SAFETY AUDIT CHECKLIST

Electrical Systems – Selection & Use of Work Practices

Location: _____

Audited by: _____ **Date:** _____

Check the box under Y for "yes" or N for "no" to determine if each item is within compliance.

Y	N		Item #	Repair Date
❑	❑	1. Are safety-related work practices employed to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts, when work is performed near or on equipment or circuits which are or may be energized? 1910.333(a)		
❑	❑	2. Are specific safety-related work practices consistent with the nature and extent of the associated electrical hazards? 1910.333(a)		
❑	❑	3. Are live parts to which an employee may be exposed deenergized before the employee works on or near them, unless the employer can demonstrate that deenergizing introduces additional or increased hazards or is infeasible due to equipment design or operational limitations? 1910.333(a)(1)		
❑	❑	4. If live parts that operate at less than 50 volts to ground are not deenergized, is there no increased exposure to electrical burns or to explosion due to electric arcs? 1910.333(a)(1)		
❑	❑	5. If the exposed live parts are not deenergized, are other safety-related work practices used to protect employees who may be exposed to the electrical hazards involved? 1910.333(a)(2)		
❑	❑	6. Do work practices protect employees against contact with energized circuit parts directly with any part of their body or indirectly through some other conductive object? 1910.333(a)(2)		
❑	❑	7. Are the work practices that are used suitable for the conditions under which the work is to be performed and for the voltage level of the exposed electric conductors or circuit parts? 1910.333(a)(2)		
❑	❑	8. Are conductors and parts of electric equipment that have been deenergized but have not been locked out or tagged treated as energized parts? 1910.333(b)(1)		
❑	❑	9. While any employee is exposed to contact with parts of fixed electric equipment or circuits which have been deenergized, are the circuits energizing the parts locked out or tagged or both? 1910.333(b)(2)		
❑	❑	10. Does the employer maintain a written copy of the lockout-tagout procedures and make it available for inspection by employees and by the Assistant Secretary of Labor and his or her authorized representatives? 1910.333(b)(2)(i)		
❑	❑	11. Are safe procedures for deenergizing circuits and equipment determined before circuits or equipment are deenergized? 1910.333(b)(2)(ii)(A)		
❑	❑	12. Are circuits and equipment to be worked on disconnected from all electric energy sources? 1910.333(b)(2)(ii)(B)		
❑	❑	13. Are control circuit devices, such as push buttons, selector switches, and interlocks, not used as the sole means for deenergizing circuits or equipment? 1910.333(b)(2)(ii)(B)		
❑	❑	14. Are interlocks for electric equipment not used as a substitute for lockout and tagging procedures? 1910.333(b)(2)(ii)(B)		
❑	❑	15. Is stored electric energy which might endanger personnel released? 1910.333(b)(2)(ii)(C)		
❑	❑	16. Are capacitors discharged and are high capacitance elements short-circuited and grounded, if the stored electric energy might endanger personnel? 1910.333(b)(2)(ii)(C)		
❑	❑	17. Is stored non-electrical energy in devices that could reenergize electric circuit parts blocked or relieved to the extent that the circuit parts could not be accidentally energized by the device? 1910.333(b)(2)(ii)(D)		
❑	❑	18. Is a lock and a tag placed on each disconnecting means used to deenergize circuits and equipment on which work is to be performed?		
❑	❑	19. Is the lock attached so as to prevent persons from operating the disconnecting means unless they resort to undue force or the use of tools? 1910.333(b)(2)(iii)(A)		

Notes:

SAFETY AUDIT CHECKLIST

Electrical Systems – Selection & Use of Work Practices

Location: _____

Audited by: _____ **Date:** _____

Check the box under Y for "yes" or N for "no" to determine if each item is within compliance.

