

FREE MANUFACTURING ELECTRICAL SAFETY TEMPLATE

Electrical Safety Checklist

Use this 60-point checklist to inspect electrical installations, work practices, isolation, portable equipment, PPE, machinery, special locations, training, and corrective-action closure.

Facility / area

Audit date

Auditor / reviewer

Electrical system / scope

Internal manufacturing electrical-safety template. Apply applicable law, electrical codes, approved site procedures, and qualified-person requirements as controlling references.

1. Electrical safety program, scope, drawings, and responsibilities

1

Record the facility, audit date, auditor, production areas, electrical rooms, substations, machines, and systems included in the audit.

ELECTRICAL SAFETY

FACILITY / AREA | Enter

AUDIT DATE | Enter

AUDITOR / REVIEWER | Enter

Execution tip: Confirm the audit boundary, qualified-person responsibilities, drawings, prior findings, and local electrical requiremen...

2

Confirm the site has a current electrical safety program defining responsibilities, authorization levels, safe work practices, and escalation for electrical hazards.

ELECTRICAL SAFETY

C

PC

NC

NA

Execution tip: Confirm the audit boundary, qualified-person responsibilities, drawings, prior findings, and local electrical requiremen...

3

Verify single-line diagrams, panel schedules, equipment labels, and electrical drawings are current enough to support safe operation, isolation, and maintenance.

CRITICAL

ELECTRICAL SAFETY

DRAWING / PANEL | Enter

REVISION / DATE | Enter

VERIFIED BY | Enter

Execution tip: Confirm the audit boundary, qualified-person responsibilities, drawings, prior findings, and local electrical requiremen...

4

Identify qualified persons, authorized maintenance personnel, contractors, and unqualified employees who may work on, near, or with electrical equipment.

ELECTRICAL SAFETY

Record / Item	Current status	Owner	Evidence	Action

Execution tip: Confirm the audit boundary, qualified-person responsibilities, drawings, prior findings, and local electrical requiremen...

5

Review previous electrical inspections, shock or arc incidents, nuisance trips, overheating events, temporary repairs, overdue actions, and repeat findings.

ELECTRICAL SAFETY

Record / Item	Current status	Owner	Evidence	Action

Execution tip: Confirm the audit boundary, qualified-person responsibilities, drawings, prior findings, and local electrical requiremen...

6

Confirm the audit uses the applicable electrical code, OSHA or local legal requirements, manufacturer instructions, and site procedures as controlling references.

ELECTRICAL SAFETY

LEGAL / CODE REF | Enter

SITE PROCEDURE | Enter

APPROVAL | Enter

Execution tip: Confirm the audit boundary, qualified-person responsibilities, drawings, prior findings, and local electrical requiremen...

2. Electrical rooms, panels, access, identification, and guarding

7

Verify electrical rooms, switchgear, panelboards, motor control centers, and disconnects are accessible only to authorized personnel where required.

ELECTRICAL SAFETY

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

Execution tip: Walk every electrical room and major panel line-up; verify access, working space, identification, enclosure condition, a...

8

Confirm required working space in front of equipment is clear, adequately illuminated, and not used for storage or blocked by production materials.

ELECTRICAL SAFETY

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

Execution tip: Walk every electrical room and major panel line-up; verify access, working space, identification, enclosure condition, a...

9

Check panel doors, covers, dead fronts, blanks, barriers, and enclosures are installed, secure, and prevent accidental contact with energized parts.

CRITICAL

ELECTRICAL SAFETY

PANEL / EQUIPMENT | Enter

LOCATION | Enter

ACTION OWNER | Enter

Execution tip: Walk every electrical room and major panel line-up; verify access, working space, identification, enclosure condition, a...

10

Verify services, feeders, branch circuits, motors, appliances, and disconnecting means are legibly identified so their purpose is evident during operation and isolation.

ELECTRICAL SAFETY

C

PC

NC

NA

Execution tip: Walk every electrical room and major panel line-up; verify access, working space, identification, enclosure condition, a...

11

Inspect equipment for signs of overheating, arcing, corrosion, water ingress, contamination, physical damage, loose covers, abnormal odor, or discolored insulation.

ELECTRICAL SAFETY

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

Execution tip: Walk every electrical room and major panel line-up; verify access, working space, identification, enclosure condition, a...

12

Confirm electrical equipment exposed to vehicle traffic, falling objects, leaks, dust, washdown, or other environmental hazards has suitable mechanical and environmental protection.

