

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

Region/Locale: **NA**

Global Technical Committee: **EHS**

TC Chapter Cochairs: **Sean Larsen/KLA, Chris Evanston/Salus, Lucian Girlea/Nikon, Eric Sklar/Safety Guru**

Standards Staff: **Kevin Nguyen**

	Scheduled in Background Statement	Actual
Date	05/14/2026	05/14/2026
Location	Albany, NY	Albany, NY
Reason for Change of Date and/or Location (if changed)	N/A	

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

Document Information

I. Document Number, Title, Lists of Line Items

Document Number 7411A	Document Title Line Item Revision of SEMI S30-0824, Safety Guideline for Use of Energetic Materials in Semiconductor R&D and Manufacturing Processes
Line Item Line Item 1	Line Item Title Revision of §15

Line Item 1 Adjudication

II. Tally

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

Voting Interest:	Returned Votes		Distribution		Return Rate	
Letter Ballot	84	÷	139	=	60.43%	≥60%
Intercommittee Ballot	31					
Voting Interest Reject(s)	1		Total Voters with Rejects		1	
Voting Interest Accept(s)	77					

III. Rejects

Voting Interest Reject 1 (Voting Interest Name: Lam Research)

Voter Reject 1 (Voter: Lauren Crane, Lam Research)

Negative 1

Negative	Referenced Section/ Paragraph	*TF/TC Chapter to fill in, including text in the ballot if necessary.	
		15.1.2	
	Negative Text	<p>*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</p> <p>Lam-LC1:</p> <ul style="list-style-type: none"> This criterion (and the 3 sub-paragraphs) could be interpreted as requiring more than one door on an enclosure, and that each door have more than one attachment. Restricting the method of door opening to a one-handed task does not seem warranted. There is an odd grammatical shift – the numbered sections reference ‘doors’, while Exception 2 mentions ‘the door’. <p>===</p> <p>Change to the effect of</p> <p>“15.1.2 An enclosure should have one or more doors.</p> <p>15.1.2.1 Each door and their attachment(s) to the enclosure should be able to withstand an outward pressure difference of 7 kPa (1 psi) without the doors opening or detaching from the enclosure.</p> <p>15.1.2.2 The means of applying manual opening force to the each door and the force required to open the door should conform to the relevant criteria in SEMI S8 for a one-handed task.</p> <p>15.1.2.3 Enclosures should be provided with The Enclosure doors should be self-latching, self-closing and self-latching doors.</p> <p>...</p> <p>EXCEPTION 2: The criteria of ¶ 15.1.2.3 do not apply if the risk of pressurized energetic material release into the fab is reduced by the enclosure design preventing the a door being opened when lines and container are pressurized.</p>	
	TF input (optional)	TF agreed to make an Editorial Change to “Each door”, but voted against (2 Yes, 4 No) finding this Negative Persuasive. A TF leader undertook to prepare a Technical Change as, if the TCC finds this Persuasive, we will need to fix the concern about the number of hands.	
	Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter. GO TO “Related” subsection
		<input type="checkbox"/>	Withdrawal document received by Standards staff on MM/DD/YYYY. GO TO “Final” subsection → (A)
Related	Motion and Reason (check one)	<input checked="" type="checkbox"/>	‘Related’ is mutually agreed upon. (Needs no motion.) GO TO “Persuasive” subsection
		<input type="checkbox"/>	Negative is not related. (Needs ≥2/3 votes to pass.)
			Reason XXXX
	Motion by/ 2nd by	Name (Company)/Name (Company)	
	Discussion		
	Result of Vote (check one)	XX Y-XX N; Motion passed/failed.	
<input type="checkbox"/>		[Negative is not related.] < 2/3 GO TO “Persuasive” subsection	
<input type="checkbox"/>		2/3 ≤ [Negative is not related.] GO TO “Final” subsection → (B)	

