

Electrical Safety Program

Appendix O-Definitions

Arc Flash Hazard - A dangerous condition associated with the possible release of energy caused by an electric arc.

Arc Flash Suit - A complete arc-rated clothing and equipment system that covers the entire body, except for the hands and feet that are protected by rubber gloves with leather protectors and leather shoes.

Arc Rating - The value attributed to materials that describe their performance to exposure to an electrical arc discharge. The arc rating is expressed in cal/cm² and is derived from the determined value of the arc thermal performance value (ATPV) or energy of break open threshold (EBT) (should a material system exhibit a break open response below the ATPV value). Arc rating is reported as either ATPV or EBT whichever is the lower value.

Balaclava - An arc-rated hood that protects the neck and head except for the facial area of the eyes and nose.

Barrier - A physical obstruction (cones, tape, saw horse) that is intended to prevent contact with equipment or energized electrical conductors and circuit parts or to prevent unauthorized access to a work area.

Boundary, Arc Flash - An approach limit at a distance from a prospective arc source within which a person could receive a second-degree burn if an electrical arc flash were to occur.

Boundary, Limited Approach - An approach limit at a distance from an exposed energized electrical conductor or circuit part within which a shock hazard exists.

Boundary, Restricted Approach - An approach limit at a distance from an exposed energized electrical conductor or circuit part within which there is an increased risk of shock, due to electrical arc-over combined with inadvertent movement, for workers in close proximity to the energized electrical conductor or circuit part.

De-energized - Free from any electrical connection to a source of potential difference and from electrical charge; not having a potential different from that of the earth.

Disconnecting Means - A device, or group of devices, or other means by which the conductors of a circuit can be disconnected from their source of supply.

Electrical Hazard - A dangerous condition such that contact or equipment failure can result in electric shock, arc flash burn, thermal burn or blast.

Electrically Safe Work Condition - A state in which an electrical conductor or circuit part has been disconnected from energized parts, locked/tagged out in accordance with established standards, tested to ensure the absence of voltage, and grounded if determined necessary.

Incident Energy Analysis - A component of an arc flash risk assessment used to predict the incident energy of an arc flash for a specified set of conditions.

Qualified Electrical Worker - One who has demonstrated skills and knowledge related to the construction and operation of electrical equipment and installations and has received safety training to identify and avoid the hazards involved.

Risk - A combination of the likelihood of occurrence of injury or damage to health and the severity of injury or damage to health that results from a hazard.

Risk Assessment - An overall process that identifies hazards, estimates the potential severity of injury or damage to health, estimates the likelihood of occurrence of injury or damage to health, and determines if protective measures are required.

Shock Hazard - A dangerous condition associated with the possible release of energy caused by contact or approach to energized electrical conductors or circuit parts.

Single (One) Line Diagram - A diagram that shows, by means of single lines and graphic symbols, the course of an electric circuit or system of circuits and the component devices or parts used in the circuit or system.

Step potential - A ground potential gradient difference that can cause current flow from foot to foot through the body.

Touch potential - A ground potential gradient difference that can cause current flow from hand to hand, hand to foot, or another path, other than foot to foot, through the body.

Touch/Step potential - A ground potential gradient difference that can cause current flow from hand to foot through the body.

Unqualified Worker - A person who is not a qualified worker.

Voltage, Nominal - A nominal value assigned to a circuit or system for the purpose of conveniently designating its voltage class (e.g., 120/240 volts, 480Y/277 volts, 600 volts).