Record of Letter Ballot Review by TC Chapter for Procedural Review

Region/Locale: North America

Global Technical Committee: Liquid Chemicals

TC Chapter Cochairs: Steve Rogers (CMC Materials), Don E. Hadder (Intel), Koh Murai (Mega Fluid

Systems), Laura Ledenbach (Evonik) Standards Staff: Laura Nguyen

	Scheduled in Background Statement	Actual
Date	04/05/2023	04/05/2023
Location	SEMI HQ, Milpitas, CA/USA	SEMI HQ, Milpitas, CA/USA
Reason for Change of Date and/or Location (if changed)		

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

I. Document Number and Title

Document Number	Document Title
6715	New Standard: Guide for Evaluating Metrology for
	Particle Precursors in Ultrapure Water

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	60	÷	97	=	61.9%	≥60%
Intercommittee Ballot	16					
Voting Interest Reject(s)	2		Total	Vote	rs with Rejects	2
Voting Interest Accept(s)	48					

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)

Neg	ative 1									
Neg	Referenced Section/ Paragraph	1.2								
Negative	Negative Text	para	agraph.		or make it a NOTE that e statement of the purpose					
	Withdrawal (check one)	X	No Negative withou	Irawal made	e by Voter.	GO TO "Related" subsection				
Related	Motion and Reason (check one)	X	'Related' is mutua	lly agreed u	pon. (Needs no motion.)	GO TO "Persuasive" subsection				
			Negative is related	d and persu	asive. (Needs >1/3 votes	to pass.)				
	Motion and Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)							
Pe			Reason	Editor	ial in nature.					
Persuasive	Motion by/ 2 nd by	By: Sec	By: Bob McIntosh / GF Piping Systems Second: Bonnie Marion / FTD Solutions LLC							
e	Discussion	Non	е							
	Result of Vote	18 Y	0 N; Motion pass	ed.						
	(check one)	X	2/3 ≤ [Negative is and not persuasive		GO TO "Final" subsecti	on → (C)				
			(A)	Withdrawn	(counted under h in disp	position)				
			(B)	Not related	(counted under i in disp	oosition)				
	(check if	X	(C)	Related an	d not persuasive (significa	nnt)				
Final	applicable)		(D)	ŭ	ant (counted under j in c	lisposition)				
al			(E)		d persuasive and not by technical change	DOCUMENT FAILS				
			(F)	Addressed	by technical change (cou	nted under k disposition)				
	(check if applicable)	X	Comment generat	ed. <mark>See Se</mark>	ction V-(ii) <mark>Comment # N</mark>	<mark>IC-1</mark> .				

neg	ative 2									
Negative	Negative Text	word Rea usus specionic Iron part mea bety part Guid	gative: Explain the intended meaning of "molecular" in these sentences or remove the rd. ason/Justification: A "molecular compound", IIRC, is one that forms discrete molecules, ally by covalent bonding, such as CH4. Contrarily, an "ionic compound" is one that has ecific ratios among its atomic constituents, but not discrete molecules and the bonding is ic. KCI, for example, is an ionic compound. nically, KCI is what is used in this Guide as the test case of a compound that forms rticles when water in which it is dissolved dries, so the method is being validated for asurement of an ionic compound, not a molecular compound. If there's no difference ween how one measures particles formed from ionic compounds and how one measures rticles from molecular compounds, then just dropping the "molecular" throughout the ide appears to be a simple solution. If there is a difference, then this Guide appears to to address its primary purpose.							
	Withdrawal (check one)	X	No Negative with	drawa	al made by Voter.	GO TO "Related" subsection				
Related	Motion and Reason (check one)	X	'Related' is mutua	ılly ag	greed upon. (Needs no motion.)	GO TO "Persuasive" subsection				
			Negative is related and persuasive. (Needs >1/3 votes to pass.)							
	Motion and Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)							
Persuasive			Reason		Editorial in nature.					
asive	Motion by/ 2 nd by	By: Sec	Bob McIntosh / GF ond: Bonnie Mario	Pipir n / FT	ng Systems D Solutions LLC					
	Discussion	Non	е							
	Result of Vote	18 \	0 N ; Motion pass							
	(check one)	X	2/3 ≤ [Negative is and not persuasiv	relate e.] <	ed 90% GO TO "Final" subsection	on → (C)				
			(A)	With	drawn <mark>(counted under h in dis</mark>	position)				
			(B)	Not	related (counted under i in disp	position)				
	(check if	X	(C)	Rela	ted and not persuasive (significa	nt)				
Final	applicable)		(D)		significant <mark>(counted under j in</mark> d	lisposition)				
<u>a</u>			(E)	addr	ted and persuasive and not essed by technical change	DOCUMENT FAILS				
			(F)	Addr	ressed by technical change (cou	nted under k disposition)				
	(check if applicable)	X	Comment genera	ted. S	See Section V-(ii)	<mark>IC-2</mark> .				

ITCG	ative 3									
	Referenced	2.1.	1 through 2.1.4							
Vec	Section/ Paragraph									
Negative	Negative Text	Negative: Make these bullet items; do not number them as if they were paragra Reason/Justification: These are not paragraphs and should not be numbered as were. As there's no obvious reason the order matters, they should be bulletted.								
	Withdrawal (check one)	X	No Negative witho	drawa	l mad	e by Voter.	GO TO "Related" subsection			
Related	Motion and Reason (check one)	X	'Related' is mutua	lly ag	reed ι	upon. (Needs no motion.	GO TO "Persuasive" subsection			
			Negative is related	d and	persu	uasive. (Needs >1/3 votes	s to pass.)			
	Motion and Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)							
Persuasive			Reason	Conforms to the Style Manual (SM). Per SM 1-10(6), it is recommended that these be numbere "Avoid excessive use of bulleted lists, instead use the section heading format (refer to #1-4)."						
sive	Motion by/ 2 nd by		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC							
	Discussion	Non	е							
	Result of Vote	18 Y	0 N ; Motion pass	ed.						
	(check one)	X								
			(A)	With	drawn	(counted under h in dis	position)			
			(B)	Not r	elated	d (counted under i in dis	position)			
≖	(check if	X	(C)	Rela	ted ar	nd not persuasive (signification	ant)			
Final	applicable)		(D)	Not s	signific	cant (counted under j in	disposition)			
			(E)			nd persuasive and not by technical change	DOCUMENT FAILS			
			(F)	Addr	essec	l by technical change (cou	unted under k disposition)			

	41170 4									
	Referenced Section/	2.2.	1 through 2.2.3							
ega	Paragraph									
Negative	Negative Text	Rea	Negative: Make these bullet items; do not number them as if they were paragraphs. Reason/Justification: These are not paragraphs and should not be numbered as it they were. As there's no obvious reason the order matters, they should be bulletted.							
	Withdrawal (check one)	No Negative withdrawal made by Voter.	GO TO "Related" subsection							
Related	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection						
	Motion and Reason		Negative is related and persuasive. (Needs >1/3 votes to pass.)							

	(check one)	X	Negative is related	ersuasive. <mark>(Needs ≥2/3 vot</mark>	es to pass.)	
Reason						M). nded that these be numbered d lists, instead use the section
Persuasive	Motion by/ 2 nd by		Paul Kerr / Intel Co ond: vyacheslav Li		O Solutions LLC	
е	Discussion	Non	е			
	Result of Vote	18 Y	/ 0 N ; Motion pass	ed.		
	(check one)	X	2/3 ≤ [Negative is and not persuasiv		GO TO "Final" subsectio	n → (C)
			(A)	Withdrawn	(counted under h in dispo	osition)
			(B)	Not related	d (counted under i in dispo	osition)
Ξ	(check if	X	(C)	Related an	nd not persuasive (significan	t)
Final	applicable)		(D)	Not signific	cant <mark>(counted under j in di</mark>	sposition)
			(E)		nd persuasive and not by technical change	DOCUMENT FAILS
			(F)	Addressed by technical change (counted under k disposition)		

z	Referenced Section/ Paragraph	2.4								
Negative	Negative Text	Negative: Change "step such as nebulization, atomization, to" to "step such as nebulization, or atomization, to". Reason/Justification: As there are only two items in the list, they should be separated conjunction, not a comma.								
	Withdrawal (check one)	X	No Negative withdo	rawal mad	de by Voter.	GO TO "Related" subsection				
Related	Motion and Reason (check one)	X	'Related' is mutuall	ly agreed	upon. (Needs no motion.)	GO TO "Persuasive" subsection				
	Matter and		Negative is related and persuasive. (Needs >1/3 votes to pass.)							
	Motion and Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)							
Persuasive	(1 11 1)		Reason	The	paragraph already appears i	n correct form.				
asive	Motion by/ 2 nd by		Paul Kerr / Intel Cor ond: vyacheslav Lib		D Solutions LLC					
	Discussion	Non	None							
	Result of Vote	18 Y	′ 0 N ; Motion passe	ed.						
	(check one)	X	2/3 ≤ [Negative is r and not persuasive		GO TO "Final" subsection	n → (C)				
Fin al	(check if		(A)	Withdraw	n (counted under h in disp	osition)				
<u> </u>	applicable)		(B)	Not relate	d (counted under i in dispo	osition)				

	X	(C)	Related and not persuasive (significant) Not significant (counted under j in disposition)			
		(D)				
		(⊢)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS		
	(F) Addressed by technical change (counted under k disposit					

1109	ative 6									
Ne	Referenced Section/ Paragraph	2.5								
Negative	Negative Text	man	ufacturers or and inst	trument usei	nent manufacturers or instrumers". can tell, both groups are wit					
	Withdrawal (check one)	X	No Negative withou	drawal mad	e by Voter.	GO TO "Related" subsection				
Related	Motion and Reason (check one)	X	'Related' is mutua	lly agreed (upon. (Needs no motion.)	GO TO "Persuasive" subsection				
	Mation and		Negative is related	d and persu	uasive. (Needs >1/3 votes t	o pass.)				
	Motion and Reason (check one)	X	X Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)							
Per			Reason	Edito	rial in nature.					
Persuasive	Motion by/ 2 nd by		By: Bob McIntosh / GF Piping Systems Second: Bonnie Marion / FTD Solutions LLC							
/e	Discussion	Non	е							
		18 Y	0 N; Motion pass	ed.						
	Result of Vote (check one)	X	2/3 ≤ [Negative is and not persuasiv	e.] < 90%	GO TO "Final" subsectio	n → (C)				
	(1 11 1)		90% ≤ [Negative is and not persuasiv		GO TO "Not Significant F	Finding Option" subsection				
			(A)	Withdrawr	(counted under h in disp	osition)				
			(B)	Not related	d (counted under i in dispo	osition)				
	(check if	X	(C)	Related ar	nd not persuasive (significar	nt)				
Final	applicable)		(D)	ŭ	cant (counted under j in di	sposition)				
<u>a</u>			(E)	addressed	nd persuasive and not I by technical change	DOCUMENT FAILS				
			(F)	Addressed	d by technical change (coun	ted under k disposition)				
	(check if applicable)	X	Comment generat	ted. <mark>See Se</mark>	ection V-(ii) <mark>Comment # N</mark> 0	<mark>0-3</mark> .				

neg	ative 7										
N	Referenced Section/ Paragraph	3.1									
Negative	Negative Text	wha Rea is be	egative: Clarify whether it is whether particle precursors in liquid chemicals are a problem that is being determined eason/Justification: ? That's what this says, but the question occurred to me that what being determined is how to develop test methods for particle precursors in liquid emicals.								
	Withdrawal (check one)	X	No Negative without	drawal mad	e by Voter.	GO TO "Related" subsection					
Related	Motion and Reason (check one)	X	'Related' is mutua	lly agreed ા	upon. (Needs no motion.)	GO TO "Persuasive" subsection					
			Negative is related	d and persu	uasive. (Needs >1/3 votes t	to pass.)					
	Motion and Reason	X	Negative is related	d and not p	ersuasive. <mark>(Needs ≥2/3 vot</mark>	otes to pass.)					
Pe	(check one)		Reason Editorial in nature.								
Persuasive	Motion by/ 2 nd by	By: Sec	Bob McIntosh / GF ond: Bonnie Marior	Piping Sys	stems utions LLC						
ive	Discussion	Non	е								
	Result of Vote (check one)	18 Y	7 0 N; Motion pass 2/3 ≤ [Negative is and not persuasiv 90% ≤ [Negative is and not persuasiv	related e.] < 90% s related	GO TO "Final" subsectio	on → (C) Finding Option" subsection					
			(A)	Withdrawn	(counted under h in disp	osition)					
			(B)	Not related	d (counted under i in dispo	osition)					
_	(check if	X	(C)		nd not persuasive (significar	,					
Final	applicable)		(D)	_	cant (counted under j in di	sposition)					
<u> </u>			(E)	addressed	nd persuasive and not by technical change	DOCUMENT FAILS					
	(-1:1:0		(F)	Addressed	I by technical change (coun	nted under k disposition)					
	(check if applicable)	X	Comment generat	ted. <mark>See S</mark> e	ection V-(ii) <mark>Comment # N</mark> 0	C-4 .					

Ne	Referenced Section/ Paragraph	3.4						
Negative	Negative Text	Negative: Clarify what the concern is. Reason/Justification: Is the concern that things other than "particle precursors" can form particles on wafers, or that there are particles in UPW than will be found on wafers after drying and artificially increase the observed level of contamination?						
	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	GO TO "Related" subsection				

Related	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection									
			Negative is relate	d and	persu	asive. (Needs >1/3 votes t	o pass.)					
	Motion and Reason (check one)	X	Negative is relate	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)								
Per			Reason		Editor	ial in nature.						
Persuasive	Motion by/ 2 nd by	By: Sec	By: Bob McIntosh / GF Piping Systems Second: Bonnie Marion / FTD Solutions LLC									
Ye	Discussion	Non	None									
		18 Y 0 N; Motion passed.										
	Result of Vote (check one)	X	X 2/3 ≤ [Negative is related and not persuasive.] < 90%			GO TO "Final" subsection → (C)						
	(oneon one)		90% ≤ [Negative is related and not persuasive.]			GO TO "Not Significant Finding Option" subsection						
			(A)	Witho	drawn	(counted under h in dispo	osition)					
			(B)	Not r	elated	(counted under i in dispo	osition)					
	(check if	X	(C)	Relat	ted an	d not persuasive (significan	nt)					
Fina	applicable)		(D)	Not s	ignific	ant (counted under j in di	sposition)					
a			(E)	addre	essed	d persuasive and not by technical change	DOCUMENT FAILS					
			(F)	Addr	essed	by technical change (coun	ted under k disposition)					
	(check if applicable)	X	Comment genera	ited. <mark>S</mark>	ee Se	ction V-(ii) <mark>Comment # NC</mark>	<mark>C-5</mark> .					

Negative	Referenced Section/ Paragraph	5.3	5.3 Negative: Move these items to §5.1 and delete ¶5.3 Reason/Justification: These are abbreviations, not "symbols".									
tive	Negative Text	_										
	Withdrawal (check one)	X	GO TO "Related" subsection									
Related	Motion and Reason (check one)	X	'Related' is mutually ag	reed upon. (Needs no motion.)	GO TO "Persuasive" subsection							
			Negative is related and	persuasive. (Needs >1/3 votes t	o pass.)							
Pe	Motion and Reason	X	Negative is related and	es to pass.)								
Persuasive	(check one)		Reason	Editorial in nature.								
ve	Motion by/ 2 nd by		By: Bob McIntosh / GF Piping Systems Second: Bonnie Marion / FTD Solutions LLC									
	Discussion	Non	e									

		18 Y	0 N; Motion passe	ed.			
	Result of Vote (check one)	X	2/3 ≤ [Negative is and not persuasive		GO TO "Final" subsection → (C)		
			90% ≤ [Negative is related and not persuasive.]		GO TO "Not Significant F	GO TO "Not Significant Finding Option" subsection	
			(A)	Withdrawn	osition)		
			(B)	Not related (counted under i in disposition)			
	(check if	X	(C)	Related and not persuasive (significant)			
Final	applicable)		(D)	Not signific	sposition)		
al					d persuasive and not by technical change	DOCUMENT FAILS	
			(F)	Addressed by technical change (counted under k disposition			
	(check if applicable) X Comment generated. See Section V-(ii) Comment # NC-6.						

1109	ative 10											
	Referenced Section/	6.1.1.	1 through 6.1.1.5									
leg	Paragraph											
Negative	Negative Text											
	Withdrawal (check one)	X	No Negative withd		GO TO "Related" subsection							
Related	Motion and Reason (check one)	X '1	X 'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive subsection"									
		^	Negative is related	d and p	persu	asive. (Needs >1/3 v	otes t	o pass.)				
	Motion and Reason (check one)	X	 X Negative is related and not persuasive. (Needs ≥2/3 votes to pass.) Conforms to the Style Manual (SM). 									
Persuasive		F	Reason	M). nded that these be numbered d lists, instead use the section								
sive	Motion by/ 2 nd by		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC									
	Discussion	None	None									
	Result of Vote	18 Y 0 N; Motion passed.										
	(check one)		2/3 ≤ [Negative is and not persuasive			GO TO "Final" sub	sectio	n → (C)				
			(A)	Withd	Irawn	(counted under h ir	n disp	osition)				
			(B)	osition)								
⋣	(check if applicable)	X	(C)	Relate	ed an	d not persuasive (sig	nificar	nt)				
Final			(D) Not significant (counted under j in					isposition)				
			(E)			d persuasive and not by technical change	t	DOCUMENT FAILS				
			(F)	Addre	essed	by technical change	(coun	ted under k disposition)				

ITCS	ative	, 1									
		Sec	enced tion/ graph	6.1	.1.5						
Negative			ve Text	Negative: Delete this criterion. Reason/Justification: If "from time of publishing this Guide" is meant to refer to time before publication, I don't see any relevance of this criterion to the legitimacy of the standard. Contrarily, if it is meant to refer to the time after publication, the criterion has the effect of precluding use of this Guide for five years after its publication, as it will take that long for there to be a standard material that can be known to meet this criterion.							
	With (chec			X	No Negative withdrawal made	e by Voter.			GO TO "Related" subsection		
Related		Motion and Reason (check one) X 'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persubsection"						GO TO "Persuasive" subsection			
	(cl	Rea hec	n and son k one)		Negative is related and persu		/3 vo	tes t	o pass.)		
P		2 nd	•	Sec	vyacheslav Libman / FTD Solu ond: Bob McIntosh / GF Piping						
Persuasive	Di	scu	ssion	None							
lasi				19 Y	0 N; Motion passed.						
Ve	Result of Vote (check one)			X	[Negative is related and persuasive.] > 1/3	Is a technical change recommended?	X	Υ	GO TO "Address by Technical Change Option" subsection		
					[Negative is related and not persuasive.] < 2/3	(check one)		N	GO TO "Final" subsection → (E)		
	Origi	inal			ecommendations ngraph number and at least o	one full sentence	are	requ	ired in "FROM" and "TO"		
Address by Technical Change Option	FROM: Section/Paragraph 6.1.1.5 and 7.1.1.1										
			Materialf Therefore	orsche, the	nung und-prüfung (BAM), the C	German Federal Instorer for particle sizing a	stitute	for	his Guide from Bundesanstalt für Materials Research and Testing. s based on BAM-N008. Refer to		

 $^{^{1}\ \}underline{https://rrr.bam.de/RRR/Content/EN/Downloads/RM-Certificates/RM-nanomaterials/bam_n008_repe.html}$

	tested, b	year o	riteri s crit	ia w erio	/as our i n is actu	nternal task force criteria for selecting ally not relevant for the user and does nally, the user may not know how long	not impact the legitimacy of the				
Motic	on		Ν	Negative is addressed by the technical change(s).							
Motic	Motion by/2 nd by			By: Bonnie Marion / FTD Solutions LLC Second: Paul Kerr / Intel Corporation							
Discussion			N	None							
			1	8 Y	′ 0 N ; Mo	otion passed.					
	Result of Vote (check one)				2/3 ≤ [N change(legative is addressed by the technical (s).]	GO TO "Incorporation of t Technical Change" subsection				
						ve is not addressed by the technical (s).] < 2/3	GO TO "Final" subsection → (E)				
_	Motion		Т	Го іі	ncorpora	ate the technical change(s).					
Incorporation of Technical Chan	Motion by/	2 nd by				onner / Evantic n Knapp / Evoqua Water Technologies LLC					
nic	Discussion	า	N	None							
al C			1	18 Y 0 N; Motion passed.							
ncorporation of the Technical Change	Result o			X	90% ≤ [/	Agree to incorporate.]	GO TO "Final" subsection → (F)				
the ige	(check	one)			[Disagree to incorporate.]>10%		GO TO "Final" subsection → (E)				
				(/	4)	Withdrawn (counted under h in disp	position)				
				(I	3)	Not related (counted under i in disp	oosition)				
(6	check if			((C)	Related and not persuasive (significa	int)				
	plicable)			(I	D)	Not significant (counted under j in d	lisposition)				
				(1	Ξ)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS				
		X		(F)	Addressed by technical change (cou	nted under k disposition)				

	Referenced Section/ Paragraph	6.1. ⁻	1.1						
Negative	Negative: Do not capitalize "International Standards Organization"								
	Withdrawal (check one)	No Negative withdrawal made by Voter.	GO TO "Related" subsection						
Related	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection					

			Negative is rela	ited and	persu	asive. (Needs >1/3 votes	to pass.)				
	Motion and Reason (check one)	X	Negative is rela	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)							
Per	(oneon one)		Reason		Editor						
Persuasive	Motion by/ 2 nd by	By: Sec	Bob McIntosh / GF Piping Systems ond: Bonnie Marion / FTD Solutions LLC								
Ve	Discussion	Nor	ie								
	Result of Vote (check one)	18 X	Y 0 N; Motion passed. 2/3 ≤ [Negative is related and not persuasive.] < 90 90% ≤ [Negative is related and not persuasive.]			GO TO "Final" subsection → (C) GO TO "Not Significant Finding Option" subsection					
			(A)	With	drawn	(counted under h in disposition)					
			(B)	Not r	elated	(counted under i in dispe	osition)				
	(check if	X	(C)	Rela	ted an	d not persuasive (significar	nt)				
Final	applicable)		(D)	Not s	signific	ant <mark>(counted under j in di</mark>	sposition)				
al			(E)			d persuasive and not by technical change	DOCUMENT FAILS				
			(F)	Addr	essed	by technical change (cour	nted under k disposition)				
(check if applicable) X Comment generated. See Section V-(ii) Comment # NC-7.						C-7.					