Persuasive	Motion and Reason (check one)	<input checked="" type="checkbox"/>	Negative is related and persuasive. (Needs >1/3 votes to pass.)				
		<input type="checkbox"/>	Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)				
			Reason	XXXX			
	Motion by/ 2 nd by	By: Lauren Crane / Lam Research Second: Clifton Brick / KLA					
	Discussion						
	Result of Vote (check one)	Result: 17-Y 1-N Voting Result: Pass - 94.44%					
		<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)
		<input type="checkbox"/>	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)			
		<input type="checkbox"/>	90% ≤ [Negative is related and not persuasive.]	GO TO "Not Significant Finding Option" subsection			
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: 15.1.2.2 The means of applying manual opening force to the door and the force required to open the door should conform to the relevant criteria in SEMI S8 for a one-handed task.				
			TO: 15.1.2.2 The means of applying manual opening force to the each door and the force required to open the door should conform to the relevant criteria in SEMI S8 for a one-handed task one person.				
			Justification (if necessary) Technical Change as agreed in TF meeting with submitter.				
		2	FROM: 15.1.Enclosures should have doors. 15.1.2.1 The doors and their attachments to the enclosure should be able to withstand an outward pressure difference of 7 kPa (1 psi) without the doors opening or detaching from the enclosure.				
			TO: 15.1. Each e Enclosures should have at least one doors. 15.1.2.1 The Each doors and their its attachments to the enclosure should be able to withstand an outward pressure difference of 7 kPa (1 psi) without the doors opening or detaching from the enclosure.				
			Justification (if necessary) Clarify grammar				
	Motion	Negative is addressed by the technical change(s).					
	Motion by/2 nd by	By: Lauren Crane / Lam Research Second: Eric Sklar / Safety Guru, LLC					
Discussion							
Result of Vote	Result: 16-Y 0-N Voting Result: Pass - 100.00%						

	(check one)		<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: Lauren Crane / Lam Research Second: Eric Sklar / Safety Guru, LLC			
		Discussion				
Result of Vote (check one)		Result: 15-Y 0-N Voting Result: Pass - 100.00%				
		<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)		
Not Significant Finding Option	This option can be used only “if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action”. (Regulations ¶ 9.6.1.4.5.2)					
	Use of “Not significant finding option” (check one)	<input type="checkbox"/>	It is mutually agreed upon to term the Negative “not significant”.		GO TO “Final” subsection → (D)	
		<input type="checkbox"/>	It is mutually agreed upon to term the Negative “significant”.		GO TO “Final” subsection → (C)	
		<input type="checkbox"/>	Whether or not the Negative is “not significant” is decided by a vote.			
	Motion	The Negative is “not significant”.				
	Motion by/ 2nd by	Name (Company)/Name (Company)				
	Vote	<input type="checkbox"/>	XX Y-XX N; Motion passed with simple majority		GO TO “Final” subsection → (D)	
<input type="checkbox"/>		XX Y-XX N; Motion failed with simple majority		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 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. Refer to Section V-(ii) Comment # X.				

