

Record of Line-item Letter Ballot Review by TC Chapter for Procedural Review

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

	Scheduled in Background Statement	Actual
Date	11/07/2023	11/07/2023
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.

Document Information

I. Document Number, Title, Lists of Line Items

Document Number	Document Title	
7097	Line-Item Revision to SEMI C54-1116, Specification for Oxygen	
List of Line Items	Line Item 1	Line Item Title Add chemical formula for oxygen in title.
	Line Item 2	Line Item Title Update throughout to comply to Regs, PM and SM.
	Line Item 3	Line Item Title Clarify word usage and SI units in §9 through § 10 per SM.
	Line Item 4	Line Item Title Change “is to”, “may”, “must”, or “should” to “shall” or “should” throughout, where appropriate.

Line Item 1 Adjudication

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	48	÷ 80	= 60.0%	≥60%
Intercommittee Ballot	40			
Voting Interest Reject(s)	1	Total Voters with Rejects		1
Voting Interest Accept(s)	37			

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

III. Rejects

Voting Interest Reject 1 (Voting Interest Name: Guru)

Voter Reject 1 (Voter: Eric Sklar / Safety Guru)

Negative 1 (SG1-1)

Negative	Referenced Section/ Paragraph	*TF/TC Chapter to fill in, including text in the ballot if necessary. SEMI C54-1116, SPECIFICATION FOR OXYGEN (O2) Title			
	Negative Text	Negative: Replace "O2" with "O ₂ " Reason/Justification: Correct typographical error in the formula.			
	Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter.	GO TO "Related" subsection	
Related	Motion and Reason (check one)	<input checked="" type="checkbox"/>	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection	
Persuasive	Motion and Reason (check one)	<input checked="" type="checkbox"/>	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)		
			Reason	Editorial to correct typographical error in formula.	
	Motion by/ 2 nd by	By: Thomas Fritz / WIKA Instrument Corporation Second: Kevin Findleton / Ichor Systems			
	Discussion	None			
	Result of Vote (check one)	<input checked="" type="checkbox"/>	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)	
Final	(check if applicable)	<input type="checkbox"/>	(A)	Withdrawn (counted under h in disposition)	
		<input type="checkbox"/>	(B)	Not related (counted under i in disposition)	
		<input checked="" type="checkbox"/>	(C)	Related and not persuasive (significant)	
		<input type="checkbox"/>	(D)	Not significant (counted under j in disposition)	
		<input type="checkbox"/>	(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS
	<input type="checkbox"/>	(F)	Addressed by technical change (counted under k disposition)		
	(check if applicable)	<input checked="" type="checkbox"/>	Comment generated. See Section V-(ii) Comment # NC-1.		

Disposition of Voting Interest Reject 1

Check only when the Document has not been failed.

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

Note: If all of the Negatives included with a Reject Vote are withdrawn, determined to be not related, or determined to be not significant, the Reject Vote is not valid. (Regulations ¶ 9.4.3.3)

Note: A Negative addressed by a technical change is automatically considered to be not significant. (Regulations ¶ 9.6.1.4.5.2)

IV. Other Technical Issues

None

V. Comments

V- (i) Voters' Comments

None

V-(ii) Comments Created by Handling Negative

Comment (Created by Handling Negative) NC – 1 (SG1-1)

Comme	*TF/TC Chapter to fill in		
	<i>Negative:</i> Replace "O2" with "O ₂ " <i>Reason/Justification:</i> Correct typographical error in the formula.		
Action	The TC Chapter agreed to do one of the following actions.		
	*No motion is required in this step.		
	<input checked="" type="checkbox"/>	Editorial change	
	Options for editorial change (check one)	<input type="checkbox"/>	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.
		<input checked="" type="checkbox"/>	Case 2: Voted in this section: Original section number and at least one full sentence are required in "FROM" and "TO" fields.

Editorial Changes	1	FROM: Section/Paragraph Title SPECIFICATION FOR OXYGEN (O2)
		TO: Section/Paragraph Title SPECIFICATION FOR OXYGEN (O ₂ 2)
		Justification (If necessary) Editorial to correct typographical error.
Motion		To approve above editorial change(s)
Motion by/2nd by		By: Thomas Fritz / WIKA Instrument Corporation Second: Kevin Findleton / Ichor Systems
Discussion		None
Vote		15 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	=	37	/	38	=	97.4%		≥	90%

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

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

Globally Approved (No Ratification Ballot needed):
Line Item 1 meets the Letter Ballot approval conditions for the global technical committee.

Line Item2 Adjudication

II. Tally

Voting Tally (with example values):

Voting Interest:	Returned Votes	Distribution	Return Rate	
Letter Ballot	48	÷ 80	= 60.0%	≥60%
Intercommittee Ballot	13			
Voting Interest Reject(s)	1	Total Voters with Rejects		1
Voting Interest Accept(s)	34			

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

III. Rejects

Voting Interest Reject 1 (Voting Interest Name: **Guru**)

Voter Reject 1 (Voter: **Eric Sklar / Safety Guru**)

Negative 1 (SG2-1)

Negative	Referenced Section/ Paragraph	1.1 1.1 The purpose of this Standard is to provide a series of specifications for different grades of Oxygen (O2) that are used in the semiconductor industry.		
	Negative Text	<p>Negative: Replace "Standard" with "Specification".</p> <p>Reason/Justification: Although SEMI does permit using "Standard" to refer to a document within itself, it is more "reader-friendly" to use "Specification", as that's part of the title of the document. Also, "Specification" is used in ¶2.1 to refer to the same thing and, in technical writing, one should use each term to mean only one thing and only one term to mean each thing, so ¶¶1.1 and 2.1 should be consistent.</p>		
Related	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	GO TO "Related" subsection
	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection
Persuasive	Motion and Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)	
			Reason	Editorial per SM #4-4 (2); The sentence should actually read "This Standard provides a series of..." otherwise it would be redundant and say "specification" twice in the same sentence.
	Motion by/ 2 nd by		By: Jeff Christian / WIKA Instrument Corporation Second: Thomas Fritz / WIKA Instrument Corporation	
	Discussion		None	
Final	Result of Vote (check one)	X	13 Y-0 N; Motion passed.	
	(check if applicable)		2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)
	(A)		Withdrawn (counted under h in disposition)	
	(B)		Not related (counted under i in disposition)	

		X	(C)	Related and not persuasive (significant)	
			(D)	Not significant (counted under j in disposition)	
			(E)	Related and persuasive and not addressed 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-1 (SG2-1).		

This table is needed for each Negative.

Negative 2 (SG2-2)

Negative	Referenced Section/ Paragraph	5.1 (3 places)			
	Negative Text	Negative: Replace "O2" with "02" Reason/Justification: Correct typographical error in the formula.			
Related	Withdrawal (check one)	X	No Negative withdrawal made by Voter.		GO TO "Related" subsection
	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.)		GO TO "Persuasive" subsection
Persuasive	Motion and Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)		
			Reason	Editorial in nature.	
	Motion by/ 2 nd by	By: Max van den Berg / Festo SE & Co. KG Second: Chris Sanders / CBRE			
	Discussion	None			
	Result of Vote (check one)	X	2/3 ≤ [Negative is related and not persuasive.] < 90%		GO TO "Final" subsection → (C)
Final	(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)	
			(D)	Not significant (counted under j in disposition)	
	(check if applicable)	X	Comment generated. See Section V-(ii) Comment # NC-2 (SG2-2)		

Negative 3 (SG2-3)

Negative	Referenced Section/ Paragraph	6.2.2			
		6.2.2. dewpoint — the temperature at which liquid first condenses when cooled. [SEMI C3]			

		<p>Negative Text</p> <p><i>Negative:</i> Correct the definition. <i>Reason/Justification:</i> Liquids do not condense, as liquid is already a condensed state. What condenses is a gas (specifically, in this context, water vapor) which, by condensing, becomes liquid water that is detected by a dewpoint hygrometer. Also, the definition should make it clear that what is condensing is an impurity (water), not the gas being analyzed (oxygen).</p>					
	Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter.		GO TO "Related" subsection		
Related	Motion and Reason (check one)	<input checked="" type="checkbox"/>	'Related' is mutually agreed upon. (Needs no motion.)		GO TO "Persuasive" subsection		
Persuasive	Motion and Reason (check one)	<input checked="" type="checkbox"/>	Negative is related and persuasive. (Needs >1/3 votes to pass.)				
	Motion by/ 2nd by	By: Max van den Berg / Festo SE & Co. KG Second: Yanli Chen / Applied Materials, Inc.					
	Discussion	None					
	Result of Vote (check one)	<input checked="" type="checkbox"/>	[Negative is related and persuasive.] > 1/3	Is a technical change recommended? (check one)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	GO TO "Address by Technical Change Option" subsection
		<input type="checkbox"/>	[Negative is related and not persuasive.] < 2/3		<input type="checkbox"/>	<input type="checkbox"/>	GO TO "Final" subsection → (E)
Address by Technical Change Option	Technical Change Recommendations Original section/paragraph number and at least one full sentence are required in "FROM" and "TO" fields.						
	Technical Changes	1	FROM: Section/Paragraph 6.2.2 6.2.2. dewpoint — the temperature at which liquid first condenses when cooled. [SEMI C3]				
			TO: Section/Paragraph 6.2.2 6.2.2 <i>dewpoint</i> — the temperature at which liquid-water vapor changes to liquid phase at a certain constant pressure first condenses when cooled. [SEMI C3]				
			Justification (if necessary) Definition clarified for technical errors				
	Motion	Negative is addressed by the technical change(s).					
Motion by/2nd by	By: Thomas Fritz / WIKA Instrument Corporation Second: John Zawada / Swagelok						
Discussion	SM: is dewpoint applicable to any pressure? TM: constant pressure						
Result of Vote (check one)	<input checked="" type="checkbox"/>	2/3 ≤ [Negative is addressed by the technical change(s).]	Is a technical change recommended? (check one)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	GO TO "Incorporation of the Technical Change" subsection	
	<input type="checkbox"/>	[Negative is not addressed by the technical change(s).] < 2/3		<input type="checkbox"/>	<input type="checkbox"/>	GO TO "Final" subsection → (E)	
Incorporation of	Motion	To incorporate the technical change(s).					
	Motion by/2nd by	By: Max van den Berg / Festo SE & Co. KG Second: Jeff Christian / WIKA Instrument Corporation					
	Discussion	None					

			14 Y-0 N; Motion passed.		
	Result of Vote (check one)	X	90% ≤ [Agree to incorporate.]	GO TO “Final” subsection → (F)	
			[Disagree to incorporate.] > 10%	GO TO “Final” subsection → (E)	
Final	(check if applicable)		(A)	Withdrawn (counted under h in disposition)	
			(B)	Not related (counted under i in disposition)	
			(C)	Related and not persuasive (significant)	
			(D)	Not significant (counted under j in disposition)	
			(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS
		X	(F)	Addressed by technical change (counted under k disposition)	

Negative 4 (SG2-4)

Negative	Referenced Section/ Paragraph	6.2.3				
		6.2.3 frostpoint — the temperature at which liquid first freezes when cooled.				
	Negative Text	<i>Negative: Correct the definition. Reason/Justification: The frostpoint is the temperature at which, in the case of hygrometry, water vapor sublimates to ice that is detected by the hygrometer. Also, the definition should make it clear that what is subliming is an impurity (water), not the gas being analyzed (oxygen).</i>				
Related	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	GO TO “Related” subsection		
	Motion and Reason (check one)	X	‘Related’ is mutually agreed upon. (Needs no motion.)	GO TO “Persuasive” subsection		
Persuasive	Motion and Reason (check one)	X	Negative is related and persuasive. (Needs >1/3 votes to pass.)			
	Motion by/ 2 nd by	By: Max van den Berg / Festo SE & Co. KG Second: Yanli Chen / Applied Materials, Inc.				
	Discussion	None				
	Result of Vote (check one)	15 Y-0 N; Motion passed.				
		X	[Negative is related and persuasive.] > 1/3	Is a technical change recommended? (check one)	X	Y
		[Negative is related and not persuasive.] < 2/3			N	GO TO “Final” subsection → (E)
Address by	Technical Change Recommendations Original section/paragraph number and at least one full sentence are required in “FROM” and “TO” fields.					

