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

Region/Locale: North America

Global Technical Committee: Metrics

TC Chapter Cochairs: David Bouldin (Fab Consulting), Mark Frankfurth (Cymer/ASML), Vladimir Kraz

(BestESD)

Standards Staff: Michelle Sun

	Scheduled in Background Statement	Actual
Date	03/28/2024	03/28/2024
Location	Hybrid, SEMI Headquarters	Hybrid, SEMI Headquarters
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

Docume 6894	ent Number	Document Title LINE ITEM REVISION TO SEMI E33-0217E GUIDE FOR SEMICONDUCTOR MANUFACTURING EQUIPMENT ELECTROMAGNETIC COMPATIBILITY (EMC), AND E176-1017, GUIDE TO ASSESS AND MINIMIZE ELECTROMAGNETIC INTERFERENCE (EMI) IN A SEMICONDUCTOR MANUFACTURING		
	l in a ltam 4	ENVIRONMENT Line Item Title		
Line Item 1 Line Item 2		Move Appendix 1 from SEMI E33 to E176		
		Line Item Title Update References and Other Editorial Changes		

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):

Returned Votes		Distribution		Return Rate	
32	÷	51	=	62.7%	≥60%
34					
1		Total Vo	ters	with Rejects	1
27					
	32 34 1	32 ÷ 34	32 ÷ 51 34 1 Total Vo	32 ÷ 51 = 34 1 Total Voters	32 ÷ 51 = 62.7% 34 1 Total Voters with Rejects

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

III. Rejects

Voting Interest Reject 1 (Voting Interest Name: Eric Sklar) Voter Reject 1 (Voter: Eric Sklar / Safety Guru, LLC)

1109	ative 1										
Ne	Referenced Section/ Paragraph	*TF/TC Chapter to fill in, including text in the ballot if necessary. A1-2.5.2 Compare the ELF EMF strength level once the semiconductor manufacturing equipment is installed and in operation to the sensitivity to ELF EMFs of the adjacent equipment to determine if the equipment's strength level is still compatible with the adjacent equipment's ELF immunity limits.									
Negative	Negative Text	*Ori cop SG* Neg Rea equ	*Original complete Negative text (e.g., issue, justification, suggestion) should be copied. SG1-18: A1-2.5.2 Negative: Rewrite for clarity. Reason/Justification: It is the strength of the EMF, not the strength of the equipment, that is of interest. Furthermore, a field strength can be below an immunity limit, but not "compatible with" one.								
TFi	input (optional)										
	Withdrawal		No Negative withdrawa	GO TO "Related" subsection							
	(check one)		Withdrawal document r MM/DD/YYYY.	GO TO "Final" subsection → (A)							
	Motion and	×	'Related' is mutually ag	GO TO "Persuasive" subsection							
	Reason		Negative is not related.	(Needs ≥2/3 votes to pass.)							
	(check one)		Reason	xxxx							
Rel	Motion by/ 2 nd by	Name (Company)/Name (Company)									
Related	Discussion										
		XX '	Y-XX N; Motion passed	/failed.							
	Result of Vote (check one)		[Negative is not related	.] < 2/3	GO TO "Persuasive" subsection						
	(Clieck Olle)		2/3 ≤ [Negative is not re	elated.]	GO TO "Final" subsection → (B)						

	Motion and			Ne	gative is relate	ed and pers	uasive. (Needs >1/	/3 vot	tes to pass.)		
	Motion and Reason (check one)	Ne	gative is relate	ed and not p	persuasive. (Needs	3 ≥2/3	votes to pass.)				
	(0)		K One)	Re	ason	on XXXX					
	М	otic 2 nd	n by/	Name (Company)/Nai	me (Compa	any)				
Pers	Di		ssion								
Persuasive				XX Y-X	X N; Motion p	assed/faile	d.				
sive	Result of Vote			per	gative is related and suasive.] > 1/3		Is a technical change recommended?	Х	Y GO TO "Address by Technical Change Option" subsection N GO TO "Final" subsection		
	(CI	per 2/3			rsuasive.] < 2/	3	,	^	→ (E)		
					ß ≤ [Negative is d not persuasi		GO TO "Final" s	ubse	ection → (C)		
				909	% ≤ [Negative d not persuasi	is related	GO TO "Not Significant Finding Option" subsection				
	Tech	nic	al Chang		mmendations	-					
	Orig field	S.			aph number a /Paragraph X		one full sentence	are i	required in "FROM" and "TO"		
					, aragrapii A						
	Ι.	, 1	TO: Se	ction/Pa	tion/Paragraph xxx						
Add	[echn		Justific	ation (If	f necessary)						
Address by	Technical Cha		FROM:	Section	/Paragraph X	XX					
-	nanges		TO: Se	ction/Pa	/Paragraph xxx						
chn	es	2			g						
Technical Change Option			Justific	ation (If	f necessary)						
ange	Moti	on			Negative is addressed by the technical change(s).						
စို	Moti	on b	y/2 nd by	/	Name (Comp	oany)/Name	e (Company)				
tion	Disc	uss	ion								
					XX Y-XX N;	Motion pas	sed/failed.				
			sult of V		2/3 ≤ [N change(addressed by the te	chnic	GO TO "Incorporation of the Technical Change" subsection		
				-		e is not ad s).] < 2/3	dressed by the tech	nnical			
	ᅙᅙ	Mc	tion				nnical change(s).				
	Inco rpor	Mc	tion by/	2 nd by	Name (Comp	oany)/Name	e (Company)				