Negative 2

Negative	Referenced Section/ Paragraph	*TF/TC Chapter to fill in, including text in the ballot if necessary.				
	Negative Text	<p>15.1.2.3 Exception 1</p> <p>*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</p> <p>Lam-LC2: The third bullet describes an interlocks action if the equipment detects, among other things, 'an open access port door'. Given the impact of the surrounding added text related to 'Enclosure doors', it is not clear if an 'access port door' is meant to be the same as an 'enclosure door'. === In ratification ballot, change 'open access port door' to 'enclosure door', or, if they are not meant to be the same thing, make the difference more clear.</p>				
TF input (optional)		Recommend changing "an open access port door" to "an open door". Believe this can be done as an Editorial Change, but TF Leader points out that it appears we'll need a Ratification Ballot based on other Negatives, so we might as well call this a Technical Change to mitigate the risk of the A&R Committee ruling it not Editorial.				
Withdrawal (check one)	<input checked="" type="checkbox"/>	No Negative withdrawal made by Voter.		GO TO "Related" subsection		
	<input type="checkbox"/>	Withdrawal document received by Standards staff on MM/DD/YYYY.		GO TO "Final" subsection → (A)		
Related	<input checked="" type="checkbox"/>	'Related' is mutually agreed upon. (Needs no motion.)		GO TO "Persuasive" subsection		
		Negative is not related. (Needs ≥2/3 votes to pass.)				
		Reason	XXXX			
	Motion by/ 2 nd by	Name (Company)/Name (Company)				
	Discussion					
	Result of Vote (check one)	XX Y-XX N; Motion passed/failed.				
<input type="checkbox"/>		[Negative is not related.] < 2/3		GO TO "Persuasive" subsection		
<input type="checkbox"/>	2/3 ≤ [Negative is not related.]		GO TO "Final" subsection → (B)			
Persuasive	<input checked="" type="checkbox"/>	Negative is related and persuasive. (Needs >1/3 votes to pass.)				
		Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)				
		Reason	XXXX			
	Motion by/ 2 nd by	By: Lauren Crane / Lam Research Second: Clifton Brick / KLA				
	Discussion					
	Result of Vote (check one)	Result: 13-Y 1-N Voting Result: Pass - 92.86%				
<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"/>	N	GO TO “Final” subsection → (E)	
		<input type="checkbox"/>	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO “Final” subsection → (C)				
		<input type="checkbox"/>	90% ≤ [Negative is related and not persuasive.]	GO TO “Not Significant Finding Option” subsection				
Address by Technical Change Option	Technical Changes	1	Technical Change Recommendations Original section/paragraph number and at least one full sentence are required in “FROM” and “TO” fields.					
			FROM: 15.1.2.3 EXCEPTION 1: The criteria of ¶ 15.1.2.3 do not apply if: <ul style="list-style-type: none"> the quantity of energetic material in the container(s) in the enclosure is not intended to be more than 2 L, the energetic materials are delivered from the energetic materials container sub-atmospherically, and if the container is refilled within the enclosure, a safety interlock is provided that prevents flow of the energetic material into the energetic materials container(s) and reduces the pressure in the delivery line (within the enclosure) to the energetic materials container to no more than the ambient pressure, if the equipment detects a fire, leak, or open access port door. 					
			TO: 15.1.2.3 EXCEPTION 1: The criteria of ¶ 15.1.2.3 do not apply if: <ul style="list-style-type: none"> the quantity of energetic material in the container(s) in the enclosure is not intended to be more than 2 L, the energetic materials are delivered from the energetic materials container sub-atmospherically, and if the container is refilled within the enclosure, a safety interlock is provided that prevents flow of the energetic material into the energetic materials container(s) and reduces the pressure in the delivery line (within the enclosure) to the energetic materials container to no more than the ambient pressure, if the equipment detects a fire, leak, or open access port door. 					
			Justification (if necessary) Clarification					
	Motion		Negative is addressed by the technical change(s).					
	Motion by/2nd by		By: Eric Sklar / Safety Guru, LLC Second: Lauren Crane / Lam Research					
	Discussion							
			Result: 15-Y 0-N Voting Result: Pass - 100.00%					
	Result of Vote (check one)		<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)			
Not Significant	Incorporation of the Technical Change	Motion		To incorporate the technical change(s).				
		Motion by/2nd by		By: Eric Sklar / Safety Guru, LLC Second: Lauren Crane / Lam Research				
		Discussion						
				Result: 15-Y 0-N Voting Result: Pass - 100.00%				
		Result of Vote (check one)		<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)				
				This option can be used only “if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action”. (Regulations ¶ 9.6.1.4.5.2)				
		<input type="checkbox"/>	It is mutually agreed upon to term the Negative “not significant”.	GO TO “Final” subsection → (D)				

	Use of “Not significant finding option” (check one)	<input type="checkbox"/>	It is mutually agreed upon to term the Negative “significant”.	GO TO “Final” subsection → (C)
		<input type="checkbox"/>	Whether or not the Negative is “not significant” is decided by a vote.	
	Motion	The Negative is “not significant”.		
	Motion by/ 2nd by	Name (Company)/Name (Company)		
	Vote	<input type="checkbox"/>	XX Y-XX N; Motion passed with simple majority	GO TO “Final” subsection → (D)
<input type="checkbox"/>		XX Y-XX N; Motion failed with simple majority	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 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 checked="" type="checkbox"/>	(F)	Addressed by technical change (counted under k disposition)	
(check if applicable)	<input type="checkbox"/>	Comment generated. Refer to Section V-(ii) Comment # X.		