Technical Changes	1	FROM: Section/Paragraph 6.2.3		
		6.2.3 frostpoint — the temperature at which liquid first freezes when cooled.		
		TO: Section/Paragraph 6.2.3		
		6.2.3 <i>frostpoint</i> — the temperature at which liquid water vapor changes to solid phase at a certain constant pressure first freezes when cooled.		
		Justification (if necessary) definition clarified for technical errors		
Motion		Negative is addressed by the technical change(s).		
Motion by/2nd by		By: Thomas Fritz / WIKA Instrument Corporation Second: John Zawada / Swagelok		
Discussion		None		
Result of Vote (check one)		15 Y-0 N; Motion passed.		
	<input checked="" type="checkbox"/>	2/3 ≤ [Negative is addressed by the technical change(s).]	GO TO “Incorporation of the Technical Change” subsection	
	<input type="checkbox"/>	[Negative is not addressed by the technical change(s).] < 2/3	GO TO “Final” subsection → (E)	
Incorporation of the Technical Change	Motion		To incorporate the technical change(s).	
	Motion by/2nd by		By: Max van den Berg / Festo SE & Co. KG Second: Jeff Christian / WIKA Instrument Corporation	
	Discussion		None	
	Result of Vote (check one)		14 Y-0 N; Motion passed.	
	<input checked="" type="checkbox"/>	90% ≤ [Agree to incorporate.]	GO TO “Final” subsection → (F)	
	<input type="checkbox"/>	[Disagree to incorporate.] > 10%	GO TO “Final” subsection → (E)	
Final	<input type="checkbox"/>	(A)	Withdrawn (counted under h in disposition)	
	<input type="checkbox"/>	(B)	Not related (counted under i in disposition)	
	<input type="checkbox"/>	(C)	Related and not persuasive (significant)	
	<input type="checkbox"/>	(D)	Not significant (counted under j in disposition)	
	<input type="checkbox"/>	(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS
	<input checked="" type="checkbox"/>	(F)	Addressed by technical change (counted under k disposition)	

Disposition of Voting Interest Reject 1

Check only when the Document has not been failed.

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

2	Number of Negatives addressed by technical change (Negative becomes not significant)		(k)
Final		$g - (h + i + j + k) = 0$	Reject is Not Valid and is not included in the denominator of § VI. <i>Approval Conditions Check</i>
	X	$g - (h + i + j + k) > 0$	Reject is included in the denominator of § VI. <i>Approval Conditions Check</i>
		Reject without a Negative	Not Valid

Note: If all of the Negatives included with a Reject Vote are withdrawn, determined to be not related, or determined to be not significant, the Reject Vote is not valid. (*Regulations ¶ 9.4.3.3*)

Note: A Negative addressed by a technical change is automatically considered to be not significant. (*Regulations ¶ 9.6.1.4.5.2*)

IV. Other Technical Issues

None

V. Comments

V- (i) Voters' Comments

None

V-(ii) Comments Created by Handling Negative

Comment (Created by Handling Negative) NC – 1 (SG2-1)

Comment	*TF/TC Chapter to fill in		
	<p><i>Negative:</i> Replace "Standard" with "Specification".</p> <p><i>Reason/Justification:</i> Although SEMI does permit using "Standard" to refer to a document within itself, it is more "reader-friendly" to use "Specification", as that's part of the title of the document. Also, "Specification" is used in ¶2.1 to refer to the same thing and, in technical writing, one should use each term to mean only one thing and only one term to mean each thing, so ¶¶1.1 and 2.1 should be consistent.</p>		
Action	The TC Chapter agreed to do one of the following actions.		
	*No motion is required in this step.		
	X	Editorial change	
Options for editorial change (check one)		Case 1: No vote in this section:	
		To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.	
	X	Case 2: Voted in this section:	
		Original section number and at least one full sentence are required in "FROM" and "TO" fields.	
Editorial	1	FROM: Section/Paragraph 1.1 1.1 The purpose of this Standard is to provide a series of specifications for different grades of Oxygen (O ₂) that are used in the semiconductor industry.	

	<p>TO: Section/Paragraph 1.1</p> <p>1.1 The purpose of tThis Standard is to provides a series of specifications for different grades of Oxygen (O₂) that are used in the semiconductor industry.</p>
	<p>Justification (If necessary) Editorial per SM #4-4 (2); The sentence should actually read “This Standard provides a series of...” otherwise it would be redundant and say “specification” twice in the same sentence.</p>
Motion	To approve above editorial change(s)
Motion by/2nd by	By: Max van den Berg / Festo SE & Co. KG Second: Chris Sanders / CBRE
Discussion	None
Vote	13 Y-0 N; Motion passed.

This table is needed for each Comment created by handling Negative.

Comment (Created by Handling Negative) NC – 2 (SG2-2)

Comme	*TF/TC Chapter to fill in	
	<i>Negative:</i> Replace “O2” with “O ₂ ” <i>Reason/Justification:</i> Correct typographical error in the formula.	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	<input checked="" type="checkbox"/>	Editorial change
Options for editorial change (check one)	<input type="checkbox"/>	Case 1: No vote in this section:
	<input type="checkbox"/>	To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.
	<input checked="" type="checkbox"/>	Case 2: Voted in this section:
		Original section number and at least one full sentence are required in “FROM” and “TO” fields.
Editorial Changes	1	FROM: Section/Paragraph 5.1
		SEMI C3.22 — Standard for Oxygen (O ₂), 99.5% Quality
		SEMI C3.23 — Standard for Oxygen (O ₂), 99.98% Quality
		SEMI C3.41 — Standard for Oxygen (O ₂), Bulk, 99.9998% Quality
		TO: Section/Paragraph 5.1
		SEMI C3.22 — Standard for Oxygen (O ₂), 99.5% Quality
		SEMI C3.23 — Standard for Oxygen (O ₂), 99.98% Quality
		SEMI C3.41 — Standard for Oxygen (O ₂), Bulk, 99.9998% Quality
		Justification (If necessary) Editorial in nature.
Motion	To approve above editorial change(s)	
Motion by/2nd by	By: Max van den Berg / Festo SE & Co. KG Second: Chris Sanders / CBRE	
Discussion	None	
Vote	13 Y-0 N; Motion passed.	

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

VII. Approval Conditions Check

VII. - (i). Approval Rate

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

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

Globally Approved (No Ratification Ballot needed):

Line Item 2 meets the Letter Ballot approval conditions for the global technical committee.

Need a Ratification Ballot:

Line Item 2 meets the Letter Ballot approval conditions for the TC Chapter and a Ratification Ballot will be issued to validate technical changes.

Line Item 3 Adjudication

II. Tally

Voting Tally (with example values):

Voting Interest:	Returned Votes	Distribution	Return Rate	
Letter Ballot	48	÷ 80	= 60.0%	≥60%
Intercommittee Ballot	40			
Voting Interest Reject(s)	1	Total Voters with Rejects		1
Voting Interest Accept(s)	38			

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

III. Rejects

Voting Interest Reject 1 (Voting Interest Name: **Guru**)

Voter Reject 1 (Voter: **Eric Sklar / Safety Guru**)

Negative 1 (SG3-1)

Negative	Referenced Section/ Paragraph	9.1.4.1, 9.1.4.2, 10.2.2.3, 10.3.2.3, 10.3.4.1, 10.3.4.2, 10.3.4.3, 10.5.4.1, 10.5.4.2, 10.5.4.3
	Negative Text	<i>Negative: Change “pressure as specified” to “pressure specified”. Reason/Justification: Correct grammar. Using “as” means “in the manner in which”, but the instruction is to pressurize to the pressure that is specified by the cell manufacturer, not to pressurize the cell in the manner in which the cell manufacturer provided the pressure specification.</i>

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)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)			
Persuasive			Reason	Editorial in nature, grammar.		
	Motion by/ 2 nd by	By: Thomas Fritz / WIKA Instrument Corporation Second: Chris Sanders / CBRE				
	Discussion	Max: no value added				
	Result of Vote (check one)	17 Y- 0 N; Motion passed.				
		X	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)		
Final	(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)		
			(D)	Not significant (counted under j in disposition)		
			(E)	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 generated. See Section V-(ii) Comment # NC-1 (SG3-1).			

IV. Other Technical Issues

None

V. Comments

V- (i) Voters' Comments

None

V-(ii) Comments Created by Handling Negative

Comment (Created by Handling Negative) NC – 1 (SG3-1)

Comment	*TF/TC Chapter to fill in	
	<i>Negative: Change "pressure as specified" to "pressure specified". Reason/Justification: Correct grammar. Using "as" means "in the manner in which", but the instruction is to pressurize to the pressure that is specified by the cell manufacturer, not to pressurize the cell in the manner in which the cell manufacturer provided the pressure specification.</i>	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	X	Editorial change

		<p>Case 2: Voted in this section:</p> <p>X Original section number and at least one full sentence are required in "FROM" and "TO" fields.</p>
<p>Editorial Changes</p> <p>1</p>		<p>FROM: Section/Paragraph 9.1.4.1, 9.1.4.2, 10.2.2.3, 10.3.2.3, 10.3.4.1, 10.3.4.2, 10.3.4.3, 10.5.4.1, 10.5.4.2, 10.5.4.3</p> <p>9.1.4.1 Pressurize the evacuated gas cell with the calibration standard to the pressure as specified by the gas cell manufacturer, e.g., 345 kPa (50 psia). Scan the following wave numbers for absorbance: carbon monoxide 2172 cm⁻¹, nitrous oxide 2235 cm⁻¹, and carbon dioxide 2360 cm⁻¹.</p> <p>9.1.4.2 Evacuate the cell and pressurize gas cell with the oxygen sample standard to the pressure as specified by the gas cell manufacturer, e.g., 345 kPa (50 psia). Scan the appropriate wave numbers as in ¶ 9.1.4.1.</p> <p>10.2.2.3 Sample Cell Pressure — appropriate pressure as recommended by the cell manufacturer, e.g., 1.379 MPa (200 psig) for full scale range 0 to 20 ppm carbon monoxide or.</p> <p>10.3.2.3 Sample Cell Pressure — appropriate pressure as recommended by the cell manufacturer, e.g., 689 kPa (100 psig) for full scale range 0 to 5 ppm carbon dioxide, 1.379 MPa (200 psig) for 0 to 2.5 ppm carbon dioxide.</p> <p>10.3.4.1 Open the zero gas (prepurified nitrogen or pure oxygen, independently measured to be less than 0.1 ppm CO₂) cylinder valve. Open valve V1, close valves V2 and V3. Flow the gas through the system and adjust the back pressure regulator to appropriate pressure as recommended by the cell manufacturer, e.g., 689 kPa (100 psig) as shown on gauge G. Adjust the flowrate on the flowmeter to 1000 cc/minute by adjusting valve V1. After a constant readout is observed, adjust the zero control knob of the analyzer to set the absorbance output to read zero.</p> <p>10.3.4.2 Open the calibration gas standard cylinder valve. Close V1 and V2, and open valve V3. Flow the calibration gas through the system and adjust the back pressure regulator to appropriate pressure as recommended by the cell manufacturer, e.g., 689 kPa (100 psig). Adjust the flowrate on the flowmeter to 1000 cc/minute. After a constant readout is observed, record the absorbance of the calibration standard, if the instrument indicates absorbance directly. If the instrument indicates concentration, adjust the span control to read the concentration of carbon dioxide in the calibration gas.</p> <p>10.3.4.3 Introduce the oxygen sample into the analyzer by closing valves V1 and V3, opening valve V4 and slowly opening valve V2 until the flowrate on the flowmeter is 1000 cc/minute. Adjust the back pressure regulator to appropriate pressure as recommended by the cell manufacturer, 689 kPa (100 psig). If the instrument indicates absorbance, read the absorbance of the sample and calculate the quantity of carbon dioxide, using the formula below. If the instrument indicates concentration, record the concentration. The results shall not exceed the specification in § 7 of this Standard.</p> <p>10.5.2.3 Sample Cell Pressure — 1.379 MPa (200 psig) for full scale range 0 to 5 ppm nitrous oxide or appropriate pressure as recommended by the cell manufacturer.</p> <p>10.5.4.1 Open the zero gas (pre-purified nitrogen or certified pure oxygen, independently measured to be less than 0.1 ppm N₂O) cylinder valve. Open valve V1, close valves V2 and V3. Flow the gas through the system and adjust the back pressure regulator to pressure as recommended by the cell manufacturer, e.g., 1.379 MPa (200 psig) as shown on gauge G. Adjust the flowrate on the flowmeter to 1000 cc/minute by adjusting valve V1. After a constant readout is observed, adjust the zero control knob of the analyzer to set the absorbance output to read zero.</p> <p>10.5.4.2 Open the calibration gas standard cylinder valve. Close V1 and V2, and open valve V3. Flow the calibration gas through the system and adjust the back pressure regulator to pressure as recommended by the cell manufacturer, e.g., 1.379 MPa (200 psig). Adjust the flowrate on the flowmeter to 1000 cc/minute. After a constant readout is observed, record the absorbance of the calibration standard, if the instrument indicates absorbance directly. If the instrument indicates concentration, adjust the span control to read the concentration of nitrous oxide in the calibration gas.</p> <p>10.5.4.3 Introduce the oxygen sample into the analyzer by closing valves V1 and V3, opening Valve V4 and slowly opening valve V2 until the flowrate on the flowmeter is 1000 cc/minute. Adjust the back pressure regulator to pressure as recommended by the cell manufacturer, e.g., 1.379 MPa (200 psig). Read the absorbance of the sample and calculate the quantity of nitrous oxide, using the formula below. If the instrument indicates concentration, record the concentration. The result shall not exceed the specification in § 7 of this Standard.</p>

TO: Section/Paragraph 9.1.4.1, 9.1.4.2, 10.2.2.3, 10.3.2.3, 10.3.4.1, 10.3.4.2, 10.3.4.3, 10.5.4.1, 10.5.4.2, 10.5.4.3

9.1.4.1 Pressurize the evacuated gas cell with the calibration standard to the pressure ~~as~~ specified by the gas cell manufacturer, e.g., 345 kPa (50 psia). Scan the following wave numbers for absorbance: carbon monoxide 2172 cm^{-1} , nitrous oxide 2235 cm^{-1} , and carbon dioxide 2360 cm^{-1} .

