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Page	Line	Clause	E/G/T	Organization	Comment (Rationale)	Proposed Change (Specific; Add, Delete. From-To)	Resolution (SME ONLY)
11	466	3.1	T	Group CBS	Provide accurate title for NFPA 70E	NFPA 70E, STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE	Accepted.
25	1126-1145	5.1	T	Group CBS	Test equipment requirements need more clarity	Commissioning electrical equipment may require special tools and instruments for the measurement of the equipment performance. Suitability of test equipment and calibration requirements shall be in accordance with ANSI/NETA ECS Standard for Electrical Commissioning Specifications for Electrical Power Equipment and Systems Sections 5.3 and 5.4	Accepted.
28	1308-1309	5.5	T	Group CBS	Reference to other industry standards should be maintained.	For additional information, refer to ANSI/NETA Standard for Acceptance Testing Specifications (ATS) and ANSI/NETA Standard for Electrical Commissioning (ECS).	Accepted.
28	1315	5.5.1	T	Group CBS	Reference to other industry standards should be maintained.	Perform specific inspections and mechanical tests of equipment and components in accordance with the manufacturer instructions and ANSI/NETA ATS and ECS specifications.	Accepted.
35	1639	5.5.8	T	Group CBS	Minimum Insulation Resistance Values are not accurate. Should be in MegOhms, and no need for DC prefix	Minimum Insulation Resistance 25 Megohms 100 Megohms 1000 Megohms 5000 Megohms	Accepted.
40	1877	5.5.16	T	Group CBS	Magnetron Atmospheric Condition (MAC) testing is superiod to vacuum integrity testing and should be included.	Perform magnetron atmospheric condition (MAC) test on each vacuum interrupter. In the absence of manufacturer's published data, each vacuum interrupter pressure shall not be greater than $1x10^{-2}$ Pa and shall not deviate from adjacent poles by more than two orders of magnitude.	Accepted.

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74		A.8	T	Group CBS	Test voltage is likely inaccurate, 500kV insulation resistance test set does not exist.	Resistance range of 0.0 to 500,000 megohms at 5,000V DC	Accepted.
80		Annex B	T	Group CBS	Update references from NETA, exclude year to avoid chasing updates	ANSI/NETA ATS Standard for Acceptance Testing Specifications for Electrical Power Equipment and Systems	Accepted.
80		Annex B	T	Group CBS	Update references from NETA, exclude year to avoid chasing updates	ANSI/NETA ECS Standard for Electrical Commissioning Specifications for Electrical Power Equipment and Systems	Accepted.
80		Annex B	T	Group CBS	Update references from NETA, exclude year to avoid chasing updates	ANSI/NETA ETT Standard for Certification of Electrical Testing Technicians	Accepted.
66	3073	5.5.42	T	NEMA	"correct mounting" is too vague. • UL 1449 – Standard for Safety Surge Protective Devices • IEEE C62.41 – IEEE Recommended Practice on Surge Voltages in Low-Voltage AC Power Circuits • IEEE C62.41.2 – IEEE Recommended Practice on Characterization of Surges in Low-Voltage AC Power Circuits • BIRD, A.O., "The Effects of Installation Practice on the Performance of Transient Voltage Surge Suppressors," Proceedings, Open Forum on Surge Protection Application, NISTIR 4657, 1991 • E. Marshall, M. Hander, M. Valdes, J. Britton, T. Jones, J. Whitehead and B. McIntyre, "The influence of cable connections on TVSS performance," Industrial and Commercial Power Systems Technical Conference, pp. 212-217, May 8-12, 2005	Inspect SPDs ~~for correct mounting and adequate clearances.~~ to ensure conductor length from the SPD to the bonding location is as short as possible and does not exceed the SPD's manufacturer's maximum length requirement. If manufacturer's requirements are unknown, ensure length does not exceed 36 inches with no sharp bends or coils.	Accepted.
66	3073	5.5.42	T	NEMA	• Not all SPDs utilize a ground conductor. • clarity the bus to bond with is grounded	If present, verify ~~that~~ the SPD's ground lead ~~on each device~~ is ~~attached~~ bonded to a ~~ground~~ grounded bus or ground electrode.	Accepted.