ELECTRICAL SAFETY

Record / item	Current status	Owner	Evidence	Action

Execution tip: Walk every electrical room and major panel line-up; verify access, working space, identification, enclosure condition, a...

3. Wiring methods, junction boxes, enclosures, and temporary wiring

13

Inspect raceways, conduits, cable trays, fittings, junction boxes, and enclosures for secure installation, continuity, covers, damage, corrosion, and exposed conductors.

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

Execution tip: Trace representative circuits from source to load and inspect junction boxes, raceways, cable trays, flexible wiring, te...

ELECTRICAL SAFETY

14

Verify open knockouts, unused openings, and missing box or panel covers are closed with suitable fittings that maintain the enclosure protection required for the location.

CONDUCTOR / CIRCUIT | Enter

CONNECTION STATUS | Enter

ACTION | Enter

Execution tip: Trace representative circuits from source to load and inspect junction boxes, raceways, cable trays, flexible wiring, te...

CRITICAL

ELECTRICAL SAFETY

15

Confirm conductors, terminals, and splices are properly contained, insulated, identified where necessary, and free from improvised or visibly overheated connections.

C

PC

NC

NA

Execution tip: Trace representative circuits from source to load and inspect junction boxes, raceways, cable trays, flexible wiring, te...

ELECTRICAL SAFETY

16

Check temporary wiring is limited to permitted temporary purposes, protected from physical damage, and removed when the temporary need has ended.

C

PC

NC

NA

Execution tip: Trace representative circuits from source to load and inspect junction boxes, raceways, cable trays, flexible wiring, te...

ELECTRICAL SAFETY

17

Verify flexible cords are not used as a substitute for fixed wiring, run through holes or doorways where prohibited, or routed where sharp edges, pinch points, traffic, or heat can damage them.

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

Execution tip: Trace representative circuits from source to load and inspect junction boxes, raceways, cable trays, flexible wiring, te...

ELECTRICAL SAFETY

18

Confirm wiring is not installed in ducts used to transport combustible dust, loose stock, flammable vapors, or process exhaust where such installation is prohibited.

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

Execution tip: Trace representative circuits from source to load and inspect junction boxes, raceways, cable trays, flexible wiring, te...

CRITICAL

ELECTRICAL SAFETY

4. Grounding, bonding, receptacles, GFCI, and overcurrent protection

19

Verify grounding-type receptacles and cord-connected equipment maintain an effective equipment-grounding path without broken pins, prohibited adapters, or altered plugs.

ELECTRICAL SAFETY

C

PC

NC

NA

Execution tip: Sample receptacles and equipment across dry, wet, rooftop, maintenance, and portable-tool locations; verify grounding co...

20

Check metallic enclosures, raceways, cable trays, machine frames, and other required non-current-carrying metal parts are effectively bonded and grounded.

ELECTRICAL SAFETY

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

Execution tip: Sample receptacles and equipment across dry, wet, rooftop, maintenance, and portable-tool locations; verify grounding co...

21

Confirm ground-fault circuit-interrupter protection is provided where required for the installation and that tested devices operate correctly.

CRITICAL

ELECTRICAL SAFETY

RECEPTACLE / TOOL | Enter

GROUND STATUS | Enter

TEST / RECORD | Enter

Execution tip: Sample receptacles and equipment across dry, wet, rooftop, maintenance, and portable-tool locations; verify grounding co...

22

Verify fuses and circuit breakers are correctly rated for the circuit and equipment, accessible, identified, and not bypassed, wedged, taped, oversized, or replaced with unapproved devices.

ELECTRICAL SAFETY

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

Execution tip: Sample receptacles and equipment across dry, wet, rooftop, maintenance, and portable-tool locations; verify grounding co...

23

Inspect receptacles, plugs, and connectors for correct configuration, secure mounting, heat damage, broken faces, exposed terminals, or evidence of arcing.

ELECTRICAL SAFETY

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

Execution tip: Sample receptacles and equipment across dry, wet, rooftop, maintenance, and portable-tool locations; verify grounding co...

24

Confirm replacement receptacles, grounding arrangements, and protective devices are installed in accordance with the applicable code and site electrical design.

ELECTRICAL SAFETY

Record / item	Current status	Owner	Evidence	Action

Execution tip: Sample receptacles and equipment across dry, wet, rooftop, maintenance, and portable-tool locations; verify grounding co...