Negative 3

Negative	Referenced Section/ Paragraph	*TF/TC Chapter to fill in, including text in the ballot if necessary. 15.1.2.3 Exception 2 NOTE 53	
	Negative Text	<p>*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</p> <p>Lam-LC3: The note is written with a normative tone. === Delete the note and plan to introduce the criterion as a normative section in a future ballot (or introduce the criterion in a ratification ballot). Note how this pressure reference is described in the third bullet of Exception 1. Perhaps clarify using the same method such as by changing (in ratification) the first hollow bullet to “all mechanical fittings and other reasonably foreseeable leak points containing energetic material within the enclosure are isolated and <u>at a pressure no greater than the ambient pressure depressurized;</u>” Also consider whether the text about depressurization is needed at all in light of the 4th hollow bullet – which perhaps could be expanded to “<u>primary containment</u> internal pressure does not exceed ambient pressure;”</p>	
	TF input (optional)	TF voted 3:1 that this is Not Persuasive. However, TF Leader undertook to prepare a Technical Change for consideration if the TCC finds this Negative to be Persuasive.	
	Withdrawal (check one)	<input checked="" type="checkbox"/> No Negative withdrawal made by Voter.	GO TO “Related” subsection
		<input type="checkbox"/> Withdrawal document received by Standards staff on MM/DD/YYYY.	GO TO “Final” subsection → (A)
Related	Motion and Reason (check one)	<input checked="" type="checkbox"/> ‘Related’ is mutually agreed upon. (Needs no motion.)	GO TO “Persuasive” subsection
		<input type="checkbox"/> Negative is not related. (Needs ≥2/3 votes to pass.)	
		Reason	XXXX
	Motion by/ 2 nd by	Name (Company)/Name (Company)	
	Discussion		
	Result of Vote (check one)	XX Y-XX N; Motion passed/failed.	
		<input type="checkbox"/> [Negative is not related.] < 2/3	GO TO “Persuasive” subsection
		<input type="checkbox"/> 2/3 ≤ [Negative is not related.]	GO TO “Final” subsection → (B)
Persuasive	Motion and Reason (check one)	<input checked="" type="checkbox"/> Negative is related and persuasive. (Needs >1/3 votes to pass.)	
		<input type="checkbox"/> Negative is related and not persuasive. (Needs ≥2/3 votes to pass.)	
		Reason	XXXX
	Motion by/ 2 nd by	By: Lauren Crane / Lam Research Second: Chris Evanston / Salus Engineering International	
	Discussion		
		Result: 10-Y 4-N Voting Result: Pass - 71.43%	

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"/>	Y	GO TO "Address by Technical Change Option" subsection
	<input type="checkbox"/>	[Negative is related and not persuasive.] < 2/3		<input type="checkbox"/>	N	GO TO "Final" subsection → (E)
	<input type="checkbox"/>	2/3 ≤ [Negative is related and not persuasive.] < 90%	GO TO "Final" subsection → (C)			
	<input type="checkbox"/>	90% ≤ [Negative is related and not persuasive.]	GO TO "Not Significant Finding Option" subsection			
Technical Change Recommendations Original section/paragraph number and at least one full sentence are required in "FROM" and "TO" fields.						
Technical Changes 1	<p>FROM: 15.1.2.3 EXCEPTION 2: The criteria of ¶ 15.1.2.3 do not apply if the risk of pressurized energetic material release into the fab is reduced by the enclosure design preventing the door being opened when lines and container are pressurized. This should be accomplished by all of the design criteria below:</p> <ul style="list-style-type: none"> • Safety interlocks are provided to prevent opening until: <ul style="list-style-type: none"> • all mechanical fittings and other reasonably foreseeable leak points containing energetic material within the enclosure are isolated and depressurized; <p>NOTE 53: "Depressurized" means reduced in pressure to no more than the lesser of the ambient pressure in the enclosure and in the room.</p>					
	<p>TO: 15.1.2.3 EXCEPTION 2: The criteria of ¶ 15.1.2.3 do not apply if the risk of pressurized energetic material release into the fab is reduced by the enclosure design preventing the door being opened when lines and container are pressurized. This should be accomplished by all of the design criteria below:</p> <ul style="list-style-type: none"> • Safety interlocks are provided to prevent opening until: <ul style="list-style-type: none"> • all mechanical fittings and other reasonably foreseeable leak points containing energetic material within the enclosure are isolated and depressurized <u>and the pressure in them reduced to no more than ambient pressure;</u> <p>NOTE 53: "Depressurized" means reduced in pressure to no more than the lesser of the ambient pressure in the enclosure and in the room.</p> <p>Justification (if necessary)</p>					
Motion		Negative is addressed by the technical change(s).				
Motion by/2 nd by		By: Lauren Crane / Lam Research Second: Eric Sklar / Safety Guru, LLC				
Discussion						
Result of Vote (check one)		Result: 13-Y 0-N Voting Result: Pass - 100.00%				
<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	Motion		To incorporate the technical change(s).			
	Motion by/2 nd by		By: Lauren Crane / Lam Research Second: Eric Sklar / Safety Guru, LLC			
	Discussion					
			Result: 11-Y 0-N Voting Result: Pass - 100.00%			
<input checked="" type="checkbox"/>	90% ≤ [Agree to incorporate.]		GO TO "Final" subsection → (F)			

