General Combustible Material Storage

OVERVIEW
The policy in this section (SPPM 8.15) provides fire safety and property loss prevention requirements for general combustible material storage to mitigate risk, property damage, and interruptions in the continuity of business operations.

For additional requirements regarding storage of combustible materials in data centers and equipment rooms, see SPPM 8.13 and 8.14, respectively.

Legal
Orderly storage of combustible materials in an occupancy is a proactive step in fire prevention, life safety, risk mitigation and loss prevention. This is supported by the following codes, standards, and recommendations from the International Fire Code (IFC) (2018 Edition):

- **315.3 Storage in buildings.** Storage of materials in buildings shall be orderly and stacks shall be stable. Storage of combustible materials shall be separated from heaters or heating devices by distance or shielding so that ignition cannot occur.

- **315.3.1 Ceiling clearance.** Storage shall be maintained two feet (610 mm) or more below the ceiling in non-sprinklered areas of buildings or not less than 18 inches (457 mm) below sprinkler head deflectors in sprinklered areas of buildings.

EXCEPTIONS:

- The 2-foot (610 mm) ceiling clearance is not required for storage along walls in non-sprinklered areas of buildings.

- The 18-inch (457 mm) ceiling clearance is not required for storage along walls in areas of buildings equipped with an automatic sprinkler system in accordance with IFC Section 903.3.1.1, 903.3.1.2, or 903.3.1.3.

- **315.3.2 Means of egress.** Combustible materials shall not be stored in exits or enclosures for stairways and ramps.

- **315.3.4 Attic, under-floor and concealed spaces.** Attic, under-floor and concealed spaces used for storage of combustible materials shall be protected on the storage side as required for one-hour fire-resistance-rated construction.
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Legal (cont.)

Openings shall be protected by assemblies that are self-closing and are of noncombustible construction or solid wood core not less than 1 3/4 inches (44.5 mm) in thickness. Storage shall not be placed on exposed joists.

EXCEPTIONS:

- Areas protected by approved automatic sprinkler systems.
- Group R-3 and Group U occupancies (see International Building Code (IBC) 2018, Section 302).

- **315.4.1 Storage beneath overhead projections from buildings.** Where buildings are protected by an automatic sprinkler system, the outdoor storage, display, and handling of combustible materials under eaves, canopies, or other projections or overhangs are prohibited except where automatic sprinklers are installed under such eaves, canopies, or other projections or overhangs.

- **315.4.2 Height.** Storage in the open shall not exceed 20 feet (6096 mm) in height.

RESPONSIBILITY

University personnel, suppliers, and contractors, must contribute toward eliminating combustible material storage in prohibited locations. Examples of combustible materials include, but are not limited to:

- Wood;
- Paper;
- Cardboard;
- Packaging materials;
- Combustible liquids; and
- Solvents (flash point over 100°F / 38°C).

See also **SPPM 8.12** regarding flammable/combustible liquid storage.

HAZARD CONTROL

The following hazard controls apply to combustible material storage in all buildings.
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Required

Requirements for storing combustible material:

- Combustible materials must be stored within a building in an orderly fashion in neat piles or neatly stacked on shelves, and not scattered throughout the occupancy.

- Storage must be kept 24 inches (2 feet) below a ceiling in a non-sprinklered area of a building.

- Storage must be kept at least 18 inches below a sprinkler head in a sprinklered area of a building.

- Aisles and exits paths must be kept clear of all storage as to not impede occupant exiting and first responder entry access in an emergency.

Prohibited

No storage is allowed under stairways in an exit enclosure in any circumstance.