		Discussion)								
				XX	XX Y -XX N ; Motion passed/failed.						
		Result of Vote			90% ≤ [A	gree to incorporate.]	GO TO "Final" subsection → (F)				
		(check			. 0	e to incorporate.]>10%	GO TO "Final" subsection → (E)				
z						C Chapter finds a Negative not pers g on the action". (<i>Regulations</i> ¶ 9.6					
lot Siç	Us	e of "Not		t is mut significa		ed upon to term the Negative "not	GO TO "Final" subsection → (D)				
Not Significant Finding Option	significant finding option" (check one)			t is mut signific		ed upon to term the Negative	GO TO "Final" subsection → (C)				
Ē	,	,	V	Whether or not the Negative is "not significant" is decided by a vote.							
ndir	ľ	Motion	The N	Negative is "not significant".							
ng Op		otion by/ 2 nd by	Name	lame (Company)/Name (Company)							
tion		Vote	>	(X Y -X)	≺ N ; Motio	on passed with simple majority	GO TO "Final" subsection → (D)				
		vote	>	(X Y -X)	Y-XX N; Motion failed with simple majority		GO TO "Final" subsection → (C)				
				(A)	Withdrawn (counted under h in disp	osition)				
				(B)	Not related (counted under i in disp	sposition)				
	(0	check if		((C)	Related and not persuasive (significa	nt)				
Final	ар	plicable)		(D)	Not significant (counted under j in d	isposition)				
<u>a</u>			×		(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS				
					(F)	Addressed by technical change (coul	nted under k disposition)				
		check if plicable)	C	Comme	nt generat	ted. See Section V-(ii) Comment # X					

IV. Other Technical Issues

None

V. Comments

None

V-(ii) Comments Created by Handling Negative None

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

Line Item 2 Adjudication

II. Tally

Returned Votes		Distribution		Return Rate	
32	÷	51	=	62.7%	≥60%
34					
1		Total Voters with Rejects		1	
27					
	32 34 1	32 ÷ 34	32 ÷ 51 34 1 Total Vo	32 ÷ 51 = 34 1 Total Voters	32 ÷ 51 = 62.7% 34 1 Total Voters with Rejects

Standards staff to fill in.

III. Rejects

Voting Interest Reject 1 (Voting Interest Name: Eric Sklar)

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

*TF/TC Chapter to fill in, including text in the ballot if necessary.

		R3-	1.4 International Electro	otechnical Commission (IEC) Sta	ndards					
	Referenced Section/ Paragraph	Electory EN EN Use EN Lab IEC	EN 61204-3/IEC 61204-3 — Low Voltage Power Supplies, DC Output – Part 3: Electromagnetic Compatibility (EMC) EN 50091-2 — Uninterruptible Power Systems (UPS) — Part 2: EMC Requirements— EN 62040-2 — Uninterruptible Power Systems (UPS) — Part 2: EMC Requirements EN 61326/IEC 61326 — Electrical Equipment for Measurement, Control and Laboratory Use — EMC Requirements— EN 61326-3-1/IEC 61326-3-1 — Electrical Equipment for Measurement, Control and Laboratory Use — EMC Requirements IEC 62040-2 — Uninterruptible Power Systems (UPS) — Part 2: Electromagnetic Compatibility (EMC) Requirements							
	Negative Text	*Ori cop SG: Neg des app Rea whi	*Original complete Negative text (e.g., issue, justification, suggestion) should be copied. SG2-1: E33 R3-1.4 Negative: "EN 62040-2" is listed under "IEC Standards" but does not have an IEC designator. Either provide the IEC designator [or] move this to under an appropriate heading. Reason/Justification: Standard does not have a designator from the SDO under which it is listed.							
TF	input (optional)	Eric	found an error, but it	can be easily corrected by an e	editorial change.					
	Withdrawal		No Negative withdrawa	al made by Voter.	GO TO "Related" subsection					
	(check one)		Withdrawal document r MM/DD/YYYY.	eceived by Standards staff on	GO TO "Final" subsection → (A)					
	Motion and Reason	X	'Related' is mutually ag	reed upon. (Needs no motion.)	GO TO "Persuasive" subsection					
			Negative is not related. (Needs ≥2/3 votes to pass.)							
	(check one)		Reason	xxxx						
Rel	Motion by/ 2 nd by	Nan	ne (Company)/Name (C	Company)						
Related	Discussion									
		XX	Y-XX N; Motion passed	/failed.						
	Result of Vote (check one)		[Negative is not related	.] < 2/3	GO TO "Persuasive" subsection					
	,		2/3 ≤ [Negative is not re	elated.]	GO TO "Final" subsection → (B)					
	Matters		Negative is related and	persuasive. (Needs >1/3 votes	to pass.)					
Pe	Motion and Reason (check one)	Х	Negative is related and	not persuasive. (Needs ≥2/3 vot	es to pass.)					
Persuasive	,		Reason	Can be fixed with editorial chang	e.					
ive	Motion by/ 2 nd by		Mark Frankfurth / ASML cond: Supika Mashiro / T							
	Discussion	Non	ne							
		7 Y	-0 N ; Motion passed							