9.1.4.2 Evacuate the cell and pressurize gas cell with the oxygen sample standard to the pressure ~~as~~ specified by the gas cell manufacturer, e.g., 345 kPa (50 psia). Scan the appropriate wave numbers as in ¶ 9.1.4.1.

10.2.2.3 Sample Cell Pressure — appropriate pressure ~~as~~ recommended by the cell manufacturer, e.g., 1.379 MPa (200 psig) for full scale range 0 to 20 ppm carbon monoxide or.

10.3.2.3 Sample Cell Pressure — appropriate pressure ~~as~~ recommended by the cell manufacturer, e.g., 689 kPa (100 psig) for full scale range 0 to 5 ppm carbon dioxide, 1.379 MPa (200 psig) for 0 to 2.5 ppm carbon dioxide.

10.3.4.1 Open the zero gas (prepurified nitrogen or pure oxygen, independently measured to be less than 0.1 ppm CO₂) cylinder valve. Open valve V1, close valves V2 and V3. Flow the gas through the system and adjust the back pressure regulator to appropriate pressure ~~as~~ recommended by the cell manufacturer, e.g., 689 kPa (100 psig) as shown on gauge G. Adjust the flowrate on the flowmeter to 1000 cc/minute by adjusting valve V1. After a constant readout is observed, adjust the zero control knob of the analyzer to set the absorbance output to read zero.

10.3.4.2 Open the calibration gas standard cylinder valve. Close V1 and V2, and open valve V3. Flow the calibration gas through the system and adjust the back pressure regulator to appropriate pressure ~~as~~ recommended by the cell manufacturer, e.g., 689 kPa (100 psig). Adjust the flowrate on the flowmeter to 1000 cc/minute. After a constant readout is observed, record the absorbance of the calibration standard, if the instrument indicates absorbance directly. If the instrument indicates concentration, adjust the span control to read the concentration of carbon dioxide in the calibration gas.

10.3.4.3 Introduce the oxygen sample into the analyzer by closing valves V1 and V3, opening valve V4 and slowly opening valve V2 until the flowrate on the flowmeter is 1000 cc/minute. Adjust the back pressure regulator to appropriate pressure ~~as~~ recommended by the cell manufacturer, 689 kPa (100 psig). If the instrument indicates absorbance, read the absorbance of the sample and calculate the quantity of carbon dioxide, using the formula below. If the instrument indicates concentration, record the concentration. The results shall not exceed the specification in § 7 of this Standard.

10.5.2.3 Sample Cell Pressure — 1.379 MPa (200 psig) for full scale range 0 to 5 ppm nitrous oxide or appropriate pressure ~~as~~ recommended by the cell manufacturer.

10.5.4.1 Open the zero gas (pre-purified nitrogen or certified pure oxygen, independently measured to be less than 0.1 ppm N₂O) cylinder valve. Open valve V1, close valves V2 and V3. Flow the gas through the system and adjust the back pressure regulator to pressure ~~as~~ recommended by the cell manufacturer, e.g., 1.379 MPa (200 psig) as shown on gauge G. Adjust the flowrate on the flowmeter to 1000 cc/minute by adjusting valve V1. After a constant readout is observed, adjust the zero control knob of the analyzer to set the absorbance output to read zero.

10.5.4.2 Open the calibration gas standard cylinder valve. Close V1 and V2, and open valve V3. Flow the calibration gas through the system and adjust the back pressure regulator to pressure ~~as~~ recommended by the cell manufacturer, e.g., 1.379 MPa (200 psig). Adjust the flowrate on the flowmeter to 1000 cc/minute. After a constant readout is observed, record the absorbance of the calibration standard, if the instrument indicates absorbance directly. If the instrument indicates concentration, adjust the span control to read the concentration of nitrous oxide in the calibration gas.

10.5.4.3 Introduce the oxygen sample into the analyzer by closing valves V1 and V3, opening Valve V4 and slowly opening valve V2 until the flowrate on the flowmeter is 1000 cc/minute. Adjust the back pressure regulator to pressure ~~as~~ recommended by the cell manufacturer, e.g., 1.379 MPa (200 psig). Read the absorbance of the sample and calculate the quantity of nitrous oxide, using the formula below. If the instrument indicates concentration, record the concentration. The result shall not exceed the specification in § 7 of this Standard.

Justification (If necessary)
Editorial in nature, grammar.

Motion	To approve above editorial change(s)
Motion by/2nd by	By: Jeff Christian / WIKA Instrument Corporation Second: Yanli Chen / Applied Materials, Inc.
Discussion	None
Vote	13 Y-0 N; Motion passed.

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

VII. Approval Conditions Check

VII. - (i). Approval Rate

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

Note: See Regulations § 9.6.2 for further information.

Globally Approved (No Ratification Ballot needed):

Line Item 3 meets the Letter Ballot approval conditions for the global technical committee.

Need a Ratification Ballot:

Line Item 3 meets the Letter Ballot approval conditions for the TC Chapter and a Ratification Ballot will be issued to validate technical changes.

Line Item 4 Adjudication

II. Tally

Voting Tally (with example values):

Voting Interest:	Returned Votes	Distribution	Return Rate	
Letter Ballot	48	÷ 80	= 60.0%	≥60%
Intercommittee Ballot	40			
Voting Interest Reject(s)	1	Total Voters with Rejects		1
Voting Interest Accept(s)	37			

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

III. Rejects

Voting Interest Reject 1 (Voting Interest Name: **Guru**)

Voter Reject 1 (Voter: **Eric Sklar / Safety Guru**)

Negative 1 (SG4-1)

Negative	Referenced Section/ Paragraph	9.2.4.1		
	Negative Text	<i>Negative:</i> Remove the parenthetical reference to the NOTE. <i>Reason/Justification:</i> NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs.		
	Withdrawal (check one)	<input checked="" type="checkbox"/> No Negative withdrawal made by Voter.	GO TO "Related" subsection	
Related	Motion and Reason (check one)	<input checked="" type="checkbox"/> 'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection	
Persuasive	Motion and Reason (check one)	<input checked="" type="checkbox"/> Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)		
		Reason	NOTEs are not normative parts of the document; therefore, they are removed.	
	Motion by/ 2 nd by	By: Thomas Fritz / WIKA Instrument Corporation Second: Max van den Berg / Festo SE & Co. KG		
	Discussion	None		
	Result of Vote (check one)	<input checked="" type="checkbox"/> 2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)	
Final	(check if applicable)	<input type="checkbox"/> (A)	Withdrawn (counted under h in disposition)	
		<input type="checkbox"/> (B)	Not related (counted under i in disposition)	
		<input checked="" type="checkbox"/> (C)	Related and not persuasive (significant)	
		<input type="checkbox"/> (D)	Not significant (counted under j in disposition)	
		<input type="checkbox"/> (E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS
		<input type="checkbox"/> (F)	Addressed by technical change (counted under k disposition)	
	(check if applicable)	<input checked="" type="checkbox"/>	Comment generated. See Section V-(ii) Comment # NC-1 (SG4-1).	

This table is needed for each Negative.

Negative 2 (SG4-2)

Negative	Referenced Section/ Paragraph	NOTE 1
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	Negative Text	<p><i>Negative:</i> Either convert this to a numbered paragraph or rewrite it as a declarative, rather than imperative, sentence.</p> <p><i>Reason/Justification:</i> NOTES are not normative and are not permitted to instruct one to do anything or to define any requirements. If this is meant as advice that one is free to ignore while performing the procedure, rewrite it as a statement, not an instruction, such as "It is recommended that one introduce....".</p> <p>Contrarily, if this is meant as an instruction that must be followed for the procedure to be valid, make it normative by converting it to a numbered paragraph.</p>				
	Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter.	GO TO "Related" subsection		
Related	Motion and Reason (check one)	<input checked="" type="checkbox"/>	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection		
Persuasive	Motion and Reason (check one)	<input checked="" type="checkbox"/>	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)			
			Reason	Editorial, NOTES are not official content.		
	Motion by/ 2nd by	By: Max van den Berg / Festo SE & Co. KG Second: Jeff Christian / WIKA Instrument Corporation				
	Discussion	None				
	Result of Vote (check one)	<input checked="" type="checkbox"/>	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)		
Final	(check if applicable)	<input type="checkbox"/>	(A)	Withdrawn (counted under h in disposition)		
		<input type="checkbox"/>	(B)	Not related (counted under i in disposition)		
		<input checked="" type="checkbox"/>	(C)	Related and not persuasive (significant)		
		<input type="checkbox"/>	(D)	Not significant (counted under j in disposition)		
		<input type="checkbox"/>	(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS	
		<input type="checkbox"/>	(F)	Addressed by technical change (counted under k disposition)		
	(check if applicable)	<input checked="" type="checkbox"/>	Comment generated. See Section V-(ii) Comment # NC-2 (SG4-2).			

Negative 3 (SG4-3)

Negative	Referenced Section/ Paragraph	9.3		
	Negative Text	<p><i>Negative:</i> Remove the parenthetical reference to the NOTE.</p> <p><i>Reason/Justification:</i> NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs.</p>		
	Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter.	GO TO "Related" subsection
Related	Motion and Reason (check one)	<input checked="" type="checkbox"/>	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection
	Motion and Reason	<input checked="" type="checkbox"/>	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)	

Persuasive	(check one)	Reason	NOTEs are not normative parts of the document; therefore, they are removed.		
	Motion by/ 2 nd by	By: Thomas Fritz / WIKA Instrument Corporation Second: Max van den Berg / Festo SE & Co. KG			
	Discussion	None			
	Result of Vote (check one)	14 Y-0 N; Motion passed.			
	X	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)		
Final	(check if applicable)	<input type="checkbox"/>	(A)	Withdrawn (counted under h in disposition)	
		<input type="checkbox"/>	(B)	Not related (counted under i in disposition)	
		X	(C)	Related and not persuasive (significant)	
		<input type="checkbox"/>	(D)	Not significant (counted under j in disposition)	
		<input type="checkbox"/>	(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS
		<input type="checkbox"/>	(F)	Addressed by technical change (counted under k disposition)	
	(check if applicable)	X	Comment generated. See Section V-(ii) Comment # NC-3 (SG4-3).		