5. Portable electrical equipment, extension cords, and hand tools

25

Verify portable cord-and-plug equipment and extension cords are visually inspected before use as required by the task and site procedure.

ELECTRICAL SAFETY

C

PC

NC

NA

Execution tip: Inspect tools and flexible cord sets where they are actually used. Remove damaged items from service immediately rather ...

26

Remove from service any cord, plug, tool, reel, portable light, or connector with damaged insulation, crushed jackets, exposed conductors, missing pins, loose parts, or other defects that could injure employees.

ELECTRICAL SAFETY

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

Execution tip: Inspect tools and flexible cord sets where they are actually used. Remove damaged items from service immediately rather ...

27

Confirm cords are not used to lift or lower equipment, stapled in a way that can damage insulation, or pulled by the cable rather than the plug body.

CRITICAL

ELECTRICAL SAFETY

CORD / TOOL ID | Enter

INSPECTION STATUS | Enter

REMOVED / RELEASED | Enter

Execution tip: Inspect tools and flexible cord sets where they are actually used. Remove damaged items from service immediately rather ...

28

Check portable equipment used in wet or highly conductive locations is approved for the location and protected against the electrical hazards present.

ELECTRICAL SAFETY

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

Execution tip: Inspect tools and flexible cord sets where they are actually used. Remove damaged items from service immediately rather ...

29

Verify employees do not connect or disconnect energized cord-and-plug equipment with wet hands or under conditions that create a conductive path to the hand.

ELECTRICAL SAFETY

Record / Item	Current status	Owner	Evidence	Action

Execution tip: Inspect tools and flexible cord sets where they are actually used. Remove damaged items from service immediately rather ...

30

Confirm portable electric tools, test instruments, extension leads, cord reels, and temporary distribution units are suitable for duty, voltage, environment, and inspection status.

ELECTRICAL SAFETY

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

Execution tip: Inspect tools and flexible cord sets where they are actually used. Remove damaged items from service immediately rather ...

6. Deenergization, electrical lockout/tagout, and absence-of-voltage verification

- 31** Confirm exposed live parts are deenergized before employees work on or near them unless an approved exception applies because deenergizing creates additional hazards or is infeasible. **CRITICAL** ELECTRICAL SAFETY

EQUIPMENT / CIRCUIT | Enter

ENERGY SOURCES | Enter

WORK ORDER / PERMIT | Enter

Execution tip: Observe a real isolation where possible. Confirm every source is identified, stored energy is controlled, locks and tags...

- 32** Verify a written procedure exists for deenergizing fixed electrical equipment and identifies all normal, alternate, backfeed, stored-energy, control, and secondary sources. **CRITICAL** ELECTRICAL SAFETY

C

PC

NC

NA

Execution tip: Observe a real isolation where possible. Confirm every source is identified, stored energy is controlled, locks and tags...

- 33** Check circuits and equipment are disconnected from all electrical energy sources and that push buttons, selector switches, interlocks, or control circuits are not used as the sole isolation means. **CRITICAL** ELECTRICAL SAFETY

C

PC

NC

NA

Execution tip: Observe a real isolation where possible. Confirm every source is identified, stored energy is controlled, locks and tags...

- 34** Verify stored electrical energy is discharged or otherwise controlled and stored non-electrical energy that could reenergize circuit parts is blocked or relieved. **CRITICAL** ELECTRICAL SAFETY

TEST POINT / DEVICE | Enter

EXPECTED / LIMIT | Enter

ACTUAL / RECORD | Enter

Execution tip: Observe a real isolation where possible. Confirm every source is identified, stored energy is controlled, locks and tags...

- 35** Confirm locks and tags are applied to each required disconnecting means, with controls for group work, contractors, testing, shift change, and removal by someone other than the installer. **CRITICAL** ELECTRICAL SAFETY

LOCK / TAG ID | Enter

AUTHORIZED PERSON | Enter

VERIFICATION | Enter

Execution tip: Observe a real isolation where possible. Confirm every source is identified, stored energy is controlled, locks and tags...

- 36** Verify a qualified person tests the circuit or equipment to confirm deenergization and checks for induced voltage or backfeed before the equipment is treated as deenergized. ELECTRICAL SAFETY

C

PC

NC

NA

Execution tip: Observe a real isolation where possible. Confirm every source is identified, stored energy is controlled, locks and tags...

7. Energized work, qualified persons, electrical PPE, and insulated tools

37

Confirm only qualified persons perform work on or near exposed energized parts where the task requires electrical hazard knowledge and special work practices.