I												
					gative is related and suasive.] > 1/3 Is a technical change recommended?					GO TO "Address by Technical Change Option" subsection		
			of Vote k one)			e is related and not ve.] < 2/3	(check one)		N	GO TO "Final" subsection → (E)		
						egative is related	GO TO "Final" s	ubse	ctio	n → (C)		
						persuasive.] < 90% Negative is related				. ,		
						persuasive.]	GO TO "Not Sigi	nifica	nt F	inding Option" subsection		
	Tech	nic	cal Chang	e Recon	nme	ndations						
	Orig field		l section/	paragra	ph n	umber and at least	one full sentence	are r	equ	ired in "FROM" and "TO"		
			FROM:	Section/	Para	graph XXX						
		1	TO: Sec	ction/Par	ragra	iph xxx						
	Technical Changes		Justific	ation (If	nece	essary)						
	ical C		FROM:	Section/	Para	graph XXX						
Adc	han											
Address by Technical Change	ges	2	TO: Sed	ction/Par	ragraph xxx							
by 1			Justific	ation (If	nece	necessary)						
ech												
nica	Moti	on			Neg	ative is addressed by	the technical cha	nge(s	s).			
다.	Moti	on	by/2 nd by	1	Nan	ne (Company)/Name	(Company)					
ange	Disc	uss	sion									
1,2					XX '	Y-XX N; Motion pass	ed/failed.					
Option		Re	esult of V	ote		2/3 ≤ [Negative is a	ddressed by the te	chnic	al	GO TO "Incorporation of the Technical Change"		
			check on			change(s).]				subsection		
						[Negative is not addressed by the technical change(s).] < 2/3				GO TO "Final" subsection → (E)		
			otion		To incorporate the technical change(s).							
	nco Tec	M	otion by/2	2 nd by	Nam	ne (Company)/Name	(Company)					
	hnic	Di	iscussion	1								
	atior	┢			XX '	Y-XX N; Motion pass	ed/failed.					
	Incorporation of the Technical Change		Result of			90% ≤ [Agree to inc	orporate.]			GO TO "Final" subsection → (F)		
	9 6		(check	one)		[Disagree to incorpo	rate.]>10%			GO TO "Final" subsection → (E)		
Sign						"if the TC Chapter ons voting on the ac				uasive by a vote equal to or		
Not Significan					mutu nifica	ually agreed upon to	term the Negative	"not		GO TO "Final" subsection → (D)		

	Use of "Not significant finding option"	X	It is mutually a	t is mutually agreed upon to term the Negative 'significant". GO TO "Final" subset → (C) Whether or not the Negative is "not significant" is decided by a vote.						
	(check one)		Whether or not							
	Motion	The	Negative is "no	t significant".						
	Motion by/ 2 nd by	Nan	ame (Company)/Name (Company)							
			XX Y-XX N; Mo	otion passed with simple majority	GO TO "Final" subsection → (D)					
	Vote		XX Y-XX N; Mo	otion failed with simple majority	GO TO "Final" subsection → (C)					
			(A)	Withdrawn (counted under h in disp	position)					
			(B)	Not related (counted under i in disp	oosition)					
	(check if	X	(C)	Related and not persuasive (significa	nt)					
Final	applicable)		(D)	Not significant (counted under j in d	disposition)					
<u>a</u>			(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS					
			(F)	Addressed by technical change (cou	nted under k disposition)					
	(check if applicable)	X	Comment gene	erated. See Section V-(ii) Comment # 1						