	Referenced Section/ Paragraph	6.1.	5.1.1.1									
Negative	Negative Text	Rea ISO impo Mate	Negative: Remove "international" from the criterion. Reason/Justification: I'm not at all sure you can find a reference material that is traceable to ISO or any other international organization I also don't see why "international" is mportant? NIST (A US government agency) has a variety of Standard Reference Materials, and the material described in this document appears to be from a German organization, not an "international" one.									
	Withdrawal (check one)	X	No Negative withdrawa	I made by Voter.	GO TO "Related" subsection							
Related	Motion and Reason (check one)	X	'Related' is mutually ag	reed upon. (Needs no motion.)	GO TO "Persuasive" subsection							
			Negative is related and	persuasive. (Needs >1/3 votes t	to pass.)							
Persuasive	Motion and Reason (check one)	X	Negative is related and	es to pass.)								
asive	(oncon onc)		Reason Already addressed by Comment #NC-7 (SG12)									
	Motion by/ 2 nd by		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC									

	Discussion	Non	lone								
	Result of Vote (check one)	18 Y 0 N; Motion passed.									
		X	2/3 ≤ [Negative is and not persuasiv		GO TO "Final" subsection → (C)						
			(A)	Withdrawn	osition)						
			(B)	Not related	osition)						
Ţ.	(check if	X	(C)	Related ar	and not persuasive (significant)						
Final	applicable)	applicable) (D)			Not significant (counted under j in disposition)						
					Related and persuasive and not addressed by technical change						
			(F)	Addressed	d by technical change <mark>(coun</mark>	ted under k disposition)					

	alive 14								
	Referenced	7.1.	1						
	Section/								
z	Paragraph								
Negative	method is fundamentally defective or does it mean that I need to do something a bit differently?								
	Withdrawal (check one)	X	No Negative with	drawa	ıl mad	e by Voter.	GO TO "Related" subsection		
Related	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection						
	Motion and Reason (check one)		Negative is relate	d and	persu	nasive. (Needs >1/3 votes t	o pass.)		
		X	X Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)						
Persuasive			Reason		not w instru		nt and guidance would vary by		
asive	Motion by/ 2 nd by		Paul Kerr / Intel Co ond: vyacheslav L) Solutions LLC			
	Discussion	Non	е						
	Result of Vote	18 Y	0 N; Motion pass	sed.					
	(check one)	X	2/3 ≤ [Negative is and not persuasiv			GO TO "Final" subsectio	n → (C)		
			(A)	With	drawn	(counted under h in dispo	osition)		
			(B)	Not	elated	l (counted under i in dispo	osition)		
Ţ	(check if applicable)	X	(C)	Rela	ted an	d not persuasive (significan	cant)		
Final			(D)	Not s	signific	cant (counted under j in di	disposition)		
			(E)			nd persuasive and not by technical change	DOCUMENT FAILS		
			(F)	Addr	essed	by technical change (coun	ted under k disposition)		

		efere	enced tion/	7.1.	1 and 7.1.3						
Negative			graph ve Text	Rea	ative: Specify the concentral son/Justification: "Additional cified in 7.1.1.				n't see a concentration		
	With (che			X	No Negative withdrawal made	Negative withdrawal made by Voter.					
Related		Rea	n and son k one)	X	'Related' is mutually agreed ι	ıpon. <mark>(Needs no</mark> r	notio	n.)	GO TO "Persuasive" subsection		
	(c	Rea hecl	n and son k one)		Negative is related and persu	•	/3 vo	tes t	to pass.)		
					Bob McIntosh / GF Piping Sys ond: Bonnie Marion / FTD Sol						
Persuasive	Di		ssion	Non	e						
uasi				18 Y	0 N; Motion passed.						
ve	Result of Vote (check one)			X	[Negative is related and persuasive.] > 1/3	Is a technical change recommended?	X	Y	GO TO "Address by Technical Change Option" subsection		
					[Negative is related and not persuasive.] < 2/3 ecommendations	(check one)		N	GO TO "Final" subsection → (E)		
Address by Technical Change Option	Orig field Technical Changes	inal s. 1	FROM: 7.1.1 Init diameter; The repli TO: Sec 7.1.1 Init diameter; The repli sizing, no select a conjustific Added conjustification and the conju	Section Process of Control of Con	tion/Paragraph 7.1.1 article Sizing Accuracy — The averagraph once per day accuracy are accurated once per day accuration, so a recommended contration appropriate for the instruction of the instructio	verage reported part e reference nanomal y for five consecutiv verage reported part e reference nanomal y for five consecutiv oncentration is inten ment being evaluate	icle diterial ve day icle diterial ve day tional	iame shou iame shou rs. <u>Th</u>	ter (number-weighted peak ld be between 5.3 and 9.3 nm. ter (number-weighted peak ld be between 5.3 and 9.3 nm. nis validation step is only for		
ion	Motion Negative is addressed by the technical change										
	Moti	on b	oy/2 nd by	'		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC					
	Disc	uss	ion		None						
		Re	sult of V	ote	17 Y 0 N; Motion passed	•					

		(check on	e)	X	2/3 ≤ [Ne change(s	egative is addressed by the technical s).]	GO TO "Incorporation of the Technical Change" subsection			
					,		GO TO "Final" subsection → (E)			
		Motion	Motion			To incorporate the technical change(s).				
	Incorporation Technical Cr	Motion by/	2 nd by	By: Darren Conner / Evantic Second: Alan Knapp / Evoqua Water Technologies LLC						
	nica	Discussion	า	None						
	al C	Result of Vote (check one)		18 Y 0 N; Motion passed.						
	on of the Change			X	X 90% ≤ [Agree to incorporate.]		GO TO "Final" subsection → (F)			
	he Je				[Disagree to incorporate.]>10%		GO TO "Final" subsection → (E)			
				(A)		Withdrawn (counted under h in disposition)				
				(B)	Not related (counted under i in disposition)				
Ξ	(6	check if		(C)	Related and not persuasive (significa	nt)			
Final	•	plicable)		(D)		Not significant (counted under j in d	isposition)			
				(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS			
			X	(F)	Addressed by technical change (counted under k disposition)				

	<u> </u>									
Ne	Referenced Section/ Paragraph	7.1.	1.1							
Negative	Negative Text	Negative: Replace "our knowledge" with "the knowledge of the task force that de this Guide" Reason/Justification: "Our" is too informal and begs the question of to whom the prefers.								
	Withdrawal (check one)	X	No Negative withdrawa	l mad	e by Voter.	GO TO "Related" subsection				
Related	Motion and Reason (check one)	X	'Related' is mutually ag	GO TO "Persuasive" subsection						
			Negative is related and persuasive. (Needs >1/3 votes to pass.)							
	Motion and Reason (check one)	X	Negative is related and	es to pass.)						
Per	(choon cho)		Reason Editorial in nature.							
Persuasive	Motion by/ 2 nd by		Bob McIntosh / GF Pipin ond: Bonnie Marion / FT							
Ve	Discussion	Non	е							
	Result of Vote (check one)	18 Y	O N; Motion passed.2/3 ≤ [Negative is related and not persuasive.] < 9	90%	GO TO "Final" subsectio	"Final" subsection → (C)				
	(3.10011 0110)		90% ≤ [Negative is rela and not persuasive.]	inding Option" subsection						

	(check if applicable)		(A)	(A) Withdrawn (counted under h in disposition)				
			(B)	Not related (counted under i in disposition) Related and not persuasive (significant)				
		X	(C)					
Final			(D)	Not significant (counted under j in d	isposition)			
al			(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS			
			(F)	Addressed by technical change (cour	nted under k disposition)			
(check if applicable) X Comment generated. See Section V-(ii) Comment # NC-8.								

		1									
z	Referenced Section/ Paragraph	7.1.	1.1								
Negative	Negative Text	Rea mea Alte	Negative: Correct the cross-reference. Reason/Justification: The only criterion in ¶6.1.1 is that the material be "traceable". If you meant to refer to ¶6.1.1 and its subordinate paragraphs, then refer to "§6.1.1". Alternatively, make the items subordinate to ¶6.1.1 a bulleted list, rather than numbering them as if they were paragraphs, so that "¶6.1.1" refers to the items in that list.								
	Withdrawal (check one)	X	No Negative without	drawal mad	le by Voter.	GO TO "Related" subsection					
Related	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection								
	Motion and		Negative is related	o pass.)							
	Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)								
Per	,		Reason	Edito	rial in nature.						
Persuasive	Motion by/ 2 nd by	By: Sec	Bob McIntosh / GF ond: Bonnie Marior								
/e	Discussion	Non	e								
		18 Y 0 N; Motion passed.									
	Result of Vote (check one)	X	2/3 ≤ [Negative is and not persuasiv	e.] < 90%	GO TO "Final" subsectio	n → (C)					
	(1 11 1 1)		90% ≤ [Negative is and not persuasiv		GO TO "Not Significant F	inding Option" subsection					
			(A)	Withdrawr	(counted under h in disp	osition)					
			(B)	Not related	d (counted under i in dispo	osition)					
l _	(check if	X	(C)		nd not persuasive (significan	<i>'</i>					
Fina	applicable)		(D)		cant (counted under j in di	sposition)					
<u> </u>			(E)	addressed	nd persuasive and not I by technical change	DOCUMENT FAILS					
			(F)	Addressed	d by technical change (coun	ted under k disposition)					
	(check if applicable)	X	Comment general	ted. See Se	ection V-(ii) <mark>Comment # N</mark> 0						

1109	ative 18							
	Referenced Section/	7.1.	2					
-	Paragraph							
Negative	Negative Text	Negative: Provide guidance as to what one is to do if one performs the measurements and gets a value outside of this range. Reason/Justification: Put another way, if I don't get the foreseen result, does that mean my method is fundamentally defective or does it mean that I need to do something a bit differently?						
	Withdrawal (check one)	X	No Negative withou	drawal ma	ade by Voter.	GO TO "Related" subsection		
Related	Motion and Reason (check one) X 'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuas subsection"							
	Matian and		Negative is related and persuasive. (Needs >1/3 votes to pass.)					
	Motion and Reason (check one)	X	Negative is related	votes to pass.)				
Persuasive	(chicon chic)		Reason		not within scope of this document and guidance would vary by instrument.			
asive	Motion by/ 2 nd by		Paul Kerr / Intel Co ond: vyacheslav Li					
	Discussion	Non	lone					
	Result of Vote	18 Y	′ 0 N ; Motion pass					
	(check one)	X	0/0 < [N] = == (' = '= == = (= = = = = = = = = = = = = = = =		GO TO "Final" subse	ction → (C)		
			(A)	Withdrav	wn <mark>(counted under h in d</mark>	isposition)		
			(B)	Not related (counted under i in		isposition)		
Final	(check if applicable)	X	(C)	Related	icant)			
ıal			(D)	Not sign	ificant <mark>(counted under j i</mark>	n disposition)		
			(E)	address	and persuasive and not ed by technical change	DOCUMENT FAILS		
			(F)	Address	ed by technical change (c	ounted under k disposition)		

Negative	Referenced Section/ Paragraph	Note	e 3 after 7.1.2						
tive	Negative Text	Negative: Change "month (refer to Appendix 1)." to "month. (FRefer to Appendix 1.)-" Reason/Justification: Correct grammar.							
	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	GO TO "Related" subsection					
Related	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection					
	Motion and Reason Negative is related and persuasive. (Needs >1/3 votes to pass.)								

	(check one)	X	Negative is relat	ted and not persuasive. (Needs ≥2/3 votes to pass.)							
Pe			Reason	No change, what was balloted is correct because it conforms to preferred parenthetical expression style in the SM.							
Persuasive	Motion by/ 2 nd by		ByBy: David Kandiyeli / Mega Fluid Systems, Inc. Second: Alan Knapp / Evoqua Water Technologies LLC								
ive	Discussion	Non	None								
	Result of Vote	16 Y	16 Y 0 N; Motion passed.								
	(check one)		2/3 ≤ [Negative i and not persuas								
			(A)	Withdrawn (counted under h in disposition)							
			(B)	Not related (counted under i in disposition)							
≖	(check if	X	(C)	Related and not persuasive (significant)							
Final	applicable)		(D)	Not significant (counted under j in disposition)							
			(E)	Related and persuasive and not addressed by technical change							
			(F)	Addressed by technical change (counted under k disposition)							

Neg	ative 20												
Nec	Referenced Section/ Paragraph	7.1	7.1.3										
Negative	Negative Text	Rea exar	Negative: Change "must" to "should". Reason/Justification: "Must" means is caused to be by some external agent. For example, a rock released in a gravitational field "must" fall. As this is a Guide, the appropriate auxiliary verb is "should".										
	Withdrawal (check one)	X	No Negative withdrawal made	e by Voter.			GO TO "Related" subsection						
Related	Motion and Reason (check one)	X	X 'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection										
	Motion and Reason (check one)	X	X Negative is related and persuasive. (Needs >1/3 votes to pass.)										
,	Motion by/ 2 nd by		Bob McIntosh / GF Piping Sys ond: Laura Ledenbach / Perox										
ers	Discussion	Non	е										
Persuasive		19 Y	0 N; Motion passed.										
ive	Result of Vote (check one)	X L		Is a technical change recommended?	x	Y	GO TO "Address by Technical Change Option" subsection						
			[Negative is related and not persuasive.] < 2/3	(check one)		N	GO TO "Final" subsection → (E)						
Add ress			Technical Change Recommendations Original section/paragraph number and at least one full sentence are required in "FROM" and "TO"										

Ī		Π	FROM:	FROM: Section/Paragraph 7.1.3									
	Technical Changes	1	7.1.3 Comeasure	7.1.3 Concentration Effect on Sizing — The reported particle diameter for five replicate measurements at two additional concentrations must be within $\pm 5\%$ of the averaged value measured in ¶ 7.1.1. TO: Section/Paragraph 7.1.3									
	Changes		7.1.3 <i>Ca</i>	emei	nts a	t two	additi	on Sizing — The reported particle di onal concentrations must should be	-				
			Justification (If necessary) This document is a Guide, so all of the criteria are recommendations, not requirements. The proverb here is "should" rather than "must".										
	Motic	on				addressed by the technical change(s).							
	Motic	on	by/2 nd by	7		By: Bob McIntosh / GF Piping Systems Second: Paul Kerr / Intel Corporation							
	Discu	JS	sion			None							
						18 Y 0 N; Motion passed.							
			esult of Vo			2/3 ≤ [Negative is addressed by the technical change(s).] GO TO "Incorporation of Technical Change" subsection			subsection				
									GO TO "Final" subsection → (E)				
	-	N	lotion			To incorporate the technical change(s).							
	ncoi Tec	N	lotion by/2	2 nd k	у	By: Bonnie Marion / FTD Solutions LLC							
	rpor hnic	D	iscussion	1		Second: Alan Knapp / Evoqua Water Technologies LLC None							
	atio al (19 Y 0 N ; Motion passed.							
	ncorporation of the Technical Change		Result of			X	90% ≤ [Agree to incorporate.]	GO TO "Final" subsection → (F)				
	he Je		(check	one)			[Disagre	ee to incorporate.]>10%	GO TO "Final" subsection → (E)				
						(/	4)	Withdrawn (counted under h in disp	oosition)				
						(B)		Not related (counted under i in disp	osition)				
Final	(0	(check if				(C)	Related and not persuasive (significa	Related and not persuasive (significant)				
<u>าล</u>	ар	pl	icable)			(1	D)	Not significant (counted under j in d	isposition)				
						(1	Ξ)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS				

ITCS	utive Z i							
Negati	Referenced Section/ Paragraph	NOTE 4 after 7.1.3						
ative		Negative: Delete the parenthetical ", etc." Reason/Justification: It is redundant to state "for example", list examples, then state "and others".						

Addressed by technical change (counted under k disposition)

	Withdrawal (check one)	X	No Negative witho	Irawal mad	de by Voter.	GO TO "Related" subsection					
Related	Motion and Reason (check one)	X	'Related' is mutua	GO TO "Persuasive" subsection							
	Motion and		Negative is related	d and pers	uasive. (Needs >1/3 votes	to pass.)					
	Reason (check one)	X	Negative is related	d and not p	persuasive. (Needs ≥2/3 vot	es to pass.)					
Per	(onesk one)		Reason								
Persuasive	Motion by/ 2 nd by		Bob McIntosh / GF ond: Bonnie Marior								
ve	Discussion	None									
	Result of Vote (check one)	18 Y 0 N; Motion passed.									
		X 2/3 ≤ [Negative is related and not persuasive.] < 90%			GO TO "Final" subsection → (C)						
	(6.1.00.1.01)		90% ≤ [Negative is and not persuasive		GO TO "Not Significant Finding Option" subsection						
			(A)	Withdraw	n (counted under h in disp	osition)					
			(B)	Not relate	d (counted under i in disp	osition)					
	(check if	X	(C)	Related a	nd not persuasive (significar	nt)					
Final	applicable)		(D)	Not signif	cant <mark>(counted under j in d</mark> i	sposition)					
<u>a</u>			(E) Related and persuasive and not addressed by technical change			DOCUMENT FAILS					
			(F)	Addresse	d by technical change (cour	nted under k disposition)					
	(check if applicable)	X	Comment generat	ted. See S	ection V-(ii) <mark>Comment # N</mark>	C-10.					

Neg	Referenced Section/ Paragraph	7.2.1	1					
Paragraph Negative: Change "instrument (metrology being evaluated for particle precursor measurem for" to "instrument (metrology being evaluated for particle precursor measurement) for". Reason/Justification: An instrument is not a "metrology".								
	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	GO TO "Related" subsection				
Related	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection				
Persu: ve	Motion and Reason		Negative is related and persuasive. (Needs >1/3 votes to pass.)					
uasi e	(check one)	X	Negative is related and not persuasive. (Needs ≥2/3 vot	es to pass.)				

