-3		
		X	[Negative is related] > 1/3	**GO TO "Persuasive"**
			[Negative is not related] < 2/3	
			2/3=< [Negative is not related]	**GO TO "Final" → (B)**
sua siv	**Motion and Reason**		Negative is related and persuasive **(needs over 1/3 votes to pass)**	
		X	Negative is related and not persuasive **(needs 2/3 or more votes to pass)**	

			Reason	The Cl in the NaOH used in the method is below 5ppmw, and the detection limit is not as low as 150ppmw, but during the research, we found that the Cl in the NaOH can be below 1ppmw, in this case, the detection limit can be less than 50ppmw.
	Motion by/2nd by		Wenfeng Lu(GCL)/Zhixin Li (Linton)	
	Discussion		According to the standard of electronic grade NaOH, the content of Cl should be less than 5ppmw, and the Certificate of Analysis(COA) always shows that "Cl<5ppm", but during the research, we found that the content of Cl in the NaOH we bought can be below 1ppmw, and this kind of NaOH can satisfy the test method.	
	Result of Vote (check ONE)		6-3	
			[Negative is related and persuasive] > 1/3	**GO TO "Final" → (E)**
			[Negative is related and not persuasive] < 2/3	
		X	2/3=<[Negative is related and not persuasive] <90%	**GO TO "Final" → (C)**
			90% =< [Negative is related and not persuasive]	**GO TO "Not Significant Finding Option"**
Not Significant Finding Option	**This option can only be used "if the committee finds a negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (Regulations ¶ 9.5.3.3.2)**			
			It is mutually agreed upon to term the negative "not significant"	**GO TO → (D)**
		x	It is mutually agreed upon to term the negative "significant"	**GO TO → (C)**
	Motion		The negative is "not significant".	
	Motion by/2nd by		Name (Company)/Name (Company)	
	Vote		XX-XX Motion passed with simple majority	**GO TO → (D)**
			XX-XX Motion failed with simple majority	**GO TO → (C)**
	Final		Negative is:	
			(A) withdrawn (counted under **h** in disposition)	
			(B) not related (counted under **i** in disposition)	
		X	**(C)** related and not persuasive (significant)	
			(D) not significant (counted under **j** in disposition)	
			(E) related and persuasive	**DOCUMENT FAILS**
			Comment generated. See comment #x	
A&R			**Not approved**	
			Reason:	

Disposition of Reject 2

1	Original number of Negatives	**(g)**

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

Note: If all of the negative material included with a reject vote is withdrawn, determined to be not related, or determined to be not significant, the reject vote is not valid. (Regulations ¶ 9.4.3.3)

A&R		**Not approved**
	Reason:	

Reject 3 (Der-Ray Huang, DongHwa University)

Negative	**Referenced Section**	***TF/Committee to fill in if necessary**		
	Reason	*The test method has no direct relationship related to PV cells and modules.*		
Withdrawal		X	No withdrawal made	**GO TO "Related" section**
			Withdrawal document received by staff on XXXX	**GO TO "Final" → (A)**
Related	**Motion and Reason**		"Related" is mutually agreed upon.	
			***This motion can be appended to the motion for Persuasive (See Persuasive Section)**	
			Negative is related **(needs over 1/3 votes to pass)**	
			Negative is not related **(needs 2/3 or more votes to pass)**	
			Reason	
	Motion by/2nd by			
	Discussion			
	Result of Vote (check ONE)		[Negative is related] > 1/3	**GO TO "Persuasive"**

