

**UNIVERSITY OF ALASKA - FAIRBANKS**

<b>SUBJECT:</b> Electrical Fire Safety	<b>Number: 1202</b>
<b>OBJECTIVE:</b> To Provide Guidance and Direction on the fire hazards relating to the use of electrical wiring and equipment.	<b>Adoption Date: Dec. 1998</b> <b>Revision Dates:</b>

**I. RESPONSIBILITY**

University supervisors and/or supervising faculty are to insure that the work or learning/research area is free from electrical hazards.

**II. INJURY CAUSES**

Electricity may create a hazard and cause injury or damage in any one of three ways:

When a person becomes part of an electrical circuit. (This may result in electric shock.)

When elements of an electric circuit, which are unprotected, are subjected to electrical overload and become hot. (This may result in a fire.)

When arcing or sparking occurs, generally due to the "jumping" of electricity from one conductor to another. This may occur during the making and breaking of a contact, as in operating switches or discharging static electricity. (This may result in fire or explosion if arcing takes place in an atmosphere containing an explosive mixture of a flammable substance.)

**III. TRAINING**

Supervisors and faculty are responsible for ensuring that employees and students are trained to safely use electrical equipment. This training should be part of the employee's safety orientation.

All personnel using electrical equipment are to know the locations of secondary electrical panels (see below) for the work or learning/research area.

**IV. CIRCUITS IN BUILDINGS**

Address concerns regarding electrical circuits in University buildings to the Physical Plant Electrical Shop; telephone 474-7000.

#### Access To 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 Physical Plant Maintenance personnel and / or approved electrical contractors may access University main distribution electrical panels. Only authorized maintenance personnel may access rooms containing main distribution panels.

#### Access To Branch Circuit Panels

Departmental personnel may be required to access branch circuit breaker panelboards in order to turn off electricity in an emergency or to reset branch circuits. If a branch circuit requires setting more than once, notify Physical Plant electricians; telephone 474- 7000.

### **V. INSPECTION**

As part of the periodic self inspection, unit administrators and supervisors are to check the work or learning/research area for electrical hazards.

#### Criteria

Ensure that all electrical equipment is properly grounded. Use 3-prong plugs in 3-prong outlets. Do not bend or remove the grounding prong of a plug in order to use it in an ungrounded outlet.

Use grounded or double-insulated portable power tools.

Do not use adapter cubes. If additional outlets are required, use a breaker-protected multiple outlet strip.

Replace frayed and worn electrical cords and cables.

Do not use temporary wiring or extension cords as a substitute for permanent wiring.

Flexible extension cords may be used only on a temporary basis.

Extension cords must be heavy duty and at least 16 gauge, 3-wire/3-prong.

Do not run extension cords under carpeting or through walls, ceilings, floors, doorways, windows, or other locations where they could sustain damage.

Do not use electrical equipment for purposes other than the intended use.

Label electrical panels and keep them free of obstructions. A clear space of 30" must be maintained in front of every electrical panel. No storage is permitted within 36" of an electrical panel.

Use ground fault circuit interrupters when utilizing electric power in damp areas.

## **VI. ELECTRICAL HAZARDS**

### Supervisors/Supervising Faculty

Immediately remove a hazardous or malfunctioning electrical equipment item from service. Prevent use by installing barriers, removing the power source, removing the equipment, or locking the item out.

### Warning Tags

Notify employees and/or students that the machine is not to be operated. Tag the equipment item as "Out of Service." Include the following on each tag: date of removal from service, description of the problem, and name of the reporting party.

### Correction

Obtain the services of qualified electricians to correct electrical malfunctions.

### Employees/Students

Report hazards directly to the supervisor

Immediately discontinue the use of hazardous electrical tools or appliances.

Wait until the equipment item has been declared safe to use by a supervisor or qualified electrician.

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