



Mission Success Starts With Safety



SSC Monthly Construction Contractor Meeting

Safety Presentation

Extension Cord Safety

Sep 01, 2022

OSHA Flexible Cord Safety

With the wide use of portable electronic devices as well as power tools on construction sites, flexible extension cords often are necessary. Because they are exposed, flexible, and unsecured, they are more susceptible to damage than is fixed wiring. Hazards are created when cords, cord connectors, receptacles, and cord- and plug-connected equipment are improperly used and maintained.

Strain Relief: To reduce hazards, flexible cords must connect to devices and to fittings in ways that prevent tension at joints and terminal screws. Flexible cords are finely stranded for flexibility, so straining a cord can cause the strands of one conductor to loosen from under terminal screws and touch another conductor.



Cord Damage: A flexible cord may be damaged by door or window edges, by staples and fastenings, by abrasion from adjacent materials, or simply by aging. If the electrical conductors become exposed, there is a danger of shocks, burns, or fire.



Durability: The OSHA construction standard requires flexible cords to be rated for hard (300V) or extra-hard (600V) usage. These ratings are derived from the National Electrical Code and are required to be indelibly marked approximately every foot along the length of the cord. Examples of these codes are; S, ST, SO, and STO for hard service, and SJ, SJO, SJT, and SJTO for junior hard service.



Grounding: Extension cords must be 3-wire type so they may be grounded, and to permit grounding of any tools or equipment connected to them.



Wet Conditions: When a cord connector is wet, electric current can leak to the equipment grounding conductor, and to humans who pick up that connector if they provide a path to ground. Such leakage can occur not just on the face of the connector, but at any wetted portion. Limit exposure of connectors and tools to excessive moisture by using watertight or sealable connectors.



Do not use damaged or cracked power cords. Do not try to repair them with electrical tape! Inspect cords regularly for damage.



Stennis Common Work Instruction ([SCWI-8715-0006](#)) [Electrical Safety Program](#) establishes minimum standards to prevent personnel from hazardous electrical exposures.