Y	N		Item #	Repair Date
❑	❑	19. Does each tag contain a statement prohibiting unauthorized operation of the disconnecting means and removal of the tag? 1910.333(b)(2)(iii)(B)		
❑	❑	20. If a tag is used without a lock when a lock cannot be applied, can the employer demonstrate that tagging procedures will provide a level of safety equivalent to that obtained by the use of a lock? 1910.333(b)(2)(iii)(C)		
❑	❑	21. If a tag is used without a lock, is it supplemented by at least one additional safety measure that provides a level of safety equivalent to that obtained by use of a lock? 1910.333(b)(2)(iii)(D)		
❑	❑	22. If a lock is placed without a tag is only one circuit or piece of equipment deenergized, does the lockout period not extend beyond the work shift, and are employees exposed to the hazards associated with reenergizing the circuit or equipment are familiar with this procedure? 1910.333(b)(2)(iii)(E)(1), (b)(2)(iii)(E)(2) & (b)(2)(iii)(E)(3)		
❑	❑	23. Has a qualified person operated the equipment operating controls or otherwise verified that the equipment cannot be restarted? 1910.333(b)(2)(iv)(A)		
❑	❑	24. Has a qualified person used test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and verified that the circuit elements and equipment parts are deenergized? 1910.333(b)(2)(iv)(B)		
❑	❑	25. Has a qualified person used test equipment to determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage backfeed even though specific parts of the circuit have been deenergized and presumed to be safe? 1910.333(b)(2)(iv)(B)		
❑	❑	26. If the circuit to be tested is over 600 volts, nominal, is the test equipment checked for proper operation immediately after this test? 1910.333(b)(2)(iv)(B)		
❑	❑	27. Has the qualified person conducted tests and visual inspections, as necessary, to verify that all tools, electrical jumpers, shorts, grounds, and other such devices have been removed, so that the circuits and equipment can be safely energized? 1910.333(b)(2)(v)(A)		
❑	❑	28. Are employees exposed to the hazards associated with reenergizing the circuit or equipment warned to stay clear of circuits and equipment? 1910.333(b)(2)(v)(B)		
❑	❑	29. Is each lock and tag removed by the employee who applied it or under his or her direct supervision? 1910.333(b)(2)(v)(C)		
❑	❑	30. If the employee who put the lock and tag on the equipment is absent from the workplace, has the employer ensured that the employee who applied the lock or tag is not available at the workplace before allowing the lock or tag to be removed by a qualified person? 1910.333(b)(2)(v)(C)(1)		
❑	❑	31. If the employee who put the lock and tag on the equipment is absent from the workplace, and the lock is removed by a qualified person, has the employer ensured that the employee is aware that the lock or tag has been removed before he or she resumes work at that workplace? 1910.333(b)(2)(v)(C)(2)		
❑	❑	32. Is there a visual determination that all employees are clear of the circuits and equipment? 1910.333(b)(2)(v)(D)		
❑	❑	33. Are only qualified persons permitted to work on electric circuit parts or equipment that have not been deenergized? 1910.333(c)(2)		
❑	❑	34. Are qualified persons capable of working safely on energized circuits and familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools? 1910.333(c)(2)		

Notes:

SAFETY AUDIT CHECKLIST

Electrical Systems – Selection & Use of Work Practices

Location: ______________________________

Audited by: ______________________________ **Date:** ______________

Check the box under Y for "yes" or N for "no" to determine if each item is within compliance.

Y N

❑ ❑ 35. If work is to be performed near overhead lines, are the lines deenergized and grounded, or are other protective measures provided before work is started? 1910.333(c)(3)

❑ ❑ 36. If the lines are to be deenergized, are arrangements made with the person or organization that operates or controls the electric circuits involved to deenergize and ground them? 1910.333(c)(3)

❑ ❑ 37. If protective measures, such as guarding, isolating, or insulating, are provided, do these precautions prevent employees from contacting such lines directly with any part of their body or indirectly through conductive materials, tools, or equipment? 1910.333(c)(3)

Unqualified persons

❑ ❑ 38. When an unqualified person is working in an elevated position near overhead lines, is the location such that the person and the longest conductive object he or she may contact cannot come closer to any unguarded, energized overhead line than 10 feet (305 cm) for voltages to ground 50kV or below and 10 feet (305 cm) plus 4 inches (10 cm) for every 10kV over 50kV for voltages to ground over 50kV? 1910.333(c)(3)(i)(A), (c)(3)(i)(A)(1) & (c)(3)(i)(A)(2)

❑ ❑ 39. When an unqualified person is working on the ground in the vicinity of overhead lines, is the person prohibited from bringing any conductive object closer to unguarded, energized overhead lines than 10 feet (305 cm) for voltages to ground 50kV or below and 10 feet (305 cm) plus 4 inches (10 cm) for every 10kV over 50kV for voltages to ground over 50kV? 1910.333(c)(3)(i)(B)

Y N

Qualified persons

❑ ❑ 40. When a qualified person is working in the vicinity of overhead lines, whether in an elevated position or on the ground, is the person prohibited from approaching or taking any conductive object without an approved insulating handle closer to exposed energized parts than shown in Table S-5 unless the person is insulated from the energized part or the energized part is insulated both from all other conductive objects at a different potential and from the person, or the person is insulated from all conductive objects at a potential different from that of the energized part? (Note: Gloves, with sleeves if necessary, rated for the voltage involved are considered to be insulation of the person from the energized part on which work is performed.) 1910.333(c)(3)(ii), (c)(3)(ii)(A), (c)(3)(ii)(B) & (c)(3)(ii)(C)

Vehicular & mechanical equipment

❑ ❑ 41. Is any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines operated so that a clearance of 10 ft. (305 cm) is maintained? 1910.333(c)(3)(iii)(A)

❑ ❑ 42. If the voltage is higher than 50kV, is the clearance increased 4 in. (10 cm) for every 10kV over that voltage? 1910.333(c)(3)(iii)(A)

