

Arc Flash Hazard

Design, Operation and Maintenance Checklist

			Yes	No	Don't Know
1-1 DESIGN					
1-1.1 Design Review	1-1.1.1	Has a design review been conducted to identify potential areas to reduce hazards including fault levels, exposure times, remote operations, remote racking, and system grounding?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1-1.1.2	Is there a procedure in place as required by National Fire Protection Association (NFPA) 70E 130.5 to assure studies are updated at least every five years or when system or utility supply changes are made?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1-1.1.3	Has the arc flash boundary been established for systems greater than 50 volts per NFPA 70E 130.5(A)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1-1.2 Documentation	1-1.2.1	Is your arc flash hazard plan documented? Does the documentation include the results of the arc flash analysis and arc flash training, updated single-line diagrams, signs and labels on equipment and at hazardous areas? Do all labels include the type, name/ID, incident energy at working distances, flash protection boundary, hazard/risk category, shock protection information, date of analysis, and the certifying person per CFR 1910.132 (d)(2)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1-1.2.2	Are all single-line diagrams up to date reflecting any modifications or expansions to your electrical distribution system or any changes in the electric utility system per NFPA 70E 205.2?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1-1.2.3	Do you have a documented method for maintaining required personal protective equipment (PPE) per NFPA 70E 130.7(C)(13)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2-1 OPERATIONS					
2-1.1 Safety	2-1.1.1	Does your safety program include a certified training program including awareness of electrical hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2-1.1.2	Does your safety program identify hazard/risk evaluation procedures, electrically safe work procedures, tools and PPE, and electrical safety principles? And is it audited every three years per NFPA 70E 110.3(H)(1)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2-1.1.3	Is a risk assessment performed prior to any work on a battery system per NFPA 70E 320.3(A)(1)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2-1.1.4	Do you have appropriate safety procedures in place to minimize dangers where exposure cannot be avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2-1.1.5	Do you have a formal record keeping process for documenting accidents and near misses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2-1.1.6	Is there a process in place that ensures actions will be taken to update procedures or take other corrective action when an accident or near miss occurs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2-1.1.7	Do workers comply with manual procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2-1.1.8	Is there an annual evaluation of each worker per NFPA 70E 110.2(D)(1)(f)? And do non-compliances result in revisions to the training and safety program per NFPA 70E 110.3(H)(2)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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2-1 OPERATIONS					
2-1.2 Training	2-1.2.1	Do you have an effective arc flash training program that adheres to OSHA regulations 1910.132(f)? Does it provide workers the knowledge and understanding of the existence, nature, causes, and methods to prevent electrical hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2-1.2.2	Does your arc flash training program include training on arc flash awareness, standards and codes, understanding of arc flash quantities, selection and use of appropriate PPE, reading and following warning signs and labels, methods to reduce risk while working on live exposed parts, and arc flash hazard assessment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2-1.2.3	Is there a process in place that ensures the training program is periodically reviewed to identify needed changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2-1.2.4	Have all personnel working on or near energized equipment undergone specific training in the hazards of working on energized equipment, and the use and proper application of PPE?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2-1.2.5	Do training records exist?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2-1.3 Labeling	2-1.3.1	Does all electrical equipment that may remain energized during maintenance or repair have a warning label in compliance with the National Electrical Code 110.16? Does this equipment include switchboards, switchgear, panel boards, industrial control panels, meter socket enclosures, and motor control panels as outlined in NFPA 70E 2015.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2-1.4 PPE	2-1.4.1	Do you have a PPE plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2-1.4.2	Does the plan address all OSHA standards regarding PPE?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2-1.4.3	Does the plan cover how PPE should be worn, maintained, and disposed of after the equipment life has expired?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2-1.4.4	Is there a process in place to ensure PPE requirements are updated when system or utility supply changes are made?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2-1.5 Regulatory Compliance	2-1.5.1	Do you have an established process for updating arc flash hazard programs as new information becomes available?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3-1 MAINTENANCE					
3-1.1 Electrical Preventive Maintenance Program	3-1.1.1	Have protective devices been tested/checked to verify performance per study? Do these devices adequately withstand or interrupt available fault current per NFPA 70E 205.6?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3-1.1.2	Does your preventive maintenance program specifically address arc flash hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3-1.1.3	Is the program being followed rigorously?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3-1.1.4	Is there a procedure in place that updates the program based on changes to plant equipment or processes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3-1.1.5	Is electrical equipment being maintained per NFPA 70E 205.3 and is there documentation of such maintenance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3-1.1.6	Is overcurrent protective equipment being maintained and is the maintenance testing being documented as required by NFPA 70E 205.4?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>