	Result of Vote (check one)	<input type="checkbox"/>	[Disagree to incorporate.]>10%	GO TO “Final” subsection → (E)		
Not Significant Finding Option	This option can be used only “if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action”. (Regulations ¶ 9.6.1.4.5.2)					
	Use of “Not significant finding option” (check one)	<input type="checkbox"/>	It is mutually agreed upon to term the Negative “not significant”.		GO TO “Final” subsection → (D)	
		<input type="checkbox"/>	It is mutually agreed upon to term the Negative “significant”.		GO TO “Final” subsection → (C)	
		<input type="checkbox"/>	Whether or not the Negative is “not significant” is decided by a vote.			
	Motion	The Negative is “not significant”.				
	Motion by/ 2nd by	Name (Company)/Name (Company)				
	Vote	<input type="checkbox"/>	XX Y-XX N; Motion passed with simple majority		GO TO “Final” subsection → (D)	
<input type="checkbox"/>		XX Y-XX N; Motion failed with simple majority		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 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. Refer to Section V-(ii) Comment # X.			

Negative 4

Negative	Referenced Section/ Paragraph	*TF/TC Chapter to fill in, including text in the ballot if necessary.	
		15.1.2.3 Exception 2	
	Negative Text	<p>*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</p> <p>Lam-LC5: There an exception condition that no smoke, fire, or leak be detected. While I do not expect there is much variety in how fire or smoke would be detected, I think leak detection needs a bit more parametric information for a consistent implementation. For example, at what concentration should an appropriate leak detector trigger? Would it be acceptable for a gas leak detector to be used to detect a leak of a liquid energetic material (i.e., only triggering once the liquid vaporized to a certain gas concentration)? ===== Clarify what means of leak detection is acceptable. Consider also if there is sufficient specification of how the foreseen fire and smoke detection should be designed.</p>	
	TF input (optional)		
	Withdrawal (check one)	<input type="checkbox"/>	No Negative withdrawal made by Voter. GO TO "Related" subsection
		<input checked="" type="checkbox"/>	Withdrawal document received by Standards staff on 04/21/2026. GO TO "Final" subsection → (A)
Final	(check if applicable)	<input checked="" 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 type="checkbox"/>	(F) Addressed by technical change (counted under k disposition)
	(check if applicable)	<input type="checkbox"/>	Comment generated. Refer to Section V-(ii) Comment # X.

Disposition of Voting Interest Reject 1

Check only when the Document has not been failed.

4	Original number (#) of Negatives	(g)	
1	Number of Negatives withdrawn	(h)	
#	Number of Negatives found not related	(i)	
#	Number of Negatives found not significant	(j)	
3	Number of Negatives addressed by technical change (Negative becomes not significant)	(k)	
Final	<input checked="" 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 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

Note: TC Chapter may choose to address a technical issue that is not part of a Negative received on a Letter Ballot (i.e., a Comment or a reason not addressed by a Vote response) by handling it as a Negative and finding it related and technically persuasive. The TC Chapter may then fail the Document or address such technical issue by using the procedure defined in *Regulations* § 9.6.1.4.3 to make a technical change to the Document. (*Regulations* ¶ 9.6.1.4.2.5)

