



FESHCom
Electrical Safety Subcommittee

ESS Determination D2013-1 6-June-2013

Inspection of plugs and cords prior to use

On March 27 a technician needed to recharge an electric forklift at an underground Minos charging station. With the 480V charging unit plugged into a welding receptacle, the technician energized the local disconnect at which time the 60 amp breaker for the welding outlet and the 400 amp breaker in the switchboard tripped. Proper PPE was being worn and there were no injuries. Investigation revealed that a short had developed between two conductors inside the plug, and the insulation around the individual wires in the aged cord was in poor condition.

All portable cord and plug connected equipment and flexible cord sets (extension cords) shall be visually inspected before use for external defects (such as loose parts, improper strain relief, deformed and missing pins, or damage to outer jacket or insulation) and for evidence of possible internal damage (such as pinched or crushed outer jacket). If there is a defect or evidence of damage that might expose an employee to injury, the defective or damaged item shall be removed from service, and no employee may use it until repairs and tests necessary to render the equipment safe have been made by a qualified person. Serviceable cord and plug sets shall be inspected and maintained in accordance with manufacturer's recommendations. Cord and plug connected equipment which remain connected once they are put in place and not exposed to damage need not be visually inspected until they are relocated. When unplugging, the user shall grip the plug and not the cord.

Each Division/Section/Center should determine whether any of their plugs need to be inspected internally at this time or on a regular basis.