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66	3074	5.5.42	G	NEMA	Not germane to the scope of the document	~~Verify that the stroke counter, if present, is correctly mounted and electrically connected.~~	Accepted.
66	3077	5.5.42	T	NEMA	Not all SPDs utilize a ground conductor.	If present, test the SPD's ground connection for continuity~~. Measure~~ by measuring the resistance ~~of the ground connection~~ between the SPD's ground terminal (if accessible) and the grounding system.	Accepted.
66	3077	5.5.42	E	NEMA	Editorial change to increase readability	The resistance ~~between the arrester ground terminal and the grounding system~~ should be less than 0.5 Ohm.	Accepted.
66	3083	5.5.42	G	NEMA	This content should be removed as it is germane to High-Voltage Arresters, not Low-Voltage SPDs	~~Perform insulation resistance testing in accordance with manufacturer instructions. Perform an insulation power factor test. Power factor test should indicate similar dielectric loss between similar arrests. See Annex A for additional guidance.~~	Accepted.
66	3083	5.5.42	T	NEMA	• Proper ground impedance is necessary for common mode SPDs to effectively mitigate transient voltage events, safeguarding equipment and infrastructure from transient voltage. • The NFPA states the effectiveness of the SPDs grounding conductor hinges on the impedance of the path to the ground. It underscores that lower impedance reduces voltage disparities between conductors connected to SPDs near the service entrance, thereby reducing the potential for arcing or insulation breaches. • IEEE Std 142-2007 - IEEE Recommended Practice for Grounding of Industrial and Commercial Power Systems	If the SPD utilizes a grounding conductor, administer a ground impedance test at the service entrance with a ground resistance tester. Verify less than 5 Ohm.	Accepted in principle. See above comment.
66	3086	5.5.42	G	NEMA	Add clarity with an informational note	Information note: Not all SPD's utilize a ground conductor (common mode).	Accepted.

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49	2324		T	NEMA	Should coincide with the NEC 250.53.A Exception note. As presently proposed, 100 ohms resistance or greater would be acceptable.	Add: In general, if a single electrode has a resistance of 25 ohms or less, the supplemental electrode shall not be required.	Accepted.
49	2333		T	NEMA	See above	See Above	Accepted.
32	1500	5.5.5	E	CDM Smith	The correct term is turns-ratio, not turns-radio	Change the word “radio” to “ratio”	Accepted.
33	1564	5.5.6	E	CDM Smith	The correct term is turns-ratio, not turns-radio	Change the word “radio” to “ratio”	Accepted.
49	2324	5.5.24	E	CDM Smith	Original wording was correct. For an industrial power system, the grounding electrode system resistance is recommended to be 5 ohms or less.	Change the word “greater” to “less”	Accepted.
49	2333	5.5.24	E	CDM Smith	Original wording was correct. For an industrial power system, the grounding electrode system resistance is recommended to be 5 ohms or less.	Change the word “more” to “less”	Accepted.
54	2582-2583	5.5.29	E	CDM Smith	Not only does ATS control need to be in AUTO, controls at the generator need to be in AUTO, with any emergency stop PB reset in order to test the ATS and generator together.	Change the sentence “Verify that the generator is not running and that the ATS control switch in the AUTO position” to “Verify that the generator is not running and generator and ATS is set for automatic operation.”	Accepted.
65	3055	5.5.41	E	CDM Smith	Using the term SPD for MV and HV systems is incorrect. These are surge arresters, not SPDs. Refer to NEC Article 285.	Change the title of 5.5.41 from “Medium and High-Voltage Surge Protective Devices (SPDs)” to “Medium and High-Voltage Surge Arresters”	Accepted.
65	3057	5.5.41	E	CDM Smith	Using the term SPD for MV and HV systems is incorrect. These are surge arresters, not SPDs. Refer to NEC Article 285.	Replace the word “SPDs” with “arresters”	Accepted.