	Reason		Reason	Edit	Editorial in nature.		
	Motion by/ By: Bob McIntosh / GF Piping Systems 2 nd by Second: Bonnie Marion / FTD Solutions LLC						
	Discussion	Non	е				
		18 \	′ 0 N ; Motion pas	sed.			
	Result of Vote (check one)	X	2/3 ≤ [Negative is related and not persuasive.] < 90%		G	GO TO "Final" subsection → (C)	
			90% ≤ [Negative is related and not persuasive.]		G	GO TO "Not Significant Finding Option" subsection	
			(A)	Withdraw	/n (c	counted under h in dispo	osition)
			(B)	Not relate	ed (d	counted under i in dispo	sition)
	(check if	X	(C)	Related a	and	not persuasive (significan	t)
Fina	applicable)		(D)	Not signi	ficar	nt (counted under j in dis	sposition)
a			(E)		Related and persuasive and not addressed by technical change		
			(F)	Addresse	ed by	y technical change (coun	ted under k disposition)
	(check if applicable)	X	Comment gener	rated. See Section V-(ii) Comment # NC-11.			

	Defended	700										
	Referenced	7.2.2	2									
	Section/											
l ₹ I	Paragraph											
Negative	Negative Text	Rea exar	legative: Change "must" to "should". Reason/Justification: "Must" means is caused to be by some external agent. For xample, a rock released in a gravitational field "must" fall. As this is a Guide, the ppropriate auxiliary verb is "should".									
	Withdrawal (check one)	X	No Negative withou	drawa	l mad	e by Voter.	GO TO "Related" subsection					
Related	Motion and Reason (check one)	X	'Related' is mutua	lly ag	GO TO "Persuasive" subsection							
	Motion and		Negative is related and persuasive. (Needs >1/3 votes to pass.)									
	Motion and Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)									
Persuasive			Reason		The b	pallot is correct, and "should"	" already appears here.					
asive	Motion by/ 2 nd by		Paul Kerr / Intel Co ond: vyacheslav Lil) Solutions LLC						
	Discussion	Non	е									
	Result of Vote	18 Y	0 N ; Motion pass	ed.								
	(check one)	X	2/3 ≤ [Negative is related and not persuasive.] < 90% GO TO "Final" subsection → (C)									
е <u>т</u>	(check if		(A)	Witho	drawn	(counted under h in dispo	osition)					
Fin al	applicable)		(B)	Not r	elated	l (counted under i in dispo	osition)					

	X	(C)	Related and not persuasive (significant)			
		(D)	Not significant (counted under j in dis	lisposition)		
		(⊢)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS		
(F) Addressed by technical change (counted under k di				ted under k disposition)		

Neg	ative 24									
Negative	Referenced 7.2.3.1 Section/ Paragraph									
tive	Negative Text Negative: Subscript the "i" and the "Avg" in the variable name definitions. Reason/Justification: Make the definitions correspond with the variables in the expression of the second s									
	Withdrawal (check one)	X	No Negative witho	drawal n	nade	e by Voter.	GO TO "Related" subsection			
Related	Motion and Reason (check one)	X	'Related' is mutua	'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection						
	Matter and		Negative is related	d and p	ersu	asive. (Needs >1/3 votes t	o pass.)			
	Motion and Reason (check one)	X	X Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)							
Persuasive			Reason	N	o ch	ange needed – the ballot a	lready shows it as subscripted.			
asive	Motion by/ 2 nd by		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC							
	Discussion	Non	None							
	Result of Vote	18 Y	18 Y 0 N; Motion passed.							
	(check one)	X	2/3 ≤ [Negative is and not persuasiv			GO TO "Final" subsectio	n → (C)			
			(A)	Withdra	awn	(counted under h in disp	osition)			
			(B)	Not rela	ated	(counted under i in dispo	osition)			
Final	(check if	X	(C)	Related	d an	d not persuasive (significar	t)			
ıal	applicable)		(D)			ant (counted under j in di	sposition)			
			(E)	addres	sed	d persuasive and not by technical change	DOCUMENT FAILS			
			(F)	Addres	ssed	by technical change (coun	ted under k disposition)			

	Referenced	7.2.3
	Section/	
Ne l	Paragraph	
Negative	Negative Text	Negative: Make the italic paragraph heading consistent with the paragraph. Reason/Justification: The italic paragraph heading is "sensitivity", but the paragraph provides a criterion for "noise" I note that the draft I saw of this ballot discussed "LOD", but that does not appear to be in the ballot.

	Withdrawal (check one)	X	No Negative with	drawal ı	made	e by Voter.	GO TO "Related" subsection
Related	Motion and Reason (check one)	X	'Related' is mutua	ally agre	GO TO "Persuasive" subsection		
			Negative is relate	ed and p	ersu	asive. (Needs >1/3 votes t	o pass.)
	Motion and Reason	X	Negative is relate	ed and n	ot pe	ersuasive. <mark>(Needs ≥2/3 vot</mark> e	es to pass.)
Persuasive	(check one)		Reason	e characteristic being evaluated o noise, as measured by RMS e.			
sive	Motion by/ By: Paul Kerr / Intel Corporation 2 nd by Second: vyacheslav Libman / FTD Solutions LLC						
	Discussion	Non	е				
	Result of Vote	18 Y	0 N; Motion pass	sed.			
	(check one)	X	2/3 ≤ [Negative is and not persuasiv		GO TO "Final" subsectio	on → (C)	
			(A)	Withdr	awn	(counted under h in dispo	osition)
			(B)	Not rel	lated	(counted under i in dispo	osition)
₽	(check if	X	(C)	Relate	Related and not persuasive (significant)		
Final	applicable)		(D)	Not sig	gnific	ant (counted under j in di	sposition)
			(E)			d persuasive and not by technical change	DOCUMENT FAILS
			(F)	Addres	ssed	by technical change (coun	ted under k disposition)

Negative	Referenced Section/ Paragraph	7.2.3.3										
ative	Negative Text	Rea	Negative: Change "versus" to "divided by" in two places. Reason/Justification: The quantities are not in opposition to one another, they are to be divided.									
	Withdrawal (check one)	X	No Negative w	rithdrawal mad	de by Voter.	GO TO "Related" subsection						
Related	Motion and Reason (check one)	X	'Related' is mu	itually agreed	GO TO "Persuasive" subsection							
			Negative is rel	ated and pers	uasive. (Needs >1/3 votes	to pass.)						
Pers	Motion and Reason (check one)	X	Negative is rel	ated and not p	oersuasive. <mark>(Needs ≥2/3 vot</mark>	es to pass.)						
Persuasive	(oncer end)		Reason	Edito	orial in nature.							
[®]	Motion by/ By: Bob McIntosh / GF Piping Systems 2nd by Second: Bonnie Marion / FTD Solutions LLC											
	Discussion	Non	None									

		18 \	18 Y 0 N; Motion passed.						
	Result of Vote (check one)	X	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 F	GO TO "Not Significant Finding Option" subsection			
			(A)	Withdrawn	ithdrawn (counted under h in disposition)				
			(B)	Not related (counted under i in disposition)					
	(check if	X	(C)	Related and not persuasive (significant)					
Final	applicable)		(D)	Not signific	cant (counted under j in dis	sposition)			
a					nd persuasive and not by technical change	DOCUMENT FAILS			
			(F)	Addressed by technical change (counted under k disposition)		ted under k disposition)			
	(check if applicable) X Comment generated. See Section V-(ii) Comment # NC-12.		C-12.						

-	alive ZI	_								
Negative	Referenced Section/ Paragraph	7.2.3	3.3							
ative	Negative Text		Negative: Change "concentration/unit volume" to "concentration" or "quantity/unit volume" Reason/Justification: "Concentration/unit volume" would, for example, have the dimensions of "(grams/liter)/liter)".							
	Withdrawal (check one)	X	No Negative witho	drawal ma	ade by Voter.	GO TO "Related" subsection				
Related	Motion and Reason (check one)	X	'Related' is mutua	lly agree	d upon. (Needs no motion.)	GO TO "Persuasive" subsection				
	Mation and		Negative is related	d and per	rsuasive. (Needs >1/3 votes t	to pass.)				
	Motion and Reason (check one)	X	Negative is related	d and not	persuasive. (Needs ≥2/3 vot	es to pass.)				
Per			Reason	Edi	torial in nature.					
Persuasive	Motion by/ 2 nd by		By: Bob McIntosh / GF Piping Systems Second: Bonnie Marion / FTD Solutions LLC							
e e	Discussion	Non	None							
		18 Y	0 N; Motion pass	ed.						
	Result of Vote (check one)	X	2/3 ≤ [Negative is and not persuasive	e.] < 90%	GO TO "Final" subsection	on → (C)				
	,		90% ≤ [Negative is and not persuasive		GO TO "Not Significant F	Finding Option" subsection				
			(A)	Withdrav	wn (counted under h in disp	osition)				
			(B)	(B) Not related (counted under		osition)				
Final	(check if	X	(C)	Related	and not persuasive (significar	ant)				
าลl	applicable)		(D)		ificant (counted under j in di	sposition)				
			(E)	address	and persuasive and not ed by technical change	DOCUMENT FAILS				
			(F)	Address	ed by technical change <mark>(cour</mark>	nted under k disposition)				

	(check if applicable)	Comment generated. See Section V-(ii) Comment # NC-13.
--	-----------------------	--

Neg	ative 28									
	Referenced	7.0	4							
N _e	Section/ Paragraph	7.2.	4							
Negative	Negative Text	Rea	gative: Superscript the "2" in "R2" ason/Justification: "R2" is a commonly used symbol in statistics. "R2" is the first half of abot's name in a series of tin-foil westerns.							
	Withdrawal (check one)	X	No Negative withou	drawa	ıl mad	e by Voter.	GO TO "Related" subsection			
Related	Motion and Reason (check one)	X	'Related' is mutua	lly ag	jreed ι	upon. (Needs no motion.)	GO TO "Persuasive" subsection			
	Motion and		Negative is related	d and	persu	uasive. (Needs >1/3 votes t	o pass.)			
	Reason (check one)	X	Negative is related	d and	not p	es to pass.)				
Per			Reason Editorial in nature.							
Persuasive	Motion by/ 2 nd by	By: Sec	: Bob McIntosh / GF Piping Systems cond: Bonnie Marion / FTD Solutions LLC							
Ve	Discussion	Non	one							
		18 Y	0 N; Motion pass	ed.						
	Result of Vote (check one)	X	2/3 ≤ [Negative is and not persuasiv	e.] <	90%	GO TO "Final" subsectio	n → (C)			
	(1 11 1)		90% ≤ [Negative is and not persuasiv		ited	GO TO "Not Significant F	Finding Option" subsection			
			(A)	With	drawn	(counted under h in disp	osition)			
			(B)	Not	related	d (counted under i in dispo	osition)			
	(check if	X	(C)	Rela	ted ar	nd not persuasive (significan	nt)			
Final	applicable)		(D)			cant (counted under j in di	sposition)			
a			(E)	addr	essed	nd persuasive and not by technical change	DOCUMENT FAILS			
			(F)	Addı	essed	I by technical change (coun	ted under k disposition)			
	(check if applicable)	X	Comment general	ted. S	See Se	ection V-(ii) <mark>Comment # NO</mark>	C-14 .			

Negative	Referenced Section/ Paragraph	Tabl	e 1 header						
tive			legative: Change "Requirement" to "Value" Reason/Justification: As this is a Guide, it has no "requirements".						
	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	GO TO "Related" subsection					

Related		Rea	on and ison k one)	X	'Related' is m	Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection								
		Rea	n and son <mark>k one</mark>)	X	Negative is re	elated and persu	ıas	ive. (Needs >1/	/3 vo	ites 1	o pass.)			
l _	М		on by/ l by		Darren Conne ond: Bonnie M	/ Evantic arion / FTD Solutions LLC								
Persuasive	Di		ssion	Non	е	<u> </u>								
uas				16 Y	0 N; Motion	passed.					•			
ive					[Negative is repersuasive.] >		cł	a technical nange commended?	X	Υ	Y GO TO "Address by Technical Change Option" subsection			
					[Negative is repersuasive.] <	elated and not < 2/3	(check one)		N	GO TO "Fina → (E)	l" subsection		
		inal	section	/para	<u> </u>	er and at least o	one	e full sentence	are	requ	ired in "FROI	M" and "TO"		
			FROM:	Sect	ion/Paragrapl	h Table 1								
									C	riterio	ı Evaluated Using	<i>;</i> :		
Addre			Performa	nce C	riteria (Units)	Requirement		Step 1 (Traceable Reference Materi Silver Nanopartio	al –		p 2 (Dissolved Standard – rafiltered KCl)	Step 3 (Real-World Validation – MB D Resin Extract)		
Address by Technical Change Option			rticle size acc		acy to certified	Average size between 5.3-9.3 n	m	X						
chnic	echni		rticle size RSD)	repea	tability	<15		X			X	X		
al C	cal C	1	rticle cond	centra	tion repeatability	<15	<15				X	X		
nange O	Technical Changes		oncentration oncentration oncentration	X and	ect on particle 3X	Within ±5% of the average value for sizing accuracy	r	X						
ption			oncentratio	on acc	uracy (%)	±10					X			
			nsitivity: 0 × Noise	/Back	ground (%)	<30					X			
			pected val	neasur ues, tl ns bet	red values vs. log hree ween 10X-100X	>0.95					X			

I	Ī	TO: Sec	ction/P	aragra	ph Tab								
		Table 1 Partic	cle Precurso	or Measurer	nent Perform	ance Criteria Summa							
		Performance	e Criteria (Un	nits) Roq	tirement<u></u>Value	Step 1 (Traceable Size Reference Material – Silver Nanoparticle)	riteria Evaluated Usin Step 2 (Dissolved Standard – Ultrafiltered KCI)	Step 3 (Real-World Validation – MB IX Resin Extract)					
		Particle size acc value (nm)	curacy to cert		verage size een 5.3-9.3 nm	X							
		Particle size rep (% RSD)	peatability		<15	X	x	Х					
		Particle concen (% RSD)			<15		X						
	Concentration effect on particle sizing (1/3X and 3X concentration)				nin ±5% of the rage value for ing accuracy	х							
		Concentration a	ассштасу (%)		±10		X						
		Sensitivity: 100 × Noise/Ba)	<30		X						
		Dynamic Range R ² for log meas expected values concentrations l background lev	sured values v s, three between 10X-	-	>0.95		X						
		Justific Require				ed in a Guid	Э						
	Motio	n		Neg	Negative is addressed by the technical change(s).								
	Motio	on by/2 nd by	/			Intosh / GF arren Conne		ems					
I	Discu	ıssion		Nor	None								
ŀ				15 `	Y 0 N; N	otion passe	ed.						
		Result of V (check on		X	2/3 ≤ [change		addressed b	by the technica	GO TO "Incorporation of the Technical Change" subsection				
						ive is not ad e(s).] < 2/3	dressed by	the technical	GO TO "Final" subsection → (E)				
	1	Motion		То	To incorporate the technical change(s).								
	Incorp Techr	Motion by/	2 nd by		By: Darren Conner / Evantic Second: Alan Knapp / Evoqua Water Technologies LLC								
	ora nic:	Discussion	1	Nor	None								
l	e itio			15 `	Y 0 N ; №	lotion passe	d.						
ļ	ncorporation of the Technical Change	Result o		X	90% ≤	[Agree to in	corporate.]		GO TO "Final" subsection → (F)				
	he e	(check	one)		[Disag	ree to incorp	orate.]>10%	6	GO TO "Final" subsection → (E)				
I					A)	Withdraw	n (counted	under h in di	sposition)				
					B)	Not relate	ed (counted	l under i in di	sposition)				
	(c	check if			(C)	Related a	and not pers	uasive (signifi	cant)				
	•	plicable)		(D)	Not signif	icant (coun	ted under j in	disposition)				
					(E)		and persuas d by technic	ive and not cal change	DOCUMENT FAILS				
			X		(F)				ounted under k disposition)				

Neg	ative 30												
Negative	Referenced Section/ Paragraph	8.1.	1										
tive	Negative Text												
	Withdrawal (check one)	X	No Negative withou	e by Voter.	GO TO "Related" subsection								
Related	Motion and Reason (check one)	X	'Related' is mutua	Related' is mutually agreed upon. (Needs no motion.)									
	Matian and		Negative is related	d and p	ersu	asive. (Needs >1/3 votes t	o pass.)						
	Motion and Reason (check one)	X	Negative is related	d and n	ot pe	ersuasive. <mark>(Needs ≥2/3 vot</mark>	eds ≥2/3 votes to pass.)						
Per			Reason	E	ditor	ial in nature.							
Persuasive	Motion by/ 2 nd by		Bob McIntosh / GF ond: Bonnie Marior										
/e	Discussion	Non	e										
		18 Y 0 N; Motion passed.											
	Result of Vote (check one)	X	2/3 ≤ [Negative is related and not persuasive.] < 90%			GO TO "Final" subsection → (C)							
	,		90% ≤ [Negative is and not persuasiv		ed	GO TO "Not Significant F	inding Option" subsection						
			(A)	Withdr	rawn	(counted under h in dispo	osition)						
			(B)	Not re	lated	(counted under i in dispo	osition)						
	(check if	X	(C)	Relate	ed an	d not persuasive (significan	nt)						
Final	applicable)		(D)			ant (counted under j in di	sposition)						
<u>a</u>			(E)	addres	ssed	d persuasive and not by technical change	DOCUMENT FAILS						
			(F)	Addres	ssed	by technical change (coun	ted under k disposition)						
	(check if	X	Compressed are no re-	Addressed by technical change (counted under k disposition) erated. See Section V-(ii) Comment # NC-15.									

Negative	Referenced Section/ Paragraph	8.1.	2					
tive	Negative Text Negative: Insert the missing Oxford comma between "KCI" and "and". Reason/Justification: SEMI's Style Manual requires such a comma.							
	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	GO TO "Related" subsection				
Related	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection				

			Negative is related	legative is related and persuasive. (Needs >1/3 votes to pass.)							
	Motion and Reason (check one)	X	Negative is related	legative is related and not persuasive. (Needs ≥2/3 votes to pass.)							
Persuasive			Reason	Oxfo	Oxford comma already appears correctly in the ballot.						
asive	Motion by/ 2 nd by		y: Paul Kerr / Intel Corporation econd: vyacheslav Libman / FTD Solutions LLC								
	Discussion	Non	ne								
	Result of Vote (check one)	18 Y 0 N; Motion passed.									
		X	2/3 ≤ [Negative is and not persuasiv								
			(A)	Withdrawn	awn (counted under h in disposition)						
			(B)	Not related	ed (counted under i in disposition)						
⊒	(check if	X	(C)	Related ar	nd not persuasive (significan	nt)					
Final	applicable)		(D)	Not signific	cant (counted under j in di	sposition)					
			(E)		nd persuasive and not I by technical change	DOCUMENT FAILS					
			(F)	Addressed	l by technical change <mark>(coun</mark>	ted under k disposition)					

Z	Referenced Section/ Paragraph	8.1.2	2						
Paragraph Negative: State to what HDPE is preferred and why. Reason/Justification: Is there some technical reason for preferring HDPE to, PFA for these? If the reason is cost, but PFA provides equivalent performant be stated so that the user has the choice of saving a bit on the containers or h convenience and reduced error risk of having containers of only one material.									
	Withdrawal (check one)	X	No Negative withdrawa	I made by Voter.	GO TO "Related" subsection				
Related	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection						
			Negative is related and	persuasive. (Needs >1/3 votes	to pass.)				
	Motion and Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)						
Persuasive	(check one)		Reason	Editorial in nature.					
asive	Motion by/ 2 nd by		Bob McIntosh / GF Pipir ond: Bonnie Marion / FT						
	Discussion	Non	е						
	Result of Vote	18 Y	0 N; Motion passed.						
	(check one)	X	2/3 ≤ [Negative is relate and not persuasive.] < 9		on → (C)				

			90% ≤ [Negative i and not persuasiv		GO TO "Not Significant F	Finding Option" subsection			
	(check if applicable)		(A)	Withdrawn (counted under h in disposition)					
			(B)	Not related (counted under i in disposition)					
		X	(C)	Related and not persuasive (significant)					
Final			(D)	Not signific	sposition)				
al			(E)		d persuasive and not by technical change	DOCUMENT FAILS			
			(F)	Addressed by technical change (counted under k disposition)					
	(check if applicable)	X	Comment genera	erated. See Section V-(ii) Comment # NC-16.					