			[Negative is not related] < 2/3	
			2/3=< [Negative is not related]	**GO TO "Final" → (B)**
Persuasive	**Motion and Reason**		Negative is related and persuasive **(needs over 1/3 votes to pass)**	
		x	Negative is related and not persuasive **(needs 2/3 or more votes to pass)**	
			Reason	The quality of polysilicon is very important for the user, nowadays more and more Granular silicon is produced and using in the following steps, as researched, there are more Chlorine remained in the granular silicon than the chunk, To check if the Chlorine remained in the silicon will affect the quality or have bad influence to the user, firstly, it is necessary to develop a method to measure the Chlorine in the silicon.
	Motion by/2nd by		Wenfeng Lu(GCL)/Zhixin Li(LINTON)	
	Discussion			
	Result of Vote (check ONE)		17-0	
			[Negative is related and persuasive] > 1/3	**GO TO "Final" → (E)**
			[Negative is related and not persuasive] < 2/3	
			2/3=<[Negative is related and not persuasive] <90%	**GO TO "Final" → (C)**
		x	90% =< [Negative is related and not persuasive]	**GO TO "Not Significant Finding Option"**
Not Significant Finding Option	**This option can only be used "if the committee finds a negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (Regulations ¶ 9.5.3.3.2)**			
		x	It is mutually agreed upon to term the negative "not significant"	**GO TO → (D)**
			It is mutually agreed upon to term the negative "significant"	**GO TO → (C)**
	Motion		The negative is "not significant".	
	Motion by/2nd by		Name (Company)/Name (Company)	
	Vote		XX-XX Motion passed with simple majority	**GO TO → (D)**
			XX-XX Motion failed with simple majority	**GO TO → (C)**
Final			Negative is:	
			(A) withdrawn (counted under **h** in disposition)	
			(B) not related (counted under **i** in disposition)	
			(C) related and not persuasive (significant)	
		x	**(D)** not significant (counted under **j** in disposition)	
			(E) related and persuasive	**DOCUMENT FAILS**
			Comment generated. See comment #x	
A&R			**Not approved**	
			Reason:	

Disposition of Reject 3

1	Original number of Negatives	**(g)**
0	# of Negatives withdrawn	**(h)**
	#of Negatives found not related	**(i)**
1	# of Negatives found not significant	**(j)**

Final	X	**g**-(**h**+**i**+**j**)=0	Reject **is Not Valid and is not** included in the denominator of § VI. Approval Conditions Check
		g-(**h**+**i**+**j**)>0	Reject **is** included in the denominator of § VI. Approval Conditions Check
		Reject without a Negative	**Not Valid**

Note: If all of the negative material included with a reject vote is withdrawn, determined to be not related, or determined to be not significant, the reject vote is not valid. (Regulations ¶ 9.4.3.3)

A&R		**Not approved**
	Reason:	

IV. Comments

Comment 1

Comment	**Referenced Section**	***TF/Committee to fill in if necessary**
	From	**Vargas-Bernal, Rafael (ITSdi)**
	Comment	*'ml' must be 'mL'. in subsection 9.1 chemical formula is inadequate. Several errors in the typing of the document were found. It is necessary delete spaces, add spaces between words, place end points.*
	Discussion	

Action proposed	x	**The committee agreed to do one of the following actions.**	
		***No motion is required in this step.**	
			No further action was taken by the committee.
			Refer to the task force for more consideration.
			New Business
		x	Other
	Editorial Change		
			Case 1: No vote in this section :
			To be included and voted on in § 5. Summary of Editorial Changes.

		x	**Case 2: Voted in this section :**
			Original section number and at least one full sentence are required in "FROM" and "TO" fields.
		1	**FROM: Throughout document** **Replace "ml" with**
			To: Throughout document **"mL"**
			Justification : Correction of unit of millimeter
Motion by/2nd			Wenfeng Lu (GCL)/Xinwei Niu (Astronergy)
Vote			26-0 Motion passed
A&R			**Not approved**
			Reason:

Comment 2

Comment	**Referenced Section**		***TF/Committee to fill in if necessary**
	From		**Harbin Institute of Technology , Gan, Yang**
	Comment		*There are quite a few grammatical errors. See the attached PDF file for comments.* *(Comments on 5564B New Standard (Yang Gan).pdf)*
	Discussion		The document was reviewed carefully and grammatical or typing errors in the document were corrected. See below.
Action proposed		x	**The committee agreed to do one of the following actions.**
			***No motion is required in this step.**
			No further action was taken by the committee.
			Refer to the task force for more consideration.
			New Business
		x	Other
	Editorial Change		
			Case 1: No vote in this section :
			To be included and voted on in § 5. Summary of Editorial Changes.
		x	**Case 2: Voted in this section :**
			Original section number and at least one full sentence are required in "FROM" and "TO" fields.