	ative z	
		*TF/TC Chapter to fill in, including text in the ballot if necessary.
		1 Purpose 1.1 The purpose of this Guide is to provide guidance for the assessment and minimization of electromagnetic interference (EMI) in a semiconductor manufacturing environment to improve yield, equipment availability, and test results (e.g., testing time, measurement relevance, repeatability, and accuracy).
Negative	Referenced Section/ Paragraph	2 Scope 2.1 This Guide applies to equipment and facilities provided for the purpose of manufacturing semiconductor devices (i.e., equipment in a semiconductor manufacturing environment) not otherwise in the scope of SEMI E33, including all communications and control systems; processing, metrology, inspection, and automation equipment; and information-technology equipment. 2.2 The primary focus of this Guide is on a semiconductor manufacturing environment, but this Guide may also be applied to the facilities and equipment used for manufacturing other related products (e.g., photovoltaics (PVs), flat panel displays [FPDs], disk drives, microelectromechanical systems [MEMS]). 2.2.1 Some terms are specialized to a semiconductor manufacturing environment. NOTICE: SEMI Standards and Safety Guidelines do not purport to address all safety issues associated with their use. It is the responsibility of the users of the Documents to establish appropriate safety and health practices, and determine the applicability of regulatory or other limitations prior to use. NOTE 19: NOTE 17: Under certain conditions, EMI can impact equipment safety.
		onder dertain dertain der impact equipment durety.
	Negative Text	*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.

TFi	input (optional)	SG2-2: E176 NOTE 17, et seq. Negative: Correct numbering. Reason/Justification: It appears that the NOTEs numbers in E176 are shown as starting with the first integer after the last NOTE number in E33. This is most probably a ballot preparation error, but it does need to be fixed. During ballot preparation, the NOTE numbering was accidentally changed to be continuing from the E33 revision draft that preceded it in the ballot instead of starting at NOTE 1 in the current version. This error was not caught during preballot release review. The numbering of all NOTEs needs to be corrected back to the									
	Withdrawal	orig	inal numbering. No Negative withdrawa	l mad		GO TO "Related" subsection					
	(check one)		Withdrawal document r MM/DD/YYYY.		•		GO TO "Final" subsection → (A) GO TO "Persuasive"				
	Motion and	X	'Related' is mutually ag		<u> </u>		subsection				
	Reason		Negative is not related.	(Nee	ds ≥2/3 votes to p	oass.)					
	(check one)		Reason	XXXX	(
Reli	Motion by/ 2 nd by	Nan	ne (Company)/Name (C	ompa	any)						
Related	Discussion										
		XX Y -XX N ; Motion passed/failed.									
	Result of Vote (check one)		[Negative is not related	GO TO "Persuasive" subsection							
	(6.1.60.1.61,		2/3 ≤ [Negative is not re	GO TO "Final" subsection → (B)							
			Negative is related and persuasive. (Needs >1/3 votes to pass.)								
	Motion and Reason (check one)	x	Negative is related and	≥2/3 vot	tes to pass.)						
	(1 11 1 1)		Reason	Can b	e fixed with editor	ial chang	e				
P	Motion by/ 2 nd by		Mark Frankfurth / ASML ond: Supika Mashiro / To								
ersı	Discussion	Non	е								
Persuasive		7 Y-	0 N; Motion passed								
ve	Posult of Vota		[Negative is related and persuasive.] > 1/3	İ	Is a technical change recommended?	Y	GO TO "Address by Technical Change Option" subsection				
	Result of Vote (check one)		[Negative is related and persuasive.] < 2/3	l not	(check one)	N	GO TO "Final" subsection → (E)				
			2/3 ≤ [Negative is relate and not persuasive.] < 9	90%	GO TO "Final" s	ubsectio	on → (C)				
		X	90% ≤ [Negative is rela and not persuasive.]	ted	GO TO "Not Sign	nificant F	Finding Option" subsection				

	Origi	nal	_				ndations umber and at least one full sentence are requ	ired in "FROM" and "TO"					
	fields	.											
			FROM: \$	Secti	ion/	Para	graph XXX						
	_	1	TO: Sec	ction	/Par	ragra	ph xxx						
	Technical Changes		Justific	cation (If necessary)									
	nical (FROM: \$	I: Section/Paragraph XXX									
Add	Chan												
lress k	ges	2	TO: Sec	Section/Paragraph xxx									
Address by Technical Change Option			Justific	ation (If necessary)									
nnica	Motic	n				Neg	ative is addressed by the technical change(s).						
al Ch	Motic	n b	y/2 nd by	,		Nan	ne (Company)/Name (Company)						
ang	Discu	ıssi	ion										
e Op						XX '	-XX N ; Motion passed/failed.						
otion			esult of Vote (check one)				2/3 ≤ [Negative is addressed by the technical change(s).]	GO TO "Incorporation of the Technical Change" subsection					
	(5.000.000)					[Negative is not addressed by the technical change(s).] < 2/3		GO TO "Final" subsection → (E)					
	-	Motion					To incorporate the technical change(s).						
	nco Tec	Мо	tion by/2	2 nd b	y	Name (Company)/Name (Company)							
	ncorporat Technica	Dis	cussion	ion									
	ition					XX Y-XX N; Motion passed/failed.							
	Incorporation of the Technical Change	ı	Result of				90% ≤ [Agree to incorporate.]	GO TO "Final" subsection → (F)					
	,						[Disagree to incorporate.]>10%	GO TO "Final" subsection → (E)					
Not						d only "if the TC Chapter finds a Negative not persuasive by a vote equal to or persons voting on the action". (<i>Regulations</i> ¶ 9.6.1.4.5.2)							
Signi	Us	e of	"Not			muti nifica	ually agreed upon to term the Negative "not nt".	GO TO "Final" subsection → (D)					
Not Significant Finding Option	significant It is					muti nifica	ually agreed upon to term the Negative ant".	GO TO "Final" subsection → (C)					
indi	Wh						or not the Negative is "not significant" is decided	d by a vote.					
ng (ion	The	Neg	ative	is "not significant".						
Optio			n by/ by	Nam	e (C	Comp	any)/Name (Company)						
ח					XX	Y-X>	(N; Motion passed with simple majority	GO TO "Final" subsection → (D)					