None

V. Comments

V- (i) Voters' Comments

Commenter 1 (Lauren Crane/Lam Research) - Comment 1

Comment	15.1.2.6	
	<p>Lam-LC4: While 'hold-open mechanism' is clear, 'hold-open door' is not. Semantically it seems to be describing a type of door, not the condition of the door. === Change to '... to release the hold-open <u>held open</u> door is provided.' or perhaps simply '... to release the hold-open door is <u>also</u> provided.'</p>	
TF Input		
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	<input type="checkbox"/>	Already addressed by Commenter #, Comment #
	<input type="checkbox"/>	No further action was taken by the TC Chapter.
	<input type="checkbox"/>	Refer to the TF for more consideration.
	<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. <i>Editorial Changes Other than Those Voted on in § V.</i>
	<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	FROM:	15.1.2.6 Mechanisms that hold the door open may be included provided a method to release the hold-open door is provided. Hold-open mechanisms should be connected to the safety interlocks which will release the doors if any of the following occurs:
	TO:	15.1.2.6 Mechanisms that hold the door open may be included provided a method to release the held hold-open door is provided. Hold-open mechanisms should be connected to the safety interlocks which will release the doors if any of the following occurs:
	Justification (If necessary)	This appears to have been a typographical error in the published SEMI S30.

Motion	To approve above editorial change(s)
Motion by/2nd by	By: Lauren Crane / Lam Research Second: Eric Sklar / Safety Guru, LLC
Discussion	XXXX
Vote	Result: 17-Y 0-N Voting Result: Pass - 100.00%

Commenter 2 (JeonGah Yu/Samsung Electronics) - Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.	
	SE-1: 15.1.2.6 exception I'm curious about how it's possible to detect that no workers are present around when a door is open.	
TF Input	ES26apr06: There are several types of human presence sensors available, including pressure mats and sonar. However, it is the difficulty in providing high reliability of human presence detection that led to the changes proposed in this ballot.	
	ES26apr20: No change is requested or suggested in this Comment and I see no change to recommend based on it.	
	TF26apr21: No change, Closed.	
	TF26may12: Concur	
	The TC Chapter agreed to do one of the following actions.	
Action	*No motion is required in this step.	
	<input type="checkbox"/>	Already addressed by Commenter #, Comment #
	<input checked="" type="checkbox"/>	No further action was taken by the TC Chapter.
	<input type="checkbox"/>	Refer to the TF for more consideration.
	<input type="checkbox"/>	New Business
	<input type="checkbox"/>	Editorial Change

Commenter 3 (Yu-Chun Yeh/Individual Participant) - Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.	
	The proposed revision provides a structured approach for classifying process chemicals based on energetic properties, which supports more consistent hazard evaluation across different users. From a product compliance and audit perspective, it would be helpful to clarify how determinations should be made when required input data (e.g., heat of reaction, autoignition temperature, or decomposition energy) is not available or cannot be reliably obtained, particularly for new or proprietary materials. Additional guidance on acceptable data sources, assumptions, or alternative evaluation approaches would improve consistency, traceability, and auditability of the classification process.	
TF Input	ES26apr06: No change related to line item is requested or suggested in this Comment and I see no change to recommend based on it.	
	TF26apr21: No action, Closed.	
	TF26may12: Concur	
Action	The TC Chapter agreed to do one of the following actions.	
	*No motion is required in this step.	
	<input type="checkbox"/>	Already addressed by Commenter #, Comment #

<input checked="" type="checkbox"/>	No further action was taken by the TC Chapter.
<input type="checkbox"/>	Refer to the TF for more consideration.
<input type="checkbox"/>	New Business
<input type="checkbox"/>	Editorial Change

Commenter 4 (John Wang/AMEC) - Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.
	AMEC-1: "Line Item 1 EXCEPTION 2" Suggestion: to consider the condition that the pressure of lines and containers is controlled below ATM when normal process by pressure interlock
TF Input	ES26apr20: I and, I believe, the TF have considered this situation. Although operating subatmospherically saves the effort of depressurizing to open, it is still appropriate to have an interlock to ensure that the pressures are not above ambient. If there is already interlock circuitry in place (e.g., a pressure sensor wired as an input to a safety controller), I see no reason that interlock circuitry could not also be used for this function. I recommend no change based on this Comment.
	TF26apr21: No change, Closed.
	TF26may12: Concur
Action	The TC Chapter agreed to do one of the following actions.
	*No motion is required in this step.
	<input type="checkbox"/> Already addressed by Commenter #, Comment #
	<input checked="" type="checkbox"/> No further action was taken by the TC Chapter.
	<input type="checkbox"/> Refer to the TF for more consideration.
	<input type="checkbox"/> New Business
<input type="checkbox"/> Editorial Change	

