

Electrical Safety

RESPONSIBILITY

University supervisors and supervising faculty are to ensure that work and learning/research areas are free from electrical shock and overload (i.e., fire) hazards.

Equipment

Departments are responsible for ensuring that all equipment wired to building circuits or connected by power plug to building sockets/outlets is compliant with National Electrical Code (NEC) provisions. To ensure compliance, equipment must be:

- Listed by Underwriters Laboratory (UL); or
- Listed by a nationally-recognized, accredited testing laboratory; or
- Inspected and approved by the authority having jurisdiction over the NEC provisions.

Accredited Testing
Laboratories

The Washington Department of Labor and Industries maintains a listing of nationally-recognized, accredited testing laboratories at:

www.lni.wa.gov/TradesLicensing/Electrical/Install/ProdTest/default.asp

BUILDING CIRCUITS AND WIRING

Refer concerns, problems, and questions related to electrical circuits and wiring in University buildings to the unit responsible for buildings at the affected campus. Departments at the WSU Pullman campus contact Facilities Services, Operations; telephone 509-335-9000.

Only authorized and qualified personnel are permitted to work on building circuits and wiring.

Main Distribution Panels

Main distribution panels control electricity after it enters the building and before it goes to branch circuit panels. All main distribution panels are located in locked electrical closets or mechanical rooms.

Only trained Facilities Services, Operations and Housing Maintenance personnel and approved electrical contractors may access University main distribution electrical panels.

Branch Circuit Panels

Access

Departmental personnel may access branch circuit breaker panels to turn off electricity in an emergency or to reset branch circuits. If a branch circuit requires setting more than once, notify the unit

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Facilities Services, Operations
509-335-9000

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Access (cont.)

responsible for buildings at the affected campus. Departments at the WSU Pullman campus are to notify Facilities Services, Operations; telephone 509-335-9000.

Precautions

Circuit breakers are to be labeled to identify the equipment and/or circuits that the breakers control. If a circuit breaker is not labeled, notify the unit responsible for buildings at the affected campus. Departments at the WSU Pullman campus are to notify Facilities Services, Operations; telephone 509-335-9000.

Keep at least three feet of clear working space in front of a branch circuit panel. Do not store materials in this working space.

Branch circuit servicing receptacles located within six feet of a water source (e.g., sink) must be equipped with ground fault circuit interrupters (GFCIs). Departments at all campuses are to contact Environmental Health and Safety (EH&S) to evaluate the need for and the installation of GFCIs.

Branch circuit outlet receptacles located in wet or damp locations are to be weatherproof.

Portable Cord- and Plug-Connected Equipment and Extension Cords

Portable cord- and plug-connected equipment and extension cords are to be free of the following:

- Loose parts
- Deformed or missing pins
- Damage to the outer covering or insulation

Portable cord- and plug connections equipment and extension cords may be repaired or spliced only if the insulation and outer sheath properties are retained. Job-made extension cords, i.e., extension cords built by an employee at the work site, are prohibited unless made by an electrician using approved UL (Underwriters Laboratories) components.

Portable extension cords servicing equipment within six feet of a water source or used open to the weather must be equipped with GFCIs.

Use an extension cord that is the appropriate gauge, i.e., wire thickness, for the intended application.

Any use of space heaters must comply with *SPPM* 8.50.

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Cords (cont.)

Department personnel are prohibited from:

- Using extension cords as a substitute for fixed wiring in a structure.
- Running extension cords through holes in the wall, ceilings, or floors.
- Running extension cords through doorways and windows.
- Attaching extension cords to building surfaces.
- Concealing extension cords behind building walls, ceilings, or floors.
- Fastening or hanging extension cords in any way that could cause damage to the outer covers or insulation.

Extension cords may be used on a temporary basis (not exceeding 60 days) for:

- Remodeling, maintenance, repair, or demolition work.
- Experimental or developmental work.
- Christmas decorative lighting (see *SPPM* 8.70).

Outlet Adapters and Strips

Do not use outlet adapters, i.e., equipment items that convert single outlets into a multiple outlets. If additional outlets are needed, use breaker-protected multiple outlet strips. If additional outlets are required, notify the unit responsible for buildings at the affected campus. Departments at the WSU Pullman campus are to notify Facilities Services, Operations; telephone 509-335-9000.

TRAINING

Supervisors and faculty are responsible for training employees and students to safely use electrical equipment. This training is to be part of the safety orientation (see *SPPM* 2.16).

All personnel using electrical equipment are to know the locations of the branch circuit panels that may be accessed in an emergency.

INSPECTION

As part of the annual safety self-inspection, unit administrators and supervisors are to check the work or learning/research area for electrical hazards. See *SPPM* 2.50 for self-inspection procedures.

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ELECTRICAL HAZARDS

Supervisors

Immediately remove a hazardous or malfunctioning electrical equipment item from service. Prevent use of the hazardous or malfunctioning item by installing barriers, removing the power source, removing the equipment item, or locking the item out. Affix an *Out of Service* tag to the equipment item.

Correction

Obtain the services of a qualified electrician to correct hazardous or malfunctioning electrical equipment.

Employees/Students

Report hazards directly to the supervisor or complete and submit a Hazard Notification form (see *SPPM 2.52*) to the unit safety committee, unit administrator, and EH&S.

Immediately discontinue the use of hazardous electrical tools or appliances.

Do not use electrical equipment that has been determined to be unsafe.

Do not attempt to repair electrical equipment unless qualified.

ASSISTANCE

Contact EH&S for assistance; telephone 509-335-3041.