			XX Y-XX N; Mc	otion failed with simple majority	GO TO "Final" subsection → (C)				
			(A)	Withdrawn (counted under h in dis	Withdrawn (counted under h in disposition)				
			(B)	Not related (counted under i in dis	position)				
	(check if		(C)	Related and not persuasive (significant)					
Final	applicable)		(D)	Not significant (counted under j in disposition)					
al			(E)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS				
			(F)	Addressed by technical change (cou	ınted under k disposition)				
	(check if applicable)	×	Comment gene	Comment generated. See Section V-(ii) Comment # 2.					

Neg	ative 3									
Negative	Referenced Section/ Paragraph	5.2 11.1 and 11.1 sign	Definitions 1.1 conducted emission other conductors of each of the conductors of each other than electroses.	n – qu ss	(EOS) — exposure of a device or tic discharge.	t on wires, cables, metal parts circuit to damaging electrical				
/e	Negative Text	SG: Neg Rea to s	*Original complete Negative text (e.g., issue, justification, suggestion) should be copied. SG2-3: E176 ¶ 11.1.1., et seq Negative: Correct numbering. Reason/Justification: It appears that, starting with ¶ 11.1.1 the NOTEs [Eric meant to say paragraph] numbers in E176 are shown as continuing from the last paragraph number in the body of E33. This is most probably a ballot preparation error, but it does need to be fixed.							
TF	input (optional)	During ballot preparation, the paragraph numbering was accidentally changed starting with 5.2.1 to be continuing from the E33 revision draft that preceded it in the ballot instead of continuing as 5.2.1 in the current version. This error was not caught during preballot release review. The numbering of all paragraphs needs to be corrected back to the original numbering.								
	Withdrawal	X	No Negative withdra	wa	ll made by Voter.	GO TO "Related" subsection				
	(check one)		MM/DD/YYYY.	nt r	eceived by Standards staff on	GO TO "Final" subsection → (A)				
	Motion and	X	'Related' is mutually	ag	reed upon. (Needs no motion.)	GO TO "Persuasive" subsection				
	Reason		Negative is not relate	ed.	(Needs ≥2/3 votes to pass.)					
Rel	(check one)		Reason		xxxx					
Related	Motion by/ 2 nd by	Nan	Name (Company)/Name (Company)							
	Discussion									
		XX	XX Y-XX N; Motion passed/failed.							

	Res	ult	of Vote	[N	legative is not relate	ed.] < 2/	/3			GO TO "Persuasive" subsection			
	(cł	necl	c one)	2/:	3 ≤ [Negative is not	related	GO TO "Final" subsection → (B)						
				Ne	Negative is related and persuasive. (Needs >1/3 votes to pass.)								
	i	Rea	n and son < one)	x Ne	egative is related and not persuasive. (Needs ≥2/3 votes to pass.)								
			·	Re	ason Can be fixed editorially								
פַ		otio 2 nd	n by/ by		rk Frankfurth / ASM d: Todor Ganev / KL								
Persuasive	Di	scu	ssion	None									
uas				7 Y-0 N	N; Motion passed.								
ive	Res	ult :	of Vote		legative is related arersuasive.] > 1/3	nd	Is a technical change recommended?		Y	GO TO "Address by Technical Change Option" subsection			
			(one)	ре	egative is related a ersuasive.] < 2/3		(check one)		N	GO TO "Final" subsection → (E)			
				an	3 ≤ [Negative is reland not persuasive.] <	< 90%	GO TO "Final" s	GO TO "Final" subsection → (C)					
				x 90)% ≤ [Negative is re nd not persuasive.]	lated	GO TO "Not Sign	nifica	nt F	inding Option" subsection			
Þ	fields		FROM:	Section	n/Paragraph XXX	t least	one run sentence	are r	equ	ired in "FROM" and "TO"			
Address	Tec	1			If necessary)								
s by 1	echnical Changes				Section/Paragraph XXX								
echn	l Char			occacini diagrapii AAA									
ical C	ıges	2	TO: Se	ction/Pa	ion/Paragraph xxx								
by Technical Change Option			Justific	ation (I	If necessary)								
Optio	Option Motion				Negative is addre	ssed b	y the technical cha	inge(s	s).				
5	Motion by/2 nd by			'	Name (Company))/Name	(Company)						
	Disc	uss	ion										
	Result of Vote (check one)				change(s) 1					GO TO "Incorporation of the Technical Change" subsection			