NEG	ative 33									
_	Referenced Section/ Paragraph	8.1.	3.1							
Negative	Negative: Clarify the meaning of the sentence fragment after the colon. Reason/Justification: For example, is this intended to be: • an observation about such materials. • a requirement that one do something to ensure such stability, or a criterion for selecting which dilution to use?									
	Withdrawal (check one)	X	No Negative withou	drawa	l mad	e by Voter.	GO TO "Related" subsection			
Related	Motion and Reason (check one)	X	'Related' is mutua	Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection						
	Motion and Reason (check one)		Negative is related and persuasive. (Needs >1/3 votes to pass.)							
		X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)							
Persuasive			Reason			is clarified in 8.1.3 title (Irvations).	Based on Preliminary Testing			
asive	Motion by/ 2 nd by		Paul Kerr / Intel Co ond: vyacheslav Li			O Solutions LLC				
	Discussion	Non	е							
	Result of Vote	18 Y	′ 0 N ; Motion pass	ed.						
	(check one)	X	2/3 ≤ [Negative is and not persuasiv	relate e.] <	ed 90%	GO TO "Final" subsectio	n → (C)			
			(A)	With	drawn	(counted under h in disp	osition)			
			(B)	Not i	elated	d (counted under i in dispo	osition)			
₽	(check if applicable)	X	(C)	Rela	ted ar	nd not persuasive (significar	ant)			
Final			(D)	Not s	signific	cant (counted under j in di	n disposition)			
			(E)	addr	essed	nd persuasive and not by technical change	DOCUMENT FAILS			
			(F)	Addr	essec	l by technical change (coun	ted under k disposition)			

ITCG	ative 34	_								
	Referenced Section/ Paragraph	8.1.	3.2							
Negative	Negative Text	Negative: Clarify the meaning of the sentence fragment after the colon. Reason/Justification: For example, is this intended to be: • an observation about such materials. • a requirement that one do something to ensure such stability, or a criterion for selecting which dilution to use?								
	Withdrawal (check one)	X	No Negative withou	drawa	ıl mad	e by Voter.	GO TO "Related" subsection			
Related	Motion and Reason (check one)	X	'Related' is mutua	Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection						
	Motion and Reason (check one)		Negative is related and persuasive. (Needs >1/3 votes to pass.)							
		X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)							
Persuasive			Reason			is clarified in 8.1.3 title (Irvations).	Based on Preliminary Testing			
asive	Motion by/ 2 nd by	By: Sec	Paul Kerr / Intel Co ond: vyacheslav Li							
	Discussion	Non	е							
	Result of Vote	18 Y	′ 0 N ; Motion pass	ed.						
	(check one)	X	2/3 ≤ [Negative is and not persuasiv			GO TO "Final" subsectio	n → (C)			
			(A)	With	drawn	(counted under h in disp	osition)			
			(B)	Not i	related	d (counted under i in dispo	osition)			
⋣	(check if	X	(C)	Rela	ted ar	nd not persuasive (significar	ant)			
Final	applicable)		(D)	Not s	signific	cant (counted under j in di	sposition)			
			(E)			nd persuasive and not by technical change	DOCUMENT FAILS			
			(F)	Addr	essec	l by technical change <mark>(coun</mark>	ted under k disposition)			

Nega	Referenced Section/ Paragraph	8.3.	8.3.1.2									
Section/ Paragraph Negative Text Negative Text Negative Text Negative: Delete "actual". Reason/Justification: What is to be recorded is a calculated concentration. How matches what is actually there depends on the accuracy of the mass measurement.												
	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	GO TO "Related" subsection								
Related	Motion and Reason (check one)	X	l'Related' is mutually agreed upon (Needs no motion)	GO TO "Persuasive" subsection								

			Negative is relate	d and per	sua	asive. (Needs >1/3 votes t	o pass.)			
	Motion and Reason (check one)	X	Negative is relate	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)						
Per	(chicon chic)		Reason	Edi	Editorial in nature.					
Persuasive	Motion by/ 2 nd by		Bob McIntosh / GF ond: Bonnie Mario							
Ve	Discussion	Non	е							
	Result of Vote (check one)		0 N ; Motion pass 2/3 ≤ [Negative is			20.70.05: 111.1.1.1) (O)			
		X	and not persuasive.] < 9		, o	GO TO "Final" subsection	n → (C)			
			90% ≤ [Negative is related and not persuasive.]			GO TO "Not Significant Finding Option" subsection				
			(A)	Withdrav	vn ((counted under h in dispo	osition)			
			(B)	Not relat	ed	(counted under i in dispo	osition)			
	(check if	X	(C)	Related	and	d not persuasive (significan	t)			
Final	applicable)		(D)	Not sign	ifica	ant <mark>(counted under j in di</mark> s	sposition)			
a			(E)	Related and persuasive and not addressed by technical change						
			(F)	Address	ed	by technical change <mark>(coun</mark>	ted under k disposition)			
	(check if applicable)	X	Comment genera	ted. See	Sec	ction V-(ii) <mark>Comment # NC</mark>	<mark>C-17</mark> .			

Negative	Referenced Section/ Paragraph	8.3.1.6									
ative	Negative Text	Rea	Negative: Clarity or reword "expected concentration". Reason/Justification: Is the "expected concentration" here the "actual concentration" in ¶9.3.1.2? If so, state that. If not, describe how to determine what is "expected".								
	Withdrawal (check one)	X	No Negative withdrawa	I made by Voter.	GO TO "Related" subsection						
Related	Motion and Reason (check one)	X	'Related' is mutually ag	GO TO "Persuasive" subsection							
	Motion and Reason (check one)		Negative is related and persuasive. (Needs >1/3 votes to pass.)								
Pe		X	X Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)								
Persuasive			Reason	Editorial in nature.							
ive	Motion by/ 2 nd by		By: Bob McIntosh / GF Piping Systems Second: Bonnie Marion / FTD Solutions LLC								
	Discussion	Non	None								
		18 Y	0 N ; Motion passed.								

	Result of Vote	X	2/3 ≤ [Negative is related and not persuasive.] < 90%		GO TO "Final" subsection → (C)			
	(check one)		90% ≤ [Negative is related and not persuasive.]		GO TO "Not Significant Finding Option" subsection			
			(A)	Withdrawn	Withdrawn (counted under h in disposition)			
	(check if applicable)		(B)	Not related	sition)			
		X	(C)	Related and not persuasive (significant)				
Final			(D)	Not significant (counted under j in disposition)				
a					d persuasive and not by technical change	DOCUMENT FAILS		
			(F)	Addressed by technical change (counted under k disposition		ted under k disposition)		
	(check if applicable)	X	Comment generat	ted. See Section V-(ii) Comment # NC-18.				

	Referenced Section/	8.3.	1 7						
Negative	Paragraph								
tive	Negative Text	Neg Rea	Negative: Change "by dilute to" to "by diluting to" Reason/Justification: Correct grammar.						
	Withdrawal (check one)	X	No Negative with	drawa	ıl mad	e by Voter.	GO TO "Related" subsection		
Related	Motion and Reason (check one)	X	'Related' is mutua	ally ag	jreed ι	upon. (Needs no motion.)	GO TO "Persuasive" subsection		
	Motion and		Negative is relate	d and	persu	nasive. (Needs >1/3 votes t	o pass.)		
	Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/				votes to pass.)		
Per			Reason Editorial in nature.						
Persuasive	Motion by/ 2 nd by	By: Bob McIntosh / GF Piping Systems Second: Bonnie Marion / FTD Solutions LLC							
e e	Discussion	Non	е						
		18 Y 0 N; Motion passed.							
	Result of Vote (check one)	X	2/3 ≤ [Negative is related and not persuasive.] < 90% GO TO '			GO TO "Final" subsectio	TO "Final" subsection → (C)		
	,		90% ≤ [Negative in and not persuasive in the second secon		ited	GO TO "Not Significant F	GO TO "Not Significant Finding Option" subsection		
			(A)	With	drawn	(counted under h in dispo	osition)		
			(B)	Not i	related	l (counted under i in dispo	sposition)		
	(check if	X	(C)	Rela	ted an	d not persuasive (significan	t)		
Final	applicable)		(D)			cant <mark>(counted under j in di</mark>	sposition)		
<u>a</u>			(E)	addr	essed	nd persuasive and not by technical change	DOCUMENT FAILS		
			(F)	Addr	essed	by technical change (coun	ted under k disposition)		
	(check if applicable)	X	Comment genera	ted. S	See Se	ection V-(ii) <mark>Comment # NO</mark>	C-19 .		

INCY	ative 38									
Nec	Referenced Section/ Paragraph	8.3.	8.3.1.7							
Negative	Negative Text	Rea ¶9.3	Negative: Clarity or reword "gravimetric concentration". Reason/Justification: Is the "gravimetric concentration" here the "actual concentration" in ¶9.3.1.2? If so, state that. If not, describe how to determine the "gravimetric concentration".							
	Withdrawal (check one)	X	GO TO "Related"							
Related	Motion and Reason (check one)	X	'Related' is mutua	lly agree	ed upon. (Needs no motion.)	GO TO "Persuasive" subsection				
	Matian and		Negative is related	d and pe	ersuasive. (Needs >1/3 votes	to pass.)				
	Motion and Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)							
Per			Reason Editorial in nature.							
Persuasive	Motion by/ 2 nd by	By: Sec	By: Bob McIntosh / GF Piping Systems Second: Bonnie Marion / FTD Solutions LLC							
/e	Discussion	Non	None							
		18 Y 0 N; Motion passed.								
	Result of Vote (check one)	X	2/3 ≤ [Negative is and not persuasiv		GO TO "Final" subsecti	on → (C)				
	(Clieck Olle)		90% ≤ [Negative is and not persuasiv		GO TO "Not Significant	Finding Option" subsection				
			(A)	Withdra	awn <mark>(counted under h in dis</mark>	position)				
			(B)	Not rela	ated <mark>(counted under i in dis</mark> p	oosition)				
	(check if	X	(C)	Related	d and not persuasive (significa	ant)				
Final	applicable)		(D)		nificant <mark>(counted under j in</mark> d	lisposition)				
a			(E)	addres	d and persuasive and not seed by technical change	DOCUMENT FAILS				
			(F)	Addres	sed by technical change <mark>(cou</mark>	nted under k disposition)				
(check if applicable) X Comment generated. See Section V-(ii) Comm						<mark>IC-20</mark> .				

Ne	Referenced Section/ Paragraph	8.3.1	1.9				
Negative	Negative Text	Negative: Clarify to what "typical range" this refers. Reason/Justification: This sentence states that the "typical range" is three to eight orders of magnitude lower than the concentration to which ¶8.3.1.7 directs dilution. ¶8.3.1.8 suggests that "multiple concentrations should be run", but there's no instruction to dilute the "stock solution" prepared in ¶8.3.1.7.					
	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	GO TO "Related" subsection			

Relat ed	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection						
			Negative is related	d and pers	uasive. (Needs >1/3 votes t	o pass.)			
	Motion and Reason	X	Negative is related	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)					
Pe	(check one)		Reason		Editorial in nature.				
Persuasive	Motion by/ 2 nd by		Bob McIntosh / GF ond: Bonnie Marior						
sive	Discussion	Non	е						
	Result of Vote (check one)	18 Y 0 N; Motion passed.							
		X	2/3 ≤ [Negative is and not persuasiv		GO TO "Final" subsection → (C)				
			90% ≤ [Negative is related and not persuasive.]		GO TO "Not Significant Finding Option" subsection				
			(A)	Withdrawr	(counted under h in disp	osition)			
	(check if applicable)		(B)	Not related (counted under i in disposition)					
Final		X	(C)	(C) Related and not persuasive (significant)					
a			(D)	Not signifi	cant (counted under j in di	sposition)			
	(check if applicable)	X	Comment generat	ted. See Se	ection V-(ii) <mark>Comment # NO</mark>	<mark>C-21</mark> .			

	Referenced Section/	9						
Z	Paragraph							
Negative	Negative Text	<i>Rea</i> ¶8.5	gative: Provide a Reporting section that directs that the findings be reported. ason/Justification: I see no instructions to record and report these data, except for within 5. All I see is a permissive statement about the format of the reporting. It seems likely t the intent was to direct reporting, but to allow the reported a choice of format.					
	Withdrawal (check one)	X	No Negative withdrawal made by Voter. GO TO "Related" subsection					
Related	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection					
	Motion and Reason (check one)		Negative is related and	persuasive. (Needs >1/3 votes t	to pass.)			
٦		X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)					
Persuasive			Reason Directions to report findings is provided in ¶ 8.5.					
sive	Motion by/ 2 nd by		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC					
	Discussion	Non	None					
		18 Y	0 N; Motion passed.					

	Result of Vote (check one)	X	2/3 ≤ [Negative is and not persuasiv	related e.] < 90%	GO TO "Final" subsection	n → (C)	
			(A)	Withdrawn (counted under h in disposition)			
			(B)	Not related (counted under i in disposition)			
≖	(check if	X	(C)	Related and not persuasive (significant)			
Final	applicable)		(D)	Not signific	cant (counted under j in dis	sposition)	
				Related and persuasive and not addressed by technical change		DOCUMENT FAILS	
			(F)	Addressed by technical change (counted under k disposition			

1109	ative 41	-								
	Referenced	9.1								
Z	Section/									
Ş	Paragraph									
Negative			ative: Remove th							
/e	Negative Text	Reason/Justification: I don't find the footnote. Either provide a footnote that contains the								
		URL	of this form or rem	nove the	e sup	perscript "4" and provide the	URL in this paragraph.			
	Withdrawal	v	X No Negative withdrawal made by Voter. GO TO "Related"							
	(check one)	^	no negative with	ılawalı	mau	e by voter.	subsection			
Related	Motion and Reason (check one)	X	'Related' is mutua	ted' is mutually agreed upon. (Needs no motion.) GO TO "P subsectio						
	Motion and		Negative is related	d and p	ersu	uasive. (Needs >1/3 votes t	o pass.)			
	Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)							
Persuasive			Reason The Footnote with URL is show				n correctly in the ballot.			
asive	Motion by/ 2 nd by		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC							
	Discussion	Non	None							
	Result of Vote	18 Y 0 N; Motion passed.								
	(check one)	X	2/3 ≤ [Negative is and not persuasiv			GO TO "Final" subsectio	n → (C)			
			(A)	Withdr	awn	(counted under h in dispo	osition)			
			(B)	Not rel	lated	d (counted under i in dispo	position)			
Ξ.	(check if	X	(C)	Relate	d an	nd not persuasive (significan	nt)			
Final	applicable)		(D)	Not sig	gnific	cant (counted under j in di	sposition)			
			(E)			nd persuasive and not by technical change	DOCUMENT FAILS			
			(F)	Addres	ssed	l by technical change <mark>(coun</mark>	ted under k disposition)			

neg	ative 42											
	Referenced	9.1										
	Section/											
	Paragraph											
Negative	Negative Text	as S Rea http or http: nor v The SEM or by	Negative: Until and unless the statement is true, remove the claim that the form is available as Supplementary Material from the SEMI web site. Reason/Justification: The file is not, as of 1722 EST on 15feb23, available from http://dom.semi.org/web/wstandards.nsf/supvm or http://dom.semi.org/web/wstandards.nsf/complementaryfiles hor was it provided as part of the ballot for review. The TC is permitted, by §14.3 of the SEMI Standards Regulations, to approve publication on SEMI's web site by having the file accompany the draft document through the voting process or by a 2/3 vote in an official TCC meeting, followed by approval by the TC's GCS and the SC A&R SC.									
	Withdrawal	X	No Negative withdra	awal made by Voter.	GO TO "Related"							
	(check one)	^	No Negative Withan	awai made by voter.	subsection							
Related	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection									
			Negative is related	and persuasive. (Needs >1/3 votes	to pass.)							
	Motion and Reason (check one)	X	Negative is related	and not persuasive. (Needs ≥2/3 vot	tes to pass.)							
Persuasive			Reason	Supplementary file was included along with the ballot due to an odocument is published, the suppthe web.	oversight by SEMI. When the							
sive	Motion by/		Paul Kerr / Intel Corp									
	2 nd by	Sec	ond: vyacheslav Libr	man / FTD Solutions LLC								
	Discussion	Non	e									
	Result of Vote		0 N; Motion passed									
	(check one)	X	2/3 ≤ [Negative is re		on → (C)							
			and not persuasive.	.] < 90% Vithdrawn <mark>(counted under h in disp</mark>	` '							
			` ,	Not related (counted under i in disp								
l _		v	` '	•	•							
Final	(check if	X	` '	Related and not persuasive (significan	,							
<u> </u>	applicable)			Not significant (counted under j in di	isposition)							
			(E) a	Related and persuasive and not addressed by technical change	DOCUMENT FAILS							
			(F)	Addressed by technical change (cour	nted under k disposition)							

° -	Referenced	
Neg ativ	Section/	A1-1.1
< Q	Paragraph	

	Negative Text	this Rea	Negative: Replace "our knowledge" with "the knowledge of the task force that developed this Guide" Reason/Justification: "Our" is too informal and begs the question of to whom the pronoun refers.									
	Withdrawal (check one)	X	No Negative wit	hdrawa	ıl made	e by Voter.	GO TO "Related" subsection					
Related	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection									
	Motion and		Negative is relat	ted and	persu	asive. (Needs >1/3 votes t	o pass.)					
	Reason (check one)	X	Negative is relat	ted and	not pe	ersuasive. (Needs ≥2/3 vot	es to pass.)					
Per			Reason	Editorial in nature.								
Persuasive	Motion by/ 2 nd by		Bob McIntosh / G ond: Bonnie Mari									
Vе	Discussion	Non	е									
		18 Y 0 N ; Motion passed.										
	Result of Vote (check one)		2/3 ≤ [Negative is related and not persuasive.] < 90%		GO TO "Final" subsection → (C)							
	(00		90% ≤ [Negative and not persuas		ited	GO TO "Not Significant F	Finding Option" subsection					
			(A)	With	drawn	(counted under h in disp	osition)					
			(B)	Not r	related	l (counted under i in dispo	osition)					
	(check if	X	(C)	Rela	ted an	d not persuasive (significar	nt)					
Fina	applicable)		(D)	Not s	signific	ant (counted under j in di	sposition)					
al			(E)	addr	essed	d persuasive and not by technical change	DOCUMENT FAILS					
			(F)	Addr	essed	by technical change (coun	ted under k disposition)					
	(check if applicable)	X	Comment gener	rated. S	See Se	ection V-(ii) <mark>Comment # N</mark> 0	C-22.					