Negative 4 (SG4-4)

Negative	Referenced Section/ Paragraph	NOTE 3, 4		
	Negative Text	<i>Negative:</i> Either convert these to numbered paragraphs or rewrite them as a declarative, rather than imperative, sentences. <i>Reason/Justification:</i> NOTEs are not normative and are not permitted to instruct one to do anything or to define any requirements.		
	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
Persuasive	Motion and Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)	
			Reason	Editorial, NOTEs are not official content.
	Motion by/ 2 nd by	By: Max van den Berg / Festo SE & Co. KG Second: Jeff Christian / WIKA Instrument Corporation		
	Discussion	None		
	Result of Vote (check one)	13 Y-0 N; Motion passed.		
	X	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)	
Final	(check if applicable)	<input type="checkbox"/>	(A)	Withdrawn (counted under h in disposition)
		<input type="checkbox"/>	(B)	Not related (counted under i in disposition)
		X	(C)	Related and not persuasive (significant)
		<input type="checkbox"/>	(D)	Not significant (counted under j in disposition)
		<input type="checkbox"/>	(E)	Related and persuasive and not addressed by technical change

		(F)	Addressed by technical change (counted under k disposition)
(check if applicable)	X	Comment generated. See Section V-(ii) Comment # NC-4 (SG4-4).	

Negative 5 (SG4-5)

Negative	Referenced Section/ Paragraph	9.4		
	Negative Text	<i>Negative:</i> Remove the parenthetical reference to the NOTE. <i>Reason/Justification:</i> NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs.		
Related	Withdrawal (check one)	X	No Negative withdrawal made by Voter. GO TO "Related" subsection	
	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection	
Persuasive	Motion and Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)	
			Reason: NOTES are not normative parts of the document; therefore, they are removed.	
	Motion by/ 2 nd by	By: Thomas Fritz / WIKA Instrument Corporation Second: Max van den Berg / Festo SE & Co. KG		
	Discussion	None		
	Result of Vote (check one)	14 Y-0 N; Motion passed.		
	X	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)	
Final	(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)	
			(D) Not significant (counted under j in disposition)	
			(E) 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 generated. See Section V-(ii) Comment # NC-5 (SG4-5).	

Negative 6 (SG4-6)

Negative	Referenced Section/ Paragraph	NOTE 5	
	Negative Text	<i>Negative:</i> Either convert these to numbered paragraphs or rewrite them as a declarative, rather than imperative, sentences. <i>Reason/Justification:</i> NOTES are not normative and are not permitted to instruct one to do anything or to define any requirements.	
	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)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)	
Persuasive	Reason		Editorial, NOTES are not official content.	
	Motion by/ 2 nd by		By: Max van den Berg / Festo SE & Co. KG Second: Jeff Christian / WIKA Instrument Corporation	
	Discussion		None	
	Result of Vote (check one)		13 Y-0 N; Motion passed.	
		X	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)
Final	(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)	
			(D) Not significant (counted under j in disposition)	
			(E) 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 generated. See Section V-(ii) Comment # NC-6 (SG4-6).	

Negative 7 (SG4-7)

Negative	Referenced Section/ Paragraph		9.5	
	Negative Text		Negative: Remove the parenthetical reference to the NOTE. Reason/Justification: NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs.	
	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)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)	
Persuasive	Reason		NOTEs are not normative parts of the document; therefore, they are removed.	
	Motion by/ 2 nd by		By: Thomas Fritz / WIKA Instrument Corporation Second: Max van den Berg / Festo SE & Co. KG	
	Discussion		None	
	Result of Vote (check one)		14 Y-0 N; Motion passed.	
		X	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)
Final			(A) Withdrawn (counted under h in disposition)	

(check if applicable)	<input type="checkbox"/>	(B)	Not related (counted under i in disposition)	
	<input checked="" type="checkbox"/>	(C)	Related and not persuasive (significant)	
	<input type="checkbox"/>	(D)	Not significant (counted under j in disposition)	
	<input type="checkbox"/>	(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS
	<input type="checkbox"/>	(F)	Addressed by technical change (counted under k disposition)	
(check if applicable)	<input checked="" type="checkbox"/>	Comment generated. See Section V-(ii) Comment # NC-7 (SG-7) .		

Negative 8 (SG4-8)

Negative	Referenced Section/ Paragraph	NOTE 8				
	Negative Text	<p><i>Negative:</i> Rewrite to identify by whom or what this is "required".</p> <p><i>Reason/Justification:</i> It is permissible for a NOTE to state that something is required, either by the present document or by something else, but it is not permissible for a NOTE to, itself, "require" anything, as NOTES are advisory, not normative. The present writing of NOTE 8 appears to be intended to state a requirement of C54.</p>				
Related	Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter.	GO TO "Related" subsection		
	Motion and Reason (check one)	<input checked="" type="checkbox"/>	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection		
Persuasive	Motion and Reason (check one)	<input checked="" type="checkbox"/>	Negative is related and persuasive. (Needs >1/3 votes to pass.)			
	Motion by/ 2 nd by	By: Thomas Fritz / WIKA Instrument Corporation Second: Yanli Chen / Applied Materials, Inc.				
	Discussion	None				
	Result of Vote (check one)	11 Y-0 N; Motion passed.				
		<input checked="" type="checkbox"/>	[Negative is related and persuasive.] > 1/3	Is a technical change recommended? (check one)	<input checked="" type="checkbox"/>	Y
<input type="checkbox"/>	[Negative is related and not persuasive.] < 2/3		<input type="checkbox"/>	N	GO TO "Final" subsection → (E)	
Address by Technical Change Option	Technical Change Recommendations					
	Original section/paragraph number and at least one full sentence are required in "FROM" and "TO" fields.					
Technical Changes	1	FROM: Section/Paragraph NOTE 8				
		NOTE 8: This procedure will be required only immediately after changing the test solution or contaminating the apparatus with air.				
		TO: Section/Paragraph NOTE 8				
		NOTE 8: EXCEPTION: This procedure in ¶9.5.4.1 is will be required only immediately after changing the test solution or contaminating the apparatus with air.				

		Justification (if necessary) Rewritten to clarify what is “required”. This is no longer a NOTE and cannot be revised as an editorial change.		
	Motion	Negative is addressed by the technical change(s).		
	Motion by/2nd by	By: John Zawada / Swagelok Second: Jeff Christian / WIKA Instrument Corporation		
	Discussion	None		
	Result of Vote (check one)	13 Y-0 N; Motion passed.		
		<input checked="" type="checkbox"/>	2/3 ≤ [Negative is addressed by the technical change(s).] GO TO “Incorporation of the Technical Change” subsection	
		<input type="checkbox"/>	[Negative is not addressed by the technical change(s).] < 2/3 GO TO “Final” subsection → (E)	
	Incorporation of the Technical Change	Motion	To incorporate the technical change(s).	
		Motion by/2nd by	By: Jeff Christian / WIKA Instrument Corporation Second: John Zawada / Swagelok	
		Discussion	None	
		Result of Vote (check one)	12 Y-0 N; Motion passed.	
	<input checked="" type="checkbox"/>		90% ≤ [Agree to incorporate.] GO TO “Final” subsection → (F)	
	<input type="checkbox"/>		[Disagree to incorporate.] > 10% GO TO “Final” subsection → (E)	
Final	(check if applicable)	<input type="checkbox"/>	(A) Withdrawn (counted under h in disposition)	
		<input type="checkbox"/>	(B) Not related (counted under i in disposition)	
		<input type="checkbox"/>	(C) Related and not persuasive (significant)	
		<input type="checkbox"/>	(D) Not significant (counted under j in disposition)	
		<input type="checkbox"/>	(E) Related and persuasive and not addressed by technical change DOCUMENT FAILS	
		<input checked="" type="checkbox"/>	(F) Addressed by technical change (counted under k disposition)	
	(check if applicable)	<input type="checkbox"/>	Comment generated. See Section V-(ii) Comment # X.	

Negative 9 (SG4-9)

Negative	Referenced Section/ Paragraph	10	
	Negative Text	<i>Negative: Remove the parenthetical reference to the NOTE. Reason/Justification: NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs. Also, NOTE 1 follows ¶9.2.4.1, not ¶9.2.1.1.</i>	
	Withdrawal (check one)	<input checked="" type="checkbox"/> No Negative withdrawal made by Voter.	GO TO “Related” subsection
Related	Motion and Reason (check one)	<input checked="" type="checkbox"/> ‘Related’ is mutually agreed upon. (Needs no motion.)	GO TO “Persuasive” subsection

Persuasive	Motion and Reason (check one)	<input checked="" type="checkbox"/>	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)			
			Reason	NOTEs are not normative parts of the document; therefore, they are removed.		
	Motion by/ 2 nd by	By: Thomas Fritz / WIKA Instrument Corporation Second: Max van den Berg / Festo SE & Co. KG				
	Discussion	None				
	Result of Vote (check one)	14 Y-0 N; Motion passed.				
	<input checked="" type="checkbox"/>	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)			
Final	(check if applicable)	<input type="checkbox"/>	(A)	Withdrawn (counted under h in disposition)		
		<input type="checkbox"/>	(B)	Not related (counted under i in disposition)		
		<input checked="" type="checkbox"/>	(C)	Related and not persuasive (significant)		
		<input type="checkbox"/>	(D)	Not significant (counted under j in disposition)		
		<input type="checkbox"/>	(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS	
		<input type="checkbox"/>	(F)	Addressed by technical change (counted under k disposition)		
	(check if applicable)	<input checked="" type="checkbox"/>	Comment generated. See Section V-(ii) Comment # NC8 (SG4-9).			

Negative 10 (SG4-10)

Negative	Referenced Section/ Paragraph	NOTE 9			
	Negative Text	<i>Negative:</i> Either convert this to a numbered paragraph or rewrite it as a declarative, rather than imperative, sentence. <i>Reason/Justification:</i> NOTEs are not normative and are not permitted to instruct one to do anything or to define any requirements.			
	Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter.		GO TO "Related" subsection
Related	Motion and Reason (check one)	<input checked="" type="checkbox"/>	'Related' is mutually agreed upon. (Needs no motion.)		GO TO "Persuasive" subsection
Persuasive	Motion and Reason (check one)	<input checked="" type="checkbox"/>	Negative is related and persuasive. (Needs >1/3 votes to pass.)		
	Motion by/ 2 nd by	By: Thomas Fritz / WIKA Instrument Corporation Second: Yanli Chen / Applied Materials, Inc.			
	Discussion	None			
	Result of Vote (check one)	11 Y-0 N; Motion passed.			
		<input checked="" type="checkbox"/>	[Negative is related and persuasive.] > 1/3	Is a technical change recommended? (check one)	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	[Negative is related and not persuasive.] < 2/3		<input type="checkbox"/>	N GO TO "Final" subsection → (E)
Add res	Technical Change Recommendations Original section/paragraph number and at least one full sentence are required in "FROM" and "TO" fields.				

Technical Changes	1	FROM: Section/Paragraph NOTE 9 NOTE 9: All gases used in the analysis of the sample shall contain no more than 10% of the sample value of the component of interest unless otherwise specified.			
		TO: Section/Paragraph NOTE 9 NOTE-9: 10.1 All gases used in the analysis of the sample shall contain no more than 10% of the sample value of the component of interest unless otherwise specified.			
		Justification (if necessary) Converted to a numbered paragraph. This is no longer a NOTE and cannot be revised as an editorial change.			
		Motion Negative is addressed by the technical change(s).			
		Motion by/2 nd by By: John Zawada / Swagelok Second: Jeff Christian / WIKA Instrument Corporation			
		Discussion None			
		13 Y-0 N; Motion passed.			
		<input checked="" type="checkbox"/>	2/3 ≤ [Negative is addressed by the technical change(s).]	GO TO "Incorporation of the Technical Change" subsection	
		<input type="checkbox"/>	[Negative is not addressed by the technical change(s).] < 2/3	GO TO "Final" subsection → (E)	
Incorporation of the Technical Change		Motion To incorporate the technical change(s).			
		Motion by/2 nd by By: Jeff Christian / WIKA Instrument Corporation Second: John Zawada / Swagelok			
		Discussion None			
		12 Y-0 N; Motion passed.			
		<input checked="" type="checkbox"/>	90% ≤ [Agree to incorporate.]	GO TO "Final" subsection → (F)	
		<input type="checkbox"/>	[Disagree to incorporate.] > 10%	GO TO "Final" subsection → (E)	
Final		<input type="checkbox"/>	(A)	Withdrawn (counted under h in disposition)	
		<input type="checkbox"/>	(B)	Not related (counted under i in disposition)	
		<input type="checkbox"/>	(C)	Related and not persuasive (significant)	
		<input type="checkbox"/>	(D)	Not significant (counted under j in disposition)	
		<input type="checkbox"/>	(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS
		<input checked="" type="checkbox"/>	(F)	Addressed by technical change (counted under k disposition)	
		<input type="checkbox"/>	Comment generated. See Section V-(ii) Comment # X.		

