Lake Havasu City Fire Department
Fire Prevention Bureau
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PURPOSE:

This fire department specification provides an overview for business owners and employees for the correct and safe usage of power taps, extension cords, and other electrical devices.

SCOPE:

This specification covers the use of relocatable power taps, extension cords, flexible cords, multi-plug adaptors, and temporary wiring in all occupancies other than dwellings.

DEFINITIONS:

1. **Appliance, portable** is a device operated by electricity, which, in normal use, is capable of being hand-carried or is easily moved from one place to another.
2. **Appliance, stationary** is a device operated by electricity which is not affixed to a structure and which is not easily moved from one place to another.
3. **Extension cord** is a portable flexible cord of any length, which has one male connector on one end, and one or more female connectors on the other, and has no built-in over-current protection.
4. **Flexible cord** is wiring used to supply power to an appliance, tool, or other equipment.
5. **Multi-plug adapter** is a device that plugs into a receptacle and allows that receptacle to supply power to more appliances or fixtures than that for which it was originally designed, such as cube adapters, strip plugs and multi-plug extension cord sets.
6. **NRTL** is an abbreviation for National Recognized Testing Laboratory which is OSHA approved (e.g. UL, FM, ETL, NFPA, ASME, etc.)
7. **Power tap** (also referred to as a power strip) **(approved)** is a multi-plug adaptor that is polarized, grounded, provided with over current protection, and listed in accordance with UL 1363.
8. **Receptacle** is an electrical outlet designed for use with a plug or connector for the purpose of supplying electrical power to an appliance.
9. **Temporary wiring** is wiring that is installed in an approved manner for power and lighting installations (such as holiday lighting), and is allowed for a period not to exceed 90 days.

REQUIREMENTS:

1. **Abatement of Electrical Hazards**: Electrical wiring, devices, appliances and other equipment which is modified or damaged and constitutes an electrical shock or fire hazard may not be used. All junction boxes with open wiring splices, switches, and outlet boxes must be intact and protected by approved covers.

2. **Relocatable Power Taps (Power Strips):**
   a. Must be of the polarized or grounded type, having over-current protection, and shall be listed by an approved NRTL for its appropriate use.
   b. Must be directly connected to a permanently installed receptacle and are not to be connected in series (daisy-chained).
   c. Must not extend through walls, ceilings, floors, under doors or floor coverings, or be subject to environmental or physical damage.
   d. May have cords up to 25 feet in length.
   e. Must not be used to power portable, electric space heaters.
3. **Multiplug Adapters:**

   Including cube adapters, unfused plug strips or any other devices not complying with this code or the electrical code are prohibited.
4. **Extension Cords:**
   a. Must not be a substitute for permanent wiring. This means it may not supply power to a device on a continued basis (i.e. overnight).
   b. Must not be affixed to structures, extended through walls, ceilings or floors, or under doors or floor coverings, nor shall such cords be subject to environmental damage or physical impact.
   c. Where authorized, and in accordance with UL 817:
      1. Must be used only with portable appliances.
      2. Must be plugged directly into an *approved* receptacle, power tap, or multi-plug adapter and, except for *approved* multi-plug extension cords, must serve only one portable appliance.
      3. The ampacity must not be less than the rated capacity of the portable appliance supplied by the cord.
      4. Must be maintained in good condition without splices, deterioration, or damage.
      5. Must be grounded when serving grounded portable appliances.
      6. Must not be used to power portable, electric space heaters.
      7. Must be approved, no longer than 8 feet and of the heavy-duty type for installations where a power tap is impractical and the amperage draw is light.
5. **Electrical Panelboards**:
   a. Illumination must be provide in rooms containing electrical panels
   b. A working space of not less than 30 inches in width, 36 inches in depth and 78 inches in height must be provided in front of electrical equipment and panels to ensure easy visibility and quick access.
   c. Rooms dedicated to housing electrical panels must be kept clear of combustible materials. **NO STORAGE** signs may need to be posted.

d. Where electrical panels are in enclosed rooms, doors must be marked with plainly visible and legible signs stating **ELECTRICAL ROOM** or similar approved wording.

e. Panels must be legibly and durably marked to indicate their purpose unless their purpose is clearly evident.

f. Electrical panels must be protected by a suitable latching door and each opening in the panelboards must contain either a circuit breaker or a plastic knockout cover.

6. **Emergency Lighting Systems & Equipment Maintenance:**

a. Emergency and standby power systems required by this code or the IFC must be installed in accordance with this code, NFPA 110 and 111.

b. Emergency and standby power systems shall be maintained and tested in accordance with the *International Fire Code*.

c. An ***activation test*** is required to be conducted monthly for a duration of at least 30 seconds. Test only by turning off the normal power supply.

d. For battery-powered emergency lighting, a ***power test*** must be completed annually. The test must operate the emergency lighting systems for a minimum of 90 minutes of continuous operation.

e. Both an **activation test record** and a **power test record** are required to be kept including the location of the emergency lighting tested, where the units passed or failed, the date of the test and the person completing the test. Both logs need to be readily available for inspection and records must be kept for at least 3 years.

7. **Exit Sign Maintenance:**

a. Wherever two or more exits are required in a building or space, illuminated exit signs are required.

b. Internally illuminated exit signs must be on a dedicated circuit and are not permitted to be wired to be turned off by a light switch.

c. Electrically powered, self-luminous and photoluminescent exit signs must be listed and labeled in accordance with UL 924 and be installed in accordance with the manufacturer's instructions and Ch. 27 of the International Building Code.

d. Externally illuminated exits signs must be well lit during normal operation and in case of electrical failure.

e. Exit signs must be illuminated at all times.

8. **Temporary Wiring:**

a. Where attached to a structure must be attached in an *approved* manner.

b. Used for electrical power and lighting installations is allowed for a period not to exceed 90 days.

c. Methods shall meet the applicable provisions of the national electrical code.

d. Is allowed during periods of construction, remodeling, repair, or demolition of buildings, structures, equipment, or similar activities for electrical power and lighting installations.

REFERENCES

2018 International Fire Code, Ch. 6, §604 *Electrical Equipment, Wiring and Hazards*
2018 International Fire Code, Ch. 10 §1006 *Means of Egress Illumination*
2018 International Fire Code, Ch. 10 §1011 *Exit Signs*
2018 International Building Code, Ch. 27, *Electrical*

Note: This FD specification is intended to be a guide only. For full installation, fire-flow, location, distribution, and maintenance requirements, refer to the references above. Where conflicts exist between this document and the applicable codes and standards, the above references must supersede.

APPROVED:  DATE: September 01, 2021

Scott Hartman, Fire Marshal