					[Negative change(s	e is not addressed by the technical	GO TO "Final" subsection → (E)					
		Motion		To i		te the technical change(s).	/ (L)					
					Name (Company)/Name (Company)							
	orpo chn	Discussion	<u> </u>		· ·							
	orati ical			207.2	/)// NI N	16.11						
	on Ch			XX '	XX Y-XX N; Motion passed/failed.							
	Incorporation of the Technical Change	Result of			90% ≤ [A	gree to incorporate.]	GO TO "Final" subsection → (F)					
	he e	(check		[Disagree	e to incorporate.]>10%	GO TO "Final" subsection → (E)						
						C Chapter finds a Negative not pers g on the action". (<i>Regulations</i> ¶ 9.6						
z	great	er than 90%	or the	e perso	ons votini	g on the action". (Regulations 9.6	.1.4.5.2)					
lot s						ed upon to term the Negative "not	GO TO "Final" subsection					
Sig		e of "Not	s	gnifica	nt".		→ (D)					
nific		gnificant ng option"				ed upon to term the Negative	GO TO "Final" subsection → (C)					
an:		eck one)		significa								
ĹΕ			٧	Whether or not the Negative is "not significant" is decided by a vote.								
ndir	ľ	Motion	The N	e Negative is "not significant".								
Not Significant Finding Option		otion by/ 2 nd by	Name	(Comp	any)/Nam							
tion		Vote	X	X Y -XX	N; Motio	n passed with simple majority	GO TO "Final" subsection → (D)					
		vote	X	X Y-XX	(N; Motio	n failed with simple majority	GO TO "Final" subsection → (C)					
				(4	4)	Withdrawn (counted under h in disp	oosition)					
				(1	3)	Not related (counted under i in disp	osition)					
	(0	check if	X	(C)	Related and not persuasive (significa	nt)					
Final	applicable)			(1	D)	Not significant <mark>(counted under j in d</mark>	isposition)					
<u>a</u>				(1	Ε)	Related and persuasive and not addressed by technical change	DOCUMENT FAILS					
				(F)	Addressed by technical change (cou	nted under k disposition)					
	(check if applicable) X Con				comment generated. See Section V-(ii) Comment # 3.							

Disposition of Voting Interest Reject 1

Check only when the Document has not been failed.

3	Original number (#) of Negatives (g)							
0	Number of Negatives withdrawn (h)							
0	Number of Negatives found not related (i)							
0	Number	of Ne	egatives found not significant		(j)			
0	Number of Negatives addressed by technical change (Negative becomes not significant) (k)							
	Final		$\mathbf{g} - (\mathbf{h} + \mathbf{i} + \mathbf{j} + \mathbf{k}) = 0$	Reject is Not Valid and is not included in the denominator of § VI. Approval Conditions Check				

3	I M - (N + I + I + K) <()	Reject is included in the denominator of § VI. Approval Conditions Check
	Reject without a Negative	Not Valid

IV. Other Technical Issues

V. Comments

V- (i) Voters' Comments

V-(ii) Comments Created by Handling Negative
Original section/paragraph number and at least one full sentence are required in "FROM" and "TO" fields.

	Origin of this editorial change		Commenter(s) / Comment(s) #						
	(Check one)	X	Other [Eric Sklar/Safety Guru Negative SG2-1]						
	FROM: Section/Paragraph R3-1.4 R3-1.4 International Electrotechnical Commission (IEC) Standards								
	EN 61204-3/IEC 61204-3 — Low Voltage Power Supplies, DC Output – Part 3: Electromagnetic								
	Compatibility (EMC) EN 50091-2 — Uninterruptible Power Systems (UPS) — Part 2: EMC Requirements—								
			ver Systems (UPS) – Part 2: EMC Requirements						
	EMC Requirements	icai	Equipment for Measurement, Control and Laboratory Use						
	EN 61326-3-1/IEC 61326-3-1 -	<u>— El</u>	ectrical Equipment for Measurement, Control and Laboratory						
	Use – EMC Requirements IEC 62040.2 Unintermentials Dayson Systems (UDS) Down 2: Electromagnetic Competibility								
	IEC 62040-2 — Uninterruptible Power Systems (UPS) — Part 2: Electromagnetic Compatibility (EMC) Requirements								
1									
	TO: Section/Paragraph R3-1		al Commission (IEC) Standards						
			, ,						
		ow V	Voltage Power Supplies, DC Output – Part 3: Electromagnetic						
	Compatibility (EMC) EN 50091-2 Uninterruptible	Pow	ver Systems (UPS) Part 2: EMC Requirements						
	*		ver Systems (UPS) Part 2: EMC Requirements						
		ical	Equipment for Measurement, Control and Laboratory Use						
	EMC Requirements EN 61326-3-1/IEC 61326-3-1 -	_ E1	ectrical Equipment for Measurement, Control and Laboratory						
	Use – EMC Requirements		control Equipment for Measurement, Control and Europainory						
			nterruptible Power Systems (UPS) – Part 2: Electromagnetic						
	Compatibility (EMC) Requiren		0091-2 was deleted and replaced with EN 62040-2, but it is the						
	same as IEC 62040-2 already	incl	uded below so it is a duplication. Combine the two document						
	numbers for the same documer	nt on							
2	Origin of this editorial change		Commenter(s) / Comment(s) #						
	(Check one)		Other [Eric Sklar/Safety Guru Negative SG2-2]						