		1	**FROM: Section 7.3** 2、10、20 ml
			To: Section 7.3 2,10,20 mL
			Justification: Formatting errors, correcting comma
		2	**FROM: Section 13.2** set the temperature as 70℃,
			To: Section 13.2 set the temperature as 70℃,
			Justification: Formatting error, correcting comma
		3	**FROM: Section 14.1** C_0: the chlorine concentration of sample solution, mg/L C_1: the concentration of blank, mg/L; V: volume of sample solution, L R: dilution factor; m:the mass, in grams, of the silicon tested.
			To: Section 14.1 C_0: the chlorine concentration of sample solution, mg/L; C_1: the concentration of blank, mg/L; V: volume of sample solution, L; R: dilution factor; m: the mass of the silicon tested, g.
			Justification : Editorially adding necessary semicolon and correcting grammatical error as highlighted
		4	**FROM: Section 16.1** 20ul
			To: Section 16.1 20 μL
			Justification: Correcting symbol
		5	**FROM: Section 16.1** About 9Mpa
			To: Section 16.1 About 9 MPa
			Justification : Correcting proper unit of megapascal

Motion by/2nd	Wenfeng Lu (GCL)/Xinwei Niu (Astronergy)
Vote	26-0 Motion passed
A&R	**Not approved**
	Reason:

V. Summary of Editorial Changes

Note: Original section number and at least one full sentence are required in "FROM" and "TO" fields.

See editorial changes above.

VI. Approval Conditions Check

APPROVAL CONDITION 1: All negatives have been discussed and were withdrawn, found not related, or not persuasive. (Regulations ¶ 9.6.2)

APPROVAL CONDITION 2: At least 90% of the sum of the valid accept and reject votes must be accept. (Regulations ¶ 9.6.3)

Note: if both approval conditions are not satisfied, the document fails.

		Accepts		(Accepts + Valid Rejects)				
Approval Rate	=	35	/	37	=	94.6%		>=90%

A&R		Not approved
	Reason:	

VII. Safety Check

See § 14 of the Regulations 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.
		This is a Safety Document: when all safety-related information is removed, the document is not technically sound and complete.
		Safety Checklist (Regulations ¶ 14.3) is complete and has been included with the document throughout the balloting process.
Motion by/2nd by		Wenfeng Lu (GCL)/Xinwei Niu (Astronergy)
Discussion		None
Vote		23-0 Motion passed
A&R		Not approved
	Reason:	

VIII. Intellectual Property Check

Note: This ballot may be all or part of a Standard or Safety Guideline. This IP check applies to the entire Standard or Safety Guideline. See § 15 of the Regulations for further information

X	The meeting chair asked those present in person or by electronic link, if they were aware of any potentially material patented technology or copyrighted items* in the Standard or Guideline.			
	X	No potentially material patented technology or copyrighted items are known		**GO TO SECTION IX**
		Potentially material patented technology or copyrighted items are known but a Letter of Assurance (LOA) or copyright release for such material has been obtained or presented to the committee.		**GO TO SECTION IX**
		Potentially material patented technology or copyrighted items are known but an LOA or copyright release for some of the material(s) has NOT been obtained or presented to the committee		
	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			
	Discussion			
	Vote			
	Final Action		Motion Passed	
			Motion Failed	
A&R		**Not approved**		
		Reason:		

* 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 ballot.

IX. Action for this document

Motion		This document passed committee review as balloted and will be forwarded to the A&R for procedural review.	
	X	This document passed committee review with editorial changes and will be forwarded to the A&R for procedural review.	
		This document failed committee review and will be returned to the task force for rework.	
		This document failed committee review and work will be discontinued.	
Motion by/2nd by		Wenfeng Lu (GCL)/Xinwei Niu (Astronergy)	
Discussion		None	
Vote		23-0	
Final Action	X	Motion passed	
		Motion failed	
A&R		**Approved**	

		Not approved
	Reason:	