TRANSFER SWITCH MAINTENANCE

NFPA 110, *Standard for Emergency and Standby Power Systems* covers performance requirements for power systems providing an alternate source of electrical power in the event the primary power source fails. This standard includes power sources, transfer equipment, controls, supervisory equipment, and accessory equipment. The standard also addresses installation, maintenance, operation, and testing requirements for these components of the emergency power supply system.

Transfer switches are installed in the emergency power system to transfer the electrical load from the normal power source to the emergency power source (generator) upon failure of normal power. The transfer switch must transfer and retransfer the load automatically.

Maintenance programs for transfer switches include checking of connections, inspection or testing for evidence of overheating and excessive contact erosion, removal of dust and dirt, and replacement of contacts when required. The maintenance procedure and frequency should follow those recommended by the manufacturer.

In the absence of manufacturer's recommendations, NFPA 110 suggests visual inspection and cleaning annually. The 2005 edition of NFPA 110 further recommends an annual maintenance program including one major maintenance and three quarterly inspections. The major maintenance includes a thermographic or temperature scan of the automatic transfer switch.

Automatic transfer switches must also be operated monthly. The monthly test consists of electrically operating the transfer switch from the standard position to the alternate position and then a return to the standard position.