Z	Referenced Section/ Paragraph	A1-1	A1-1.1									
Negative	Negative Text	Rea mea Alte	Negative: Correct the cross-reference. Reason/Justification: The only criterion in ¶6.1.1 is that the material be "traceable". If you meant to refer to ¶6.1.1 and its subordinate paragraphs, then refer to "§6.1.1". Alternatively, make the items subordinate to ¶6.1.1 a bulleted list, rather than numbering them as if they were paragraphs, so that "¶6.1.1" refers to the items in that list.									
	Withdrawal (check one)	X No Negative withdrawal made by Voter. GO TO "Related" subsection										
Related	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection								

			Negative is rela	ted and	persu	asive. (Needs >1/3 votes t	to pass.)	
	Motion and Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)					
Per	(chicon chic)		Reason		Editorial in nature.			
Persuasive	Motion by/ 2 nd by	By: Sec	Bob McIntosh / Cond: Bonnie Mar	GF Pipir ion / FT	ng Sys D Sol	tems utions LLC		
Ve	Discussion	Nor	ie					
	Result of Vote (check one)	18 X	Y 0 N; Motion pa 2/3 ≤ [Negative and not persuas 90% ≤ [Negative and not persuas	is relate sive.] < 9 e is rela	90%	GO TO "Final" subsection → (C) GO TO "Not Significant Finding Option" subsection		
			(A)	With	drawn	(counted under h in disp	osition)	
			(B)	Not r	related	l (counted under i in dispo	osition)	
	(check if	X	(C)	Rela	ted an	d not persuasive (significar	nt)	
Final	applicable)		(D)	Not s	signific	cant (counted under j in di	sposition)	
a			(E)		Related and persuasive and not addressed by technical change			
			(F)	Addr	essed	by technical change (cour	nted under k disposition)	
	(check if applicable)	X	Comment gene	rated. S	See Se	ection V-(ii) <mark>Comment # No</mark>	C-23.	

N	Referenced Section/ Paragraph	A1-	1-1.2									
Negative	Negative Text	Rea Sizii It mi	Regative: Use and abbreviation that is based on the term being abbreviated. Reason/Justification: There is no "N" between the "L" and the "S" in "Liquid Particle Sizing". More generally, these two abbreviations are missing from §5.1 is might also be helpful to provide a sentence or two explaining what each of these echniques is.									
	Withdrawal (check one)	X	No Negative withdra	awal made by Voter.	GO TO "Related" subsection							
Related	Motion and Reason (check one)	X	'Related' is mutually	agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection							
	Matian and		Negative is related a	and persuasive. (Needs >1/3 votes t	to pass.)							
Pers	Motion and Reason (check one)	X	Negative is related a	and not persuasive. (Needs ≥2/3 vot	tes to pass.)							
Persuasive	,											
Ø	Motion by/ 2 nd by		By: Bob McIntosh / GF Piping Systems Second: Bonnie Marion / FTD Solutions LLC									
	Discussion	Non	e									

		18 \	18 Y 0 N; Motion passed.						
	Result of Vote (check one)	X	2/3 ≤ [Negative is related and not persuasive.] < 90%		GO TO "Final" subsection → (C)				
	(oncon onc)		90% ≤ [Negative is related and not persuasive.]		GO TO "Not Significant Finding Option" subsection				
			(A)	Withdrawn	(counted under h in dispo	osition)			
			(B)	Not related	Not related (counted under i in disposition)				
	(check if	X	(C)	Related and not persuasive (significant)					
Final	applicable)		(D)	Not signific	cant (counted under j in dis	sposition)			
al					d persuasive and not by technical change	DOCUMENT FAILS			
			(F)	Addressed by technical change (counted under k disposition		ted under k disposition)			
	(check if applicable)	X	Comment generat	ted. See Se	ection V-(ii) <mark>Comment # NC</mark>	C-24.			

	ative 40										
Nec	Referenced Section/ Paragraph	Figure A1-4									
Negative	Negative Text	Rea "SAX	Negative: Correct the arithmetic. Reason/Justification: The calculations in this table appear a bit off. "DMA" is 28.4 and "SAXS" is 24.9, but "DMA – SAXS" is stated as "-3.5", which is the opposite of what I get when I subtract 24.9 from 28.4.								
	Withdrawal (check one)	X	No Negative withou	drawal m	ade by Voter.	GO TO "Related" subsection					
Related	Motion and Reason (check one)	X	'Related' is mutua	illy agree	d upon. (Needs no motion.)	GO TO "Persuasive" subsection					
	Matian and		Negative is related	d and pe	rsuasive. (Needs >1/3 votes t	to pass.)					
	Motion and Reason (check one)	X Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)									
Per	(choon one)		Reason Editorial in nature.								
Persuasive	Motion by/ 2 nd by		Bob McIntosh / GF ond: Bonnie Mario								
é	Discussion	Non	е								
		18 Y 0 N; Motion passed.									
	Result of Vote (check one)	X	2/3 ≤ [Negative is and not persuasiv	e.] < 90%	0	GO TO "Final" subsection → (C)					
	(1 11 1)		90% ≤ [Negative i and not persuasiv		GO TO "Not Significant F	Finding Option" subsection					
			(A)	Withdra	wn (counted under h in disp	osition)					
l _			(B)	Not rela	ted (counted under i in dispo	osition)					
Final	(check if applicable)	X	(C)	-	and not persuasive (significar	,					
<u> </u>	аррпсаые)		(D)		ificant (counted under j in di	sposition)					
			(E)		and persuasive and not ed by technical change	DOCUMENT FAILS					

		(F) Addressed by technical change (counted under k disposition)
(check if applicable)	X	Comment generated. See Section V-(ii) Comment # NC-25.

Neg	ative 47											
	Referenced Section/	A2-2	2.0									
z	Paragraph	A2-2										
Negative	Negative Text	Negative: Change "amount" to "number". Reason/Justification: If the desired degree of diafiltration is determined in the number cycles, then this should be "number of diafiltration cycles", as cycles are countable. It desired degree is determined by the volume of permeate, then this should be "volume diafiltration", as volume is measurable, but not countable.										
	Withdrawal (check one)	X	No Negative withou	drawa	l made	e by Voter.	GO TO "Related" subsection					
Related	Motion and Reason (check one)	X	'Related' is mutua	lly ag	reed ι	upon. (Needs no motion.)	GO TO "Persuasive" subsection					
			Negative is related	d and	persu	asive. (Needs >1/3 votes t	to pass.)					
	Motion and Reason (check one)	X	Negative is related	d and	not pe	ersuasive. (Needs ≥2/3 vot	es to pass.)					
Per			Reason Edito			torial in nature.						
Persuasive	Motion by/ 2 nd by		Bob McIntosh / GF ond: Bonnie Mario									
/e	Discussion	Non	е									
		18 Y 0 N; Motion passed.										
	Result of Vote (check one)	X	2/3 ≤ [Negative is related and not persuasive.] < 90%			GO TO "Final" subsection → (C)						
	,		90% ≤ [Negative i and not persuasiv		ted	GO TO "Not Significant F	Finding Option" subsection					
			(A)	With	drawn	(counted under h in disp	osition)					
			(B)	Not r	elated	l (counted under i in dispo	osition)					
	(check if	X	(C)	Relat	ted an	d not persuasive (significar	nt)					
Final	applicable)		(D)		_	cant <mark>(counted under j in di</mark>	sposition)					
<u>a</u>			(E)	Related and persuasive and not addressed by technical change		by technical change	DOCUMENT FAILS					
			(F)	Addr	essed	by technical change (coun	ted under k disposition)					
	(check if applicable)	X	Comment genera	ted. S	ee Se	ection V-(ii) <mark>Comment # N</mark> 0	<mark>C-26</mark> .					

ω –	Referenced	A3-2.2
Neg ativ	Section/	
9	Paragraph	

	Negative Text	Rea of the	egative: Delete this paragraph. eason/Justification: There's no apparent reason to make an assumption about the density the particle, as the density is included in the calculation. 1.11 g/mL is the value used in example, but there's no reason for the assumption to be made generally, and the value osen is far from the density of silver or gold.									
	Withdrawal (check one)	X	No Negative without	Irawa	l mad	e by Voter.	GO TO "Related" subsection					
Related	Motion and Reason (check one)	X	'Related' is mutua	'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection								
			Negative is related	d and	persu	nasive. (Needs >1/3 votes t	o pass.)					
	Motion and Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 v				es to pass.)					
Persuasive	(0.10011 0.100)		Reason We disagree, this is an ass example calculation.				nption that was made in the					
asive	Motion by/ 2 nd by		Paul Kerr / Intel Co ond: vyacheslav Lil) Solutions LLC						
	Discussion	Non	е									
	Result of Vote	18 Y	0 N; Motion pass									
	(check one)	X	2/3 ≤ [Negative is and not persuasive			GO TO "Final" subsectio	n → (C)					
			(A)	With	drawn	(counted under h in disp	osition)					
			(B)	Not r	elated	l (counted under i in dispo	osition)					
Final	(check if	X	(C)	Rela	ted an	d not persuasive (significar	nt)					
าลไ	applicable)		(D)			cant <mark>(counted under j in di</mark>	sposition)					
			(E)			d persuasive and not by technical change	DOCUMENT FAILS					
			(F)	Addr	essed	by technical change (coun	ted under k disposition)					

	Referenced Section/ Paragraph	Figu	re R1-1						
Negative		Rea	egative: Provide larger, clear type in the Figure. eason/Justification: The type in this figure is too small. Enlarging the image results in the entat's large enough to read, but too blurry.						
	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	GO TO "Related" subsection					
Related	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection					
Persuas ve	Motion and Reason		Negative is related and persuasive. (Needs >1/3 votes t	o pass.)					
uasi •	(check one)		Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)						

			Reason	Editor	rial in nature.			
	Motion by/ 2 nd by		By: Bob McIntosh / GF Piping Systems Second: Bonnie Marion / FTD Solutions LLC					
	Discussion	Non	None					
		18 \	18 Y 0 N; Motion passed.					
	Result of Vote (check one)	X	2/3 ≤ [Negative is related and not persuasive.] < 90%		GO TO "Final" subsection → (C)			
	90% ≤ [Negative is related and not persuasive.]		inding Option" subsection					
			(A)	Withdrawn	(counted under h in dispo	osition)		
			(B)	Not related	(counted under i in dispo	osition)		
	(check if	X	(C)	Related an	nd not persuasive (significan	t)		
Fina	applicable)		(D)	Not signific	cant (counted under j in dis	sposition)		
a				Related and persuasive and not addressed by technical change				
			(F)	Addressed by technical change (counted under k disposition)				
	(check if applicable)	X	Comment generat	ed. See Se	ection V-(ii) <mark>Comment # NC</mark>	0-27 .		

Negative	Referenced Section/ Paragraph	Figu	Figure R1-2					
ative	Negative Text	Rea	egative: Provide larger, clear type in the Figure. eason/Justification: The type in this figure is too small. Enlarging the image results in the pe that's large enough to read, but too blurry.					
	Withdrawal (check one)	X	No Negative withdrawa	ıl mad	e by Voter.	GO TO "Related" subsection		
Related	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection					
			Negative is related and persuasive. (Needs >1/3 votes to pass.)					
	Motion and Reason (check one)	X	X Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)					
Per			Reason	Edito	ial in nature.			
Persuasive	Motion by/ 2 nd by		Bob McIntosh / GF Pipin ond: Bonnie Marion / F1					
Ve	Discussion	Non	None					
		18 Y	0 N; Motion passed.		-			
	Result of Vote (check one)	X	2/3 ≤ [Negative is relate and not persuasive.] <		GO TO "Final" subsectio	n → (C)		
			90% ≤ [Negative is rela and not persuasive.]	ited	GO TO "Not Significant F	inding Option" subsection		
— п			(A) With	drawn	(counted under h in dispo	osition)		

		(B)	(B) Not related (counted under i in disposition)					
	X	(C)	Related and not persuasive (significant)					
(check if		(D)	Not significant (counted under j in disposition)					
applicable)			Related and persuasive and not addressed by technical change	DOCUMENT FAILS				
		(F)	Addressed by technical change (counted under k disposition)					
(check if applicable)	X	Comment genera	ment generated. See Section V-(ii) Comment # NC-28.					

	Referenced Section/	Figu	ıre R1-3						
ا ـ ا	Paragraph	ı igu	ile IXT-5						
Negative	Negative Text	Rea are the a func	Negative: Clarify the Figure Reason/Justification: This graph is hard to read because the symbols for the data points are hard to distinguish by shape at the size provided and many of the curves overlap. As the apparent purpose of including this graph is to convey a concept of particle count as a function of KCI concentration, I suggest providing a simplified graph with the blank and KCI concentrations of 1ppt, 100 ppt, 1ppb, and 100 ppb.						
	Withdrawal (check one)	X	No Negative without	drawa	l mad	e by Voter.	GO TO "Related" subsection		
Related	Motion and Reason (check one)	X	'Related' is mutua				GO TO "Persuasive" subsection		
	Motion and		Negative is related	d and	persu	uasive. (Needs >1/3 votes t	o pass.)		
	Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)						
Per	, ,		Reason improve th			ve the readability of the ima	the readability of the image		
Persuasive	Motion by/ 2 nd by		Darren Conner / E [,] ond: Andrea Tiwar			porated			
/e	Discussion	Non	е						
		15 Y	0 N ; Motion pass						
	Result of Vote (check one)	X	2/3 ≤ [Negative is and not persuasiv	e.] <	90%	GO TO "Final" subsectio	n → (C)		
	,		90% ≤ [Negative i and not persuasiv		ted	GO TO "Not Significant F	Finding Option" subsection		
			(A)	With	drawn	(counted under h in disp	osition)		
			(B)	Not r	elated	d (counted under i in dispo	osition)		
	(check if	X	(C)	1		nd not persuasive (significan	, and the second		
Final	applicable)		(D)	_		cant (counted under j in di	sposition)		
<u>a</u>			(E)	addr	essed	nd persuasive and not by technical change	DOCUMENT FAILS		
			(F)	Addr	essec	I by technical change (coun	ted under k disposition)		
	(check if applicable)	X	Comment genera	ted. S	ee Se	ection V-(ii) <mark>Comment # NO</mark>	C-29.		

Disposition of Voting Interest Reject 1

Check only when the Document has not been failed.

51	Original number (#) of Negatives (g)						
0	Number	of N	egatives withdrawn		(h)		
0	Number	of N	egatives found not related		(i)		
0	Number of Negatives found not significant (j)						
4			egatives addressed by technic t significant)	al change (Negative	(k)		
	$\mathbf{g} - (\mathbf{h} + \mathbf{i} + \mathbf{j} + \mathbf{k}) = 0$		Reject is Not Valid and is not included in the denominator of § VI. Approval Conditions Check				
	Final		X g - (h + i + j + k) >0 Reject is included in Approval Condition		he denominator of § VI. Check		
			Reject without a Negative	Not Valid			

This table is needed for each Voting Interest Reject.

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* ¶ 9.6.1.4.5.2)

Voting Interest Reject 2 (Voting Interest Name: Organo) Voter Reject 1 (Voter: Hiroshi Sugawara / Organo)

Neg	ative 1							
_	Referenced Section/ Paragraph	Title	, § 1-3, ¶ 5.2.1, § 6.1, § 7.1,	¶ 7.2, 7.2.1, 7.3, 7.3.1, 8.2, 8	3.4, 8.4.1			
Negative	Negative Text	PRE are The	his document is "A GUIDE FOR EVALUATING METROLOGY FOR PARTICLE RECURSORS". Particle precursors are defined as dissolved molecular compounds, which re different or cannot be distinguished from particles. The description about Step1 that is for Instrument Particle Sizing Validation is concerned. The decause particle precursors are not particles before drying.					
	Withdrawal	X	No Negative withdrawal ma	ade by Voter.	GO TO "Related" subsection			
	(check one)		Withdrawal document receim MM/DD/YYYY.	GO TO "Final" subsection → (A)				
Related	Motion and Reason (check one)	X	'Related' is mutually agreed	d upon. (Needs no motion.)	GO TO "Persuasive" subsection			
Pe			Negative is related and per	suasive. (Needs >1/3 votes t	o pass.)			
Persuasive	Motion and Reason	X	Negative is related and not	nd not persuasive. (Needs ≥2/3 votes to pass.)				
ive	g. (check one)		Reason met		2.4 as a key assumption for the less the limitation that this is an			

	Motion by/ 2 nd by		y: Chuck Dale / SUEZ econd: vyacheslav Libman / FTD Solutions LLC							
	Discussion	Nor	lone							
		17 Y	7 0 N ; Motion pass	ed.						
	Result of Vote		[Negative is relate persuasive.] > 1/3		Is a technical change recommended?		Y	GO TO "Address by Technical Change Option" subsection		
	(check one)		[Negative is relate persuasive.] < 2/3		(check one)		N	GO TO "Final" subsection → (E)		
		X	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					
			(A)	Withdrawn	(counted under	h in di	ispo	osition)		
			(B)	Not related	d (counted under	i in di	spc	osition)		
Ξ!	(check if	X	(C)	Related ar	nd not persuasive (signifi	can	t)		
Final	applicable)		(D)	Not signific	cant (counted und	ler j in	ı di	sposition)		
			(E)		nd persuasive and by technical chan			DOCUMENT FAILS		
			(F)	Addressed	by technical chan	ge (co	oun	ted under k disposition)		

neg	alive Z							
Ne	Referenced Section/ Paragraph	Title	Fitle, § 1-3, ¶ 5.2.1, § 6.1, § 7.1, ¶ 7.2, 7.2.1, 7.3, 7.3.1, 8.2, 8.4, 8.4.1					
Negative	Negative Text	Res stan	The description for Step3 that is for Real-World Validation with Mixed Bed Ion Exchange Resin Extract is unclear and should not be written. Because every IX Extract is different and tandardized samples are not available. The extracts for validation are not precisely repared.					
,	Withdrawal	X	No Negative withdraw	al made by Voter.	GO TO "Related" subsection			
	check one)		Withdrawal document MM/DD/YYYY.	received by Standards staff on	GO TO "Final" subsection → (A)			
Rela ted	Motion and Reason (check one)	X	'Related' is mutually a	'Related' is mutually agreed upon. (Needs no motion.)				
	(check one)		Negative is related and	d persuasive. (Needs >1/3 votes t	to pass.)			
	Motion and	X	Negative is related and	d not persuasive. <mark>(Needs ≥2/3 vot</mark>	es to pass.)			
Persuasive	Reason (check one)		Reason	The real world validation only lot formation using the same extandardized sample is not extraction process itself is stand revision, can change wording instead of validation.	tract, so the concern of a persuasive. Additionally, the ardized per SEMI C93. In next			
	Motion by/ 2 nd by		By: Paul Kerr / Intel Corporation Second: Bonnie Marion / FTD Solutions LLC					
	Discussion	Non	None					
		18 Y	8 Y 0 N; Motion passed.					