Negative 11 (SG4-11)

Negative	Referenced Section/ Paragraph	10.2.2.3
	Negative Text	<i>Negative: Delete the " or" at the end of the sentence. Reason/Justification: Correct an apparent ballot preparation error.</i>

	Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter.		GO TO "Related" subsection	
Related	Motion and Reason (check one)	<input checked="" type="checkbox"/>	'Related' is mutually agreed upon. (Needs no motion.)		GO TO "Persuasive" subsection	
	Motion and Reason (check one)	<input checked="" type="checkbox"/>	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)			
Persuasive			Reason	Editorial in nature.		
	Motion by/ 2nd by	By: Yanli Chen / Applied Materials, Inc. Second: Max van den Berg / Festo SE & Co. KG				
	Discussion	None				
	Result of Vote (check one)	14 Y-0 N; Motion passed.				
	<input checked="" type="checkbox"/>	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)			
Final	(check if applicable)	<input type="checkbox"/>	(A)	Withdrawn (counted under h in disposition)		
		<input type="checkbox"/>	(B)	Not related (counted under i in disposition)		
		<input checked="" type="checkbox"/>	(C)	Related and not persuasive (significant)		
		<input type="checkbox"/>	(D)	Not significant (counted under j in disposition)		
		<input type="checkbox"/>	(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS	
		<input type="checkbox"/>	(F)	Addressed by technical change (counted under k disposition)		
	(check if applicable)	<input checked="" type="checkbox"/>	Comment generated. See Section V-(ii) Comment # NC9 (SG4-11).			

Negative 12 (SG4-12)

Negative	Referenced Section/ Paragraph	NOTE 10, ¶10.2.4.1, 10.2.4.3, et seq.			
	Negative Text	<i>Negative:</i> Change the references to "1.379 MPa (200 psig)" to references to "sample pressure". <i>Reason/Justification:</i> That value is stated, in ¶10.2.2.3 as an example of a sample pressure, it is not, however, the sample pressure specified to be used for this procedure.			
	Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter.		GO TO "Related" subsection
Related	Motion and Reason (check one)	<input checked="" type="checkbox"/>	'Related' is mutually agreed upon. (Needs no motion.)		GO TO "Persuasive" subsection
	Motion and Reason (check one)	<input checked="" type="checkbox"/>	Negative is related and persuasive. (Needs >1/3 votes to pass.)		
Persuasive	Motion by/ 2nd by	By: Thomas Fritz / WIKA Instrument Corporation Second: Yanli Chen / Applied Materials, Inc.			
	Discussion	None			
	Result of Vote (check one)	11 Y-0 N; Motion passed.			
	<input checked="" type="checkbox"/>	[Negative is related and persuasive.] > 1/3	Is a technical change recommended? (check one)	<input checked="" type="checkbox"/>	Y

Technical Change Recommendations
 Original section/paragraph number and at least one full sentence are required in "FROM" and "TO" fields.

Address by Technical Change Option

Technical Changes

1	<p>FROM: Section/Paragraph NOTE 10, ¶10.2.4.1, 10.2.4.3, et seq.</p> <p>10.2.2.3 <i>Sample Cell Pressure</i> — appropriate pressure recommended by the cell manufacturer, e.g., 1.379 MPa (200 psig) for full scale range 0 to 20 ppm carbon monoxide.</p> <p>...</p> <p>NOTE 10: An example of an operating procedure is outlined below for the sample system shown in Figure 3. This procedure is appropriate only when the infrared gas cell is designed to withstand the 1.379 MPa (200 psig) sample pressure.</p> <p>...</p> <p>10.2.4.1 Open the zero gas (pre-purified nitrogen or certified pure oxygen, independently measured to be less than 0.1 ppm CO) cylinder valve. Open valve V1, close valves V2 and V3. Flow the gas through the system and adjust the back pressure regulator to 1.379 MPa (200 psig) as shown on gauge G. Adjust the flowrate on the flowmeter to 1000 cc/minute by adjusting valve V1. After a constant readout is observed, adjust the zero control knob of the analyzer to set the absorbance output to read zero.</p> <p>10.2.4.2 Open the calibration gas standard cylinder valve. Close V1 and V2, and open valve V3. Flow the calibration gas through the system and adjust the back pressure regulator to 1.379 MPa (200 psig). Adjust the flowrate on the flowmeter to 1000 cc/minute. After a constant readout is observed, record the absorbance of the calibration standard, if the instrument indicates absorbance directly. If the instrument indicates concentration, adjust the span control to read the concentration of carbon monoxide in the calibration gas.</p> <p>10.2.4.3 Introduce the oxygen sample into the analyzer by closing valves V1 and V3, opening valve V4 and slowly opening valve V2 until the flowrate on the flowmeter is 1000 cc/minute. Adjust the back pressure regulator to 1.379 MPa (200 psig). If the instrument indicates absorbance, read the absorbance of the sample and calculate the quantity of carbon monoxide, using the formula below. If the instrument indicates concentration, record the concentration. The results shall not exceed the specification in § 7 of this Standard.</p> <p>...</p> <p>10.5.2.3 <i>Sample Cell Pressure</i> — 1.379 MPa (200 psig) for full scale range 0 to 5 ppm nitrous oxide or appropriate pressure as recommended by the cell manufacturer.</p> <p>...</p> <p>10.5.4.1 Open the zero gas (pre-purified nitrogen or certified pure oxygen, independently measured to be less than 0.1 ppm N₂O) cylinder valve. Open valve V1, close valves V2 and V3. Flow the gas through the system and adjust the back pressure regulator to pressure recommended by the cell manufacturer, e.g., 1.379 MPa (200 psig) as shown on gauge G. Adjust the flowrate on the flowmeter to 1000 cc/minute by adjusting valve V1. After a constant readout is observed, adjust the zero control knob of the analyzer to set the absorbance output to read zero.</p> <p>10.5.4.2 Open the calibration gas standard cylinder valve. Close V1 and V2, and open valve V3. Flow the calibration gas through the system and adjust the back pressure regulator to pressure recommended by the cell manufacturer, e.g., 1.379 MPa (200 psig). Adjust the flowrate on the flowmeter to 1000 cc/minute. After a constant readout is observed, record the absorbance of the calibration standard, if the instrument indicates absorbance directly. If the instrument indicates concentration, adjust the span control to read the concentration of nitrous oxide in the calibration gas.</p> <p>10.5.4.3 Introduce the oxygen sample into the analyzer by closing valves V1 and V3, opening Valve V4 and slowly opening valve V2 until the flowrate on the flowmeter is 1000 cc/minute. Adjust the back pressure regulator to pressure recommended by the cell manufacturer, e.g., 1.379 MPa (200 psig). Read the absorbance of the sample and calculate the quantity of nitrous oxide, using the formula below. If the instrument indicates concentration, record the concentration. The result shall not exceed the specification in § 7 of this Standard.</p>
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TO: Section/Paragraph NOTE 10, ¶10.2.4.1, 10.2.4.3, et seq. (please note the numbering updated when changes were made)

~~10.2.2.3~~ **10.3.2.3** *Sample Cell Pressure* — appropriate pressure recommended by the cell manufacturer, e.g., ~~1.379 MPa (200 psig)~~ the sample pressure for full scale range 0 to 20 ppm carbon monoxide.

...

~~NOTE 10:~~ **NOTE 8:** An example of an operating procedure is outlined below for the sample system shown in Figure 3. This procedure is appropriate only when the infrared gas cell is designed to withstand the ~~1.379 MPa (200 psig)~~ sample pressure.

...

10.2.4.1 Open the zero gas (pre-purified nitrogen or certified pure oxygen, independently measured to be less than 0.1 ppm CO) cylinder valve. Open valve V1, close valves V2 and V3. Flow the gas through the system and adjust the back pressure regulator to ~~1.379 MPa (200 psig)~~ sample pressure as shown on gauge G. Adjust the flowrate on the flowmeter to 1000 cc/minute by adjusting valve V1. After a constant readout is observed, adjust the zero control knob of the analyzer to set the absorbance output to read zero.

10.2.4.2 Open the calibration gas standard cylinder valve. Close V1 and V2, and open valve V3. Flow the calibration gas through the system and adjust the back pressure regulator to ~~1.379 MPa (200 psig)~~ the sample pressure. Adjust the flowrate on the flowmeter to 1000 cc/minute. After a constant readout is observed, record the absorbance of the calibration standard, if the instrument indicates absorbance directly. If the instrument indicates concentration, adjust the span control to read the concentration of carbon monoxide in the calibration gas.

10.2.4.3 Introduce the oxygen sample into the analyzer by closing valves V1 and V3, opening valve V4 and slowly opening valve V2 until the flowrate on the flowmeter is 1000 cc/minute. Adjust the back pressure regulator to ~~1.379 MPa (200 psig)~~ the sample pressure. If the instrument indicates absorbance, read the absorbance of the sample and calculate the quantity of carbon monoxide, using the formula below. If the instrument indicates concentration, record the concentration. The results shall not exceed the specification in § 7 of this Standard.

...

10.5.2.3 *Sample Cell Pressure* — ~~1.379 MPa (200 psig)~~ The sample pressure for full scale range 0 to 5 ppm nitrous oxide or appropriate pressure ~~as~~ recommended by the cell manufacturer.

...

10.5.4.1 Open the zero gas (pre-purified nitrogen or certified pure oxygen, independently measured to be less than 0.1 ppm N₂O) cylinder valve. Open valve V1, close valves V2 and V3. Flow the gas through the system and adjust the back pressure regulator to pressure recommended by the cell manufacturer, e.g., ~~1.379 MPa (200 psig)~~ sample pressure as shown on gauge G. Adjust the flowrate on the flowmeter to 1000 cc/minute by adjusting valve V1. After a constant readout is observed, adjust the zero control knob of the analyzer to set the absorbance output to read zero.

10.5.4.2 Open the calibration gas standard cylinder valve. Close V1 and V2, and open valve V3. Flow the calibration gas through the system and adjust the back pressure regulator to pressure recommended by the cell manufacturer, e.g., ~~1.379 MPa (200 psig)~~ sample pressure. Adjust the flowrate on the flowmeter to 1000 cc/minute. After a constant readout is observed, record the absorbance of the calibration standard, if the instrument indicates absorbance directly. If the instrument indicates concentration, adjust the span control to read the concentration of nitrous oxide in the calibration gas.

10.5.4.3 Introduce the oxygen sample into the analyzer by closing valves V1 and V3, opening Valve V4 and slowly opening valve V2 until the flowrate on the flowmeter is 1000 cc/minute. Adjust the back pressure regulator to pressure recommended by the cell manufacturer, e.g., ~~1.379 MPa (200 psig)~~ sample pressure. Read the absorbance of the sample and calculate the quantity of nitrous oxide, using the formula below. If the instrument indicates concentration, record the concentration. The result shall not exceed the specification in § 7 of this Standard.

Justification (if necessary)

Update all references throughout from “1.379 MPa (200 psig)” to references to “sample pressure”.

FROM: Section/Paragraph 10.3.2.3 is now 10.4.2.3

2

10.3.2.3 *Sample Cell Pressure* — appropriate pressure recommended by the cell manufacturer, e.g., 689 kPa (100 psig) for full scale range 0 to 5 ppm carbon dioxide, 1.379 MPa (200 psig) for 0 to 2.5 ppm carbon dioxide.