C

PC

NC

NA

CRITICAL

ELECTRICAL SAFETY

Execution tip: Treat energized work as an exception. Verify qualification, task planning, approach controls, PPE, insulated tools, barr...

38

Verify energized work is justified and authorized under the site procedure when deenergization is not used, with hazards and protective measures defined before work begins.

C

PC

NC

NA

CRITICAL

ELECTRICAL SAFETY

Execution tip: Treat energized work as an exception. Verify qualification, task planning, approach controls, PPE, insulated tools, barr...

39

Confirm employees use electrical protective equipment appropriate to the shock, burn, arc, and body-part hazards of the task and that the equipment is maintained in safe condition.

PPE / TOOL CLASS | Enter

VOLTAGE / RATING | Enter

INSPECTION / TEST DATE | Enter

CRITICAL

ELECTRICAL SAFETY

Execution tip: Treat energized work as an exception. Verify qualification, task planning, approach controls, PPE, insulated tools, barr...

40

Check insulated tools, fuse-handling equipment, shields, barriers, nonconductive ropes, and other protective equipment are appropriate for the voltage and maintained free from damage.

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

ELECTRICAL SAFETY

Execution tip: Treat energized work as an exception. Verify qualification, task planning, approach controls, PPE, insulated tools, barr...

41

Verify electrical hazard signs, tags, barricades, or attendants are used where needed to keep unqualified persons outside hazardous work areas.

WORK / EQUIPMENT | Enter

QUALIFIED PERSON | Enter

AUTHORIZATION | Enter

CRITICAL

ELECTRICAL SAFETY

Execution tip: Treat energized work as an exception. Verify qualification, task planning, approach controls, PPE, insulated tools, barr...

42

Confirm arc-flash and shock information, approach restrictions, PPE selection, and task controls are based on the current facility risk assessment and applicable electrical safety procedure.

NOMINAL VOLTAGE | Enter

APPROACH / CONTROL | Enter

PERMIT / RECORD | Enter

ELECTRICAL SAFETY

Execution tip: Treat energized work as an exception. Verify qualification, task planning, approach controls, PPE, insulated tools, barr...

8. Machines, motors, disconnects, control panels, and maintenance condition

43

Verify each machine, motor, heater, and major electrical load has an accessible and correctly identified disconnecting means where required for safe operation and servicing.

C

PC

NC

NA

CRITICAL

ELECTRICAL SAFETY

Execution tip:

 Inspect representative production machines from incoming disconnect to local control. Look for accessible isolation, sec...

44

Confirm required disconnecting means can be secured in the open position for servicing and are not obstructed, defeated, or made inaccessible by production changes.

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

ELECTRICAL SAFETY

Execution tip:

 Inspect representative production machines from incoming disconnect to local control. Look for accessible isolation, sec...

45

Inspect machine electrical cabinets, motor junction boxes, control stations, limit devices, cable entries, flexible connections, and local isolators for damage or missing protection.

C

PC

NC

NA

ELECTRICAL SAFETY

Execution tip:

 Inspect representative production machines from incoming disconnect to local control. Look for accessible isolation, sec...

46

Check starters, contactors, overload devices, relays, drives, transformers, power supplies, and control components show no abnormal heat, contamination, arcing, loose mounting, or improvised repair.

Record / Item	Current status	Owner	Evidence	Action

ELECTRICAL SAFETY

Execution tip:

 Inspect representative production machines from incoming disconnect to local control. Look for accessible isolation, sec...

47

Verify preventive maintenance, thermography or condition monitoring where used, torque checks, cleaning, testing, and repairs are risk-based and completed by competent or qualified personnel.

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

ELECTRICAL SAFETY

Execution tip:

 Inspect representative production machines from incoming disconnect to local control. Look for accessible isolation, sec...

48

Confirm modifications to machine electrical systems are reviewed, documented, approved, and reflected in drawings, labels, protective-device settings, and isolation procedures.

TEMP / CONDITION | Enter

ALARM / LIMIT | Enter

DEVICE / RECORD | Enter

ELECTRICAL SAFETY

Execution tip:

 Inspect representative production machines from incoming disconnect to local control. Look for accessible isolation, sec...

9. Hazardous locations, wet areas, batteries, high voltage, and special systems

49

Identify areas where flammable gases, vapors, liquids, combustible dusts, or ignitable fibers may create a hazardous classified electrical location.