			[Negative is relate persuasive.] > 1/3		Is a technical change recommended?		Y	GO TO "Address by Technical Change Option" subsection
	Result of Vote (check one)		[Negative is relate persuasive.] < 2/3		(check one)		N	GO TO "Final" subsection → (E)
		X	2/3 ≤ [Negative is related and not persuasive.] < 90%		GO TO "Final" subsection → (C)			
			90% ≤ [Negative i and not persuasiv		GO TO "Not Sign	nifica	nt F	inding Option" subsection
			(A)	Withdrawn	(counted under h in disposition)			
			(B)	Not related	(counted under	i in di	ispo	osition)
≖	(check if	X	(C)	Related an	d not persuasive (not persuasive (significant)		
Final	applicable)		(D)	Not significant (counted under j in disposition)		sposition)		
			(E)		d persuasive and by technical chan			DOCUMENT FAILS
			(F)	Addressed	by technical chan	ge (c	oun	ted under k disposition)

Disposition of Voting Interest Reject 2

2	Original	num	(g)				
0	Number	of N	egatives withdrawn		(h)		
0	Number	of N	egatives found not related		(i)		
0	Number	of N	egatives found not significant		(j)		
0			egatives addressed by technic t significant)	al change (Negative	(k)		
	$\mathbf{g} - (\mathbf{h} + \mathbf{i} + \mathbf{j} + \mathbf{k}) = 0$			Reject is Not Valid and is not included in the denominator of § VI. Approval Conditions Check			
	Final		g - (h + i +j + k) >0	Reject is included in the Approval Conditions	he denominator of § VI. 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. ($Regulations \ \P \ 9.4.3.3$)
Note: A Negative addressed by a technical change is automatically considered to be not significant. ($Regulations \ \P \ 9.6.1.4.5.2$)

IV. Other Technical Issues None

V. Comments

V- (i) Voters' Comments

Commenter 1 (Jurgen Lobert / Entegris) - Comment 1

Comment	the not acc a s circ	I believe that either the title or the entire draft are misleading. Particle precursors - as explained in the document - are CHEMICALS, not particles (yet). However, most of the document talks about particle measurement and its accuracy. If I read the title, I expect to find a standard that talks about measuring chemicals that MIGHT become particles under certain circumstances. I suggest to either reword the title or rewrite the standard.								
	Th	e TC Chapter agreed to do one of the following actions.								
	*No	*No motion is required in this step.								
		Already addressed by Commenter #, Comment #								
		No further action was taken by the TC Chapter.								
Action	X	Comments/Justification from the TF: Not Technically Persuasive - The drying step is specified in ¶2.4 as a key assumption for the metrology and ¶3.4 acknowledges the limitation that this is an indirect measurement.								
	Refer to the TF for more consideration.									
		New Business								
		Editorial Change								

Commenter 2 (Dave Shuey / Avery) - Comment 1

Comment	I have no background or experience to be able to weigh in on this standard.						
	The	e TC Chapter agreed to do one of the following actions.					
	*No motion is required in this step.						
		Already addressed by Commenter #, Comment #					
ction	X	No further action was taken by the TC Chapter.					
		Refer to the TF for more consideration.					
		New Business					
		Editorial Change					

V-(ii) Comments Created by Handling Negative

Comment (Created by Handling Negative) NC - 1 (SG01)

ဂ	1.2 Negative: Relocate this paragraph or make it a NOTE that explains the preceding paragraph. Reason/Justification: This is not a statement of the purpose of this Guide.
om	Negative: Relocate this paragraph or make it a NOTE that explains the preceding paragraph.
m	Reason/Justification: This is not a statement of the purpose of this Guide.
е	

	The TC Chapter agreed to do one of the following actions.			greed to do one of the following actions.		
	*No	motion is	requ	ired in this step.		
Α		Already ac	dres	sed by Commenter #, Comment #		
Action		No further	actio	on was taken by the TC Chapter.		
]]		Refer to th	e TF	for more consideration.		
		New busin	ess			
	X	Editorial ch	hang	е		
		Options		Case 1: No vote in this section:		
		for editorial		To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.		
		change (check		Case 2: Voted in this section:		
		one)	X	Original section number and at least one full sentence are required in "FROM" and "TO" fields.		
		FROM: So 1 Purpose		on/Paragraph 1.1 and 1.2		
		1.1 This Guide provides a performance-based definition of metrology that can be used to measure particle precursors in ultrapure water (UPW). This Guide includes a testing methodology and crite for qualifying measurement techniques for quantifying particle precursor concentrations in UPW.				
Edito		1.2 Particle precursors are defined as dissolved molecular compounds, which may form particles when dried on a wafer surface. This definition was developed by the UPW International Roadmap for Devices and Systems (IRDS). Particle precursors can originate from UPW system components, such as ion exchange resin.				
rial C	1	TO: Section/Paragraph 1.1 1 Purpose				
Editorial Changes		1.1 This Guide provides a performance-based definition of metrology that can be used to measure particle precursors in ultrapure water (UPW). This Guide includes a testing methodology and criteria for qualifying measurement techniques for quantifying particle precursor concentrations in UPW.—				
		1.2 Particle precursors are defined as dissolved molecular compounds, which may form particles when dried on a wafer surface. This definition was developed by the UPW International Roadmap for Devices and Systems (IRDS). Particle precursors can originate from UPW system components, such as ion exchange resin.				
		Justification (If necessary) Combine 1.2 into 1.1. It does not need to be a separate section.				
M	Motion		Т	o approve above editorial change(s)		
M	otion	by/2 nd by		y: Paul Kerr / Intel Corporation econd: vyacheslav Libman / FTD Solutions LLC		
Di	iscus	sion	N	lone		
V	ote		1	7 Y 0 N; Motion passed.		

Comment (Created by Handling Negative) NC – 2 (SG02)

n <u>me</u>	ent (Created by Handling Negative) NC – 2 (SG02)		
Comment	Neg Rea by c amo exa Iron whe ionic part com	Negative: Explain the intended meaning of "molecular" in these sentences or remove the word. Reason/Justification: A "molecular compound", IIRC, is one that forms discrete molecules, usually by covalent bonding, such as CH4. Contrarily, an "ionic compound" is one that has specific ratios among its atomic constituents, but not discrete molecules and the bonding is ionic. KCI, for example, is an ionic compound. Ironically, KCI is what is used in this Guide as the test case of a compound that forms particles when water in which it is dissolved dries, so the method is being validated for measurement of an onic compound, not a molecular compound. If there's no difference between how one measures particles formed from ionic compounds and how one measures particles from molecular compounds, then just dropping the "molecular" throughout the Guide appears to be a simple solution. If there is a difference, then this Guide appears to fail to address its primary purpose.		
		TC Chapter agreed to do one of the following actions.		
	*No	motion is required in this step.		
Α		Already addressed by Commenter #, Comment #		
Action		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) X Original		for editorial change (check one) To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V. 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	Particle precursors are defined as dissolved molecular compounds, which may form particles when dried on a wafer surface. This definition was developed by the UPW International Roadmap for Devices and Systems (IRDS). Particle precursors can originate from UPW system components, such as ion exchange resin. TO: Section/Paragraph 1.1 (now 1.2) Particle precursors are defined as dissolved molecular compounds, which may form particles when dried on a wafer surface. This definition was developed by the UPW International Roadmap for Devices and Systems (IRDS). Particle precursors can originate from UPW system components, such as ion exchange resin.		
anges		Justification (If necessary) Remove the word molecular. (This does not change the definition, and having molecular in there potentially adds confusion). Also change definition in 5.2.1 to be consistent in terminology.		
	2	FROM: Section/Paragraph 5.2.1 5.2.1 particle precursor — a dissolved molecular compound which may form particles when dried on a wafer surface.		

	TO: Section/Paragraph 5.2.1		
	5.2.1 particle precursor — a dissolved molecular compound which may form par a wafer surface.		
		on (If necessary) consistency.	
Motic	on	To approve above editorial change(s)	
Motion by/2 nd by		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC	
Discussion		None	
Vote		17 Y 0 N; Motion passed.	

Comment (Created by Handling Negative) NC - 3 (SG06)

IIIIE	אוונ (Created i	уу ⊓	landling Negative) NC - 3 (SG06)			
Comment	man	degative: Change "either instrument manufacturers or instrument users" to "either instrument nanufacturers or and instrument users". Reason/Justification: As far as I can tell, both groups are within the intended audience.					
	The	e TC Chapt	er aç	greed to do one of the following actions.			
	*No	motion is	requ	uired in this step.			
Þ		Already ad	ddres	ssed by Commenter #, Comment #			
Action		No further	No further action was taken by the TC Chapter.				
		Refer to th	ne TF	for more consideration.			
		New business					
	X	Editorial change					
		Options		Case 1: No vote in this section:			
		for editorial		To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.			
		change		Case 2: Voted in this section:			
		(check one)	X	Original section number and at least one full sentence are required in "FROM" and "TO" fields.			
		FROM: S	ectio	on/Paragraph 2.5			
Editorial	1	2.5 The intended users of this Guide are either instrument manufacturers or instrument users. The number of replicates and duration of performance criteria testing are provided in the Guide as recommended minimum values. However, instrument manufacturers may choose to run additional replicates over an extended period of time to further demonstrate instrument capabilities and performance.					

TO: Section/Paragraph 2.5		TO: Section	n/Paragraph 2.5
		number of reprecommended	ded users of this Guide are either instrument manufacturers or and instrument users. The blicates and duration of performance criteria testing are provided in the Guide as a minimum values. However, instrument manufacturers may choose to run additional or an extended period of time to further demonstrate instrument capabilities and
		Justificatio Editorial in n	on (If necessary) ature.
M	otior	1	To approve above editorial change(s)
M	Motion by/2 nd by		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC
D	Discussion		None
V	Vote		17 Y 0 N; Motion passed.

Comment (Created by Handling Negative) NC – 4 (SG07) Negative: Clarify whether it is whether particle precursors in liquid chemicals are a problem what is being determined Reason/Justification: ? That's what this says, but the question occurred to me that what is being determined is how to develop test methods for particle precursors in liquid chemicals. The TC Chapter agreed to do one of the following actions. *No motion is required in this step. Already addressed by Commenter #, Comment # Action No further action was taken by the TC Chapter. Refer to the TF for more consideration. New business Editorial change Case 1: No vote in this section: Options To be included and voted on as a group in § VI. Editorial Changes Other for than Those Voted on in § V. editorial change Case 2: Voted in this section: (check Original section number and at least one full sentence are required in one) "FROM" and "TO" fields. FROM: Section/Paragraph 3.1 **Editorial** 3.1 This Guide defines success criteria for analyzing particle precursors only in UPW. The concern of particle precursors in liquid chemicals is still being determined and may need to be considered in future revisions.

TO: Section/Paragraph 3.1		n/Paragraph 3.1			
		3.1 This Guide defines success criteria for analyzing particle precursors only in UPW. The concern of metrology for particle precursors in liquid chemicals is still being determined and may need to be considered in future revisions.			
			on (If necessary) ogy for" to clarify that it is the second point.		
М	Motion		To approve above editorial change(s)		
М	Motion by/2 nd by		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC		
D	Discussion		None		
٧	Vote		17 Y 0 N; Motion passed.		

Comment (Created by Handling Negative) NC - 5 (SG08)

Comment	Rea	3.4 Negative: Clarify what the concern is. Reason/Justification: Is the concern that things other than "particle precursors" can form particles on wafers, or that there are particles in UPW than will be found on wafers after drying and artificially increase the observed level of contamination?			
				greed to do one of the following actions.	
	*No			uired in this step.	
Ac		Already a	ddres	ssed by Commenter #, Comment #	
Action		No further	actio	on was taken by the TC Chapter.	
		Refer to the	ne TF	for more consideration.	
		New busir	ness		
	X	Editorial c	hang	le e	
		Options		Case 1: No vote in this section:	
		for editorial change	for	To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.	
				Case 2: Voted in this section:	
		one)	(check one)	Original section number and at least one full sentence are required in "FROM" and "TO" fields.	
		FROM: S	ectio	on/Paragraph 3.4	
Editorial Changes	1	3.3 This Guide considers the measurement of particle precursors only in UPW and does not address the quantification of particles formed on a product wafer surface.			
Changes		dissolved p process. As	articl	of particle precursors described in this Guide is an indirect measurement because the precursors are being measured as particles after a drying step in the analytical therefore types of contamination may require consideration that measurement of particles wafer may be different and may need to be evaluated separately.	

TO: Section/Paragraph 3.4

- 3.3 This Guide considers the measurement of particle precursors only in UPW and does not address the quantification of particles formed on a product wafer surface.
- 3.4 The analysis of particle precursors described in this Guide is an indirect measurement because dissolved particle precursors are being measured as particles after a drying step in the analytical process. Any other types of contamination may require consideration that measurement of particle formation on the wafer may be different and may need to be evaluated separately.

Justification (If necessary)

Remove this sentence, which is already addressed by ¶3.3.

Motion	To approve above editorial change(s)
Motion by/2 nd by	By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC
Discussion	None
Vote	17 Y 0 N; Motion passed.

Comment (Created by Handling Negative) NC - 6 (SG09)

	,,,,,	Orcated i	<u> </u>	randing Negative) NC - 6 (SG09)	
Comment		5.3 Negative: Move these items to §5.1 and delete ¶5.3 Reason/Justification: These are abbreviations, not "symbols".			
	The	TC Chapt	er a	greed to do one of the following actions.	
	*No	motion is	requ	uired in this step.	
Σ		Already ad	ddres	ssed by Commenter #, Comment #	
Action		No further	actio	on was taken by the TC Chapter.	
		Refer to the	ne TF	for more consideration.	
		New busir	ness		
	X	Editorial c	hang	je	
		Options for editorial		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.	
		change (check one)	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	FROM: Section/Paragraph 5.3 5.3 Symbols 5.3.1 ppb — parts per billion, ng/mL or µg/L 5.3.2 ppm — parts per million, µg/mL or mg/L 5.3.3 ppt — parts per trillion, pg/mL or ng/L				

	TO: Section	n/Paragraph 5.1
	5.1 Abbreviat	ions and Acronyms
	5.1.1 <i>HDPE</i> –	high-density polyethylene
	5.1.2 <i>IC</i> — io	n chromatography
	5.1.3 IX resin	— ion exchange resin
	5.1.4 <i>MB</i> — r 5.1.5 <i>ppb</i> — p	mixed bed parts per billion, ng/mL or μg/L
	<u>5.1.6 <i>ppm</i> — j</u>	parts per million, µg/mL or mg/L
	5.1. <u>58</u> RSD —	arts per trillion, pg/mL or ng/L - relative standard deviation — small angle X-ray scattering
	5.1. 7 10 <i>UF</i> —	– ultrafilter
	5.1. <mark>8<u>11</u> UPW</mark>	— ultrapure water
	5.3 Symbols	
	5.3.1 <i>ppb p</i>	parts per billion, ng/mL or μg/L
	5.3.2 ppm 1	parts per million, µg/mL or mg/L
	5.3.3 ppt p	arts per trillion, pg/mL or ng/L
		on (If necessary) to abbreviations and acronyms section 5.1.
Motio	on	To approve above editorial change(s)
Motio	on by/2 nd by	By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC
Disc	ussion	None
Vote		17 Y 0 N; Motion passed.

Comment (Created by Handling Negative) NC - 7 (SG12)

Comment	Rea "Into sug all s Fur Mat	ative: Do not capitalize "International Standards Organization". son/Justification: I am not aware of any organization that has that name. There is the rnational Organization for Standardation", the abbreviation for which, "ISO", does (I concede) gest that it is named the "International Standards Organization". More importantly, I'm not at ure you can find a reference material that is traceable to ISO. nermore, why is "international" important? NIST has a variety of Standard Reference erials, and the material described in this document appears to be from a German organization, an "international" one.							
	The	The TC Chapter agreed to do one of the following actions.							
	*No motion is required in this step.								
Action	Already addressed by Commenter #, Comment #								
ion	No further action was taken by the TC Chapter.								
		Refer to the TF for more consideration.							
		New business							

	X	Editorial c	hang	je			
		Options for editorial		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.			
		change (check one)	X	Case 2: Voted in this section: Original section number and at least one full sentence are required in			
		,	ectio	"FROM" and "TO" fields. on/Paragraph 6.1.1.1			
Edit		6.1.1.1 Size reference material that is traceable to an International Standards Organization,					
Editorial Changes	1	TO: Section/Paragraph 6.1.1.1 6.1.1.1 Size reference material that is traceable to an International Sstandards Oorganization,					
ges		Justification (If necessary) Remove confusion to ISO and uncapitalize "International Standards Organization". Add clarification that there is no requirement for the reference material to be traceable from an "international standard", so "international" was removed.					
M	otion	1	Т	To approve above editorial change(s)			
M	Motion by/2 nd by			By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC			
Di	Discussion			None			
Vo	Vote			7 Y 0 N; Motion passed.			

Comment (Created by Handling Negative) NC - 8 (SG16)

Commen	7.1.1.1 Negative: Replace "our knowledge" with "the knowledge of the task force that developed this Guide" Reason/Justification: "Our" is too informal and begs the question of to whom the pronoun refers.							
	The	TC Chapt	er aç	greed to do one of the following actions.				
	*No	motion is	requ	uired in this step.				
Þ		Already ad	ddres	ssed by Commenter #, Comment #				
Action		No further	actio	n was taken by the TC Chapter.				
		Refer to th	ne TF	TF for more consideration.				
		New busin	ness					
	X	Editorial c	hang	е				
		Options		Case 1: No vote in this section:				
		for editorial		To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.				
		change (check		Case 2: Voted in this section:				
		one)	X	Original section number and at least one full sentence are required in "FROM" and "TO" fields.				

FROM: Section/Paragraph 7.1.1 7.1.1.1 To our knowledge, the only available standard that meets the criteria described in \P 6.1.1 is BAM-N0083, a 6 nm nominal diameter silver nanoparticle reference nanomaterial from Bundesanstalt für Materialforschung und-prüfung (BAM), the German Federal Institute for Materials Research and Testing. Therefore, the acceptable size range criteria for particle sizing accuracy is based on BAM-**Editorial Changes** N008. Refer to Appendix 1 for basis of this range including validation data. TO: Section/Paragraph 7.1.1 7.1.1.1 To our the knowledge of the task force that developed this Guide, the only available standard that meets the criteria described in ¶ 6.1.1 is BAM-N0083, a 6 nm nominal diameter silver nanoparticle reference nanomaterial from Bundesanstalt für Materialforschung und-prüfung (BAM), the German Federal Institute for Materials Research and Testing. Therefore, the acceptable size range criteria for particle sizing accuracy is based on BAM-N008. Refer to Appendix 1 for basis of this range including validation data. Justification (If necessary) Clarify "our" **Motion** To approve above editorial change(s) By: Paul Kerr / Intel Corporation Motion by/2nd bv Second: vyacheslav Libman / FTD Solutions LLC Discussion None

17 Y 0 N; Motion passed.

Vote

Comment (Created by Handling Negative) NC - 9 (SG17) 7.1.1.1 Negative: Correct the cross-reference. Reason/Justification: The only criterion in ¶6.1.1 is that the material be "traceable". If you meant to refer to ¶6.1.1 and its subordinate paragraphs, then refer to "§6.1.1". Alternatively, make the items subordinate to ¶6.1.1 a bulleted list, rather than numbering them as if they were paragraphs, so that "¶6.1.1" refers to the items in that list. The TC Chapter agreed to do one of the following actions. *No motion is required in this step. Already addressed by Commenter #, Comment # Action No further action was taken by the TC Chapter. Refer to the TF for more consideration. New business Editorial change Case 1: No vote in this section: **Options** To be included and voted on as a group in § VI. Editorial Changes Other for than Those Voted on in § V. editorial change Case 2: Voted in this section: (check Original section number and at least one full sentence are required in one) "FROM" and "TO" fields.

		FROM: Sec	tion/Paragraph 7.1.1.1			
Editorial Changes		7.1.1.1 To our knowledge, the only available standard that meets the criteria described in ¶ 6.1.1 is BAM-N0083, a 6 nm nominal diameter silver nanoparticle reference nanomaterial from Bundesanstalt für Materialforschung und-prüfung (BAM), the German Federal Institute for Materials Research and Testing. Therefore, the acceptable size range criteria for particle sizing accuracy is based on BAM-N008. Refer to Appendix 1 for basis of this range including validation data.				
al Ch	1	TO: Section	n/Paragraph 7.1.1.1			
anges		BAM-N0083, für Materialfo Testing. Ther	7.1.1.1 To our knowledge, the only available standard that meets the criteria described in §6.1.1 is BAM-N0083, a 6 nm nominal diameter silver nanoparticle reference nanomaterial from Bundesanstalt für Materialforschung und-prüfung (BAM), the German Federal Institute for Materials Research and Testing. Therefore, the acceptable size range criteria for particle sizing accuracy is based on BAM-N008. Refer to Appendix 1 for basis of this range including validation data.			
			n (If necessary) ature. Correct reference symbol.			
	otion		•			
IVI	Motion		To approve above editorial change(s)			
M	Motion by/2 nd by		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC			
Di	scus	ssion	None			
V	ote		17 Y 0 N; Motion passed.			

Comment (Created by Handling Negative) NC – 10 (SG21)

Comment	NOTE 4 after 7.1.3 Negative: Delete the parenthetical ", etc." Reason/Justification: It is redundant to state "for example", list examples, then state "and others".							
	The	TC Chapt	er aç	greed to do one of the following actions.				
	*No	motion is	requ	uired in this step.				
Þ		Already ad	Already addressed by Commenter #, Comment #					
Action		No further	rther action was taken by the TC Chapter.					
		Refer to th	Refer to the TF for more consideration.					
		New busin	ew business					
	X	Editorial c	hang	е				
		Options		Case 1: No vote in this section:				
		for editorial		To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.				
		change (check		Case 2: Voted in this section:				
		one)	X	Original section number and at least one full sentence are required in "FROM" and "TO" fields.				

