Combustible Material Storage in Data Centers

OVERVIEW
The policy in this section (SPPM 8.13) provides fire safety and property loss prevention requirements for data centers to mitigate risk, property damage, and interruptions in the continuity of business operations.

For general requirements regarding storage of combustible materials, see SPPM 8.15.

Scope
Data center facilities include:

- Control rooms;
- Process rooms;
- Server rooms; and
- Building data closets (IDF/MDF). (IDF is an intermediate distribution frame. MDF is a main distribution frame.)

Data centers contain critical information technology including electronic equipment and systems which are sensitive to damage caused by smoke, liquid, natural hazards, and fire.

Prohibiting Storage of Combustible Materials
Prohibiting the storage of combustible materials in data centers is a proactive step in fire prevention, risk mitigation, and loss prevention. This is supported by codes, standards, and recommendations from:

- International Fire Code
- National Fire Protection Association (NFPA)
  - NFPA 75 Standard for the Fire Protection of Information Technology Equipment
- Factory Mutual (FM) Global
  - FM Global Property Loss Prevention Data Sheets 5-32: Data Centers and Related Facilities

Fire Suppression Systems
Fire protection for data centers includes a variety of fire suppression systems, such as:

- Automatic sprinkler systems
- Water mist systems
- Clean agent fire extinguishing systems
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Fire Suppression Systems

Such systems are designed to extinguish or control a fire according to the area, density, and hazard which includes the information technology electronic equipment placed in the room. NOTE: Introducing additional combustibles and commodities into the room diminishes the effectiveness of the fire suppression system.

RESPONSIBILITY

All University personnel must contribute to eliminating combustible material storage in data centers. 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

Locate new data processing equipment with packaging awaiting installation in storage and staging areas separate from data processing equipment rooms (i.e., where fire involving the storage will not expose critical equipment).

Prohibited

Do not store or stage combustible materials in the data processing equipment room.

Wood tables and shelves are prohibited in the data processing room.

Allowed

An absolute minimum amount of combustibles required for essential operations (e.g., paper records, manuals, and drawings) may be stored in a small work room in fully-enclosed noncombustible cabinets or cases.