FROM: Section/Paragraph NOTE 19 and remaining NOTEs (misnumbered starting with NOTE

NOTE 19: NOTE 17: Under certain conditions, EMI can impact equipment safety.

NOTE 20: NOTE 18: Conducted emissions are often unintended and undesirable.

...

TO: Section/Paragraph NOTE 19 and remaining NOTEs (misnumbered starting with NOTE 1] NOTE 1: Under certain conditions, EMI can impact equipment safety.

NOTE 2: Conducted emissions are often unintended and undesirable.

...

Justification: (If necessary) The NOTE numbering needs to be corrected back to the original numbering to comply with the *Style Manual*.

Origin of this editorial change (Check one)

Commenter(s) / Comment(s) #

X Other [Eric Sklar/Safety Guru Negative SG2-3]

FROM: Section/Paragraph E176 ¶ 11.1.1 [actually 5.2.1], et seq

5.2 Definitions

- 11.1.1 *conducted emission* electromagnetic signals present on wires, cables, metal parts and other conductors of equipment.
- 11.1.2 *electrical overstress (EOS)* exposure of a device or circuit to damaging electrical signals other than electrostatic discharge.

. . .

TO: Section/Paragraph E176 ¶ 11.1.1 [actually 5.2.1], et seq

- 5.2 Definitions
- 5.2.1 *conducted emission* electromagnetic signals present on wires, cables, metal parts and other conductors of equipment.
- 5.2.2 *electrical overstress (EOS)* exposure of a device or circuit to damaging electrical signals other than electrostatic discharge.

• • •

Justification: (If necessary) The paragraph numbering needs to be corrected back to the original numbering to comply with the *Style Manual*.

Motion	To approve the above editorial change(s).
	By: Eric Eisenbraun / SUNY RF (Albany) Second: Supika Mashiro / Tokyo Electron Ltd.
Discussion	None
Vote	7 Y-0 N; Motion passed

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

VII. Approval Conditions Check

VII. - (i). Approval Rate

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

Note: See Regulations § 9.6.2 for further information.

		Accepts		(Accepts + Valid Rejects)			
Approval Rate	=	27	/	28	=	96.4%	≥90%

X 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.

Checks for Entire Document Including All Approved Line Items

VIII. Safety Check

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

_	x	T is	his is not a s still technica	a Safety Document , when all safety-related information is removed, the Document ically sound and complete. (<i>Regulations</i> ¶ 8.7.1)								
Motion			This is a Safety Document, when all safety-related information is removed, the Document is not technically sound and complete. ($Regulations$ ¶ 8.7.2)									
				y Checklist (<i>Regulations</i> ¶ 15.3) is complete and has been included with the Document ghout the balloting process. (<i>Regulations</i> ¶ 15.1.2)								
ı	Motion by/2 nd by			By: Clifton Brick / Axcelis Technologies Second: Eric Eisenbraun / SUNY RF (Albany)								
Discussion			ussion	None								
		7 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 <u>applies to the entire Standard or Safety Guideline</u> including all the approved Line Items*. See *Regulations* § 16 for further information.

х	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)									
	Х	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		Yes, at least one of them is a patented technology	GO TO IX (a) "Patented Technology" subsection				
			technology?		No	GO TO IX (b) "Copyright items" subsection				

IX(a) Patented Technologies subsection

IX(a1) Total numbers of Patented Technologies to be dealt with

# (I) Known Patented Technology that might be relevant to relevant to recomplete the fill number of patented technologies first became known to the TC Chapter on or after the day of the issuance of this Letter Ballot relevant to the TC Chapter meeting of the issuance of this Letter Ballot relevant to the TC Chapter meeting of the issuance of this Letter Ballot relevant to the TC Chapter meeting of the issuance of this Letter Ballot relevant to the TC Chapter meeting the complete th	121(511)			commerce gree to be area minimi	
	Fill	Technology that	# Fill	technologies first became known to the TC Chapter on or after the day	performed at the next

the Standard/Safety Guideline	# Fill	(n) Number of patented technologies first became known to the TC Chapter before the day of the issuance of this Letter Ballot	GO TO IX (a2)
----------------------------------	-----------	---	---------------

IX(a2) Assessment of disclosed patented technologies

Disclosed patented techno (Brief description, e.g., pate	Date of Assessment (If different from the date of Letter Ballot adjudication) MM/DD/YYYY							
Is disclosed patented				se of this		YES PROCEED to assess NEXT one, or if this is the last one GO TO IX(a3)		
technology #1 found to be "might be material" to the Standard/Safety Guideline?		justified		?		NO	The Document is failed and returned to the TF	
		NO	No furth	er action is nee	eded for patented technology #1			

This table is needed for each disclosed patented technology.