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66	3073-3085	5.5.42	T	CDM Smith	When SPDs are not connected directly to buswork and have leads, the routing and length of those conductors will determine the effectiveness of the SPD. It is generally recommended to keep them as short as practicable, striving for a length not exceeding 24-inches.	Recommend adding an informational NOTE as follows: "NOTE: When SPDs are not connected directly to equipment buswork but have lead wires, excessive length and sharp bending of those wires can reduce the SPD effectiveness. Where practicable, keep length of leads less than 24-inches."	Accepted.
29	1328	5.5.1	G	Maxivolt	This test can not be performed without isolating the shield. • IEEE Std 142-2007 - IEEE Recommended Practice for Grounding of Industrial and Commercial Power Systems	Perform a shield-continuity test on each shielded cable using a low-resistance ohmmeter. Shields must be disconnected from any bonding point and individually tested.	Accepted.
29	1328	5.5.1	G	Maxivolt	This ohm resistance value needs to be added to ensure performance and safety. • IEEE Std 142-2007 - IEEE Recommended Practice for Grounding of Industrial and Commercial Power Systems	Shielding must exhibit continuity less than 10 ohm resistance.	Accepted.
49	2324	5.5.24	T	Maxivolt	Advocating for "greater than 5 ohms" goes against standard engineering principles and can create a safety hazard. • IEEE Std 142-2007 - IEEE Recommended Practice for Grounding of Industrial and Commercial Power Systems	In general, the maximum resistance to ground should be less greater than 5 ohms or less.	Accepted.
51	2420	5.5.26	G	Maxivolt	• National Fire Protection Association (NFPA). NFPA 70, National Electrical Code, 2023.	Identify all hot spots, and promptly correct sources of heating problems. Verify the panelboard does not have a neutral to ground bond unless at the service entrance.	Accepted.

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66	3073	5.5.42	T	Maxivolt	• Not all SPDs utilize a ground conductor. • clarity the bus to bond with is grounded	If present, verify that the SPD's ground lead on each device is attached bonded to a ground grounding bus or ground grounding electrode.	Accepted. See above.
66	3074	5.5.42	G	Maxivolt	Not germane to the scope of the document	Verify that the stroke counter, if present, is correctly mounted and electrically connected.	Accepted. See above.
66	3077	5.5.42	T	Maxivolt	Not all SPDs utilize a ground conductor.	If present, test the SPD's ground grounding connection for continuity. Measure by measuring the resistance of the ground connection between the SPD's grounding terminal (if accessible) and the grounding system.	Accepted. See above.
66	3077	5.5.42	E	Maxivolt	Editorial change to increase readability	The resistance between the arrester ground terminal and the grounding system should be less than 0.5 Ohm.	Accepted. See above.

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66	3083	5.5.42	T	Maxivolt	• Proper ground impedance is necessary for common mode SPDs to effectively mitigate transient voltage events, safeguarding equipment and infrastructure from transient voltage. • The NFPA states the effectiveness of the SPDs grounding conductor hinges on the impedance of the path to the ground. It underscores that lower impedance reduces voltage disparities between conductors connected to SPDs near the service entrance, thereby reducing the potential for arcing or insulation breaches. • IEEE Std 142-2007 - IEEE Recommended Practice for Grounding of Industrial and Commercial Power Systems	If the SPD utilizes a grounding conductor, administer a ground impedance test at the service entrance with a ground resistance tester. Verify 5 ohms or less.	Accepted. See above.
66	3086	5.5.42	G	Maxivolt	Add clarity with an informational note	Information note: Not all SPD's utilize a grounding conductor (common-mode).	Accepted. See above.