		<p>TO: Section/Paragraph 10.3.2.3 is now 10.4.2.3</p> <p>10.3.2.3 <u>10.4.2.3</u> <i>Sample Cell Pressure</i> — appropriate pressure recommended by the cell manufacturer, e.g., 689 kPa (100 psig) for full scale range 0 to 5 ppm carbon dioxide. 1.379 MPa (200 psig) for 0 to 2.5 ppm carbon dioxide.</p>	
		<p>Justification (if necessary)</p> <p>Remove the references of “1.379 MPa (200 psig)” and everything after it.</p>	
Motion		Negative is addressed by the technical change(s).	
Motion by/2nd by		By: John Zawada / Swagelok Second: Jeff Christian / WIKA Instrument Corporation	
Discussion		None	
Result of Vote (check one)		13 Y-0 N; Motion passed.	
		<input checked="" type="checkbox"/>	2/3 ≤ [Negative is addressed by the technical change(s).] GO TO “Incorporation of the Technical Change” subsection
		<input type="checkbox"/>	[Negative is not addressed by the technical change(s).] < 2/3 GO TO “Final” subsection → (E)
Incorporation of the Technical Change	Motion		To incorporate the technical change(s).
	Motion by/2nd by		By: Jeff Christian / WIKA Instrument Corporation Second: John Zawada / Swagelok
	Discussion		None
	Result of Vote (check one)		12 Y-0 N; Motion passed.
		<input checked="" type="checkbox"/>	90% ≤ [Agree to incorporate.] GO TO “Final” subsection → (F)
		<input type="checkbox"/>	[Disagree to incorporate.] > 10% GO TO “Final” subsection → (E)
Final	(check if applicable)	<input type="checkbox"/>	(A) Withdrawn (counted under h in disposition)
		<input type="checkbox"/>	(B) Not related (counted under i in disposition)
		<input type="checkbox"/>	(C) Related and not persuasive (significant)
		<input type="checkbox"/>	(D) Not significant (counted under j in disposition)
		<input type="checkbox"/>	(E) Related and persuasive and not addressed by technical change DOCUMENT FAILS
	<input checked="" type="checkbox"/>	(F) Addressed by technical change (counted under k disposition)	
(check if applicable)	<input type="checkbox"/>	Comment generated. See Section V-(ii) Comment # X.	

Negative 13 (SG4-13)

Negative	Referenced Section/ Paragraph	10.3.4.3
	Negative Text	<p><i>Negative:</i> Unless it is known that all cell manufacturers recommend the same cell pressure, designate the value as an example.</p> <p><i>Reason/Justification:</i> This was done, in other paragraphs, by the use of “e.g.”, but not done here.</p>

	Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter.	GO TO "Related" subsection	
Related	Motion and Reason (check one)	<input checked="" type="checkbox"/>	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection	
Persuasive	Motion and Reason (check one)	<input checked="" type="checkbox"/>	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)		
			Reason	Editorial in nature.	
	Motion by/ 2nd by		By: Yanli Chen / Applied Materials, Inc. Second: Max van den Berg / Festo SE & Co. KG		
	Discussion		None		
	Result of Vote (check one)	<input checked="" type="checkbox"/>	14 Y-0 N; Motion passed.		
		<input type="checkbox"/>	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)	
Final	(check if applicable)	<input type="checkbox"/>	(A)	Withdrawn (counted under h in disposition)	
		<input type="checkbox"/>	(B)	Not related (counted under i in disposition)	
		<input checked="" type="checkbox"/>	(C)	Related and not persuasive (significant)	
		<input type="checkbox"/>	(D)	Not significant (counted under j in disposition)	
		<input type="checkbox"/>	(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS
		<input type="checkbox"/>	(F)	Addressed by technical change (counted under k disposition)	
	(check if applicable)	<input checked="" type="checkbox"/>	Comment generated. See Section V-(ii) Comment # NC10 (SG4-13).		

Negative 14 (SG4-14)

Negative	Referenced Section/ Paragraph	10.6		
	Negative Text	<p><i>Negative: Remove the parenthetical reference to the NOTE.</i></p> <p><i>Reason/Justification: NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs.</i></p> <p><i>It is permissible to duplicate NOTES 3 and 4 after ¶10.6. It is also permissible to place a NOTE here invoking other NOTES.</i></p>		
	Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter.	GO TO "Related" subsection
Related	Motion and Reason (check one)	<input checked="" type="checkbox"/>	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection
Persuasive	Motion and Reason (check one)	<input checked="" type="checkbox"/>	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)	
			Reason	NOTES are not normative parts of the document; therefore, they are removed.
	Motion by/ 2nd by		By: Thomas Fritz / WIKA Instrument Corporation Second: Max van den Berg / Festo SE & Co. KG	
	Discussion		None	

	Result of Vote (check one)	14 Y-0 N; Motion passed.	
	<input checked="" type="checkbox"/>	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)
Final	(check if applicable)	<input type="checkbox"/>	(A) Withdrawn (counted under h in disposition)
		<input type="checkbox"/>	(B) Not related (counted under i in disposition)
		<input checked="" type="checkbox"/>	(C) Related and not persuasive (significant)
		<input type="checkbox"/>	(D) Not significant (counted under j in disposition)
		<input type="checkbox"/>	(E) Related and persuasive and not addressed by technical change
	<input type="checkbox"/>	(F) Addressed by technical change (counted under k disposition)	
(check if applicable)	<input checked="" type="checkbox"/>	Comment generated. See Section V-(ii) Comment # NC11 (SG4-14).	

Negative 15 (SG4-15)

Negative	Referenced Section/ Paragraph	10.7	
	Negative Text	<p>Negative: Remove the parenthetical reference to the NOTE.</p> <p>Reason/Justification: NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs.</p> <p>It is permissible to duplicate NOTES after ¶10.7. It is also permissible to place a NOTE here invoking other NOTES.</p>	
Related	Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter. GO TO "Related" subsection
	Motion and Reason (check one)	<input checked="" type="checkbox"/>	'Related' is mutually agreed upon. (Needs no motion.) GO TO "Persuasive" subsection
Persuasive	Motion and Reason (check one)	<input checked="" type="checkbox"/>	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)
			Reason: NOTES are not normative parts of the document; therefore, they are removed.
	Motion by/ 2nd by	By: Thomas Fritz / WIKA Instrument Corporation Second: Max van den Berg / Festo SE & Co. KG	
	Discussion	None	
	Result of Vote (check one)	14 Y-0 N; Motion passed.	
	<input checked="" type="checkbox"/>	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)
Final	(check if applicable)	<input type="checkbox"/>	(A) Withdrawn (counted under h in disposition)
		<input type="checkbox"/>	(B) Not related (counted under i in disposition)
		<input checked="" type="checkbox"/>	(C) Related and not persuasive (significant)
		<input type="checkbox"/>	(D) Not significant (counted under j in disposition)
		<input type="checkbox"/>	(E) Related and persuasive and not addressed by technical change
	<input type="checkbox"/>	(F) Addressed by technical change (counted under k disposition)	
(check if applicable)	<input checked="" type="checkbox"/>	Comment generated. See Section V-(ii) Comment # NC12 (SG4-15).	

Negative 16 (SG4-16)

Negative	Referenced Section/ Paragraph	11.1.5.4			
	Negative Text	<p><i>Negative:</i> Remove the parenthetical reference to the NOTE. <i>Reason/Justification:</i> NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs. Also, I noticed that NOTE 12 is a noun phrase, not a sentence.</p>			
Related	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	GO TO "Related" subsection	
	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection	
Persuasive	Motion and Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)		
			Reason	NOTEs are not normative parts of the document; therefore, they are removed.	
	Motion by/ 2 nd by	By: Thomas Fritz / WIKA Instrument Corporation Second: Max van den Berg / Festo SE & Co. KG			
	Discussion	None			
	Result of Vote (check one)	X	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)	
Final	(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)	
			(D)	Not significant (counted under j in disposition)	
			(E)	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 generated. See Section V-(ii) Comment # NC13 (SG4-16).		

Negative 17 (SG4-17)

Negative	Referenced Section/ Paragraph	11.2.5		
	Negative Text	<p><i>Negative:</i> Remove the parenthetical reference to the NOTE. <i>Reason/Justification:</i> NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs.</p>		
Related	Withdrawal (check one)	X	No Negative withdrawal made by Voter.	GO TO "Related" subsection
	Motion and Reason (check one)	X	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection
	Motion and Reason	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)	

Persuasive	(check one)	Reason	NOTEs are not normative parts of the document; therefore, they are removed.
	Motion by/ 2 nd by	By: Thomas Fritz / WIKA Instrument Corporation Second: Max van den Berg / Festo SE & Co. KG	
	Discussion	None	
	Result of Vote (check one)	14 Y-0 N; Motion passed.	
	X	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)
Final	(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)
		(D)	Not significant (counted under j in disposition)
	(check if applicable)	X	Comment generated. See Section V-(ii) Comment # NC14 (SG4-17).

Negative 18 (SG4-18)

Negative	Referenced Section/ Paragraph	11.2.5.4			
	Negative Text	<i>Negative:</i> Remove the parenthetical reference to the NOTE. <i>Reason/Justification:</i> NOTEs are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs.			
	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	
Persuasive	Motion and Reason (check one)	X	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)		
			Reason	NOTEs are not normative parts of the document; therefore, they are removed.	
	Motion by/ 2 nd by	By: Thomas Fritz / WIKA Instrument Corporation Second: Max van den Berg / Festo SE & Co. KG			
	Discussion	None			
	Result of Vote (check one)	14 Y-0 N; Motion passed.			
	X	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)		
Final	(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)		
		(D)	Not significant (counted under j in disposition)		
		(E)	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 generated. See Section V-(ii) Comment # NC15 (SG4-18).		

Negative 19 (SG4-19)

Negative	Referenced Section/ Paragraph	11.5		
	Negative Text	<p><i>Negative:</i> Remove the parenthetical reference to the NOTE.</p> <p><i>Reason/Justification:</i> NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs.</p>		
Related	Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter.	GO TO "Related" subsection
	Motion and Reason (check one)	<input checked="" type="checkbox"/>	'Related' is mutually agreed upon. (Needs no motion.)	GO TO "Persuasive" subsection
Persuasive	Motion and Reason (check one)	<input checked="" type="checkbox"/>	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)	
			Reason	NOTES are not normative parts of the document; therefore, they are removed.
	Motion by/ 2 nd by	By: Thomas Fritz / WIKA Instrument Corporation Second: Max van den Berg / Festo SE & Co. KG		
	Discussion	None		
Final	Result of Vote (check one)	<input checked="" type="checkbox"/>	14 Y-0 N; Motion passed.	
		<input checked="" type="checkbox"/>	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)
Final	(check if applicable)	<input type="checkbox"/>	(A)	Withdrawn (counted under h in disposition)
		<input type="checkbox"/>	(B)	Not related (counted under i in disposition)
		<input checked="" type="checkbox"/>	(C)	Related and not persuasive (significant)
		<input type="checkbox"/>	(D)	Not significant (counted under j in disposition)
		<input type="checkbox"/>	(E)	Related and persuasive and not addressed by technical change
	<input type="checkbox"/>	(F)	Addressed by technical change (counted under k disposition)	
(check if applicable)	<input checked="" type="checkbox"/>	Comment generated. See Section V-(ii) Comment # NC16 (SG4-19).		

IV. Other Technical Issues

None

V. Comments

V- (i) Voters' Comments

None

V-(ii) Comments Created by Handling Negative

Comment (Created by Handling Negative) NC – 1 (SG4-1)

Comment	*TF/TC Chapter to fill in	
	<p><i>Negative:</i> Remove the parenthetical reference to the NOTE.</p> <p><i>Reason/Justification:</i> NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs.</p>	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	X	Editorial change
Options for editorial change (check one)		Case 1: No vote in this section: To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.
	X	Case 2: Voted in this section: Original section number and at least one full sentence are required in "FROM" and "TO" fields.
Editorial Changes	1	FROM: Section/Paragraph 9.2.4.1
		9.2.4.1 Inject the calibration standard into the column using a gas-sampling valve. Record the retention time and peak area (refer to Note 1).
		TO: Section/Paragraph 9.2.4.1 (numbering may have changed due to renumbering)
		9.2.4.1 Inject the calibration standard into the column using a gas-sampling valve. Record the retention time and peak area (refer to Note 1).
		Justification (If necessary) NOTEs are not normative parts of the document; therefore, they are removed.
Motion	To approve above editorial change(s)	
Motion by/2 nd by	By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.	
Discussion	None	
Vote	13 Y-0 N; Motion passed.	

This table is needed for each Comment created by handling Negative.

Comment (Created by Handling Negative) NC – 2 (SG4-2)

Comment	*TF/TC Chapter to fill in	
	<p><i>Negative:</i> Either convert this to a numbered paragraph or rewrite it as a declarative, rather than imperative, sentence.</p> <p><i>Reason/Justification:</i> NOTES are not normative and are not permitted to instruct one to do anything or to define any requirements. If this is meant as advice that one is free to ignore while performing the procedure, rewrite it as a statement, not an instruction, such as "It is recommended that one introduce....".</p> <p>Contrarily, if this is meant as an instruction that must be followed for the procedure to be valid, make it normative by converting it to a numbered paragraph.</p>	

Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
X	Editorial change	
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	1	FROM: Section/Paragraph NOTE 1 NOTE 1: The desired precision is achieved by injecting <u>Introduce</u> the calibration standard as many times as necessary to achieve the desired precision more than once.
		TO: Section/Paragraph NOTE 1 (numbering may have changed due to renumbering) NOTE 1: The desired precision is achieved by injecting <u>Introduce</u> the calibration standard as many times as necessary to achieve the desired precision more than once.
		Justification (If necessary) Editorial, NOTES are not official content.
Motion	To approve above editorial change(s)	
Motion by/2 nd by	By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.	
Discussion	None	
Vote	13 Y-0 N; Motion passed.	