ELECTRICAL SAFETY

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

Execution tip: Confirm the location classification and equipment suitability before inspecting specialized systems. Use qualified speci...

50

Verify hazardous classified areas are documented and the installed electrical equipment, wiring methods, seals, fittings, and markings are suitable for the specific classification and material hazard.

CRITICAL

ELECTRICAL SAFETY

MACHINE / MOTOR | Enter

DISCONNECT ID | Enter

ACCESS / STATUS | Enter

Execution tip: Confirm the location classification and equipment suitability before inspecting specialized systems. Use qualified speci...

51

Confirm wet, damp, washdown, corrosive, outdoor, rooftop, or dusty locations use electrical equipment and enclosures suitable for the environmental exposure.

ELECTRICAL SAFETY

Record / item	Current status	Owner	Evidence	Action

Execution tip: Confirm the location classification and equipment suitability before inspecting specialized systems. Use qualified speci...

52

Inspect battery rooms and charging areas for suitable electrical equipment, ventilation, damaged cables or connectors, electrolyte hazards, ignition controls, and emergency arrangements appropriate to the battery technology.

ELECTRICAL SAFETY

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

Execution tip: Confirm the location classification and equipment suitability before inspecting specialized systems. Use qualified speci...

53

Verify systems above 600 volts, substations, transformers, capacitor banks, generators, UPS systems, and other special systems have restricted access, appropriate guarding, identification, maintenance, and operating procedures.

ELECTRICAL SAFETY

ENVIRONMENT / RATING | Enter

LOCATION CONDITION | Enter

RECORD / ACTION | Enter

Execution tip: Confirm the location classification and equipment suitability before inspecting specialized systems. Use qualified speci...

54

Confirm temporary generators, portable power systems, welding supplies, and other special electrical sources have correct grounding or bonding, protection, connection methods, and isolation arrangements for their use.

ELECTRICAL SAFETY

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

Execution tip: Confirm the location classification and equipment suitability before inspecting specialized systems. Use qualified speci...

10. Training, emergency response, incident review, corrective action, and sign-off

55

Verify employees exposed to electrical risk receive training appropriate to their job, including the safety-related work practices required for qualified and unqualified persons.

ELECTRICAL SAFETY

EMPLOYEE / ROLE | Enter

TRAINING TOPIC | Enter

DATE / RECORD | Enter

Execution tip: Do not close the audit on paperwork alone. Verify competency, emergency readiness, correction of critical hazards, and o...

56

Confirm qualified persons can recognize exposed live parts, determine nominal voltage, understand applicable clearance or approach requirements, and apply the site energized-work procedure.

CRITICAL

ELECTRICAL SAFETY

TRAINING / ROLE | Enter

REQUIRED LEVEL | Enter

DATE / RECORD | Enter

Execution tip: Do not close the audit on paperwork alone. Verify competency, emergency readiness, correction of critical hazards, and o...

57

Check emergency response arrangements address electrical shock, arc or burn injury, fire, emergency isolation, first aid or CPR capability where required, rescue, and emergency communications.

ELECTRICAL SAFETY

Compliant

Needs action

Critical

LIVE PHOTO / EVIDENCE | Enter

Execution tip: Do not close the audit on paperwork alone. Verify competency, emergency readiness, correction of critical hazards, and o...

58

Review electrical incidents, near misses, breaker trips, ground faults, damaged cords, overheating, arc events, unauthorized work, and repeat findings for investigation and systemic corrective action.

ELECTRICAL SAFETY

Record / Item	Current status	Owner	Evidence	Action

Execution tip: Do not close the audit on paperwork alone. Verify competency, emergency readiness, correction of critical hazards, and o...

59

Assign each non-compliance to a named owner with priority, due date, temporary control, required evidence, verification method, and escalation for overdue or critical electrical risks.

ELECTRICAL SAFETY

Record / Item	Current status	Owner	Evidence	Action

Execution tip: Do not close the audit on paperwork alone. Verify competency, emergency readiness, correction of critical hazards, and o...

60

Record the final audit status, unresolved critical hazards, restricted equipment or areas, management approver, next review date, and evidence required before full closure.

CRITICAL

ELECTRICAL SAFETY

FINAL STATUS | Enter

APPROVER / DATE | Enter

NEXT REVIEW | Enter

Execution tip: Do not close the audit on paperwork alone. Verify competency, emergency readiness, correction of critical hazards, and o...