Portable Space Heater Fire Regulations

Despite the fact that electric space heaters do not have an open flame, according to the National Fire Protection Agency (NFPA), space heaters, whether portable or stationary, accounted for one-third (30%) of the home heating fires and three-fourths (73%) of home heating fire deaths in 2006. Space heaters (portable and stationary) were involved in an estimated 64,100 U.S. home structure fires, 540 civilian deaths, 1,400 civilian injuries, and $9.4 million in direct property damage.

Much of the injury and damage was caused by the heating elements used in some types of electric heaters, which are hot enough to ignite nearby combustibles such as draperies, paper, clothing, furniture, and flammable liquids. In order to help the campus community avoid fire damage and injury associated with electric space heaters, the UC Davis Fire Department has compiled a list of safety tips related to their operation.

Safety Tips

1. Look for a heater that is listed with a nationally-recognized testing laboratory (such as Underwriters Laboratories or UL). These heaters are tested to meet specific safety standards, and manufacturers are required to provide important use and care information to the consumer. Unlisted heaters are not permitted as consumers have less assurance that safety features and operating instructions are adequate.

2. Coordination with Facilities O&M at UCD Campus, (530) 752-1655, and PO&M at the Medical Center at (916) 734-2763 is essential to ensure the electrical circuit is capable of powering the heater(s). Portable electric heaters that heat by circulating oil or water are preferred. Older style heaters with exposed radiant wires are not permitted.

3. UC Davis Fire Department requires that all portable space heaters be equipped with tip over protection. Tip over protection will turn off the heater automatically when the heater is tipped over and not in the full upright position.

4. Before using the heater, read and follow the instructions for its operation and maintenance.

5. Never run the heater’s cord (or any cord) under rugs, carpeting or furniture.

6. Plug portable heaters directly into a wall outlet. Do not plug a space heater into a surge protector, multi-outlet box or extension cord. The high current flow can cause components to deteriorate, leading to a breakdown of solder joints eventual failure of the multi-box outlet, and excessive heating that can cause fire.
7. Do not leave the heater operating unattended or operating while sleeping. Portable electric air heaters are designed for use only as temporary supplemental heating and only while attended.
8. To prevent electrical shocks and electrocutions, always keep portable electric heaters away from water. And never touch an electric heater if you are wet.
9. Do not use an electric heater as a dryer by placing clothing over it.
10. Keep the heater in a safe working condition in accordance with the manufacturer’s instructions. Replace missing guards, controls or frayed wiring at once. Never operate a defective heater.
11. Do not place the heater where children might play near it or where people might trip over or bump into it.
12. Place the heater on a level surface for stability.
13. And finally, periodically check surrounding objects to see if they feel hot.

The Life Safety Code, NFPA 101, section 19.7.8 prohibits the use of portable space heaters in health care occupancies but provides the following exception: Portable space heating devices shall be permitted to be used in non-sleeping staff and employee areas where the heating elements of such devices do not exceed 212 degrees F. This requirement applies to all hospitals and medical office buildings.

Following these safety tips will help keep you warm, but not too warm!

If you have any additional questions, please call the UC Davis Fire Department on campus at (530) 752-1236 or at the UC Davis Medical Center at (916) 734-3036.