Comment (Created by Handling Negative) NC – 3 (SG4-3)

Comment	*TF/TC Chapter to fill in	
	<i>Negative:</i> Remove the parenthetical reference to the NOTE. <i>Reason/Justification:</i> NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs.	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
X	Editorial change	
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	1	FROM: Section/Paragraph 9.3
		9.3 <i>Total Hydrocarbons</i> — This procedure is for the determination of total hydrocarbons (THC) in oxygen using a continuous flow flame ionization detector equipped total hydrocarbon analyzer (refer to Notes 2, 3, and 4).
		TO: Section/Paragraph 9.3 (numbering may have changed due to renumbering)
	9.3 <i>Total Hydrocarbons</i> — This procedure is for the determination of total hydrocarbons (THC) in oxygen using a continuous flow flame ionization detector equipped total hydrocarbon analyzer (refer to Notes 2, 3, and 4).	
		Justification (If necessary) NOTEs are not normative parts of the document; therefore, they are removed.
Motion	To approve above editorial change(s)	
Motion by/2 nd by	By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.	
Discussion	None	
Vote	13 Y-0 N; Motion passed.	

Comment (Created by Handling Negative) NC – 4 (SG4-4)

Comment	*TF/TC Chapter to fill in	
	<i>Negative: Either convert these to numbered paragraphs or rewrite them as a declarative, rather than imperative, sentences. Reason/Justification: NOTEs are not normative and are not permitted to instruct one to do anything or to define any requirements.</i>	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	<input checked="" type="checkbox"/>	Editorial change
Options for editorial change (check one)		Case 1: No vote in this section:
		To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.
	<input checked="" type="checkbox"/>	Case 2: Voted in this section:
		Original section number and at least one full sentence are required in "FROM" and "TO" fields.
Editorial Changes	1	FROM: Section/Paragraph NOTE 3, 4
		<p>NOTE 3: As the flow rate and heat capacity of the matrix gas affect the instrument output, the zero and span gas matrices shall coincide with that of the sample gas.</p> <p>NOTE 4: The effective response of a flame ionization detector-equipped total hydrocarbon analyzer to different hydrocarbons can vary and shall be approximated. However, the response of the most common hydrocarbon impurities in oxygen can be accurately totaled and compared to methane.</p>

	<p>TO: Section/Paragraph NOTE 3, 4 (numbering may have changed due to renumbering)</p> <p>NOTE 3: As the flow rate and heat capacity of the matrix gas affect the instrument output, the zero and span gas matrices shall coincide with that of the sample gas. <u>In order to mitigate the effects of heat capacity on the instrument output, the zero and span gas matrices need to coincide with that of the sample gas.</u></p> <p>NOTE 4: The effective response of a flame ionization detector-equipped total hydrocarbon analyzer to different hydrocarbons can vary and shall need to be approximated. However, the response of the most common hydrocarbon impurities in oxygen can be accurately totaled and compared to methane.</p> <p>Justification (If necessary) Editorial, NOTES are not official content.</p>
Motion	To approve above editorial change(s)
Motion by/2nd by	By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.
Discussion	None
Vote	13 Y-0 N; Motion passed.

Comment (Created by Handling Negative) NC – 5 (SG4-5)

Comment	<p><i>Negative:</i> Remove the parenthetical reference to the NOTE. <i>Reason/Justification:</i> NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs.</p>	
	<p>The TC Chapter agreed to do one of the following actions.</p> <p>*No motion is required in this step.</p>	
Action	<p><input checked="" type="checkbox"/> Editorial change</p>	
	Options for editorial change (check one)	<p><input type="checkbox"/> Case 1: No vote in this section:</p> <p><input type="checkbox"/> Case 2: Voted in this section:</p> <p><input checked="" type="checkbox"/> Original section number and at least one full sentence are required in "FROM" and "TO" fields.</p>
Editorial Changes	1	<p>FROM: Section/Paragraph 9.4 9.4 <i>Water</i> — This procedure is for the determination of trace moisture (water) in oxygen using a continuous flowing, cooled-surface condensation, dewpoint/frost-point hygrometer (refer to Notes 5, 6, and 7).</p>
		<p>TO: Section/Paragraph 9.4 (numbering may have changed due to renumbering) 9.4 <i>Water</i> — This procedure is for the determination of trace moisture (water) in oxygen using a continuous flowing, cooled-surface condensation, dewpoint/frost-point hygrometer (refer to Notes 5, 6, and 7).</p>
		<p>Justification (If necessary) NOTES are not normative parts of the document; therefore, they are removed.</p>
		<p>Motion</p>
Motion		To approve above editorial change(s)
Motion by/2nd by		By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.
Discussion		None
Vote		13 Y-0 N; Motion passed.

Comment (Created by Handling Negative) NC – 6 (SG4-6)

Comment	*TF/TC Chapter to fill in	
	<p><i>Negative:</i> Either convert this to a numbered paragraph or rewrite it as a declarative, rather than imperative, sentence. <i>Reason/Justification:</i> NOTES are not normative and are not permitted to instruct one to do anything or to define any requirements.</p>	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	<input checked="" type="checkbox"/>	Editorial change
	Options for editorial change (check one)	<input type="checkbox"/> 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.
		<input checked="" type="checkbox"/> Case 2: Voted in this section: Original section number and at least one full sentence are required in "FROM" and "TO" fields.
	1	FROM: Section/Paragraph NOTE 5 NOTE 5: The sampling system and hygrometer shall be designed to operate under the sample pressure, or the sample pressure shall be reduced (by a regulator with a diaphragm of stainless steel or other suitable material) to accommodate the pressure restrictions of the analytical hygrometer.
		TO: Section/Paragraph NOTE 5 (numbering may have changed due to renumbering) NOTE 5: The sampling system and hygrometer shall <u>need to</u> be designed to operate under the sample pressure, or the sample pressure shall <u>need to</u> be reduced (by a regulator with a diaphragm of stainless steel or other suitable material) to accommodate the pressure restrictions of the analytical hygrometer.
Justification (If necessary) NOTES are not normative parts of the document; therefore, they are removed.		
Motion	To approve above editorial change(s)	
Motion by/2 nd by	By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.	
Discussion	None	
Vote	13 Y-0 N; Motion passed.	

Comment (Created by Handling Negative) NC – 7 (SG4-7)

Comment	*TF/TC Chapter to fill in	
	<p><i>Negative:</i> Remove the parenthetical reference to the NOTE. <i>Reason/Justification:</i> NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs.</p>	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	<input checked="" type="checkbox"/>	Editorial change

	Options for editorial change (check one)		Case 1: No vote in this section:
			To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.
		X	Case 2: Voted in this section:
			Original section number and at least one full sentence are required in “FROM” and “TO” fields.
Editorial Changes	1	FROM: Section/Paragraph 9.5.4.1	
		9.5.4.1 Before analyzing the sample, perform a series of analyses using a source of oxygen of which the purity has been previously determined. This procedure is necessary to age the test solution properly and eliminate any air bubbles which may become trapped in the apparatus. Three consecutive analyses indicating the known purity shall be performed before proceeding with testing. (refer to Note 8).	
		TO: Section/Paragraph 9.5.4.1 (numbering may have changed due to renumbering)	
		9.5.4.1 Before analyzing the sample, perform a series of analyses using a source of oxygen of which the purity has been previously determined. This procedure is necessary to age the test solution properly and eliminate any air bubbles which may become trapped in the apparatus. Three consecutive analyses indicating the known purity shall be performed before proceeding with testing. (refer to Note 8).	
		Justification (If necessary) NOTEs are not normative parts of the document; therefore, they are removed.	
Motion		To approve above editorial change(s)	
Motion by/2nd by		By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.	
Discussion		None	
Vote		13 Y-0 N; Motion passed.	

Comment (Created by Handling Negative) NC – 8 (SG4-9)

Comment	*TF/TC Chapter to fill in		
	<i>Negative:</i> Remove the parenthetical reference to the NOTE. <i>Reason/Justification:</i> NOTEs are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs. Also, NOTE 1 follows ¶9.2.4.1, not ¶9.2.1.1.		
Action	The TC Chapter agreed to do one of the following actions.		
	*No motion is required in this step.		
	X	Editorial change	
	Options for editorial change (check one)		Case 1: No vote in this section:
			To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.
		X	Case 2: Voted in this section:
			Original section number and at least one full sentence are required in “FROM” and “TO” fields.

Editorial Changes	1	FROM: Section/Paragraph 10 10 Analytical Procedures for Grade 3.8 Oxygen (refer to Note 1 in § 9.2.1.1) 10.2.4 <i>Operating Procedure</i> (refer to Note 10 and Note 11) (Refer to Figure 4) 10.3.4 <i>Operating Procedure</i> (refer to Note 10 and Note 11) (Refer to Figure 4) 10.5.4 <i>Operating Procedure</i> (refer to Note 10 and Note 11) (Refer to Figure 4)	
		TO: Section/Paragraph 10 (numbering may have changed due to renumbering) 10 Analytical Procedures for Grade 3.8 Oxygen (refer to Note 1 in § 9.2.1.1) 10.2.4 <i>Operating Procedure</i> (refer to Note 10 and Note 11) (Refer to Figure 4) 10.3.4 <i>Operating Procedure</i> (refer to Note 10 and Note 11) (Refer to Figure 4) 10.5.4 <i>Operating Procedure</i> (refer to Note 10 and Note 11) (Refer to Figure 4)	
		Justification (If necessary) NOTEs are not normative parts of the document; therefore, they are removed.	
	Motion	To approve above editorial change(s)	
Motion by/2nd by	By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.		
Discussion	None		
Vote	13 Y-0 N; Motion passed.		

Comment (Created by Handling Negative) NC – 9 (SG4-11)

Comme	*TF/TC Chapter to fill in	
	<i>Negative: Delete the “ or” at the end of the sentence.</i> <i>Reason/Justification: Correct an apparent ballot preparation error.</i>	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	<input checked="" type="checkbox"/>	Editorial change
	Options for editorial change (check one)	<input type="checkbox"/> Case 1: No vote in this section: <input type="checkbox"/> Case 2: Voted in this section: <input checked="" type="checkbox"/> Original section number and at least one full sentence are required in “FROM” and “TO” fields.
	1	FROM: Section/Paragraph 10.2.2.3 10.2.2.3 <i>Sample Cell Pressure</i> — appropriate pressure recommended by the cell manufacturer, e.g., 1.379 MPa (200 psig) for full scale range 0 to 20 ppm carbon monoxide or .
		TO: Section/Paragraph was 10.2.2.3, now 10.3.2.3 (numbering may have changed due to renumbering) 10.3.2.3 <i>Sample Cell Pressure</i> — appropriate pressure recommended by the cell manufacturer, e.g., 1.379 MPa (200 psig) for full scale range 0 to 20 ppm carbon monoxide or .
Editorial Changes		

	Justification (If necessary) NOTEs are not normative parts of the document; therefore, they are removed.
Motion	To approve above editorial change(s)
Motion by/2nd by	By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.
Discussion	None
Vote	13 Y-0 N; Motion passed.

