

Obstruction of Fire Sprinklers

Risk Management/Environmental Health and Occupational Safety (RM/EHOS) would like to remind the campus community of the regulations regarding obstruction of fire sprinklers.

What are Fire Sprinklers?

Fire sprinklers are meant to detect and suppress fires and increase the time available to exit a building. Fire sprinkler systems are the most widely used form of aggressive fire protection and are required in most of the public buildings constructed since the 1970's because of their efficiency in saving lives and property from fires.

Fire sprinkler systems are designed to provide full protection by overlapping the sprinkler heads' radii of coverage. This overlapping coverage can be rendered ineffective, however, if materials are stacked so high that they block the sprinkler's effective range. For this reason, both the Occupational Safety and Health Administration (OSHA) and the National Fire Protection Association (NFPA) require that shelves, furniture, and stacked materials not exceed the height of 18 inches below sprinkler heads.



Hazards to Avoid With Sprinklers

- Stacking materials closer than 18 inches below the sprinkler.
- Blocking the full coverage of the sprinkler.
- Surrounding the sprinkler with furniture or stacked materials that block its effective range; creating small openings around sprinklers is not an acceptable solution if the materials are still closer than 18 inches below a sprinkler head.

Code Requirements Regarding Obstruction of Fire Sprinklers

- Codes require that shelves and stacked materials not exceed the height of 18 inches below sprinkler heads. Creating fire sprinkler obstructions with shelves, furniture, and stacked materials is a violation of code because it nullifies a sprinkler's full coverage.

At right are examples of materials stored on shelving that is too high, obstructing the sprinkler head and giving the sprinkler less than an inch of coverage. Stacked materials should never exceed the height of 18 inches below sprinkler heads.



If you have any questions regarding this safety tip or safety concerns, please contact your supervisor or Risk Management/EHOS at 310-243-2895 or 310-243-3012.