Commenter 5 (Qing Shi Chua/SGS Malaysia) - Comment 1

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.
	SGS-M1: Line Item 1 (Part A): Okay to add in EXCEPTION 2 where: 1) Safety interlocks are added in. 2) Definition of "Depressurized" is added in for clear explanation 3) The safety functions of safety interlocks are added in for the requirement while the enclosure doors are open.
TF Input	ES26apr20: No change is requested or suggested in this Comment and I see no change to recommend based on it.
	TF26apr21: No change, Closed.
	TF26may12: Concur
Action	The TC Chapter agreed to do one of the following actions.
	*No motion is required in this step.
	<input type="checkbox"/> Already addressed by Commenter #, Comment #
	<input checked="" type="checkbox"/> No further action was taken by the TC Chapter.

	Refer to the TF for more consideration.
	New Business
	Editorial Change

Commenter 5 (Qing Shi Chua/SGS Malaysia) - Comment 2

Comment	*TF/TC Chapter to fill in section/paragraph #, if necessary.	
	SGS-M2 Line Item 1 (Part B): Removal of in accordance with local regulatory requirement is necessary as different countries have different requirement. Therefore, it is better that SEMI org to make a synchronization for reference.	
TF Input	ES26apr20: No change is requested or suggested in this Comment and I see no change to recommend based on it. TF26apr21: No change, Closed. TF26may12: Concur	
	The TC Chapter agreed to do one of the following actions.	
Action	*No motion is required in this step.	
	<input type="checkbox"/>	Already addressed by Commenter #, Comment #
	<input checked="" type="checkbox"/>	No further action was taken by the TC Chapter.
	<input type="checkbox"/>	Refer to the TF for more consideration.
	<input type="checkbox"/>	New Business
	<input type="checkbox"/>	Editorial Change

V-(ii) Comments Created by Handling Negative

None

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.

None for this section.

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	=	77	77	=	100%	≥90%

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

Note: Refer to *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.
- Need a Ratification Ballot:**
Line Item 1 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. Refer to § 15 of the *Regulations* for further information.

Motion	<input 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 checked="" 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 checked="" 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/2 nd by		By: Eric Sklar / Safety Guru, LLC Second: Lauren Crane / Lam Research
Discussion		None
Vote		Result: 16-Y 0-N Voting Result: Pass - 100.00%

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*. Refer to *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 (Refer to <i>Regulations</i> ¶ 16.3.1.1) to the Standard or Safety Guideline; or, any copyrighted items or trademarks that are used/reproduced (refer to <i>Regulations</i> ¶ 16.4.1.2) in the Standard or Safety Guideline. (Also refer to, <i>Regulations</i> § 8.8)
-------------------------------------	---

	x	The question is NOT answered in affirmative (No potentially material patented technology or use/reproduction of copyrighted items/trademarks is known.)	GO TO SECTION X.		
		The question is answered in affirmative	Is any of the known IPs a patented technology?	Yes, at least one of them is a patented technology	GO TO IX (a) "Patented Technology" subsection
				No	GO TO IX (b) "Copyright items" subsection

X. Action for This Document

Motion (Check all applicable items)		Line item(s) [X], [X] and [X] passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review.
		Line item(s)) [X], [X] and [X] passed TC Chapter review with editorial changes and will be forwarded to the ISC A&R SC for procedural review.
	x	Line item(s) [1] 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.
		Line item(s) [X], [X] and [X] failed TC Chapter review and will be returned to the TF for rework.
		Line item(s) [X], [X] and [X] failed TC Chapter review and work will be discontinued.
Motion by/ 2nd by	By: Eric Sklar / Safety Guru, LLC Second: Lauren Crane / Lam Research	
Discussion	None	
Vote	17 Y-0 N	
Final Action	x	Motion passed
		Motion failed

Note: If the use of PMPT or copyrighted item is justified by the TC Chapter, LOA or release form must be received before publication can proceed.