IX(a3) LOA status check of PMPT of which inclusion assessed to be justified

LOA Status of PMPT #1										
		YES	PROCEED to check NEXT one, or if this is the last one, GO TO IX(b)							
Has an LOA for this patented technology		NO	ЭM		Ask ISC for sp	ecial permission to publish.				
been received from every owner?			MOTION		Quit activity.	The Document is failed and returned to the TF				
					Wait for LOA	PROCEED to check NEXT one, or if this is the last one, GO TO IX(b1)				
			Mot	tion	by/ 2 nd by	Name (Company)/Name (Company)				
			Dis	cuss	sion	XXXX				
				е		XX Y-XX N; Motion passed (or failed)				

This table is needed for each PMPT of which inclusion assessed to be justified.

IX(b1) Total numbers of copyrighted items to be dealt with

-				
	# Fill	(o) Known copyrighted items that are used or reproduced to the	o > 0 There is at least one known copy righted items that might be relevant to the Standard/Safety Guideline	GO TO IX (b2)
	number	reproduced to the Standard/Safety Guideline	o = 0 There is no disclosed copyrighted item	GO TO IX (c)

IX(b2) Assessment of disclosed copyrighted items

Disclosed copyrighted item #1 (Brief description of its use in the Document):							
Is disclosed copyrighted		YES	Is the use/reproduction of		YES	PROCEED to assess NEXT one, or if this is the last one, GO TO IX(b3)	
item #1 used or reproduced in the Standard/Safety Guideline?			this copyrighted item technically justified?		NO	The Document is failed and returned to the TF	
		NO	No further action is needed for copyrighted item #1				

This table is needed for each disclosed copyrighted item.

IX(b3) Copyright release status check of copyrighted item of which inclusion assessed to be justified

surieu									
Copyright release Status of copyrighted item #1									
		YES		PROCEED to assess NEXT one, or if this is the last one, GO TO IX(c)					
Has the copyright		NO	MC		Ask ISC for special pe	ermission to publish.			
release been received from its owner?.			MOTION		Quit activity.	The Document is failed and returned to the TF			
					Wait for copyright release letter	PROCEED to check NEXT one, or if this is the last one, GO TO IX(c)			
			Мо	tion	by/ 2 nd by	Name (Company)/Name (Company)			
			Dis	cuss	sion	XXXX			
				e		XX Y-XX N; Motion passed (or failed)			

This table is needed for each copyrighted item of which use/reproduction assessed to be justified.

IX(c) Assessment of disclosed (identified) trademark

A(d) / toodoomiont of discission	2 2. 1.	<u> </u>				
		YES	la avenu instance of		YES	GO TO IX(d)
Is there any trademark in the Standard/Safety Guideline?			Is every instance of trademark use technically justified?			The Document is failed and returned to the TF
		NO	GO TO IX(d)			

IX(d) IP check completion condition check

The co-chair checks if any Patented Technologies first become known to the TC Chapter on or after the day of the issuance of this Letter Ballot? i.e., m>0 in IX(a1)		Sections IX(a2) and IX(a3) shall be completed and recorded for such patented technologies at next scheduled meeting of the TC Chapter. Until then, the TC Chapter shall NOT go to X (making motion to pass/fail this Document) (see Regulations ¶ 16.4.1.2) Until then this Letter Ballot Review is on hold.
	NO	GO TO X

X. Action for This Document

a			tem(s) [X], [X] and [X] passed TC Chapter review as balloted and will be forwarded to the ISC SC for procedural review.									
M (Ch	X		tem(s) [2] passed TC Chapter review with editorial changes and will be forwarded to the ISC SC for procedural review.									
Motion (Check all applicable items)		editor	e item(s) [X], [X] and [X] passed TC Chapter review with technical changes and with or without torial changes and will be forwarded to the ISC A&R SC for procedural review. A Ratification lot will be issued to verify the technical changes.									
S)	X	Line i	ne item(s) [1] failed TC Chapter review and will be returned to the TF for rework.									
		Line i	ne item(s) [X], [X] and [X] failed TC Chapter review and work will be discontinued.									
Motion by	y/ 2n	d by	By: Supika Mashiro / Tokyo Electron Ltd. Second: Paul Schneider / Intel Corporation									
Discu	ssior	ì	None									
Vo	te		7 Y-0 N									
Final A	atio		x Motion passed									
Final A	ACHO	П	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.