FROM: Section/Paragraph NOTE 4

NOTE 4: After instrument particle sizing is validated by Step 1, it is recommended that sizing confirmation is performed on a regular basis at an appropriate frequency (e.g., daily, weekly, monthly, etc.) defined by the instrument manufacturer to ensure instrument performance. A non-traceable reference nanoparticle standard (e.g., diafiltered 10 nm gold) may be used for ongoing size confirmation if it is first correlated to the traceable reference standard. The ongoing size confirmation should meet the criteria defined in § 7.1 .

TO: Section/Paragraph NOTE 4

Editorial Changes

NOTE 4: After instrument particle sizing is validated by Step 1, it is recommended that sizing confirmation is performed on a regular basis at an appropriate frequency (e.g., daily, weekly, monthly, etc.) defined by the instrument manufacturer to ensure instrument performance. A non-traceable reference nanoparticle standard (e.g., diafiltered 10 nm gold) may be used for ongoing size confirmation if it is first correlated to the traceable reference standard. The ongoing size confirmation should meet the criteria defined in § 7.1 .

Justification (If necessary) Editorial in nature.

Motion	To approve above editorial change(s)
Motion by/2 nd by	By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC
Discussion	None
Vote	17 Y 0 N; Motion passed.

Comment (Created by Handling Negative) NC - 11 (SG22)

Comment	7.2.1 Negative: Change "instrument (metrology being evaluated for particle precursor measurement) for" to "instrument (metrology being evaluated for particle precursor measurement) for". Reason/Justification: An instrument is not a "metrology".							
	The	TC Chapt	er aç	greed to do one of the following actions.				
	*No	*No motion is required in this step.						
Þ		Already a	ddres	ressed by Commenter #, Comment #				
Action		No further	No further action was taken by the TC Chapter.					
)		Refer to th	Refer to the TF for more consideration.					
		New busir	ness					
	X	Editorial c	hang	e				
		Options for editorial		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.				
		change (check one)	X	Case 2: Voted in this section: Original section number and at least one full sentence are required in "FROM" and "TO" fields.				

		FROM: Sec	tion/Paragraph 7.2.1	
Edito		for particle pr days) of the d	tration Accuracy — The average response of the instrument (metrology being evaluated ecursor measurement) for five replicate measurements (once per day for five consecutive issolved standard (ultrafiltered potassium chloride) should be within $\pm 10\%$ of the s concentration value. The expected concentration should be validated using IC analysis	
rial		TO: Section	n/Paragraph 7.2.1	
Editorial Changes	•	7.2.1 Concentration Accuracy — The average response of the instrument (metrology being evaluated for particle precursor measurement) for five replicate measurements (once per day for five consecutive days) of the dissolved standard (ultrafiltered potassium chloride) should be within $\pm 10\%$ of the expected mass concentration value. The expected concentration should be validated using IC analysis for Cl		
			n (If necessary) nature. Remove word metrology and parentheses. (Having metrology after repetitive).	
М	Motion		To approve above editorial change(s)	
M	Motion by/2 nd by		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC	
D	Discussion		None	
V	Vote		17 Y 0 N; Motion passed.	

Comment (Created by Handling Negative) NC – 12 (SG26)

Comment	7.2.3.3 Negative: Change "versus" to "divided by" in two places. Reason/Justification: The quantities are not in opposition to one another, they are to be divided.								
	The	TC Chapt	er aç	greed to do one of the following actions.					
	*No	motion is	requ	uired in this step.					
A		Already ad	Already addressed by Commenter #, Comment #						
Action		No further	further action was taken by the TC Chapter.						
		Refer to th	to the TF for more consideration.						
		New busir	ness	SS					
	X	Editorial c	hang	e					
		Options		Case 1: No vote in this section:					
		for editorial		To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.					
		change		Case 2: Voted in this section:					
		(check one)	X	Original section number and at least one full sentence are required in "FROM" and "TO" fields.					

	FROM: Section/Paragraph 7.2.3.3					
Edito		7.2.3.3 <i>Detection Efficiency</i> — The detection efficiency for particle metrology is defined as the number of particles detected/unit volume versus the number of actual particles/unit volume for the dissolved standard. For dissolved species, the detection efficiency is defined as detected concentration/unit volume versus actual concentration/unit volume for the applicable standard. No minimum detection efficiency is required here, but the detection efficiency of the technique should be reported as part of the metrology evaluation.				
oria		TO: Section	n/Paragraph 7.2.3.3			
Editorial Changes	1	7.2.3.3 <i>Detection Efficiency</i> — The detection efficiency for particle metrology is defined as the number of particles detected/unit volume versus divided by the number of actual particles/unit volume for the dissolved standard. For dissolved species, the detection efficiency is defined as detected concentration/unit volume versus divided by actual concentration/unit volume for the applicable standard. No minimum detection efficiency is required here, but the detection efficiency of the technique should be reported as part of the metrology evaluation.				
		Justification (If necessary) Editorial to add clarity				
М	otion	1	To approve above editorial change(s)			
M	Motion by/2 nd by		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC			
D	Discussion		None			
V	Vote		17 Y 0 N; Motion passed.			

Comment (Created by Handling Negative) NC – 13 (SG27)

Comment	7.2.3.3 Negative: Change "concentration/unit volume" to "concentration" or "quantity/unit volume". Reason/Justification: "Concentration/unit volume" would, for example, have the dimensions of "(grams/liter)/liter)".							
	The	TC Chapt	er aç	greed to do one of the following actions.				
	*No	motion is	requ	uired in this step.				
Þ		Already ad	eady addressed by Commenter #, Comment #					
Action		No further	er action was taken by the TC Chapter.					
		Refer to th	ne TF	for more consideration.				
		New busir	ness					
	X	Editorial c	hang	e				
		Options		Case 1: No vote in this section:				
		for editorial		To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.				
		change		Case 2: Voted in this section:				
		(check one)	X	Original section number and at least one full sentence are required in "FROM" and "TO" fields.				

FROM: Section/Paragraph 7.2.3.3

7.2.3.3 Detection Efficiency — The detection efficiency for particle metrology is defined as the number of particles detected/unit volume divided by the number of actual particles/unit volume for the dissolved standard. For dissolved species, the detection efficiency is defined as detected concentration/unit volume divided by actual concentration/unit volume for the applicable standard. No minimum detection efficiency is required here, but the detection efficiency of the technique should be reported as part of the metrology evaluation.

TO: Section/Paragraph 7.2.3.3

Editorial Changes

7.2.3.3 Detection Efficiency — The detection efficiency for particle metrology is defined as the number of particles detected/unit volume divided by the number of actual particles/unit volume for the dissolved standard. For dissolved species, the detection efficiency is defined as detected concentration quantity/unit volume divided by actual concentration quantity/unit volume for the applicable standard. No minimum detection efficiency is required here, but the detection efficiency of the technique should be reported as part of the metrology evaluation.

Justification (If necessary)Editorial in nature to add clarity.

Motion	To approve above editorial change(s)
Motion by/2 nd by	By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC
Discussion	None
Vote	17 Y 0 N; Motion passed.

Comment (Created by Handling Negative) NC – 14 (SG28)

Comment	Neg Rea	7.2.4 Negative: Superscript the "2" in "R2" Reason/Justification: "R2" is a commonly used symbol in statistics. "R2" is the first half of a robot's name in a series of tin-foil westerns.					
	The	e TC Chapt	er aç	greed to do one of the following actions.			
	*No	motion is	requ	uired in this step.			
Þ		Already addressed by Commenter #, Comment #					
Action		No further action was taken by the TC Chapter.					
]		Refer to the TF for more consideration.					
		New business					
	X	X Editorial change					
		Options		Case 1: No vote in this section:			
		for editorial		To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.			
		change (check		Case 2: Voted in this section:			
		one)	X	Original section number and at least one full sentence are required in "FROM" and "TO" fields.			

		FROM: Sec	etion/Paragraph 7.2.4	
Edito		7.2.4 <i>Dynamic Range</i> — The dynamic range is evaluated by analyzing standards for at least three concentrations spanning 10X to 100X the reported background concentration and plotting log of the measured values versus the log of expected values. Linearity is confirmed if the square of the correlation coefficient (R2) is greater than 0.95.		
ial (1	TO: Section	n/Paragraph 7.2.4	
Editorial Changes		7.2.4 <i>Dynamic Range</i> — The dynamic range is evaluated by analyzing standards for at least three concentrations spanning $10X$ to $100X$ the reported background concentration and plotting log of the measured values versus the log of expected values. Linearity is confirmed if the square of the correlation coefficient (\mathbb{R}^2) is greater than 0.95.		
		Justificatio Editorial in n	on (If necessary) ature.	
М	otion	1	To approve above editorial change(s)	
М	otior	by/2 nd by	By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC	
Di	iscus	ssion	None	
V	ote		17 Y 0 N: Motion passed.	

Comment (Created by Handling Negative) NC – 15 (SG30)

Comment	8.1.1 Negative: Change "meet the quality as defined in" to "meet the criteria of". Reason/Justification: "Meet the quality" is not a meaningful phrase.					
	The	TC Chapt	er aç	greed to do one of the following actions.		
	*No	motion is	requ	uired in this step.		
Þ		Already addressed by Commenter #, Comment #				
Action		No further action was taken by the TC Chapter.				
		Refer to the TF for more consideration.				
		New busir	ness			
	X	Editorial change				
		Options		Case 1: No vote in this section:		
		for editorial		To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.		
		change		Case 2: Voted in this section:		
		(check one)		Original section number and at least one full sentence are required in "FROM" and "TO" fields.		
Э		FROM: S	ectio	on/Paragraph 8.1.1		
Editorial	1			tandards Preparation — The UPW used to prepare all standards should meet the d in SEMI F63.		

	TO: Section/Paragraph 8.1.1 8.1.1 UPW for Standards Preparation — The UPW used to prepare all standards should meet to quality as defined incriteria of SEMI F63.		
		on (If necessary) nature to add clarity.	
Motio	n	To approve above editorial change(s)	
Motion by/2 nd by		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC	
Discussion		None	
Vote		17 Y 0 N; Motion passed.	

Comment (Created by Handling Negative) NC – 16 (SG32)

11110	nent (Created by Handling Negative) NC - 16 (SG32)					
Comment	8.1.2 Negative: State to what HDPE is preferred and why. Reason/Justification: Is there some technical reason for preferring HDPE to, for example, PFA for these? If the reason is cost, but PFA provides equivalent performance, that should be stated so that the user has the choice of saving a bit on the containers or having the convenience and reduced error risk of having containers of only one material.					
	The	TC Chapt	er aç	greed to do one of the following actions.		
	*No	motion is	requ	uired in this step.		
Þ		Already ad	ddres	ssed by Commenter #, Comment #		
Action		No further action was taken by the TC Chapter.				
		Refer to th	ne TF	for more consideration.		
		New business				
	X	Editorial change				
		Options		Case 1: No vote in this section:		
		for editorial	for	To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.		
		change		Case 2: Voted in this section:		
	(check one)			Original section number and at least one full sentence are required in "FROM" and "TO" fields.		
FROM: Section/Paragraph 8.1.2			on/Paragraph 8.1.2			
Editorial	8.1.2 Container Material — For general sample preparation (silver reference nanomaterial, Ko IX resin extract), HDPE is preferred due to low particle precursor extraction at room temperat reduced risk of particle losses to the wall of the container. Refrigerated storage of the samples not in use and shielding from ambient or direct sunlight are recommended.			HDPE is preferred due to low particle precursor extraction at room temperature and particle losses to the wall of the container. Refrigerated storage of the samples when		

TO: Section/Paragraph 8.1.2			n/Paragraph 8.1.2		
		IX resin extra temperature a	ainer Material — For general sample preparation (silver reference nanomaterial, KCl, and stract), HDPE is preferred-recommended due to low particle precursor extraction at room re and reduced risk of particle losses to the wall of the container. Refrigerated storage of the hen not in use and shielding from ambient or direct sunlight are recommended.		
			on (If necessary) ature to add clarity.		
M	otior	n	To approve above editorial change(s)		
Motion by/2 nd by		n by/2 nd by	By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC		
Discussion		ssion	None		
Vote			17 Y 0 N; Motion passed.		

Comment (Created by Handling Negative) NC – 17 (SG35)

Comment	8.3.1.2 Negative: Delete "actual". Reason/Justification: What is to be recorded is a calculated concentration. How closely it matches what is actually there depends on the accuracy of the mass measurements.						
	The	The TC Chapter agreed to do one of the following actions.					
	*No	motion is	requ	uired in this step.			
إ≼ا		Already ad	ddres	ssed by Commenter #, Comment #			
Action		No further	actio	on was taken by the TC Chapter.			
$\lceil \rceil$		Refer to th	ne TF	for more consideration.			
		New busir	ness				
	X	Editorial c	hang				
		Options for editorial change (check one)	X	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. Case 2: Voted in this section: Original section number and at least one full sentence are required in "FROM" and "TO" fields.			
Editorial Changes	FROM: Section/Paragraph 8.3.1.2 8.3.1.2 Record actual concentration of KCl using Equation 3: TO: Section/Paragraph 8.3.1.2 8.3.1.2 Record actual concentration of KCl using Equation 3: Justification (If necessary) Editorial in nature - remove "actual" for clarity (it is unnecessary and may add confusion)						
Mo	Motion To approve above editorial change(s)						

Motion by/2 nd by	By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC
Discussion	None
Vote	17 Y 0 N; Motion passed.

Com

n <u>me</u>	nent (Created by Handling Negative) NC – 18 (SG36)						
Comment	Neg Rea	8.3.1.6 Negative: Clarity or reword "expected concentration". Reason/Justification: Is the "expected concentration" here the "actual concentration" in ¶9.3.1.2? If so, state that. If not, describe how to determine what is "expected".					
	The TC Chapter agreed to do one of the following actions.						
	*No motion is required in this step.						
Ą		Already add	dressed by Commenter #, Comment #				
Action		No further a	action was taken by the TC Chapter.				
		Refer to the	TF for more consideration.				
		New busine	ss				
	X	Editorial cha					
			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. Case 2: Voted in this section: Original section number and at least one full sentence are required in "FROM" and "TO" fields. ction/Paragraph 8.3.1.6				
Editorial Changes	1	TO: Section/Paragraph 8.3.1.6 8.3.1.6 Analyze solution aliquot by ion chromatography to determine C1-concentration. The value should be within ±5% of the expected concentration determined calculated in ¶ 8.3.1.2. Justification (If necessary)					
	-4:						
-	otior		To approve above editorial change(s)				
M	otior	by/2 nd by	By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC				
Di	Discussion		None				
V	ote		17 Y 0 N; Motion passed.				

Comment (Created by Handling Negative) NC – 19 (SG37)

Comment Ac	Neg					
Ac		8.3.1.7 Negative: Change "by dilute to" to "by diluting to" Reason/Justification: Correct grammar.				
Ac	The	e TC Chapte	r agreed to do one of the following actions.			
Ac	*No motion is required in this step.					
		•	dressed by Commenter #, Comment #			
Action			ction was taken by the TC Chapter.			
			TF for more consideration.			
		New busine				
	X	Editorial ch	-			
		Options for editorial	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.			
		change	Case 2: Voted in this section:			
		(check one)	X Original section number and at least one full sentence are required in "FROM" and "TO" fields.			
Edit		FROM: Section/Paragraph 8.3.1.7 8.3.1.7 Prepare a stock solution by dilute to 100 ppm nominal concentration with UPW based on gravimetric concentration. Prepare additional solution as required using offline or online dilution techniques as appropriate for the instrument.				
Editorial Changes	TO: Section/Paragraph 8.3.1.7 8.3.1.7 Prepare a stock solution by diluteing to 100 ppm nominal concentration with UPW b gravimetric concentration. Prepare additional solution as required using offline or online dilutechniques as appropriate for the instrument.		are a stock solution by diluteing to 100 ppm nominal concentration with UPW based on concentration. Prepare additional solution as required using offline or online dilution			
			on (If necessary) nature – grammar.			
M	otion	1	To approve above editorial change(s)			
M	otion by/2 nd by		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC			
Discussion Vote		sion	None			
			17 Y 0 N; Motion passed.			
nges		techniques a Justificati	s appropriate for the instrument. on (If necessary)			

Comment (Created by Handling Negative) NC – 20 (SG38)

Ī			1
	Comment	8.3.1.7 Negative: Clarity or reword "gravimetric concentration". Reason/Justification: Is the "gravimetric concentration" here the "actual concentration" ir ¶9.3.1.2? If so, state that. If not, describe how to determine the "gravimetric concentration".	ר

_						
	The	TC Chapte	er agreed to do one of the following actions.			
	*No	motion is required in this step.				
Þ		Already addressed by Commenter #, Comment #				
Action		No further action was taken by the TC Chapter.				
		Refer to the TF for more consideration.				
		New busin	ess			
	X	Editorial ch	ange			
		Options	Case 1: No vote in this section:			
		for editorial	To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.			
		change (check	Case 2: Voted in this section:			
		one)	Original section number and at least one full sentence are required in "FROM" and "TO" fields.			
		FROM: Section/Paragraph 8.3.1.7				
Edito		8.3.1.7 Prepare a stock solution by diluting to 100 ppm nominal concentration with UPW based gravimetric concentration. Prepare additional solution as required using offline or online dilution techniques as appropriate for the instrument.				
rial	1	TO: Section/Paragraph 8.3.1.7				
Editorial Changes	•	8.3.1.7 Prepare a stock solution by diluting to 100 ppm nominal concentration with UPW based on gravimetric concentration calculated in § 8.3.1.2. Prepare additional solution as required using offline or online dilution techniques as appropriate for the instrument.				
		Justificati Add clarity	on (If necessary)			
M	otior	1	To approve above editorial change(s)			
M	otior	by/2 nd by	By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC			
Di	iscus	sion	None			
Vo	Vote		17 Y 0 N; Motion passed.			

Comment (Created by Handling Negative) NC – 21 (SG39)

Comment	Neg Rea mag "mu	8.3.1.9 Negative: Clarify to what "typical range" this refers. Reason/Justification: This sentence states that the "typical range" is three to eight orders of magnitude lower than the concentration to which ¶8.3.1.7 directs dilution. ¶8.3.1.8 suggests that "multiple concentrations should be run", but there's no instruction to dilute the "stock solution" prepared in ¶8.3.1.7.						
	The TC Chapter agreed to do one of the following actions.							
Act	*No	*No motion is required in this step.						
ion		Already addressed by Commenter #, Comment #						
		No further action was taken by the TC Chapter.						

		Refer to th	e TF for more consideration.				
		New business					
	X	Editorial ch	ange				
		Options for editorial change (check one)	To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V. Case 2: Voted in this section: Original section number and at least one full sentence are required.				
Editorial Changes	1	 FROM: Section/Paragraph 8.3.1.9 8.3.1.9 The typical KCl concentration range during testing is 1 ppt to 100 ppb. This range may be adjusted based on the operating range of the instrument. TO: Section/Paragraph 8.3.1.9 8.3.1.9 The typical recommended KCl concentration range during testing is 1 ppt to 100 ppb. This range may be adjusted based on the operating range of the instrument. 					
		Justification (If necessary) Add clarity.					
M	otion	1	To approve above editorial change(s)				
M	otion	by/2 nd by	By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC				
Di	scus	sion	None				
Vo	ote		17 Y 0 N; Motion passed.				

