

## Electrical Safety Self-Assessment Checklist

Sl.	Check Points	Observation			Remarks/Comments/ Documents/Records
		Yes	No	N/A	
1	Updated One-line diagram - availability & legibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2	Equipment is labelled correctly, legibly, and in accordance with the one-line diagram	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3	Recent (less than five years old) coordination study exists, and overcurrent devices are calibrated to the setting recommended	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4	Applicability of rules (Indian Electricity Rules, Factories Rules etc.) & compliance with inspector's reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5	Submission of accident intimation reports, forms, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6	RCCBs –selection, installation and maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7	Earthing defects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8	Use of double insulated tools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9	Centre tapped (low voltage) control transformer for motor control circuits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10	Extra-low voltage (24 Volt) equipment for confined spaces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11	Electrically safe rubber mat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12	Wrong identification of equipment// feeders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13	Defective electrical portable tools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
14	Are the necessary PPEs (Personal Protective Equipment) used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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15	Are MCC (Motor Control Centres)/PCCs (Power Control Centres)/DBs (Distribution Boards) maintained to avert flash incidents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
16	Tripping hazards due to loose cabling/cords, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
17	Adequacy of illumination in electrical rooms/around panels, DBs, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
18	Storage of combustible materials near electrical equipment// panels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
19	Master switch in modular units	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
20	Proper cable joint procedures as per manufacturer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
21	Use of non-standard fuses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
22	Bypassing of protection devices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
23	Deteriorated insulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
24	Sealing of cable passes, openings, baffle walls (Passive Fire Protection)/fire compartmentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
25	Unused openings in live panels, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
26	Possibility of short circuit & mitigations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
27	Mechanical protection to cables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
28	Loose terminations due to improper fixing elements, crimping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
29	Improper gland installation, wrong lug size	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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30	Over-rated fuses, wrongly set protection relays, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
31	Need for electrical safety training identified	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
32	Competency of faculty members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
33	Installation as per approved design?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
34	Installation and Maintenance as per IS 3043?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
35	Earth resistance measured periodically?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
36	Are earth pits identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
37	Are two and distinct earth connections provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
38	Is the earth continuity tested?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
39	Is bonding and earthing carried out to avoid ESD hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
40	Competency of electrical O&M personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
41	Understanding of electrical hazards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
42	Awareness of latest electrical protection devices, hazards, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
43	Frequency and severity of electrical accidents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
44	Nature of electrical accidents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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45	Safety attitude	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
46	Is there an Electrical Preventive Maintenance (EPM) programme in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
47	Are the relevant standards (statutes and non-statutory) referred and incorporated in the EPM programme?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
48	Electrical Tests, Records, Test Procedure and periodicity (earth resistance, insulation resistance tests)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
49	Transformer tests (dielectric strength, acidity, sludge deposits, dissolved gases, etc.) and periodicity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
50	Periodic calibration of meters (ammeter, voltmeter, relays, temperature gauges) and test instruments (insulation resistance megger, earth resistance megger, multi-meters, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
51	Are the hazard identification techniques such as Jjob safety Safety analysisAnalysis, Fault Tree Analysis, etc. utilized?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
52	Specialised techniques used like SAFOP (Electrical HAZOP), Electrical Job safety Safety analysisAnalysis, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
53	Understanding of electrical hazards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
54	Up-to-date arc-flash hazard assessment is complete, equipment is labelled, and employees are aware of the hazard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
55	Electrical checkpoints in the safety checklist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
56	Electrical safety items the in safety committee agenda	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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57	Electrical Work Permit System	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
58	Electrical Safe Operating Procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
59	Periodicity of comprehensive Electrical Safety Audits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
60	Is the Lightning protection Protection system System as per IS 2309?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
61	Are all the structures and building under the zone of protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
62	Are the storage tanks// chimneys and other special structures protected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
63	Are hazardous areas classified (HAC)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
64	Are the special electrical equipment selected and installed as per relevant codes and standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
65	Maintenance of flame-proof equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
66	Are the Electrostatic hazards identified in the plant and adequate measures taken accordingly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
67	Are the protection relays in place and set in the main PCC/MCC?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
68	Are the relays set in accordance with calculated, design parameters in mind?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
69	Are the transformer protection devices in place? (Buchholz Relay, Oil Temperature Relay, Winding Temperature relay, Silica Gel Breather, Explosion Vent, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
70	Temporary Installations and related additional control measures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

