

ELECTRICAL SAFETY CHECKLIST

General

	Are those persons who are responsible for your electrical installations or maintenance aware of these requirements?
	Are repairs and electrical connections made only by persons who are familiar with all electrical requirements?
	If your premises has a 240/120 volt, 1-phase, 3-wire system, is the neutral grounded?
	If your premises has a 208/120 volt, 3-phase, 4-wire system, is the neutral grounded?
	If your premises has a 240/120 volt, 3-phase, 4-wire system, is the midpoint of one phase grounded?
	If your premises has a 480Y/277 volt, 3-phase, 4-wire system with 277 volt load connected, is the neutral grounded?

Identification

	Has a survey been made recently to check proper identification?
	Recognizing that there may be more than one main switch at the service entrance, is this situation clearly shown?
	Would a fireman (not a plant electrician) be able to recognize the main switch or switches?
	Does each feeder have an identification indicating its destination?
	Is the purpose of each disconnecting means (throughout the premises) indicated by a key number or a description?
	If key numbers or letters are used for identification, is there an electrical diagram appropriately displayed so that the key can be interpreted and the circuit located?
	Does each panelboard have a "legend" indicating the purpose of each circuit breaker, fuse or switch in the panelboard? (Example: #3 - lights, east side)
	Are all identifications clear, permanent and legible?
	In any cases where the above methods are not used, is the purpose of the disconnect obvious from its location and arrangement?

Terminals & Joints

	Do you have a policy of purchasing only approved cords and devices that are suitable for intended use?
	Do you have an established procedure so that only qualified persons assemble or repair cord connections?
	Have you made an inspection of your premises to detect any pre-existing violations which should be corrected?

Flexible Cords

	Does your plant have access to qualified electrical personnel so that there is not tendency to try to “get by” with flexible cord where fixed wiring is more appropriate?
	Are there any instances presently existing where cords are used for purposes other than those listed above?
	Are inspections made periodically to detect improper use of cords which may occur from time to time?
	When changes or additions are planned, do you allow for the work necessary for a proper electrical installation?
	Does the fixed wiring system of your premises have some provision for extension of circuits for new outlets as needed?
	Are there any situations where “temporary” wiring has been allowed to remain for periods longer than can be justified?
	Are there any places where cord is stapled, clamped or otherwise attached to building surfaces?
	Are cords draped thru or over building steel?
	Is any cord run through holes, doorways, windows?
	Are all cords visible for their entire length so they can be observed for damage or deterioration?
Guarding of Live Parts	
	Are maintenance personnel instructed to close doors, replace covers and to continuously watch for missing covers?
	Are all supervisors and employees aware that whenever they see exposed live parts, due to damage or any other cause, they should stay clear and report the situation
	Is open wiring with parts of conductor or connections exposed found in your workplace?
	Is live-front switchgear accessible to unqualified persons
	Are motor controls protected from contact only by inadequate barriers?
	Do you have motors with brushes, commutators or slip-rings with large unscreened end bells?
	Are portable tools in such condition that live parts are exposed?
	Are lampholders connected in such a way that the screw shell is supplied by the ungrounded (black) wire?
	Are unused conduit openings in boxes left without closures so that pencils, coat-hangers, metal chips, etc., can enter?
Location of Overcurrent Devices	
	Are there any installations underway at this time which should be checked for compliance?
	Are there any fused switches, circuit breakers or motor controllers located with the top of the device higher than 6-1/2 feet above the floor?

	In any cases as described above, can the hazard be corrected by moving the devices to more accessible locations?
	Are there locations where a permanent ladder, platform or catwalk might be the only solution?
	Do you have a genuine continuing program of checking to make sure that obstacles are not placed in front of switchboards, panelboards, fuses, circuit breakers and motor starters?
	Where physical damage is a problem and relocation is not a good solution, are you providing guard rails or bars in front of such equipment?
Electrical Connections	
	Are proper materials available for making connections and repairs which are required?
	Is any aluminum wire used for wiring on the premises?
	If aluminum wire is used, are all connectors and devices used approved for this material?
	Do your employees know that they should report the situation whenever they discover a receptacle, switch or other device which seems to be overheating?
	In particular, do you make sure that splicing materials used are appropriate, considering possible presence of oil, solvents, water, metal chips?
Marking of Equipment	
	Are the persons who purchase this equipment aware of these requirements?
	Do you have more than one type of electrical supply available on your premises (A.C. vs D.C., 3-phase vs 1-phase, 460 vs 230 vs 115 volts)?
	In places where there may be doubt as to these characteristics, do you apply additional field-marking to indicate the actual voltage, etc., involved?
	Are there any nameplates which have been painted over or which cannot be read for other reasons?
	Have employees been instructed to mask or protect nameplates when painting?
	Are there any cases where equipment is operating at a temperature above the safe temperature shown on the nameplate?
	If your premises includes any hazardous locations (Class I, II or III) are there visible nameplates showing the equipment is listed as suitable for such locations?
Working Clearances About Electrical Equipment	
	Are the persons who plan your layouts and equipment locations aware of these requirements?
	Are the spaces necessary for operation and maintenance marked or otherwise adequately protected to prevent encroachment?
	Is there an ongoing program to ensure that these precautions will not be forgotten?

	Are there switchboards, panelboards, switches, circuit breakers, motor starters or other types of controllers, which do not have the specified working space?
	In cases where violations exist, can they be corrected by rearranging the equipment or by applying a permanent insulating covering to the intruding surfaces?
	In cases where clearances cannot be obtained, can precautions be taken to ensure that the equipment will not be examined, adjusted, serviced or maintained while alive
Grounding of Fixed Equipment, General & Specific	
	Is fixed equipment supplied by fixed wiring methods?
	Are there any locations where a metallic raceway or other equipment-grounding conductor is brought close to a machine or other equipment, but not bonded to such equipment?
	Can you find any ungrounded fixed electrical equipment which a person can touch while touching other metallic surfaces or standing on earth or masonry floors?
	Are there locations where equipment is assumed to be grounded simply because it is in contact with other metallic surfaces or with earth?
	If there are cases as described above, can you verify that such contact provides a low-impedance ground-fault path?
	Are your employees taking special precautions in wet or damp locations to assure that the ground fault path is permanent and continuous?
Grounding of Equipment Connected by Cord & Plug	
	Do you have a standard procedure of providing grounding-type receptacles wherever equipment requiring grounding is likely to be used?
	Have you checked older installation to assure that the old 2-wire cords and plugs have been replaced to provide grounding where required?
	Are you aware that water coolers, dehumidifiers and cooled vending machines have refrigerating units and are required to be grounded?
	Do you have any office-type appliances, such as electric typewriters and fans which are sometimes used in factory areas?
	If appliances as above are used in areas having concrete floors (considered a wet-n-conductive location), are they equipped for proper grounded?
	Where existing equipment is found to be improperly grounded, are you replacing 2-wire cords and caps with 3-wire cords having approved 3-prong grounding-type plug caps?
	In replacing cords as above, is care being exercised to assure that all connections are made in an approved manner?