Comment (Created by Handling Negative) NC - 22 (SG43)

Comment	Gui	gative: Rep de"	place "our knowledge" with "the knowledge of the task force that developed this ation: "Our" is too informal and begs the question of to whom the pronoun refers.				
	The	e TC Chapte	er agreed to do one of the following actions.				
	*No	*No motion is required in this step.					
Þ		Already addressed by Commenter #, Comment #					
Action		No further action was taken by the TC Chapter.					
		Refer to the TF for more consideration.					
		New business					
	X	X Editorial change					
		Options	Case 1: No vote in this section:				
		for editorial	To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.				

		change		Case 2: Voted in this section:			
		(check one)	X	Original section number and at least one full sentence are required in "FROM" and "TO" fields.			
		FROM: S	ectio	on/Paragraph A1-1.1			
Edit		A1-1.1 For preliminary Step 1 testing, a 6 nm silver certified reference nanomaterial (BAM-N008) was purchased from Bundesanstalt für Materialforschung und-prüfung (BAM) for analysis. To our knowledge, this is the only available standard that meets the criteria described in ¶ 6.1.1.					
oria		TO: Sect	ion/F	Paragraph A1-1.1			
Editorial Changes	1	A1-1.1 For preliminary Step 1 testing, a 6 nm silver certified reference nanomaterial (BAM-N008) was purchased from Bundesanstalt für Materialforschung und-prüfung (BAM) for analysis. To our the knowledge of the task force that developed this Guide, this is the only available standard that meets the criteria described in ¶ 6.1.1.					
		Justificat Add clarity		(If necessary) our"			
M	otion	n		To approve above editorial change(s)			
M	otion	n by/2 nd by		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC			
Di	Discussion		N	None			
Vo	ote		1	17 Y 0 N; Motion passed.			

Negative: Correct the cross-reference. Reason/Justification: The only criterion in ¶6.1.1 is that the material be "traceable". If you meant so that "¶6.1.1" refers to the items in that list.

Comment (Created by Handling Negative) NC – 23 (SG44)

A1-1.1

to refer to ¶6.1.1 and its subordinate paragraphs, then refer to "§6.1.1". Alternatively, make the items subordinate to \$\(\)6.1.1 a bulleted list, rather than numbering them as if they were paragraphs, 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 Editorial change Case 1: No vote in this section: Options To be included and voted on as a group in § VI. Editorial Changes Other for than Those Voted on in § V. editorial change Case 2: Voted in this section: (check X Original section number and at least one full sentence are required in one)

"FROM" and "TO" fields.

FROM: Section/Paragraph A1-1.1 A1-1.1 For preliminary Step 1 testing, a 6 nm silver certified reference nanomaterial (BAM-N008) was purchased from Bundesanstalt für Materialforschung und-prüfung (BAM) for analysis. To the knowledge of the task force that developed this Guide, this is the only available standard that meets **Editorial Changes** the criteria described in \P 6.1.1. TO: Section/Paragraph A1-1.1

A1-1.1 For preliminary Step 1 testing, a 6 nm silver certified reference nanomaterial (BAM-N008) was purchased from Bundesanstalt für Materialforschung und-prüfung (BAM) for analysis. To the knowledge of the task force that developed this Guide, this is the only available standard that meets the criteria described in §¶ 6.1.1.

Justification (If necessary)

Editorial in nature. Correct reference symbol.

Motion	To approve above editorial change(s)
Motion by/2 nd by	By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC
Discussion	None
Vote	17 Y 0 N; Motion passed.

Comment (Created by Handling Negative) NC – 24 (SG45)

Comment	Rea Mor	pative: Use son/Justific e generally	atior , the	d abbreviation that is based on the term being abbreviated. n: There is no "N" between the "L" and the "S" in "Liquid Particle Sizing". se two abbreviations are missing from §5.1 oful to provide a sentence or two explaining what each of these techniques is.			
	The	TC Chapt	er aç	greed to do one of the following actions.			
	*No	motion is	requ	uired in this step.			
Þ		Already addressed by Commenter #, Comment #					
Action		No further action was taken by the TC Chapter.					
		Refer to the TF for more consideration.					
		New business					
	X	Editorial c	hang	le e			
		Options		Case 1: No vote in this section:			
		for editorial		To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.			
		change	check X	Case 2: Voted in this section:			
		(check one)		Original section number and at least one full sentence are required in "FROM" and "TO" fields.			

		FROM: Sec	etion/Paragraph A1-1.2			
		5.1 Abbreviat	ions and Acronyms			
		5.1.1 HDPE -	high-density polyethylene			
		5.1.2 IC — io	n chromatography			
		5.1.3 IX resin	— ion exchange resin			
		<i>5.1.4 MB</i> — r	mixed bed			
		5.1.5 PFA —	perfluoroalkoxy			
		5.1.6 RSD —	relative standard deviation			
		5.1.7 SAXS —	- small angle X-ray scattering			
		<i>5.1.8 UF</i> — u	ıltrafilter			
		5.1.9 UPW —	- ultrapure water			
			n/Paragraph A1-1.2			
Ed			ions and Acronyms			
Editorial Changes		5.1.1 CPC — condensation particle counter				
ial C	1	5.1.2 DLS — dynamic light scattering				
har		5.1.3 DMA — differential mobility analyzer—				
ıges		5.1.1-5.1.4 HDPE — high-density polyethylene				
		5.1.2 5.1.5 IC — ion chromatography				
		5.1.3-5.1.6 IX resin — ion exchange resin				
		5.1.7 LNS — Liquid nanoparticle sizer				
		5.1.4 5.1.8 MB — mixed bed				
		5.1.5-5.1.9 PFA — perfluoroalkoxy				
		5.1.6-5.1.10 RSD — relative standard deviation				
		5.1.7-5.1.11 SAXS — small angle X-ray scattering				
		5.1.12 STPC — scanning threshold particle counter				
		5.1.8 5.1.13 UF — ultrafilter				
		3.1.9 <u>3.1.14</u> C	JPW — ultrapure water			
		Justificatio	on (If necessary)			
		Reviewer is	incorrect - document already says liquid nanoparticle sizing, not liquid particle			
		sizing. To address second part of comment, editorial change to add abbreviations STPC, DMA, CPC, DLS).				
М	Motion		To approve above editorial change(s)			
М	otion	n by/2 nd by	By: Paul Kerr / Intel Corporation			
			Second: vyacheslav Libman / FTD Solutions LLC			
		ssion	None			
Vo	ote		17 Y 0 N; Motion passed.			

Comment (Created by Handling Negative) NC – 25 (SG46)

11116	1116	Createu i	оу г	ianuiing i	vegat	ive) <mark>NC -</mark>	25 (SG46)			
Comment	Neg Rea is 2	gure A1-4 egative: Correct the arithmetic. eason/Justification: The calculations in this table appear a bit off. "DMA" is 28.4 and "SAXS" 24.9, but "DMA – SAXS" is stated as "-3.5", which is the opposite of what I get when I subtract .9 from 28.4.								
	The TC Chapter agreed to do one of the following actions.									
	*No motion is required in this step.									
Þ		Already a	ddres	ssed by Con	nmente	r #, Comme	ent #			
Action		No further	actio	on was take	n by the	e TC Chapte	er.			
l n		Refer to th	ne TF	for more c	onsider	ation.				
		New busir	ness							
	X	Editorial c	hang	je						
		Ontions		Case 1: N	o vote	in this sect	tion:			
		Options for		To be inc	luded a	and voted o	n as a group in	§ VI. Editorial	Changes Other	
		editorial		than Those Voted on in § V.						
		change (check one)		Case 2: Voted in this section:						
			X	Original s			nd at least one	full sentence	are required in	
		FROM: Section/Paragraph Figure A1-4								
		Analysis Technique				NIST 30 nm Value (nm)	Gold (RM 8012) Uncertainty (nm)	BAM 6 nm Ag (CR Value (nm)	M BAM-N008) Uncertainty (nm)	
		Atomic Force	Micro	scony (ATF)		24.9	1.1	value (IIII)	oncertainty (iiii)	
				licroscopy (SEM)		26.9	0.1			
lm		_		on Microscopy (T	EM)	27.6	2.1			
Editorial Chang		Differential N	Mobility	/ Analysis (DMA)		28.4	1.1	8.9	na	
oria		Dynamic Ligh								
<u>ျ</u>	1	173° scat	_	_		28.6	0.9			
har		90° scatte	Ü	· ·		26.5 24.9	3.6 1.2	9.0	na	
າges		Small-Angle 2	X-ray So	cattering (SAXS)	erage	26.8	1.2	5.8	0.5	
S					d Dev	1.5				
			Aver	age - SAXS		1.9				
				IA - SAXS		-3.5		-3.1		
				Allowable	Range	Lower Limit:	= BAM Value minus Un	certaincy = 5.3 nm		
		Allowable Range		Upper Limit:	= BAM Value plus NIST	DMA -SAXS = 9.3 nm				

	TO: Section	n/Paragraph <mark>Figu</mark>	re A1-4				
	Analysis	s Technique		Gold (RM 8012)	BAM 6 nm Ag (CRM BAM-N008)		
			Value (nm)	Uncertainty (nm)	Value (nm)	Uncertainty (nm)	
	mic Force Micros	scopy (ATF)	24.9	1.1			
	inning Electron M	licroscopy (SEM)	26.9	0.1			
	nsmission Electro	on Microscopy (TEM)	27.6	2.1			
	ferential Mobility	Analysis (DMA)	28.4	1.1	8.9	<u>na</u>	
	namic Light Scatte	ering (DLS)					
	173° scattering ar	ngle	28.6	0.9			
	90° scattering ang	gle	26.5	3.6	9.0	<u>na</u>	
	all-Angle X-ray Sc	attering (SAXS)	24.9	1.2	5.8	0.5	
		Average	26.8				
		Std Dev	1.5				
	Averag	ge - SAXS	1.9				
	DMA	A - SAXS	- 3.5		- 3.1		
		Allowable Range	Lower Limit:	= BAM Value minus Ur	certaincy = 5.3 nm	1	
		Allowable Nange	Upper Limit:	= BAM Value plus NIST	DMA -SAXS = 9.3 i	nm	
	Justificatio Correct typo	on (If necessary)					
Motio	n	To approve abov	e editorial c	hange(s)			
Motio	n by/2 nd by	By: Paul Kerr / In Second: vyaches		ion / FTD Solutions L	LC		
Discu	ssion	None					
Vote		17 Y 0 N; Motion	passed.				

A2-2.9 Negative: Change "amount" to "number". Reason/Justification: If the desired degree of diafiltration is determined in the number of cycles, then this should be "number of diafiltration cycles", as cycles are countable. If the desired degree is determined by the volume of permeate, then this should be "volume of diafiltration", as volume is measurable, but not countable. The TC Chapter agreed to do one of the following actions. *No motion is required in this step. Already addressed by Commenter #, Comment # Action No further action was taken by the TC Chapter. Refer to the TF for more consideration. New business Editorial change Case 1: No vote in this section: **Options** To be included and voted on as a group in § VI. Editorial Changes Other for than Those Voted on in § V.

Case 2: Voted in this section:

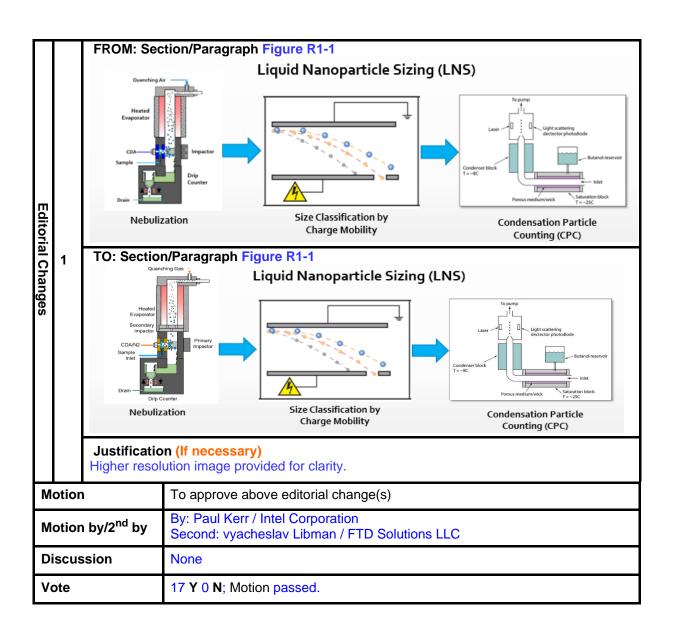
Comment (Created by Handling Negative) NC - 26 (SG47)

editorial

		change (check one)	X	Original section number and at least one full sentence are required in "FROM" and "TO" fields.				
		FROM: S	ectio	on/Paragraph A2-2.9				
Edito		A2-2.9 Repeat steps A2-2.6 and A2-2.7 until the desired amount of diafiltration cycles are completed. The cycle ends with UPW addition, so final volume will be approximately 50 mL.						
rial	1	TO: Sect	TO: Section/Paragraph A2-2.9					
Editorial Changes	•	A2-2.9 Repeat steps A2-2.6 and A2-2.7 until the desired amount number of diafiltration cycles are completed. The cycle ends with UPW addition, so final volume will be approximately 50 mL.						
		Justification (If necessary) Add clarity.						
M	otion		Т	To approve above editorial change(s)				
M	otion	by/2 nd by		By: Paul Kerr / Intel Corporation Second: vyacheslav Libman / FTD Solutions LLC				
Discussion		N	None					
Vote			1	17 Y 0 N; Motion passed.				

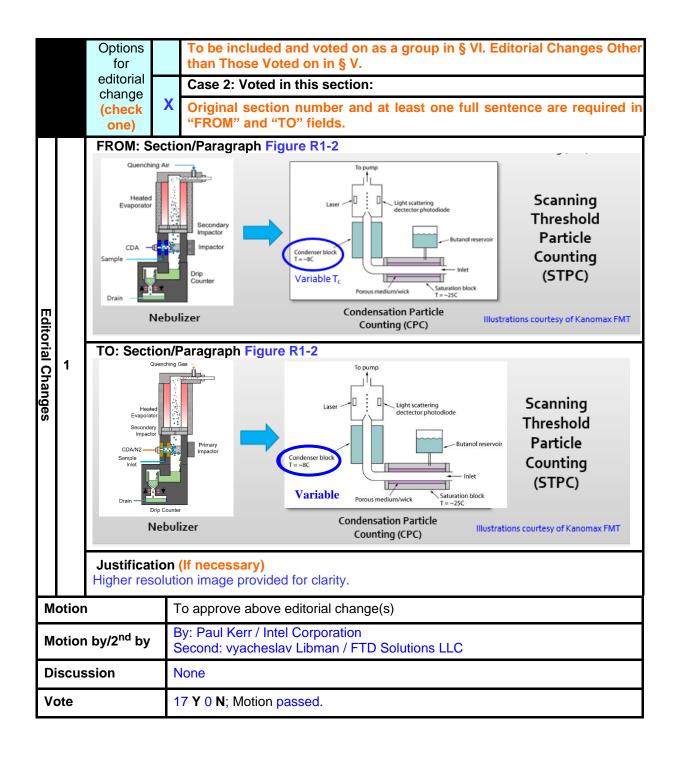
Comment (Created by Handling Negative) NC - 27 (SG49)

Comment	Neg Rea	son/Justific	atior	larger, clear type in the Figure. i: The type in this figure is too small. Enlarging the image results in type to read, but too blurry.				
	The	TC Chapt	er aç	greed to do one of the following actions.				
	*No	*No motion is required in this step.						
Þ		Already addressed by Commenter #, Comment #						
Action		No further action was taken by the TC Chapter.						
٦		Refer to the TF for more consideration.						
		New business						
	X	Editorial c	hang	e				
		Options		Case 1: No vote in this section:				
	for editorial To be included and voted on as a group in § VI. than Those Voted on in § V.			To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.				
		change (check		Case 2: Voted in this section:				
		one)	X	Original section number and at least one full sentence are required in "FROM" and "TO" fields.				



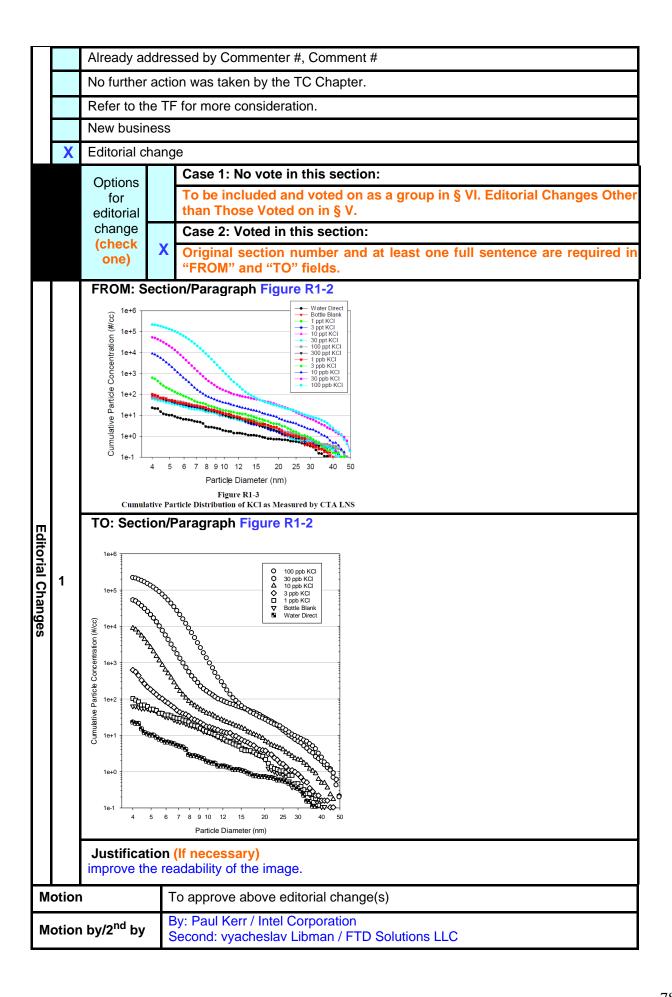
Comment (Created by Handling Negative) NC - 28 (SG50)

Comment	Neg Rea	Figure R1-2 Negative: Provide larger, clear type in the Figure. Reason/Justification: The type in this figure is too small. Enlarging the image results in type that's large enough to read, but too blurry.							
	The	The TC Chapter agreed to do one of the following actions.							
	*No	*No motion is required in this step.							
A		Already addressed by Commenter #, Comment #							
Action		No further action was taken by the TC Chapter.							
ר		Refer to the TF for more consideration.							
		New business							
	X Editorial change								
		Case 1: No vote in this section:							



Comment (Created by Handling Negative) NC - 29 (SG50)

iment (Created by Handling Negative) NC - 29 (SG50)					
Comment	Figure R1-3 Negative: Clarify the Figure Reason/Justification: This graph is hard to read because the symbols for the data points are hard to distinguish by shape at the size provided and many of the curves overlap. As the apparent purpose of including this graph is to convey a concept of particle count as a function of KCI concentration, I suggest providing a simplified graph with the blank and KCI concentrations of 1ppt, 100 ppt, 1ppb, and 100 ppb.				
Acti	The TC Chapter agreed to do one of the following actions.				
	*No motion is required in this step.				



Discussion	None
Vote	17 Y 0 N; Motion passed.

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	/	50	=	96.0%	≥90%

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

Note: See Regulations § 9.6.2 for further information.

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	Th is	This is not a Safety Document , when all safety-related information is removed, the Document is still technically sound and complete. (<i>Regulations</i> ¶ 8.7.1)				
		This is a Safety Document , when all safety-related information is removed, the Document is not technically sound and complete. (<i>Regulations</i> ¶ 8.7.2)					
			Safety Checklist (<i>Regulations</i> ¶ 15.3) is complete and has been included with the Document throughout the balloting process. (<i>Regulations</i> ¶ 15.1.2)				
	Moti	ion	by/2 nd by	By: David Kandiyeli / Mega Fluid Systems, Inc. Second: Laura Ledenbach / Peroxy Chem			
	Discussion			None			
	Vote			17 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 <i>Regulations</i> ¶ 16.3.1.1) to the Standard or Safety Guideline; or, any copyrighted items or trademarks that are used/reproduced (see <i>Regulations</i> ¶ 16.4.1.2) in the Standard or Safety Guideline. (Also see, <i>Regulations</i> § 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.	

X. Action for This Document

		This Document passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review.						
M			This Document passed TC Chapter review with editorial changes and will be forwarded to the SC A&R SC for procedural review.					
Motion	X	editorial ch	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.						
		on by/ ^d by	By: Darren Conner / Evantic Second: Chuck Dale / SUEZ					
Discussion		ussion	None					
Vote		ote	16 Y 0 N					
F	inal	Action	X Motion passed.					
	Filiai Action		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.