❑ ❑ 43. If insulating barriers are installed to prevent contact with the lines, and if the barriers are rated for the voltage of the line being guarded and are not a part of or an attachment to the the vehicle or its raised structure, is the clearance reduced to a distance within the designed working dimensions of the insulating barrier if necessary? 1910.333(c)(3)(iii)(A)(2)

❑ ❑ 44. If the equipment is an aerial lift insulated for the voltage involved, and if the work is performed by a qualified person, is the clearance (between the uninsulated portion of the aerial lift and the power line) reduced to the distance given in Table S-5 if necessary? 1910.333(c)(3)(iii)(A)(3)

Item #	Repair Date

Notes:

SAFETY AUDIT CHECKLIST

Electrical Systems – Selection & Use of Work Practices

Location: ______________________________

Audited by: ______________________ **Date:** ____________

Check the box under Y for "yes" or N for "no" to determine if each item is within compliance.

Y N

❑ ❑ 44. Are employees standing on the ground prohibted from contacting the vehicle or mechanical equipment or any of its attachments, unless the employee is using protective equipment rated for the voltage or the equipment is located so that no uninsulated part of its structure (that portion of the structure that provides a conductive path to employees on the ground) can come closer to the line than permitted in paragraph (c)(3)(iii) of this section? 1910.333(c)(3)(iii)(B), (c)(3)(iii)(B)(1), (c)(3)(iii)(B)(2) & (c)(3)(iii)(B)(2)

❑ ❑ 45. If any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines is intentionally grounded, are employees working on the ground near the point of grounding prohibited from standing at the grounding location whenever there is a possibility of overhead line contact? 1910.333(c)(3)(iii)(C)

❑ ❑ 46. Are additional precautions, such as the use of barricades or insulation, taken to protect employees from hazardous ground potentials, depending on earth resistivity and fault currents, which can develop within the first few feet or more outward from the grounding point? 1910.333(c)(3)(iii)(C)

❑ ❑ 47. Are employees prohibited from entering spaces containing exposed energized parts, unless illumination is provided that enables the employees to perform the work safely? 1910.333(c)(4)(i)

❑ ❑ 48. Where lack of illumination or an obstruction precludes observation of the work to be performed, are employees prohibited from performing tasks near exposed energized parts? 1910.333(c)(4)(ii)

❑ ❑ 49. Are employees prohibited from reaching blindly into areas which may contain energized parts? 1910.333(c)(4)(ii)

Y N

❑ ❑ 50. When an employee works in a confined or enclosed space (such as a manhole or vault) that contains exposed energized parts, does the employer provide, and the employee use, protective shields, protective barriers, or insulating materials as necessary to avoid inadvertent contact with these parts? 1910.333(c)(5)

❑ ❑ 51. Are doors, hinged panels, and the like secured to prevent their swinging into an employee and causing the employee to contact exposed energized parts? 1910.333(c)(5)

❑ ❑ 52. Are conductive materials and equipment that are in contact with any part of an employee's body handled in a manner that will prevent them from contacting exposed energized conductors or circuit parts? 1910.333(c)(6)

❑ ❑ 53. If an employee must handle long dimensional conductive objects (such as ducts and pipes) in areas with exposed live parts, has the employer instituted work practices (such as the use of insulation, guarding, and material handling techniques) which will minimize the hazard? 1910.333(c)(6)

❑ ❑ 54. Do portable ladders have nonconductive siderails if they are used where the employee or the ladder could contact exposed energized parts? 1910.333(c)(7)

❑ ❑ 55. Is conductive articles of jewelry and clothing (such a watch bands, bracelets, rings, key chains, necklaces, metalized aprons, cloth with conductive thread, or metal headgear) not worn if they might contact exposed energized parts? 1910.333(c)(8)

❑ ❑ 55. If such articles are worn, are they rendered nonconductive by covering, wrapping, or other insulating means? 1910.333(c)(8)

❑ ❑ 56. Where live parts present an electrical contact hazard, are employees prohibited from performing housekeeping duties at such close distances to the parts that there is a possibility of contact, unless adequate safeguards (such as insulating equipment or barriers) are provided? 1910.333(c)(9)

Item #	Repair Date

Notes:

SAFETY AUDIT CHECKLIST

Electrical Systems – Selection & Use of Work Practices

Location: _____

Audited by: _____ **Date:** _____

Check the box under Y for "yes" or N for "no" to determine if each item is within compliance.

Y	N		Comments:	Item #	Repair Date
❑	❑	57. Is electrically conductive cleaning materials (including conductive solids such as steel wool, metalized cloth, and silicon carbide, as well as conductive liquid solutions) prohibited from being used in proximity to energized parts unless procedures are followed which will prevent electrical contact? 1910.333(c)(9)			
❑	❑	58. Are only qualified persons permitted to defeat an electrical safety interlock, and then only temporarily while he or she is working on the equipment? 1910.333(c)(10)			
❑	❑	59. Is the interlock system returned to its operable condition when this work is completed? 1910.333(c)(10)			

Notes: _____