Comment (Created by Handling Negative) NC – 10 (SG4-13)

Comment	*TF/TC Chapter to fill in	
	<i>Negative: Unless it is known that all cell manufacturers recommend the same cell pressure, designate the value as an example. Reason/Justification: This was done, in other paragraphs, by the use of "e.g.", but not done here.</i>	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
X	Editorial change	
Options for editorial change (check one)	<input type="checkbox"/>	Case 1: No vote in this section:
	<input type="checkbox"/>	Case 2: Voted in this section:
	<input checked="" type="checkbox"/>	Original section number and at least one full sentence are required in "FROM" and "TO" fields.
Editorial Changes	1	FROM: Section/Paragraph 10.3.4.3
		10.3.4.3 Introduce the oxygen sample into the analyzer by closing valves V1 and V3, opening valve V4 and slowly opening valve V2 until the flowrate on the flowmeter is 1000 cc/minute. Adjust the back pressure regulator to appropriate pressure recommended by the cell manufacturer, 689 kPa (100 psig). If the instrument indicates absorbance, read the absorbance of the sample and calculate the quantity of carbon dioxide, using the formula below. If the instrument indicates concentration, record the concentration. The results shall not exceed the specification in § 7 of this Standard.
		TO: Section/Paragraph 10.4.4.3 (numbering may have changed due to renumbering)
		10.4.4.3 Introduce the oxygen sample into the analyzer by closing valves V1 and V3, opening valve V4 and slowly opening valve V2 until the flowrate on the flowmeter is 1000 cc/minute. Adjust the back pressure regulator to appropriate pressure recommended by the cell manufacturer, <u>e.g.</u> , 689 kPa (100 psig). If the instrument indicates absorbance, read the absorbance of the sample and calculate the quantity of carbon dioxide, using the formula below. If the instrument indicates concentration, record the concentration. The results shall not exceed the specification in § 7 of this Standard.
		Justification (If necessary) NOTEs are not normative parts of the document; therefore, they are removed.
Motion	To approve above editorial change(s)	
Motion by/2nd by	By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.	
Discussion	None	
Vote	13 Y-0 N; Motion passed.	

Comment (Created by Handling Negative) NC – 11 (SG4-14)

Comment	*TF/TC Chapter to fill in	
	<p><i>Negative:</i> Remove the parenthetical reference to the NOTE. <i>Reason/Justification:</i> NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs. It is permissible to duplicate NOTES 3 and 4 after ¶10.6. It is also permissible to place a NOTE here invoking other NOTES.</p>	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	<input checked="" type="checkbox"/>	Editorial change
	Options for editorial change (check one)	<input type="checkbox"/> 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.
		<input checked="" type="checkbox"/> Case 2: Voted in this section: Original section number and at least one full sentence are required in "FROM" and "TO" fields.
Editorial Changes	1	FROM: Section/Paragraph 10.6 10.6 <i>Total Hydrocarbons</i> — This procedure is for the determination of total hydrocarbons in oxygen using a continuous flow flame ionization detector-equipped total hydrocarbon analyzer. (refer to Note 3 and Note 4 in § 9.3.)
		TO: Section/Paragraph 10.6 (numbering may have changed due to renumbering) 10.6 <i>Total Hydrocarbons</i> — This procedure is for the determination of total hydrocarbons in oxygen using a continuous flow flame ionization detector-equipped total hydrocarbon analyzer. (refer to Note 3 and Note 4 in § 9.3.)
		Justification (If necessary) NOTES are not normative parts of the document; therefore, they are removed.
Motion	To approve above editorial change(s)	
Motion by/2 nd by	By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.	
Discussion	None	
Vote	13 Y-0 N; Motion passed.	

Comment (Created by Handling Negative) NC – 12 (SG-15)

Comment	*TF/TC Chapter to fill in	
	<p><i>Negative:</i> Remove the parenthetical reference to the NOTE. <i>Reason/Justification:</i> NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs. It is permissible to duplicate NOTES after ¶10.7. It is also permissible to place a NOTE here invoking other NOTES.</p>	
	The TC Chapter agreed to do one of the following actions.	

Acti	*No motion is required in this step.	
	<input checked="" type="checkbox"/>	Editorial change
	Options for editorial change (check one)	Case 1: No vote in this section: To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.
		Case 2: Voted in this section: Original section number and at least one full sentence are required in "FROM" and "TO" fields.
	<input checked="" type="checkbox"/>	
Editorial Changes	1	FROM: Section/Paragraph 10.7 10.7 <i>Water</i> — This procedure is for the determination of trace moisture (water) in oxygen using a continuous flowing, cooled-surface condensation, dewpoint/frost-point hygrometer. (refer to Notes 5, 6, and 7 in § 9.4.)
		TO: Section/Paragraph 10.7 (numbering may have changed due to renumbering) 10.7 <i>Water</i> — This procedure is for the determination of trace moisture (water) in oxygen using a continuous flowing, cooled-surface condensation, dewpoint/frost-point hygrometer. (refer to Notes 5, 6, and 7 in § 9.4.)
		Justification (If necessary) NOTEs are not normative parts of the document; therefore, they are removed.
Motion	To approve above editorial change(s)	
Motion by/2 nd by	By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.	
Discussion	None	
Vote	13 Y-0 N; Motion passed.	

Comment (Created by Handling Negative) NC – 13 (SG4-16)

Comment	<i>Negative: Remove the parenthetical reference to the NOTE. Reason/Justification: NOTEs are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs. Also, I noticed that NOTE 12 is a noun phrase, not a sentence.</i>	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	<input checked="" type="checkbox"/>	Editorial change
	Options for editorial change (check one)	Case 1: No vote in this section: To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.
		Case 2: Voted in this section: Original section number and at least one full sentence are required in "FROM" and "TO" fields.
	<input checked="" type="checkbox"/>	
Editorial	1	FROM: Section/Paragraph 11.1.5.4 11.1.5.4 Compare the average peak areas of the calibration standard to that of the sample being tested. Calculate the concentrations of impurities as shown in SEMI C3. The result shall not exceed the specification in § 7 of this Standard (refer to Note 12).

	<p>TO: Section/Paragraph 11.1.5.4 (numbering may have changed due to renumbering)</p> <p>11.1.5.4 Compare the average peak areas of the calibration standard to that of the sample being tested. Calculate the concentrations of impurities as shown in SEMI C3. The result shall not exceed the specification in § 7 of this Standard (refer to Note 12).</p> <p>Justification (If necessary) NOTEs are not normative parts of the document; therefore, they are removed.</p>
Motion	To approve above editorial change(s)
Motion by/2nd by	By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.
Discussion	None
Vote	13 Y-0 N; Motion passed.

Comment (Created by Handling Negative) NC – 14 (SG4-17)

Comment	*TF/TC Chapter to fill in	
	<p><i>Negative: Remove the parenthetical reference to the NOTE.</i></p> <p><i>Reason/Justification: NOTEs are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs. It is permissible to duplicate NOTEs after ¶10.7. It is also permissible to place a NOTE here invoking other NOTEs.</i></p>	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	<input checked="" type="checkbox"/>	Editorial change
	Options for editorial change (check one)	<input type="checkbox"/> Case 1: No vote in this section:
		<input type="checkbox"/> Case 2: Voted in this section:
		<input checked="" type="checkbox"/> Original section number and at least one full sentence are required in "FROM" and "TO" fields.
Editorial Changes	1	FROM: Section/Paragraph 11.2.5
		11.2.5 <i>Operating Procedures (refer to Note 13)</i>
		TO: Section/Paragraph 11.2.5 (numbering may have changed due to renumbering)
		11.2.5 <i>Operating Procedures (refer to Note 13)</i>
		<p>Justification (If necessary) NOTEs are not normative parts of the document; therefore, they are removed.</p>
Motion	To approve above editorial change(s)	
Motion by/2nd by	By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.	
Discussion	None	
Vote	13 Y-0 N; Motion passed.	

Comment (Created by Handling Negative) NC – 15 (SG4-18)

Comment	*TF/TC Chapter to fill in	
	<p><i>Negative:</i> Remove the parenthetical reference to the NOTE. <i>Reason/Justification:</i> NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs. It is permissible to duplicate NOTES after ¶10.7. It is also permissible to place a NOTE here invoking other NOTES.</p>	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	<input checked="" type="checkbox"/>	Editorial change
	Options for editorial change (check one)	<input type="checkbox"/> 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.
		<input checked="" type="checkbox"/> Case 2: Voted in this section: Original section number and at least one full sentence are required in "FROM" and "TO" fields.
	1	FROM: Section/Paragraph 11.2.5.4 11.2.5.4 Compare the average peak areas of the calibration standard to that of the sample being tested. Calculate the concentrations of impurities as shown in SEMI C3. The result shall not exceed the specification in § 7 of this Standard (refer to Note 17).
		TO: Section/Paragraph 11.2.5.4 (numbering may have changed due to renumbering) 11.2.5.4 Compare the average peak areas of the calibration standard to that of the sample being tested. Calculate the concentrations of impurities as shown in SEMI C3. The result shall not exceed the specification in § 7 of this Standard (refer to Note 17).
Justification (If necessary) NOTES are not normative parts of the document; therefore, they are removed.		
Motion	To approve above editorial change(s)	
Motion by/2 nd by	By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.	
Discussion	None	
Vote	13 Y-0 N; Motion passed.	

Comment (Created by Handling Negative) NC – 16 (SG4-19)

Comment	*TF/TC Chapter to fill in	
	<p><i>Negative:</i> Remove the parenthetical reference to the NOTE. <i>Reason/Justification:</i> NOTES are not normative parts of the document and pointers to them are not permitted in the normative portions of the document, including the numbered paragraphs.</p>	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	<input checked="" type="checkbox"/>	Editorial change

	Options for editorial change (check one)	<input type="checkbox"/>	Case 1: No vote in this section:
		<input checked="" type="checkbox"/>	Case 2: Voted in this section:
Editorial Changes	1	FROM: Section/Paragraph 11.5	
		11.5 <i>Water</i> — This procedure is for the determination of trace moisture (water) in O2 using a continuous flowing piezoelectric hygrometer (refer to Notes 5, 6, and 7 in § 9.4).	
		TO: Section/Paragraph 11.5 (numbering may have changed due to renumbering)	
		11.5 <i>Water</i> — This procedure is for the determination of trace moisture (water) in O2 using a continuous flowing piezoelectric hygrometer (refer to Notes 5, 6, and 7 in § 9.4).	
		Justification (If necessary) NOTEs are not normative parts of the document; therefore, they are removed.	
Motion		To approve above editorial change(s)	
Motion by/2nd by		By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.	
Discussion		None	
Vote		13 Y-0 N; Motion passed.	

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

Original section/paragraph number and at least one full sentence are required in “FROM” and “TO” fields.

	Origin of this editorial change (Check one)	<input type="checkbox"/>	Commenter(s) / Comment(s) #
		<input checked="" type="checkbox"/>	Other [changes caught during adjudication]
1	FROM: Section/Paragraph 9.5		
	9.5 <i>Assay of Oxygen</i> — This procedure describes the assay of oxygen using an ‘Orsat’ device. This is a volumetric determination of nonabsorbable/reactable gas.		
	TO: Section/Paragraph 9.5		
	9.5 <i>Assay of Oxygen</i> — This procedure describes the assay of oxygen using an ‘Orsat’ device. This is a volumetric determination of nonabsorbable/ reactable reactive gas.		
Justification: (If necessary) Editorial in nature, apparent typo			
Motion		To approve the above editorial change(s).	
Motion by/ 2nd by		By: John Zawada / Swagelok Second: Yanli Chen / Applied Materials, Inc.	
Discussion		None	
Vote		13 Y-0 N; Motion passed.	

VII. Approval Conditions Check

VII. - (i). Approval Rate

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

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

Globally Approved (No Ratification Ballot needed):
Line Item 4 meets the Letter Ballot approval conditions for the global technical committee.

Need a Ratification Ballot:
Line Item 4 meets the Letter Ballot approval conditions for the TC Chapter and a Ratification Ballot will be issued to validate technical changes.

Checks for Entire Document Including All Approved Line Items

VIII. Safety Check

Note: This Safety check applies to the entire Standard or Safety Guideline including all the approved Line Items. See § 15 of the *Regulations* for further information.

Motion	<input checked="" type="checkbox"/>	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)
	<input type="checkbox"/>	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)
	<input type="checkbox"/>	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)
Motion by/2nd by		By: Thomas Fritz / WIKA Instrument Corporation Second: Jeff Christian / WIKA Instrument Corporation
Discussion		None
Vote		12 Y-0 N; Motion passed

IX. Intellectual Property (IP) Check

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

<input checked="" type="checkbox"/>	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)	
<input checked="" type="checkbox"/>	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

	<input checked="" type="checkbox"/>	Line item(s) [1] and [3] passed TC Chapter review with editorial changes and will be forwarded to the ISC A&R SC for procedural review.
	<input checked="" type="checkbox"/>	Line item(s) [2] and [4] 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.
Motion by/ 2nd by	By: Max van den Berg / Festo SE & Co. KG Second: Thomas Fritz / WIKA Instrument Corporation	
Discussion	None	
Vote	13 Y-0 N	
Final Action	<input checked="" type="checkbox"/>	Motion passed
	<input type="checkbox"/>	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.